CONTACT, CONTINUITY, AND COLLAPSE

The Norse Colonization of the North Atlantic

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The Norse Colonization of the North Atlantic

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Introduction

JAMES H. BARRETT

Purpose

The millennial anniversary of Scandinavian exploration in eastern North America around AD 1000 was widely celebrated in print and action. An exhibition was mounted by the Smithsonian Institution (Fitzhugh and Ward 2000b), a major international conference was held in Newfoundland (partly at the settlement of L'Anse aux Meadows itself) (Lewis forthcoming), and reconstructions of buildings nominally associated with Erik the Red, Thjodhild and Leif Eriksson were erected in Greenland and Iceland (Anon. [n.d.] a; [n.d.] b). The significance of Scandinavian 'discovery' of what later came to be known as North America is clear to Europeans and their descendants in the New World. It provides a deeper history and 'legitimacy' to European association with the continent and has been an important thread in romantic, often nationalistic, uses of northern European history (Fitzhugh and Ward 2000a; Orrling 2000; Wawn 2000). Moreover, it is possible that Scandinavian navigation traditions were at least tenuously influential during the first stages of intense European exploration of the western North Atlantic in the fifteenth and sixteenth centuries (McGhee this volume).

The importance of evidence for Norse exploration in eastern North America—particularly the site of L'Anse aux Meadows (Wallace this volume)—is thus clear in terms of both the history of North Atlantic exploration and its role as an 'origin myth' within contemporary historical consciousness. There is, however, a danger that the wider historical significance of Scandinavian settlement around the northern North Atlantic rim has been eclipsed by what was in fact its ultimate limit. From the Norse expansion into Arctic Norway to the settlement of Greenland this process involved a series of interrelated episodes of migration and culture contact. The results

of each were quite different—from the emergence of interdependent Norse and Saami communities in Norway to the collapse of a medieval society in Greenland—creating contrasts which illuminate the complexity of migration and ethnicity.

The purpose of this volume is thus to illuminate the character of Viking Age (*c*. AD 800–1050, but with rather elastic boundaries) and medieval (*c*. AD 1050–1497) migration and culture contact around the northern North Atlantic rim, from its Norwegian origin to its northern and western limits. It attempts to place equal weight on each region, rather than prioritizing the evocative westernmost outpost of 'Vinland'. The book then concludes with a consideration of what impact early Norse activity in the North Atlantic had on post-medieval European expansion from the late fifteenth century. The focus is exclusively North Atlantic, omitting England and the Isle of Man, a choice dictated partly by pragmatism and partly by the social and geographical integrity of the region.

The volume is also intended to highlight both the depth of archaeological research in the region and the profound gaps which remain in our knowledge. It is a cliché both to praise and to condemn the work of previous generations, but it is clear that much primary research remains to be done in a region where we have occasionally been made complacent by important early excavations (Jarlshof and the Brough of Birsay in Scotland for example, see Barrett this volume) and the inescapable literary and historical sources of medieval Iceland (Friðriksson and Vésteinsson this volume).

The sources available for study of the Norse colonization of the North Atlantic are varied and complex. They include documentary evidence (historical and literary), place-names, genetics, and archaeology (including various aspects of archaeological science). The chapters of this volume are written from an archaeological perspective, and the authors and editor are predominately archaeologists by training. It thus represents one perspective within an interdisciplinary subject. The results will inevitably prove naïve to the historian and linguist, but do contribute to the rewriting of a Viking Age 'prehistory' once almost entirely reliant on high medieval Icelandic sources of questionable historicity (Friðriksson 1994). It is thus hoped that this book will be read as an archaeological contribution to an interdisciplinary debate.

Themes

The chapters of this volume are intended to provide full geographical coverage of the region, but they also reflect the individual perspectives and research interests of their authors. Nevertheless, the papers are permeated by a consistent set of themes:

- an explicit consideration of the process of migration,[1]

[1] In contrast to the widespread dismissal of the process in the archaeology of the mid- to late twentieth century (see Härke 1998; Trafford 2000).

- an attempt to construct models of culture contact informed by the instrumentalist school of Fredrik Barth (1969; 1994; see also Bourdieu 1977; Myhre 1993; Jones 1997; Burmeister 2000) which views ethnicity 'as a dynamic and situational form of group identity' (Jones 1997, 73), and
- an attempt to integrate archaeological and documentary evidence, accepting the independence of the material record in contexts where the historicity of text-based sources is questionable.

These themes are deeply rooted in contemporary archaeological scholarship, but represent the meeting of two intellectual traditions: a historical particularist school with a long tradition of research specifically in the Scandinavian sphere of activity (e.g. Roesdahl 1991; Graham-Campbell and others 1994) and a comparative 'world archaeology' with strong ties to social and cultural anthropology (e.g. Appelt and others 2000). Dialogue between the two is not new (e.g. Odner 1985; McGovern 1990; Myhre 1993), but many contributors to this volume attempt to move freely between these converging approaches. Among the important aspects of this convergence is a more nuanced approach to the interpretation of culture contact and the social construction of identity. Norse expansion in the North Atlantic provides a series of case studies where distinct identities were created both in empty (or virtually empty) islands (e.g. the Faroe Islands and Iceland) and through interaction with indigenous populations (e.g. Scotland and Ireland). The differences observable between and within these contexts reveal the diversity of historical trajectories possible in the wake of a 'single' migratory process. It is only by combining the long tradition of particularist research with a comparative understanding of migration, culture contact, and ethnicity that these patterns can be made comprehensible.

Definitions and Terminology

The term 'Norse' has been adopted in a general rather than specific sense in the present volume, indicating any physical or cultural association with what is now Norway. The broader term 'Scandinavian', which is also used, may be more appropriate given the high degree of mobility and cultural fluidity in the Viking Age, but the Norwegian connections of the North Atlantic colonies are relatively clear (see the relevant chapters below). This use of the term Norse is pragmatic but imprecise and potentially dangerous due to the conflation of disparate concepts. It is essential to 'deconstruct' the various ways in which 'Norse' has been employed in the archaeology of the North Atlantic. Definitions are rarely explicit, but it is clear that some or all of the following concepts are typically intended:[2]

[2] The relevant examples are too numerous to cite, but the papers in Batey and others (1993) and Clarke and others (1998) provide a good cross section of current usage.

- People: Ethnicity; Speech community; Biological population; Chronology (i.e. Viking Age or medieval).
- Things: Style or typology; Place of origin or manufacture; Chronology.

Although these concepts can be interrelated, a century of ethnographic research has demonstrated that there are no one-to-one correlations between ethnicity, material culture, language, and biological ancestry (Barth 1969; Trigger 1978, 122–31; Jones 1997, 73–76; Townend 2000). Failure to acknowledge these distinctions can lead, at best, to overly simplistic models of colonization and, at worst, to biological determinism of the kind which discredited the study of ethnicity in the early twentieth century (see Jones 1997). Conflation of the concepts continues in all fields—recent genetic research on the ancestry of modern Icelanders and Orcadians being one example (Helgason and others 2001; Wilson and others 2001; see Barrett this volume).

The chronological focus of the volume centres on the Viking Age and Middle Ages, with forays into earlier and later periods (particularly in Chapters 2 and 10) in order to illuminate long-term processes. The Viking Age is defined by the traditional boundary dates of *c*. AD 800–1050 (e.g. Morris 1985), rather than the revised chronology which would begin this period approximately half a century earlier (e.g. Myhre 1993; 1998; Ambrosiani 1998). This decision is arbitrary, and of little practical importance, but it reflects the late Scandinavian settlement date of most of the colonies under consideration (mid-ninth century in Scotland and Ireland, late ninth century in Iceland, and late tenth century in Greenland—see the relevant chapters below). The Viking Age is also known as the last subdivision of the Iron Age in Scandinavia, but this terminology has been avoided to prevent confusion with the immediately pre–Viking Age, 'Pictish', period in Scotland which is also referred to as the Late Iron Age (Barrett and Foster 1991).

Terminology regarding the centuries following the Viking Age varies from region to region (e.g. the 'Commonwealth' and 'Late Norse' periods in Iceland and Scotland respectively). For the purposes of comparison the broader terms 'medieval' and 'Middle Ages', defined as *c*. AD 1050–1497, are generally preferred in this volume.

Spelling conventions are problematic in this region, where one must juggle variable ancient and modern usage. An attempt has been made to standardize common personal and place-names, and English conventions regarding capitalization have been used for anglicized forms (of saga names for example).

Implications

The chapters to follow are intended to illustrate the value of reconsidering traditional data in a new light, but they also highlight significant gaps in existing archaeological research. There is, for example, only one (currently unpublished) early–Viking Age settlement site known from Scotland (Pool in Orkney, see Hunter and others 1993; Barrett this volume). The early settlement of the Faroe Islands is similarly

ambiguous (Stummann Hansen this volume), and much research in Iceland has been confined within a research agenda set by documentary sources of uncertain historicity (Friðriksson and Vésteinsson this volume).

The contributions to this volume also highlight both the diversity of the 'Norse' North Atlantic and the degree to which it was influenced by (and an active participant in) regional and pan-European social and economic processes. Social identity, politics, and socio-economic 'history' varied at a remarkably small scale—from northern to western Scotland for example (Barrett this volume)—but widespread world system processes such as vacillations in the European fur and ivory trade could have important impacts as far afield as Arctic Norway (Olsen this volume) and Greenland (Arneborg this volume) respectively. This observation emphasizes the interrelatedness of regions traditionally defined as centre and periphery and the need to view local developments in their regional and wider contexts (Barrett and others 2000 and references therein). Although this observation may be self-evident, the complexities of research in the 'Norse' North Atlantic have often encouraged a more atomistic approach to the region.

This volume is not intended to be a textbook. It is a contribution, from an archaeological perspective, to an ongoing and interdisciplinary dialogue regarding the Viking Age colonization of the North Atlantic region. It is offered as a catalyst to greater convergence of historical particularist and comparative archaeological traditions—in terms of both explanatory models and geographical scope.[3]

[3] I would like to thank the series editors and an anonymous referee for their comments on a first draft of this volume. Harold Mytum kindly wrote Chapter 5 on short notice when it proved impossible for the original contributor to do so. Shannon Lewis and Deborah A. Oosterhouse assisted with the copy editing, and Shannon Lewis compiled the index. Margrethe Felter helped with language editing. Image credits are provided in the figure captions.

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Belligerent Chieftains and Oppressed Hunters? Changing Conceptions of Interethnic Relationships in Northern Norway during the Iron Age and the Early Medieval Period[1]

BJØRNAR OLSEN

Introduction

Northern Norway includes the three northernmost counties of Norway: Nordland, Troms, and Finnmark, and is situated between 65° and 71° north (fig. 2.1). Even if most of the area is north of the Arctic Circle (at 66°33′), the climate could hardly be called 'arctic'. The favourable climatic conditions are due to the Gulf Stream that brings temperate waters northwards along the coast. In fact, in most of the coastal area the growth period is long enough for barley to ripen (Johansen and Vorren 1986).

From the early Iron Age onward two major cultural traditions seem to coexist in northern Norway: one associated with the hunting population in the inner fjord areas, the interior, and the far north, and one associated with the farming societies strung along the Atlantic coastline as far north as the present city of Tromsø. The sedentary farming societies, normally depicted as chieftain systems with a redistributive economy, are associated with the spread of Germanic ethnicities in north-western Europe and constitute the foundation for the later Norse or Norwegian ethnicity in the north. The hunting societies are in most writings described as mobile and egalitarian and are associated with Saami ethnicity.

[1] This paper is reprinted, with minor changes, from *Identities and Cultural Contacts in the Arctic* (Appelt and others 2000) by courtesy of the author and Martin Appelt.

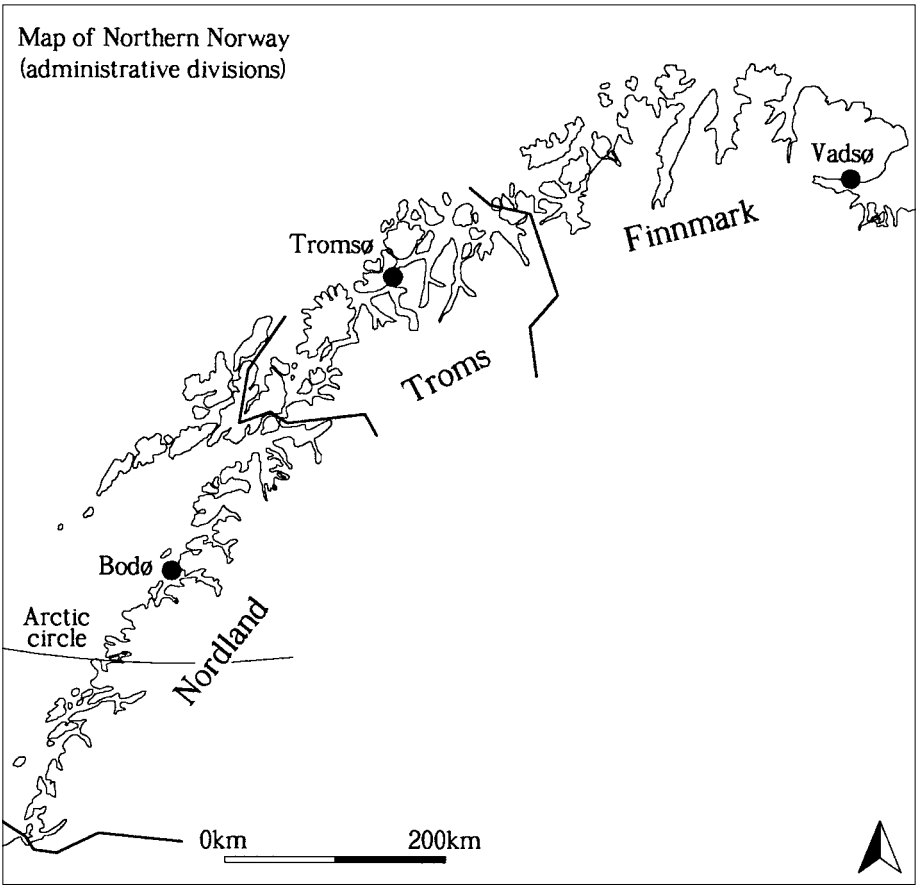

Fig. 2.1. Map of north Norway with administrative divisions
(T. Simpson after Urbanczyk 1992, 13)

The major topic of this chapter is the interaction between these two ethnic groups during the Iron Age and the early medieval period. According to the 'standard view'—long held in Scandinavian historical and archaeological research—the Saami hunting societies were the subjects of exploitation and suppression from Scandinavian chieftains and kings during late prehistoric and early historic times. The militarily superior Norsemen secured access to highly valued Saami hunting products through ruthless taxation and fierce plundering raids on Saami territory.

During the 1980s this belligerent model was challenged by archaeologists, historians, and anthropologists who claimed that the Saami hunting societies for the most part interacted in a peaceful and mutually beneficial way with the neighbouring Germanic or Norse societies (Odner 1983; 1985; Storli 1985; Schanche 1986;

Hansen 1990). This chapter shall present these two opposed models and discuss problems related to ethnic interaction in the light of recent historical and archaeological research in northern Norway. First, however, I find it appropriate to make some remarks regarding the role of the Saami as a subject in Scandinavian archaeological research.

Scandinavian Archaeology and Its Other

My introduction and title may easily seduce the reader to think that the relationship between the Norse and the Saami is a subject which has long occupied a central position in Scandinavian research. This, however, is not the case. As late as the 1970s settlement histories of northern Scandinavia were still mostly written as monohistories of the Norwegians or the Swedes (or their equivalents the Norsemen and the farmers). If the Saami presence was mentioned at all it was typically to explain minor details of 'foreign' products in the Norse material, or as a source of income for the chieftains or the later kings. Otherwise, they were more or less ignored, much like servants in nineteenth-century English novels (Said 1989, 210). They were *there* but unaccounted for except as a useful part of the setting (cf. Schanche and Olsen 1983; Olsen 1986; 1991; 1998).

Thus, in what is still considered the standard work regarding the north Norwegian Iron Age, *The Iron Age Settlement of Arctic Norway* (Sjøvold 1962; 1974), only the Norse material is presented. The term 'Iron Age settlement' had such an obvious ethnic and socio-economic connotation ('farmers', 'Norsemen', 'Norwegian') that the exclusion of the Saami, despite the all-inclusive title, became almost self-evident. It obeyed a long tradition in Scandinavian research where the land outside the cultivated fields and the farming settlements is dismissed as unpopulated and wild. Moreover, in the prescribed scheme of European cultural development, hunters belonged to the early Stone Age and their inconvenient presence in the Scandinavian Iron Age (and even later) was better ignored.

Another and more fundamental reason for the exclusion of the Saami as a historical subject was the distinction that became institutionalized in the European academic system in the nineteenth century between *Volkskunde* (the historical disciplines) and *Völkerkunde* ('ethnography'). This, of course, was a disciplinary expression of the evolutionist and nationalist doctrine that there were people 'with' and people 'without' history (Worsley 1984). *Volkskunde* emerged as a kind of academic nationalism and included the tracing of the Volk's lineage, the 'roots' of the people, as reflected in myths, folklore, and national history. *Völkerkunde* became the complementary study of others—foreign and 'primitive' peoples in non-European countries who were regarded as static and timeless. Such peoples were not the subject of historical investigation and became the domain of ethnography.

Thus in Scandinavian scientific discourse, from the late nineteenth century onward, the Saami have been created and perceived largely as an ethnographic category, a

frozen 'other' existing outside the dynamics of history. So while the Norwegians and Swedes acquired a history, the Saami acquired an ethnography and were in more than one sense conceived of as a 'cold' society (Olsen 1986; 1998). In the late nineteenth century even their indigenous status became questioned by many scholars. For a long time the Saami were almost unanimously assigned the role of being a 'foreign people', an eastern other who had migrated to Scandinavia from some Siberian or Russian homeland. This role as a foreign (non-European) people confirmed their ethnographic status and helped Scandinavia overcome the trauma of having an 'other within'.

From the late 1970s onward, however, the fallacy of historical monologues became evident. As part of a wider post-colonial discourse, Saami activists and intellectuals began to reclaim their tradition and culture from Scandinavian cognition. A younger generation of anthropologists, archaeologists, and historians started to oppose the picture of an ethnically uniform past and to deconstruct the dominant history—which they claimed formed part of an ideological discourse operating to legitimize the silencing and suppression of the Saami. Since then, scholarly and political discourses regarding Saami history and identity have changed significantly, especially in Norway. I shall not take this tale too far, but note that the research which has taken place since the late 1970s, and which forms the basis for this paper, is without doubt a result of this thawing of the Saami from the ethnographic and political ice-shelf.

The Concept of Ethnicity

For a long time most archaeological and anthropological reasoning rested on the assumption that cultural variation was discontinuous: that there were aggregates of peoples who shared a common culture, and interconnected differences that distinguished each such discrete unit from all others. As a consequence geographical and social isolation were the critical factors in sustaining cultural diversity, and ethnic groups were usually referred to as cultural or biological isolates (Barth 1969a, 9; cf. Olsen and Kobylinski 1991).

Around 1970 this static conception of ethnicity was attacked by anthropologists such as Fredrik Barth and Abner Cohen, who proposed a totally different approach: ethnicity is nothing if not people in contact (Barth 1969a; Cohen 1974a). No ethnic group, by definition, can exist in isolation. An ethnic boundary emerges *because* of social interaction, and the key element of ethnic identity is the distinction which emerges between 'us' and 'them'. Moreover, the maintenance of an ethnic group is a dynamic process: it depends on the reproduction of the boundary due to a continuing process of dichotomization between members and outsiders, not on any stability in the cultural stuff it encloses (Barth 1969a, 10–14). It follows that ethnicity is not a natural given, it is a process activated by social conditions. Ethnic groups are social constructions which are formed, can be reorganized, and also may disappear.

One criticism, which may be raised against the 'instrumentalist' approach developed by Barth, Cohen, and others, is that the cultural component of identity ascription becomes overlooked. Ethnic groups become more or less equivalent to 'interest groups', collectives that keep together as long as this organization is (economically) beneficial to its members. What remains unresolved is the relation between cultural traditions (which may exist despite the lack of an ethnic awareness) and the formation of ethnicity. In what way are ethnicity and ethnic awareness based on the 'cultural luggage' of pre-existing tradition, and how is it mobilized and rationalized in a process of ethnic ascription?

In her excellent book *The Archaeology of Ethnicity*, Siân Jones (1997, 87–92) has developed precisely this point. Very briefly, the formation of an ethnic group is based on the development of an ethnic awareness, to recognize that 'we' (who have this particular lifestyle and hold these beliefs) are different from 'you'. Such an awareness may be created when a particular mode of living is brought into question by, for instance, intimate 'culture contact'. Taken for granted social experiences and habits, what Pierre Bourdieu (1977) refers to as *doxa*, become challenged by alternative ways of being-in-the-world. As a consequence the *habitus* and its cultural tradition loses its character as a 'natural' phenomenon, and formerly unquestioned practices and beliefs have to be rationalized and systematized on a conscious level as 'our' way of living in opposition to others. This constitutes a mode of social experience very different from the *doxic* mode and generates a favourable mental environment for ethnic formation and identification. Thus, ethnic identification involves an objectification of cultural practices in the recognition and signification of difference in opposition to others (Jones 1997, 128).

A related, more strictly 'Barthian', notion of ethnicity was used in the 1980s by the Norwegian anthropologist and archaeologist Knut Odner to propose a new perspective on the formation of Saami ethnicity in Fennoscandinavia (Odner 1983; 1985). Instead of asking the traditional question of 'where did the Saami come from?', Odner instead asked *why* Saami ethnicity emerged and *how* it has been maintained in interaction with other groups. Very briefly, Odner's argument is that the formation of Saami ethnicity was related to the increased interaction between the northern hunter-gatherer population and surrounding farming societies in the first centuries AD. At that time the indigenous hunting population made contacts with eastern and south-eastern farmers and a reciprocal transactional system based on the exchange of iron and fur developed. As part of the organization of these transactions, ethnic boundaries and symbolic systems of categorization developed. The hunting populations, which formerly probably were ethnically heterogeneous, developed a common ethnic identity, based on a conscious distinction between 'hunters' and 'farmers'. The essence of Odner's model is that there was a basis for ethnic unification and the emergence of a common identity among the north Scandinavian hunter-gatherers only when they started to interact with surrounding groups different from themselves.

Suppression or Peaceful Coexistence?

According to the standard view, Germanic culture and language, including farming and iron-using, was brought to north Norway as a 'cultural package' by immigrants from south-west Norway *c*. AD 200–400. Similarities in burial practices, farm sites, and material culture in general were used to argue this case (Sjøvold 1973; cf. Magnus and Myhre 1972; see figs 2.2 and 2.3). One of the most prominent proponents of this hypothesis was Gutorm Gjessing (1929), the famous Norwegian archaeologist who later became professor in ethnography and a left-wing politician (Johnsen 1997). In one of his latest books, *Norway in Saami Land* (*Norge i Sameland*) from 1973, Gjessing rewrites this migration scenario in the light of western colonialism and imperialism and projects the suppression of the Saami people far back into prehistoric times. According to his thesis, Norwegian or Germanic (the distinction is not always easy to grasp in these writings) colonizers had displaced and exploited the Saami people from the early Iron Age onward (Johnsen 1997, 44).

Gjessing claimed that the 'aggressive nature' of Germanic society caused internal socio-political conflicts and an inherent need for expansion, and it was this 'need' that brought Germanic tribes to northern Norway in the Late Roman Period. These tribes were hierarchically organized in a chieftain system and required local trade goods, such as fur and hide, to invest in exchange systems and prestige networks with chieftains in the south. Drawing on saga texts which point to the taxation of Saami people in the Viking Age, Gjessing portrays a situation where the colonizers acquired needed products through fierce taxation and outright robbery. The Saami, who by contrast were egalitarian and peaceful, did not possess any military or other means to resist domination and displacement. Their only way to respond was to settle beyond the settler's coastal frontier line and supply them with demanded goods from the interior and the north (Gjessing 1973; Johnsen 1997, 45).

In 1983, Knut Odner published his much debated book about ethnic processes in northern Fennoscandinavia. He proposed a very different perspective, both on the emergence of Germanic culture and ethnicity in northern Norway and on the chieftains' relationships and exchanges with the Saami. He asserts that the key to understanding this relationship is located in the different social, political, and economic organization of the two groups (Odner 1983; 1985). In much the same way as Gjessing, Odner describes the dominant social form of the Germanic societies as a hierarchical organization headed by a chief, and with redistribution as the guiding economic principle. Structural distance between groups was maintained by war and aggression. These forces were counterbalanced by cohesive forces such as gifts, marriage, and shared codes and values, which functioned to bind the political entities together in essential but fragile alliances. Acceptance of shared cultural codes and values was a necessary condition in order to participate in these alliances (Odner 1985, 3–4).

Odner also argues that processes of social stratification took place among the coastal societies of northern Norway during the centuries around the birth of Christ.

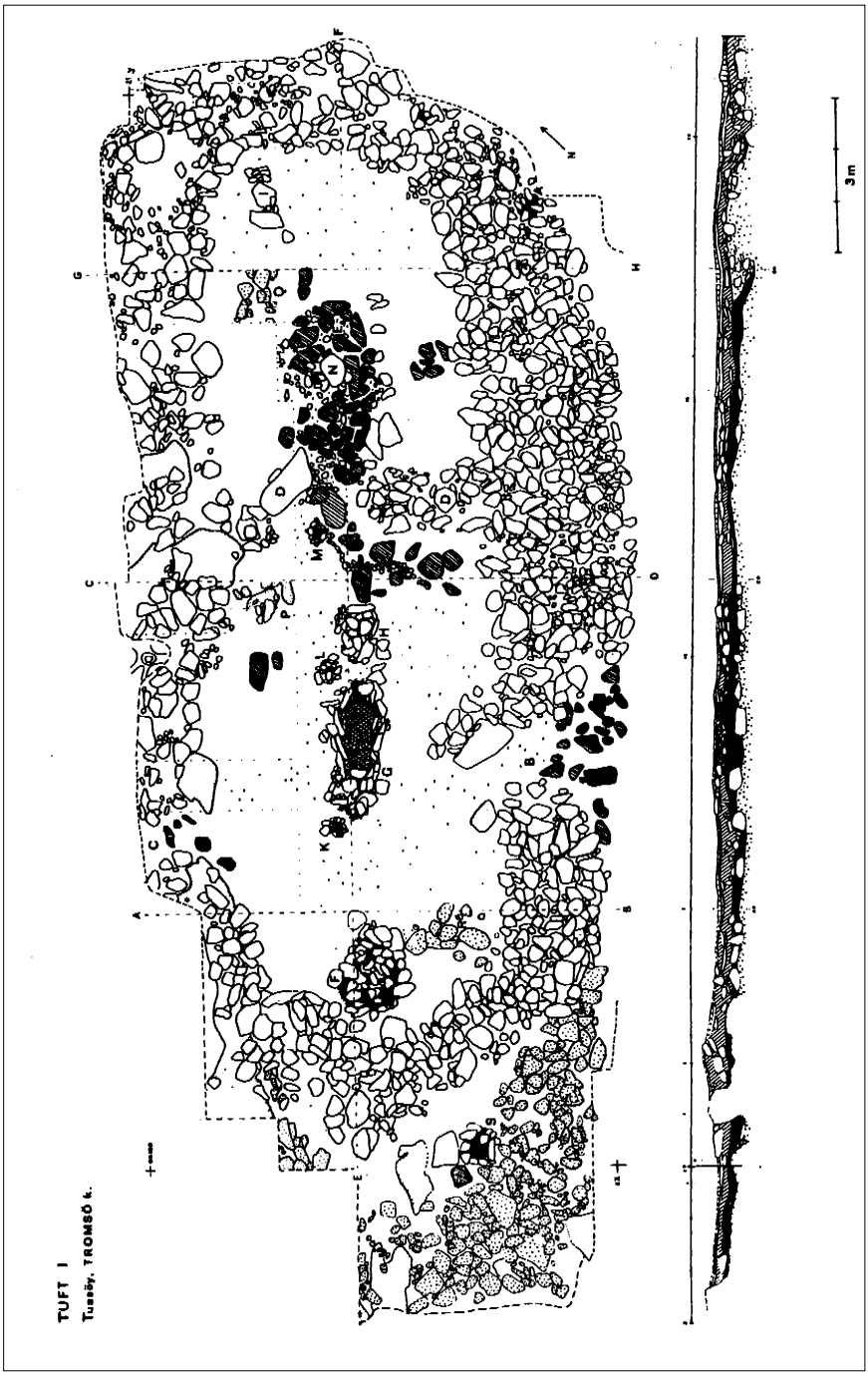

Fig. 2.2. Iron Age farm house from the eight century, Tussøy, Tromsø

Fig. 2.3. Early Iron Age burial cairn from Indre Elgsnes, Troms
(photo: Lars Børge Myklevoll)

The transition to farming and the introduction of iron technology generated conflicts and social differentiation which culminated in a hierarchical, chiefdom-like system. During the third century AD, a marked material signalling of Germanic ethnicity can be detected in the same area. Odner explains this as the result of processes where the local population, after the development of social stratification, chose to define themselves as Germanic in order to associate themselves with the dominant culture in the south. In order to maintain a chiefdom system in a marginal area, and to interact and make alliances with southern societies, the adoption of Germanic ethnicity became imperative. It was the key to get access to the social and economic networks of north-western Europe (Odner 1985, 9–10; cf. Odner 1992).

Marriage and gift exchange became important means for the northern chieftains to overcome their isolation and marginal position in relation to the southern Germanic groups. Appropriate gifts were as important as subsistence goods for the maintenance of a chieftain's power base. Gifts circulated in the prestige sphere in which products produced by the Saami were of central importance—including exotic furs, walrus tusks, and maybe falcons. It was therefore essential for the chieftains to gain control over the Saami trade. From the Viking Age onward there are several accounts of disputes between powerful leaders over the right to trade with and tax the Saami (Odner 1985, 4–6).

This brings me to the core of the present chapter: how was this interaction and exchange organized? The popular view depicts small armies organized by Norwegian

chieftains in order to raid and plunder Saami areas. The sagas give a few and dubious accounts which may be taken to support this belligerent position. Without dismissing these accounts, Odner interprets them as legends designed for a Germanic or Norse audience. This was a warrior culture stressing aggressive values, and the role of the scalds was to strengthen these values by telling myths and poems about brave deeds (Odner 1985, 6; 1992, 30), and what we would call boasting. How such raids might have been implemented in practice is also hard to see. As Odner (1985, 6) states: 'A noisy and conspicuous raiding party would have been easy to spot from long distances by the nimble-footed hunters. Instead of confrontations, the Saami would simply have disappeared into the wilderness.' If the Saami were raided, taxed, and plundered on a regular basis, they would of course have done everything to escape any encounter with the chieftains. To acquire the products of the Saami, other strategies must have been applied—strategies that secured stable deliveries at given times. Such deliveries were best obtained if the Saami saw the relationship as beneficial also for themselves.

In this connection we should not underestimate the potential power the Saami themselves possessed by controlling essential economic and symbolic capital. By this I mean the exotic products which the north Norwegian social elite depended on for their participation in the prestige goods economy (as well as the magical knowledge they possessed and which the Norse feared and respected). It is worth noting that the sagas give more frequent accounts of cooperation and close relations between the chieftains and the Saami than of raids and plundering. The latter are in fact an exception. The sagas emphasize the Saami as good hunters, as helpers, as boat builders for chieftains and kings, as healers and fortune-tellers, and as teachers in magic and *seiðr*. One saga, for instance, narrates how King Olaf Tryggvasson, who was feared for his fight against *seiðr* and heathendom, himself consulted Saami shamans for knowledge and advice. In the famous battle of Stiklestad in the eleventh century, where north Norwegian chieftains fought against King Olaf Haraldsson (Saint Olaf) and his attempt to Christianize Norway, Saami were said to have participated on the chieftains' side and supplied them with magical weapons and clothes (Mundal 1996). In Snorri Sturluson's *Heimskringla* we are told a story about Erik Bloodaxe who, on his way back from an expedition to the White Sea, stopped in a Saami settlement in Finnmark. In a Saami turf house his men met a Norse woman, Gunnhild, a daughter of a north Norwegian chieftain (whom some sagas narrate as Erik's later queen). On the question of what she was doing there she responded that 'she is sent here to learn magic of two Saami, the wisest men in Finnmark' (NK, 76). There is much in support of the argument that the Saami and the Germanic and later Norse populations shared fundamental religious conceptions and values, which in the pre-Christian era may have led to greater mutual understanding and respect than what become the case after the introduction of Christianity (e.g. Price 2000). The social form of the Norse pre-state society may also have made this relationship smoother.

According to Odner (1983; 1985), a symbiotic relationship developed where the Saami became integrated in the redistributive economy of the Norse chieftains—

acting as hunting specialists. During the Iron Age, the Saami made themselves dependent on supplies from outside, and this created bonds of reciprocal dependency between the chieftains and the Saami hunters (cf. Carpelan 1984, 105). This also led to the protection of Saami land by the chieftains, as stated in several later diplomas from the medieval period. Ethnicity functioned as an important organizing principle between the groups (Odner 1983, 89). The chieftains' and kings' protection of Saami areas depended on the fact that the Saami were a recognizable ethnic group. Mutual exchange between the groups was structured around patterns of expected behaviour, as rooted in ethnic codes. Before embarking on trading expeditions, the Norse trader had to have a reasonable guarantee that his travel and meeting with the Saami would be worthwhile and secure. According to Odner, during the Iron Age and early medieval period his guarantee lay in established ethnic codes. As partners in these transactions, the Saami also relied upon the values embedded in the ethnic codes. The fact that they chose to take part in such transactions indicates that they felt relatively secure (Odner 1985, 6).

This is why Odner suggested that the Saami hunting societies interacted in a peaceful and mutually beneficial way with neighbouring chieftain and state societies until the late medieval period. He further suggested that the maintenance of Saami ethnic identity, and of their specialized hunting economy, to a large extent must be understood precisely as a result of this interaction. Challenging the orthodox regime of interpretation—in which the Saami encounter with Germanic, Norse, and other societies was written into a plot of exploitation and cultural decline—he claimed that Saami identity and 'way of life' were reproduced due to (and not despite of) intimate interaction with the outside world (Odner 1983, 86–87).

Ethnic Interaction and the Negotiation of Boundaries

Odner's model for Saami-Norse interaction is important and thought provoking and provides a far better starting point for understanding ethnic dynamics than the older interpretative regime. Like all general models, it lacks specificity and it is only superficially operationalized in relation to the archaeological context. It may also be argued that it gives a rather static picture of the societies and groups involved. In the last part of this paper, I shall present some recent archaeological work in which Odner's ideas have formed a starting point, and which have both supported and modified some of his ideas.

In his famous report to King Alfred of England in the late ninth century, the north Norwegian chieftain Ohthere (Ottar) described the land of the Norwegians as 'very long and very narrow' (Lund 1983); in other words it was confined to the strip of land on the outer coast. According to the traditional view, the distribution of the Norse farming population was ecologically determined by the climatic conditions necessary for grain production, preventing expansion into the less favourable inner fjord areas and to the coast north of Tromsø (Sjøvold 1974, 347–48). This created a

boundary towards the north as well as towards the inner fjord area and the interior in the east.

This assumption—that the distribution of Germanic or Norse settlement was ecologically determined—has, however, been questioned by the Norwegian archaeologist Audhild Schanche (1986). Through a closer examination of the distribution of Norse Iron Age burials, she convincingly showed that the frontier line of the Norse settlement cannot be explained by ecological factors alone, since there were also favourable conditions for farming in the inner fjord areas. She instead proposed that the border was ethnically negotiated and of a cognitive rather than an ecological nature (fig. 2.4).

To the north, the burials and the farm sites ceased in the coastal area north of Tromsø (figs. 2.2 and 2.3). Ohthere, who probably had his farm in the vicinity of Tromsø, claimed that he lived northernmost of all Norwegians. The land north of him was unsettled apart from, as he said, the Saami hunters and fishers who lived there. During the 1980s and 1990s, numerous Iron Age sites associated with Saami activity and settlement have been found along the coast north of the Norse settlement areas (Grydeland 1996; Henriksen 1996; Hesjedal and others 1996; Schanche 1997). Crossing the Lyngen Fjord seems to have implied the crossing of a cultural and ethnic boundary, and entering a new cultural landscape. The coast south of this fjord contains burial mounds and cairns, longhouses and boathouses. North of it we encounter a coastline marked by slab-lined pits, stone structures, scree graves, and circular houses, all associated with the Saami (figs 2.5–2.6). Especially in the border area north of the Lyngen Fjord, there is a massive accumulation of some of these Saami traits. For those once travelling along this coastline, this change in material representation may well have been read as convincing arguments about rights and duties and to whom the land belonged (Henriksen 1996).

There is a remarkable stability in this pattern. The ethnic boundary between Norse and Saami settlement seems to have been established in the early Iron Age and its geographical outline probably remained almost unchanged until the early medieval period. Norwegian expansion towards the east and north does not seem to have taken place before AD 1200 (Hansen 1990). The crucial question is why we have this remarkable stability?

Some arguments have already been given, and I shall elaborate on several others. One proposition, put forward by Audhild Schanche (1986), is that territorial expansion was prevented by 'structural barriers' within the Germanic or Norse society itself, one of which was the fragile balance of political power between the chiefdoms. Alliances established through marriage and gift exchange defined rules for acceptable behaviour in order to prevent political and territorial instability. These included rules that sanctioned territorial expansion into Saami areas. Thus, the fear of military or political reprisals from other chiefs may have prevented such expansion. In addition, centripetal forces, such as members' wishes for security and integration, and elite control over households, may have further constrained geographical behaviour (Schanche 1986, 128–32).

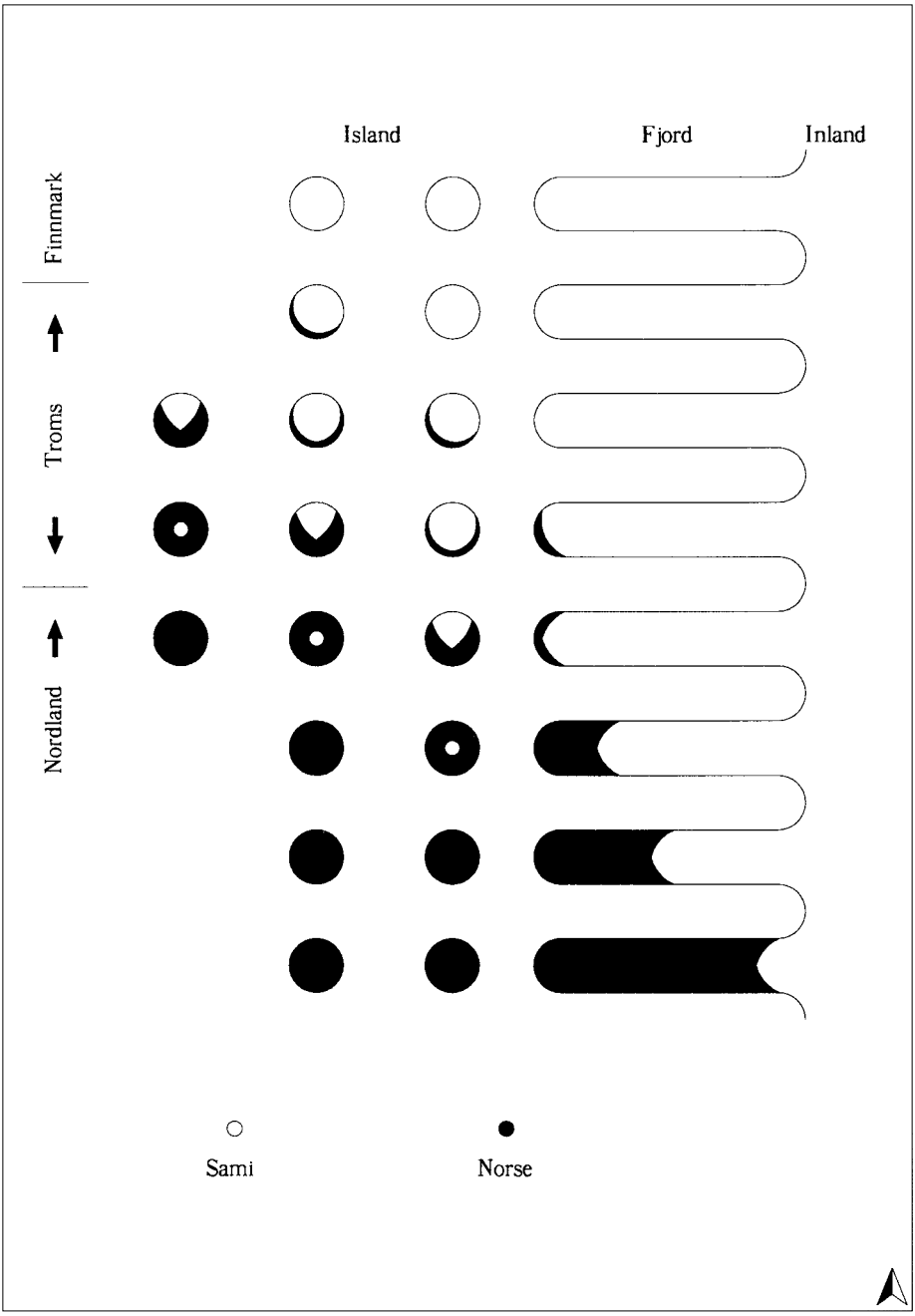

Fig. 2.4. A. Schanche's model of the spatial relationships between Saami and Norse settlement areas in north Norway (T. Simpson after Schanche 1989)

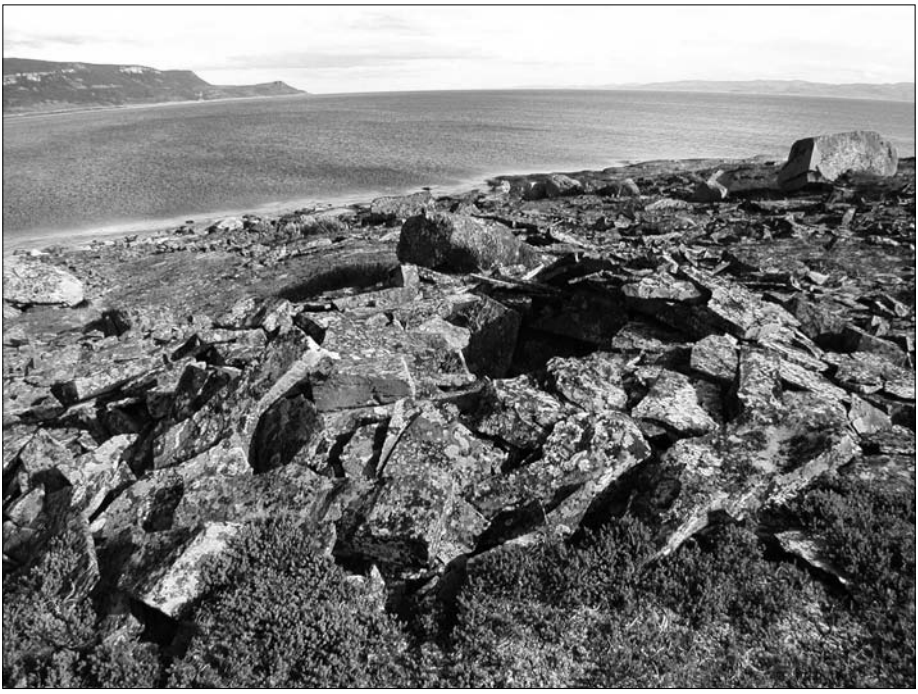

Fig. 2.5. Saami scree burial at Čiesti on the northern shore of the Varanger fjord, Finnmark (photo: B. Olsen)

A second proposition relates to a cognitive spatial model for self-definition: *where* you lived had implications for *who* you were. The transgression of a territorial boundary may have raised questions about identity and self-ascription. In other words, the 'us-them' distinction had a geographical component which, by being reproduced over many generations, may have become institutionalized as a rather fixed border. As part of the Indo-European cosmological system, the opposition between culture and nature was fundamental in Germanic and Norse cosmology (cf. Odner 1992, 30). Encountering the wilderness in the inner fjords and the interior meant leaving the secure world of the coastal farms and the cultivated fields, the safe landscape appropriated and domesticated by the ancestors. Legends about the land of the others—as dangerous, bewitched, or in other ways possessing evil spirits—may have contributed further to this cognitive disciplining of geographical behaviour.

The Old Norse word for this outer wilderness in the north was *Finnmǫrk*, which connotes both a real and an imaginary geography. In the real, it included an area much larger than the present northernmost county in Norway, extending far south of the Arctic Circle and running like a wedge on the east side of the north Norwegian farming settlements (termed Hålogaland). In *Egils Saga*, written down in the first part of the thirteenth century, we are told that Finnmǫrk embraced the fjords and

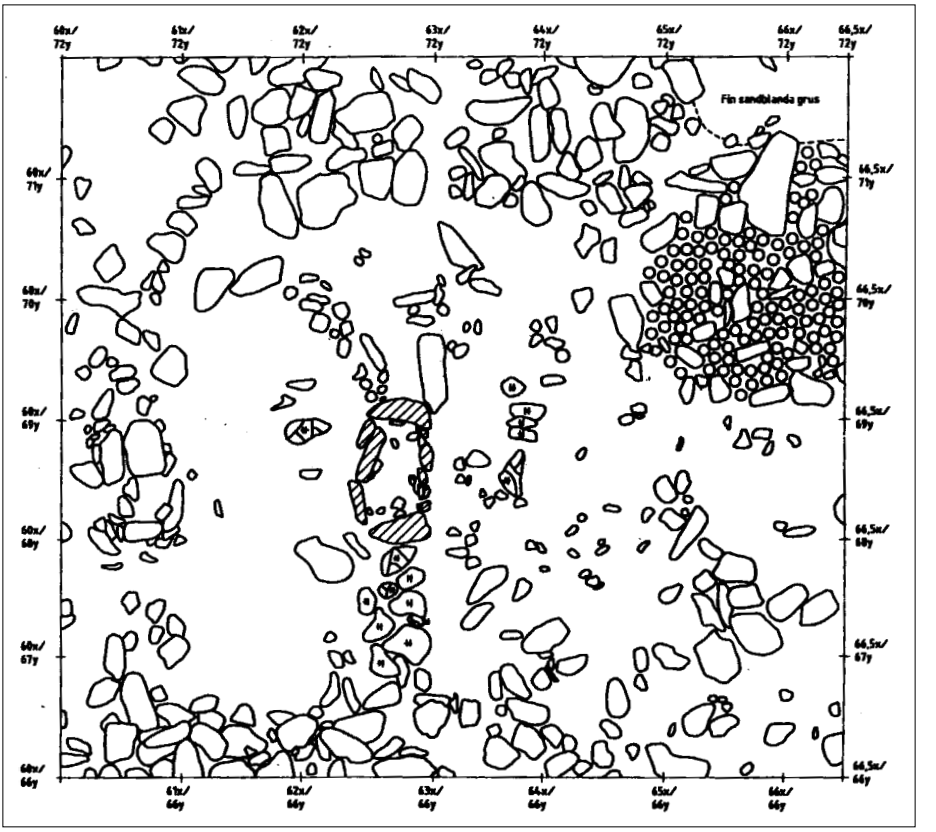

Fig. 2.6. Saami house from the eighth century, Slettnes, Sørøy, Finnmark (after Hesjedal and others 1996)

almost all the interior as far south as Hålogaland stretches along the outer coastline. Looking at this name, Finnmǫrk, we know that *Finns* mean Saami, and *mǫrk* means forest or border area in Old Norse language. A similar etymology of the word *mark* or *mork* (in the meaning of border, edge, or margin) is to be found in several European languages, also early Germanic (Mundal 1996). Thus, using the name Finnmǫrk to designate the land east and north of the farming settlements points to an imaginary geography designating the margin, the border, the forest, in other words the land of the others, as opposed to the settled and cultivated land where 'we' live.

In this exposition of what social, cosmological, or other devices contributed to maintain this ethnic boundary I shall focus on a specific archaeological category: silver hoards from the Viking Age. Such depositions are known from all the Nordic countries (Hårdh 1996), and from northern Norway we know of a total of twenty hoards. In addition, three silver hoards from the eleventh and/or twelfth century have

Fig. 2.7. The silver hoard from Musken, Tysfjord, dated to the twelfth century (photo: Tromsø Museum)

been found (fig. 2.7) (Munch 1970; Sjøvold 1974; Reymert 1980; I. Zachrisson 1984). The hoards are not found within settlements, and they are seldom located on what may be regarded as the core area of Norse or Saami land. They are often found close to areas and fjords with extensive Saami settlements and on spots which may have been meeting places between the two groups. In general, there is an affinity between the distribution of these depositions and the boundary between Norse and Saami land. The clustering of hoards at the northern border of the Norse settlement area close to the Lyngen Fjord is particularly marked. Several of the hoards are found in settings resembling the sacred topography of Saami burials and sacrificial sites. The largest of the hoards, from Rønvik close to the present city of Bodø (and the mouth of the Saltenfjord—one of the fjords with the largest Saami population in historical times), was found wrapped in birch bark, which suggests associations with Saami burial practices (Sjøvold 1974, 52).

The most common objects in the hoards are neck and arm rings of silver, objects which rarely or never occur in other find contexts (such as burials) irrespective of ethnicity. A special feature of the northern arm and neck rings is that they are of both western (Scandinavian/Norwegian) and eastern (Finnish/Russian/Baltic) provenance (Reymert 1980; Hårdh 1996, 80). This joining of eastern and western traditions is also evidenced by the ornaments of Finnish, Russian, and East Baltic origin that are included in the northern hoards. As reflected in Saami burials and sacrifices, eastern ornaments were commonly used by the Saami and clearly functioned as an ethnic marker in northern Scandinavia (even if bronze was often the preferred material) (cf. Reymert 1980, 99–102; I. Zachrisson 1984, 99–101). An interesting and peculiar expression of this joining of eastern and western traditions is reflected in the hoard

from Haukøy in northern Troms. In addition to a necklace, a finger ring, a penannular brooch, a crucifix suspended on a chain, and a Christ figure, it contained a pair of ear-pendants of eastern origin (Karelia or Perm area) that are known from Saami sacrificial finds. According to Sjøvold (1974, 226) the earrings 'represent a marked easterly intrusion in our Iron Age material'. However, more interesting is that each of the earrings had three Anglo-Saxon coins attached (Sjøvold 1974, 172; Reymert 1980, 101).

The fact that so many of these hoards are linked to the border area between the two ethnic groups may be read as a symbolic confirmation of the boundary. In the context of the Icelandic *landnám*, *Svarfdøla Saga* relates that symbolic deposition of silver and other personal objects took place on the boundary of newly taken land (T. Zachrisson 1998, 197–99). In Norway we are dealing with a different situation as it concerns an ancient and established boundary between two groups. Nevertheless, there may be some similarities on a general level. As considered below, the Viking Age was a period of considerable stress in which both Norse chiefdoms and Saami societies came under pressure. The inclusion of both Norse and Saami materials in the hoards may be an indication that these deposits, and the meaning they expressed, concerned both groups and were witnessed by representatives from each of them. On Iceland, to legitimate the ritual deposition—and thereby the claim of land—witnesses had to be present (T. Zachrission 1998, 197–99). In our case, the concern was probably more to witness the confirmation of a territorial division existing from time immemorial in a troubled present.

The metal objects may have formed part of ritual gift exchanges between Norse and Saami leaders prior to their deposition. As already stated, the giving of gifts played an important role in establishing and confirming social and political relations between the Norse chiefdoms. The hoards may be taken to support the view that this institution even operated on the local interethnic level. In addition to securing economic transactions, they may have marked and confirmed agreements about territorial rights. The subsequent deposition of the gifts at the border may have functioned as a symbolic signing of the agreement. The fact that silver arm and neck rings only occur in these hoard contexts indicates that they were special purpose valuables kept outside the normal sphere of circulation. One reason for this may have been that if allowed to enter the general economy, or the personal prestige sphere, their whole meaning and function as special ritual or social objects would be undermined. Thus, they were removed or even destroyed as soon as the particular relationship that they expressed was at an end (Hårdh 1996, 173; cf. Bradley 1990, 40).

An interesting possible corroboration of this hypothesis of interethnic gift exchange is found in linguistic data (Schanche 1997). An Old Norse loan word in Saami language is the concept *skeangka*, which in Saami means 'gift'. The Old Norse connotation of the word has to do with drinking (*å skjenke*: to pour or fill; a *skjenk* in many Norwegian dialects still means a drink), and the connection between gift and drinking seems plausible given the association of drinking, feasts, and gift exchange in the confirmation of alliances in Germanic culture. It has even been suggested that a

major motivation for the marginal barley cultivation among the north Norwegian chieftains was to secure the production of beer or mead for ceremonial consumption (Storli 1985). The fact that the Old Norse concept for drinking appears in Saami language in the meaning of 'gift' may be taken to support the hypothesis that the north Norwegian chieftains used ceremonial drinking as part of their institutionalized transactions with the Saami (Schanche 1997).

I shall consider one final aspect regarding the interaction between Norse and Saami societies. Several sagas give accounts of marriages or intimate relations between Nordic chieftains or kings and Saami women. The most famous is that between the Norwegian king Harald Fairhair and the Saami woman Snefrid (NK, 70–72). Most interpreters regard these stories as later mythological constructions (the sagas were committed to writing several centuries later than the time they pretend to consider) to secure economic and political integration in the kingdom, and to accentuate Saami obligations to the king (Odner 1983; Mundal 1996). This is probably correct, but material from Viking Age burials in northern Norway has recently been used to suggest that such interethnic marriages and kinship alliances actually did occur (Storli 1994).

As already mentioned, during the Viking Age and the early medieval period, there was a clear distinction in the ornaments and personal equipment used by Saami and Norse women, and which undoubtedly was part of a material expression of ethnicity. The Saami used bronze ornaments of Finnish, Karelian, and East Baltic origin, while the Norse used Scandinavian and north-western European types. This distinction is clearly reflected in the burial materials from Saami and Norse areas. However, some Norse burials contained women dressed according to the Saami idiomatic code, while a few Saami burials contained women with ornaments following the Norse code. Most of these 'deviants' are wealthy burials, and in the Norse area they seem closely connected to central farms of possible chieftains. According to Storli, this reflects that Norse and Saami women married into each other's ethnic group. She further suggests that these interethnic marriages operated on a high social level, between Norse chieftains or wealthy families and an emerging social elite within Saami society (Storli 1994, 107–16). Such marriages are argued to have played the same alliance-building role on an interethnic level as they did among the Norse or Germanic chieftains.

Storli's interpretation is based on the idea that processes of social stratification took place among the Saami during the Viking Age due to the emergence of reindeer pastoralism. It should be noted that, without adhering to the theory of an early date for the transition to reindeer pastoralism, several archaeologists have questioned the canonized picture of Saami society as egalitarian. Especially in the Viking Age and the early medieval period there is substantial material to support this questioning (Storli 1994; Schanche 1997; I. Zachrisson 1997a).

Postscript: Interpreting the Changing Context of Interaction

I shall end this chapter by outlining some ideas about the changing context of interaction between the north Scandinavian foragers and surrounding societies and what implications this may have had in terms of ethnicity and the patterning of the archaeological record. During the Bronze Age (or early Metal Period) and especially the last millennium BC, the northern hunting societies of Norway became increasingly involved in transactions with metal-producing societies in the south and east (Bakka 1976; Huurre 1986). Contacts with the central and eastern Russian areas become particularly important, and in my opinion this interaction was instrumental in initiating an ethnic awareness among the northern hunters—which was the seed of Saami ethnicity (Olsen 1985; 1994). One expression of this was the spread of a rather marked and uniform material symbolism, especially as reflected in ceramics of the so-called Kjelmøy-type (Jørgensen and Olsen 1988). Moreover, in general terms the foragers are very 'visible' in the archaeological material.

In the first centuries AD, however, this material expression ceased, as reflected in the termination of the use of ceramic and other distinct material forms. As the Finnish archaeologist Matti Huurre has expressed it, 'at the end of the early Metal Period the inhabitants in a way lose their identity as regards the find material' (Huurre 1983, 324 in Taavitsainen 1987). An explanation for this is given by Christian Carpelan, another Finnish archaeologist, who claims that the culture of the northern foraging people 'began to change at that time into an economy procuring wilderness products for trade, at the same time giving up some of its formerly characteristic features, which it had maintained in its stage of self-sufficiency without the need to produce surplus' (Carpelan 1984, 105 in Taavitsainen 1987). I agree with the first part of Carpelan's statement and shall elaborate a bit on this change in 'material identity'.

Interaction in the early Metal Period was characterized by long distance exchange, probably through middlemen and many links. The direct interaction, in which representatives from other cultures actually encountered the foragers, was probably very limited. The relation to external partners of exchange was fragile and loose, and the foragers 'competed' for the attention of and exclusive rights to their exchange-partners. These conditions demanded a considerable degree of material signification of identity—to communicate 'who you were'. Through processes of emulation (e.g. Miller 1985), or peer polity interaction (Renfrew 1986), this led to a rapid spread of a set of characterizing material symbols. To accept a certain cultural code was necessary in order to acquire access to foreign products and to be included in internal exchange networks.

During the Iron Age, long distance exchange characterized by little face-to-face contact was replaced by much more intimate interaction organized on a local or regional interethnic level. In this context, the problem of identification was no longer vital. The interacting ethnic groups acquired intimate knowledge of each other, and their social and economic forms combined with their geographical associations were

sufficient criteria for identification. In northern Norway, to emphasize one's ethnic identity was during this phase first and foremost a concern for the newly emergent 'Germanics'. Through burial customs, ornaments, house form, and other aspects of material culture and behaviour they were eager to communicate their southern affinity—their Germanic identity—since it was of vital importance to be included in existing social and economic networks. This internal need to signal ethnic belonging may well explain why the northern farming communities of the early Iron Age appear more 'visible' to us than their contemporary Saami neighbours.

During the Viking Age and the early medieval period this context was once more altered and the interaction between the Saami and the outside world intensified. Archaeological finds of hunting weapons and trapping systems in the interior reflect an intensification in the hunting of reindeer and other fur animals, which came to include the high mountain areas (Storli 1994; Mulk 1995; Gollwitzer 1997). The fur trade was probably a leading motive for these enterprises. The participants in this exchange with the Saami were still the local farming societies, but new actors were also introduced on the scene who once more involved the northern foragers in interaction with distant societies. These actors functioned on behalf of institutionalized economic systems and state interests, and introduced a totally new dimension in the interaction sphere of north Norway (Wallerström 1995). An interesting aspect of this development is that a considerable part of it once more involved the eastern area. This was, of course, connected to the expanding economic network of the city of Novgorod which established itself as an economic centre for the northern fur trade from the tenth century onward.

In the eleventh century, the local north Norwegian chieftains were defeated by the emerging all-Norwegian kingdom in a process which simultaneously converted Norwegian society to Christianity. The Saami, who during the Iron Age related more or less exclusively to 'their' local redistributive system, now encountered the power politics of surrounding state societies competing for the control of their resources. The economic, social, and religious changes in both the west and the east put the Saami in a far more pressed economic and cultural situation than earlier.

It is during this period, the Viking Age and early medieval period, that the Saami societies once again became 'visible' in the archaeological record. This new visibility also includes material patterns, which may reflect processes of cultural and ethnic consolidation, as well as social and economic 'stress'. A specific Saami burial custom (the 'scree graves') spread to an extensive area of northern Fennoscandinavia (Schanche 1997) (fig. 2.5). This burial practice had actually existed for more than one thousand years, but only in a small part of the north-easternmost Saami area (Varanger). Simultaneously, another ritual practice, bear burial, appeared frequently within the same area (Myrstad 1996; see fig. 2.8). Bear burials dating back to AD 200 are known from the Saami area, but before the Viking Age they were extremely rare and confined to a limited area. In addition, the Viking Age marks the beginning of the Saami ritual practice of metal sacrifice in the interior, and of metal hoarding on the margin of Saami territory as already discussed. During the same period, the

Fig. 2.8. Bear burial dated to AD 1000–1200 on the island of Spildra, northern Troms (photo: Lars Børge Myklevoll)

organization of Saami settlements in the interior became remarkably formalized—involving the arrangement of houses and hearths in a linear pattern (Storli 1994; Mulk 1995).

This flourishing and wide distribution of formalized material expressions was clearly linked to the social, economic, and religious changes among neighbouring societies. The fur trade led to increased production and pressure on resources, which may have increased internal contradictions, especially in relation to territorial rights. The pressure from outside must also have been felt as a threat towards central cultural and social values in Saami society. The collapse of the Norse chieftain system and the end of the pre-Christian Norse religion created a much tenser relationship between the Saami and their neighbours and trade partners. This may well explain why the homogenization of Saami culture, as reflected in material symbolism and custom, seems to have been expressed within the religious sphere and in ritual practice. Ritual material expressions and religious practices, which earlier had an ancient but geographically limited distribution, became accepted among most Saami speaking groups and may be seen as part of a process of ethnic and religious consolidation. Thus, the Viking Age and the early medieval period were times when many cultural traits which were previously regionally confined became generalized and widespread. They became part of a common set of signs, or a cultural code, that was used to express Saami cultural identity and belonging.

ABBREVIATIONS

NK Snorre Sturluson, *Norges Kongesagaer*, trans. by F. Hødnebø and H. Magerøy, Oslo: Gyldendal, 1979

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The Early Settlement of the Faroe Islands: The Creation of Cultural Identity

STEFFEN STUMMANN HANSEN

Introduction

In the north-east North Atlantic, approximately 675 km from the west coast of Norway, 459 km south-east of Iceland, 350 km north of the Hebrides (Western Isles), and 300 km north of Shetland, lies the archipelago of the Faroe Islands. The eighteen islands, of which seventeen are inhabited today, cover an area of 1397 km^2 and house a population of *c*. 45,000, with one third living in the capital Tórshavn. The archipelago has an extremely extensive coastline and nowhere on the islands is a distance of more than 5 km to the coast. The hills rise to a height of 882 m above sea level (fig. 3.1).

There is a very strong tradition that the islands were first settled by Scandinavians, mainly Norwegians, escaping the rule of King Harald Fairhair in the late ninth century. These Viking settlers organized themselves and established a governing assembly—the *Løgting* (the Faroese Parliament). Although the islands came under Norwegian and later Danish rule during most of the medieval and post-medieval period, the *Løgting* by and large kept its status. However, in 1816 it was disestablished and the islands became a separate county within the Kingdom of Denmark (and thereby under direct Danish rule). The Faroese *Løgting* was re-established in 1852, shortly after Denmark achieved its own democratic constitution in 1849, but then only as an advisory assembly.

Fig. 3.1. View from the top of the island of Kalsoy looking towards the northern isles of the Faroe Islands. At the bottom is the small settlement of Syðradalur. (photo: S. Stummann Hansen)

The Birth of Faroese Archaeology

In 1923 a rather peculiar discussion took place in the Faroese *Løgting*. For five days a very intensive, emotional, and at times hostile, debate developed regarding the question: Where did the Faroese come from, what was their ethnic and historical background? The debate took place in the wake of the recent visit to Norway by the leading Faroese Home Rule politician, and tenant of the medieval episcopal residence of Kirkjubøur in Streymoy, Jóannes Patursson (1866–1946). At the time, very nationalistic trends were prevalent in various parts of Norwegian society, which of course should be seen against the background that Norway had become a nation independent of Sweden just about twenty years earlier. The nationalists in Norway looked to the time when their nation was great. Even high-ranking individuals within the Norwegian establishment seriously claimed back for Norway what they termed 'the old empire of the Western Seas', that is the old tax-lands (Norwegian: *skatlande*) of the Scottish Isles, the Faroe Islands, Iceland, and Greenland. During his visit, Patursson did not miss the opportunity to promote the Faroese Home Rule cause, accusing Denmark of brutal colonial suppression of the Faroese nation.

The views he promoted were, of course, very welcome to the national movement in Norway and were widely referred to in Norwegian newspapers. These newspapers

also found their way to the Faroe Islands where they upset the political parties who were supportive of the constitutional links between the Faroe Islands and Denmark. They immediately requested an explanation by Patursson and it was then the debate developed.[1] Essential in this debate was, of course, the earliest settlement of the islands. The debate necessarily had to be based on traditions and the Norse sagas to a great extent as archaeology played no role in the Faroe Islands at the time. Archaeological evidence, therefore, could neither substantiate nor undermine any argument.

The establishment and development of archaeology and history in the Faroe Islands was closely linked to the Faroese national movement which, in many respects, had its base among the Faroese community in Copenhagen. Thus it is hardly surprising that many of those individuals who were dominant in the political spectrum also became active in building up antiquarian work and institutions in the Faroe Islands.

In 1890 the idea of having a collection of old Faroese artefacts was proposed by Patursson who had already become a central figure in the national movement (fig. 3.2). Then, at a public meeting in the *Ólavsøku* of 1898, an antiquarian society was founded in the Faroe Islands.[2] The society, which took the name *Føroya Forngripagoymsla*, was supposed to collect, preserve, and display artefacts (Thorsteinsson 1975). The motivation behind this initiative was primarily a general public desire to preserve material remains of the past. Another reason, however, was politically motivated as it was argued that such a collection would also serve the purpose of creating a Faroese national identity (Thorsteinsson 1975).

The *Ólavsøku* meeting elected an eighteen-member committee, and it was decided that Andrass Sámalsson (1873–1954) should acquire, record, and store the artefacts. Even though the collection was initiated immediately, it was to grow slowly. In 1900 it secured its first public financial support in the form of fifty Danish Kroner from the *Løgting*. This, however, did not speed up the rate of acquisition and in 1901 the committee could state that the society had more members than objects. The money from the *Løgting* was not even spent.

With the appointment of Rasmus Rasmussen (1871–1962), a high school teacher, as new chairman of the committee this deadlock was eventually overcome. Together with Andreas Christian Evensen (1874–1917) he travelled through the islands and acquired objects in such large numbers that the society went severely into debt. Rasmussen's effort was short-lived, but Evensen took over and continued collecting until his death in 1917.

Until then the collection was probably in private hands, but the work was formalized in 1916 with the establishment of the *Føroya Forngripafelag* (the Antiquarian

[1] The debate took place over the period 10–15 August and was subsequently published by the Faroese *Løgting* (Føroya Løgting 1923).

[2] *Ólavsøku* (the week of St Olaf) is an annual celebration in the Faroe Islands of St Olaf. It takes place during the first week of August when the *Løgting* assembles for a new parliamentary year.

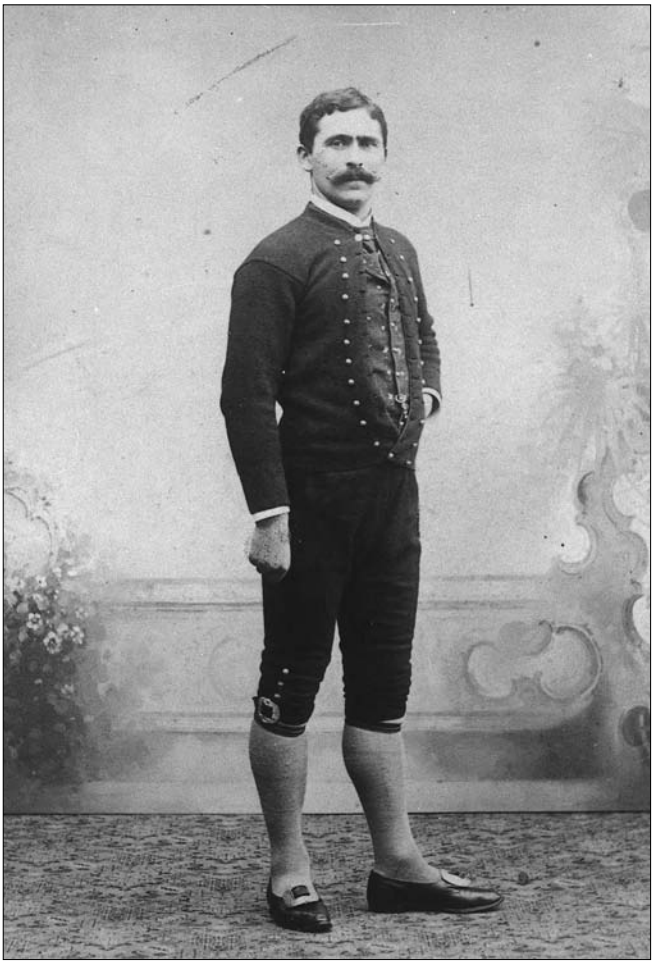

Fig. 3.2. Jóannes Patursson (1866–1946) was the tenant of the episcopal residence at Kirkjubøur. He became the central and leading figure in the national movement in the Faroe Islands. He was political chairman of the Home Rule Party (Danish: *Selvstyrepartiet*) from its foundation in 1906 until 1938. After having studied agronomy in Norway he became the main force behind the establishment in 1889 of *Føringafelag* (The Faroese Society). In 1901 he was elected as a member of the Danish parliament representing the rural liberal party. From 1901 until his death in 1946 he was a member of the Faroese *Løgting*. He tried from 1920 onwards to turn the *Løgting* into a legislative assembly, but this was denied by successive Danish governments. In 1936 he demanded the same standard of relations to Denmark which already existed between Denmark and Iceland. Among his chief works are *Færøsk Politik* (Faroese politics) from 1903, *Færøsk Selvstyre* (Faroese Home Rule) from 1931, and from 1939 *Føroya Søga I* (The history of the Faroe Islands, vol. I). (photo: Føroya Fornminnissavn)

Society of the Faroe Islands), the aim of which was to collect and store artefacts and antiquities and to provide support for their proper curation. Evensen was elected chairman, but died the following year.

The sources for the development of the Society over the following years are few, but in 1928 it seems to have been reorganized. Librarian Mads Andreas Jacobsen (1891–1944), Hans Andreas Djurhuus (1883–1951), Petra Djurhuus (1892–1975), and several others put a tremendous effort into the Society during the following years. In 1931 it acquired space under the roof of the library in Tórshavn where a permanent display was established.

Proper archaeological excavations were, however, still not being undertaken in the Faroe Islands. Although some of the above-mentioned antiquarians were carrying out small-scale excavations of house structures, these could not be termed proper, professional archaeological investigations. For instance, in the autumn of 1932, Jacobsen conducted excavations on house structures in the island of Streymoy together with Gudmund Hatt (1884–1960), a visiting Danish professor of human geography, who happened to be passing through the Faroe Islands on his way home from Greenland to Denmark (Stummann Hansen 2002).[3]

The Norwegian Connection

In 1919 *The Scientific Research Fund* in Norway initiated an ambitious project to record, investigate, and publish the Viking remains in the British Isles and Ireland. The results were published in six impressive volumes under the title *Viking Antiquities in Great Britain and Ireland* (Shetelig 1940–54).

In 1929 Anton W. Brøgger (1884–1951), a Viking specialist and professor of archaeology at the University of Oslo, published *Ancient Emigrants,* a book in which he described the Scandinavian expansion to the Scottish Isles during the Viking Age (Brøgger 1929). It was followed by his publication *Den norske bosetningen på Shetland-Orknøyene* (The Norwegian settlement in Shetland and Orkney) (Brøgger 1930).

The interest demonstrated by Brøgger and other Norwegian archaeologists on the subject of Viking emigration and settlement in the North Atlantic did not pass unnoticed in the Faroe Islands. Brøgger, as part of his research in the history of the Norwegian Viking emigration, had focused on the Faroe Islands. Patursson had already seen the potential in this and, taking into consideration his nationalistic attitudes and his prominent position in the national movement, it was hardly surprising that he, seemingly, developed the ambitious idea to produce, for the first time, a history of the Faroe Islands in the Faroese language. The resulting publication (project?), which was given the umbrella name of *Løgtingssøga Føroya* (The history

[3] Correspondence and notes in Gudmund Hatt's private archive (National Archives, Copenhagen). Also mentioned in Hatt's report of 14 May 1934 to the Carlsberg Foundation (Archives of the Carlsberg Foundation, Copenhagen).

of the Faroese *Lawthing*), was debated in the *Løgting* during the years *c*. 1930–35, when it was decided to allocate financial support for the project.

On invitation from the *Løgting,* Brøgger produced the first volume under the title *Hvusse Føroyar vorðu bygdar* (How the Faroe Islands were settled) (Brøgger 1937). An extract had, however, already been published two years earlier under the title *Den norske bosetning på Færøerne* (The Norwegian settlement in the Faroe Islands) (Brøgger 1935). Hardly surprisingly, Brøgger dedicated his book to Patursson. Despite this good start, Patursson's ambitious project was, for various reasons, never completed. In fact only Brøgger's first volume was ever published. It was, in many respects, probably as a result of this inspiring and talented Faroese and Norwegian cooperative project that a young student named Sverri Dahl (1910–87) entered the scene (fig. 3.3).

The Work of Sverri Dahl

Dahl started studying theology in Copenhagen in 1928 which he pursued until 1937–38, when he left to study archaeology in Norway. His interest in theology as well as in archaeology was, no doubt, inherited from his father, Jakob Dahl (1878–1944). The latter had been appointed rural dean for the Faroe Islands in 1917 and was to become the founder of the Faroese liturgical language. He was the first clergyman to hold religious services in the Faroese language solely. He was also a central figure in the national movement and was a member of Patursson's Home Rule Party. Hardly surprisingly, his appointment as rural dean was strongly protested against by the Danish chief administrative officer in the islands (Wählin 1994, 37).

It was probably on the recommendation of Johannes Brøndsted (1890–1965), lecturer of archaeology in Copenhagen, that Dahl arrived in Norway. He commenced his studies under Haakon Shetelig (1877–1955), professor of archaeology in Bergen, and continued them in Oslo. Here he soon became part of a small group of students who, during the final semesters up to the outbreak of the World War, were gathering around leading Norwegian Viking archaeologists, such as Professor Brøgger and Sigurd Grieg (1894–1973), curator of the *Oldsaksamlingen* (National Museum of Norway) in Oslo (Charlotte Blindheim pers. comm.). At this time, Norwegian Viking archaeology was strongly orientated towards the study of the western (Norwegian) Viking world, and Dahl, probably with great enthusiasm, attended Grieg's lectures on house structures. The contact with Grieg was later to develop into a life-long friendship (Turid Dahl pers. comm.).

Only little is known about Dahl's stay in Norway before the war. In 1938, Brøgger initiated a project on the great Norwegian mounds of the Migration and Viking periods and the following year he succeeded in raising funds for a project at the Raknehaugen in Romerike (Grieg 1941). Dahl participated in this excavation, which took place between 1 June and 27 October 1939 (Grieg 1941, 28).

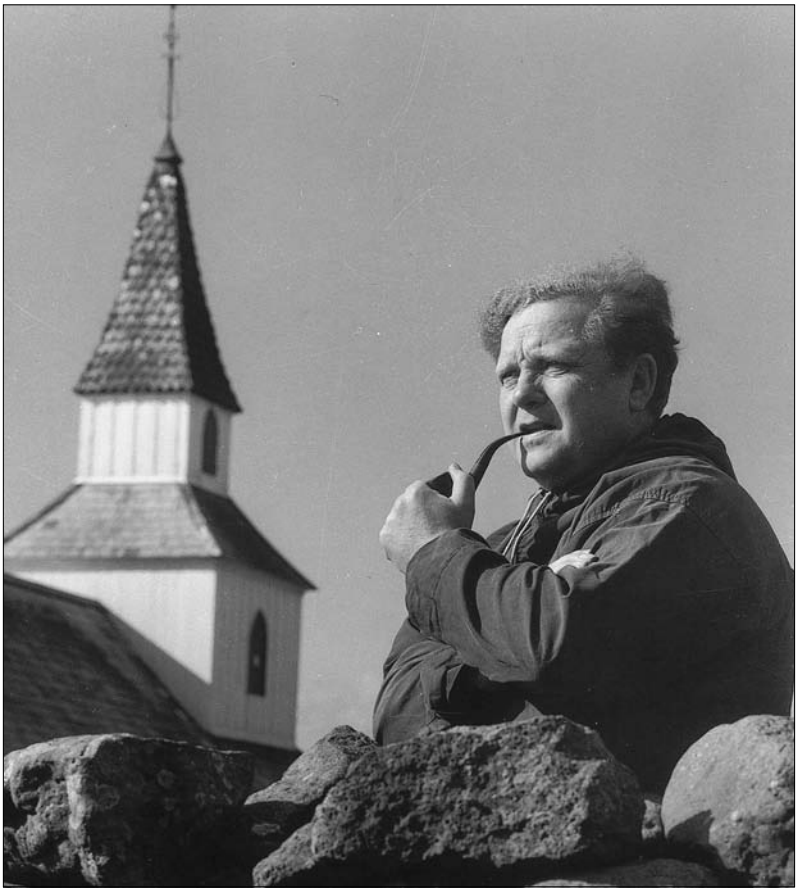

Fig. 3.3. Sverri Dahl (1910–87). Pioneer in Faroese archaeology and first Faroese State Antiquary. After the war Dahl continued his excavations in the Faroe Islands. In 1949 he also participated in the National Museum of Denmark's expedition to Norse Greenland. In 1956 he took part in the excavations at Bryggen in Bergen in order to gain experience in large-scale urban excavations. In August of the same year he, just for a few days, also participated in the archaeological investigation of the famous wooden medieval church at Urnes in Norway. This excavation was directed by Hákon Christie, the Norwegian historian, who, in 1953–54, was the Norwegian representative in a joint Scandinavian excavation project at the medieval Faroese episcopal residence at Kirkjubøur. The Faroese representative in this project, of course, was Dahl himself. His interest in the western parts of the Viking world and in the regional context of Faroese archaeological material was demonstrated through a number of journeys—for instance in 1964 to Orkney, Scotland, England, and Ireland. Likewise, he maintained an intense contact and communication with prominent Viking researchers throughout his career. (photo: Føroya Fornminnissavn)

A couple of months after the outbreak of the war Dahl decided to abandon his studies and return to the Faroe Islands. He was soon (1940) employed there as assistant at the collection of Føroya Forngripafelag, and in that same year he conducted his first archaeological investigation in the village of Syðragøtu in Eysturoy. The serious necessity for a proper standard of archaeological excavation was now met, and the activities of the society were expanded considerably. The huge number of objects uncovered during these excavations put further pressure on the little space that the society had acquired. Many of the excavated finds, as a temporary solution, were stored in the private homes of members of the managing board of the society.

The following year Dahl presented the first assumed house structures of the Viking Age at the site which later became almost synonymous with the Viking Age of the Faroe Islands, namely Niðri á Toft in the village of Kvívík on Streymoy. A proper excavation was organized in 1942 and was followed by further investigations in 1946 and 1950 (Dahl 1951; A.K. Matras 1995). These investigations resulted in the excavation of at least four house structures of which one, with curved walls, clearly dated to the Viking Age or the early medieval period. A relatively large number of artefacts were also uncovered during the excavations (figs 3.4–3.5).

Dahl published the results of his excavation in Faroese, with an English summary, in the Faroese journal *Varðin* (Dahl 1951). It is in many respects a fascinating article and clearly demonstrates the problems which Dahl faced. For instance, although he had acquired a first-hand knowledge of Norwegian Viking archaeology during his stay in Norway, hardly any house structures that could be unequivocally dated to the Viking Age had been excavated there. Jan Petersen (1887–1967), director of the Stavanger Museum in south-west Norway, had recorded a huge number of house structures with upstanding remains during the 1920–30s, but only one of these, at the site of Oma, south of Stavanger, seemed to be of convincing Viking character (Petersen 1933, 66–68). Petersen had, however, through his publications of Viking artefacts, provided extensive comparative material for any artefact studies (Petersen 1919; 1928; 1952).

The situation in the Scottish Isles was largely the same. Most of the material published by Shetelig and Grieg in *Viking Antiquities* derived from burials and hoards, and were thus not suitable for comparison with the finds from rural settlements. Shetelig could only refer to sites such as Freswick in Caithness (Childe 1943; A.O. Curle 1939; 1954), Brough of Birsay in Orkney, and Jarlshof in Shetland (A.O. Curle 1935; 1936; 1954).

With regard to the North Atlantic, Dahl could only consult the publication of the Pan-Scandinavian archaeological project of 1939 in Þjórsárdalur in Iceland (Stenberger 1943) and the reports of the Danish excavations of Norse farmsteads in Greenland (Nørlund 1930; Nørlund and Stenberger 1934; Roussell 1936; 1941), most of which were of medieval rather than Viking Age date.

In addition, only a limited number of publications of material from Viking settlements in southern Scandinavia were available. Poul Nørlund's (1888–1951) monograph from 1948 regarding the famous Viking fortress at Trelleborg in Denmark was

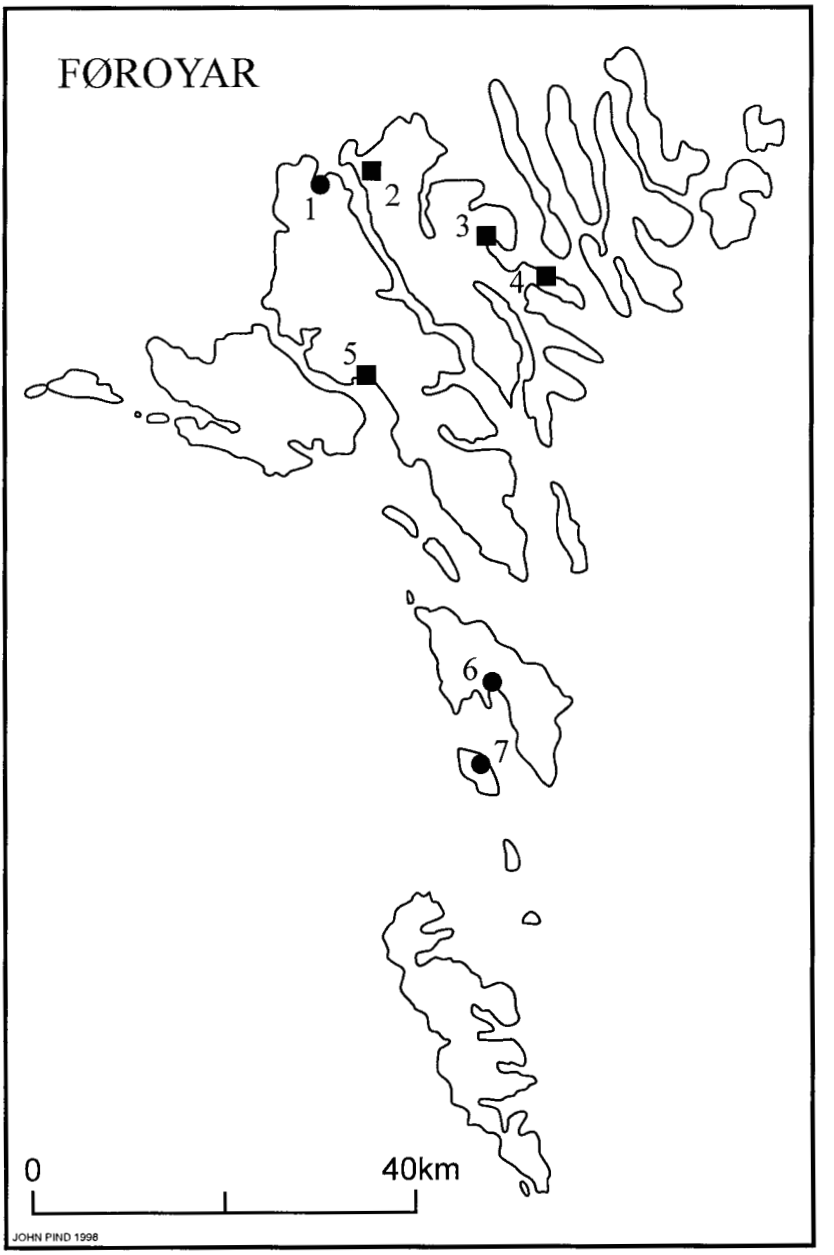

Fig. 3.4. Map of the Faroe Islands showing the archaeological sites mentioned in the text. 1. Yviri í Trøð (Tjørnuvík), 2. Argisbrekka (Eiði), 3. Við Gjógvará (Fuglafjørður) 4. Toftanes and í Uppistovubeitinum (Leirvík), 5. Niðri á Toft (Kvívík), 6. Ólandsgarður (Skúvoy), 7. Við Kirkjugarð (Sandur)

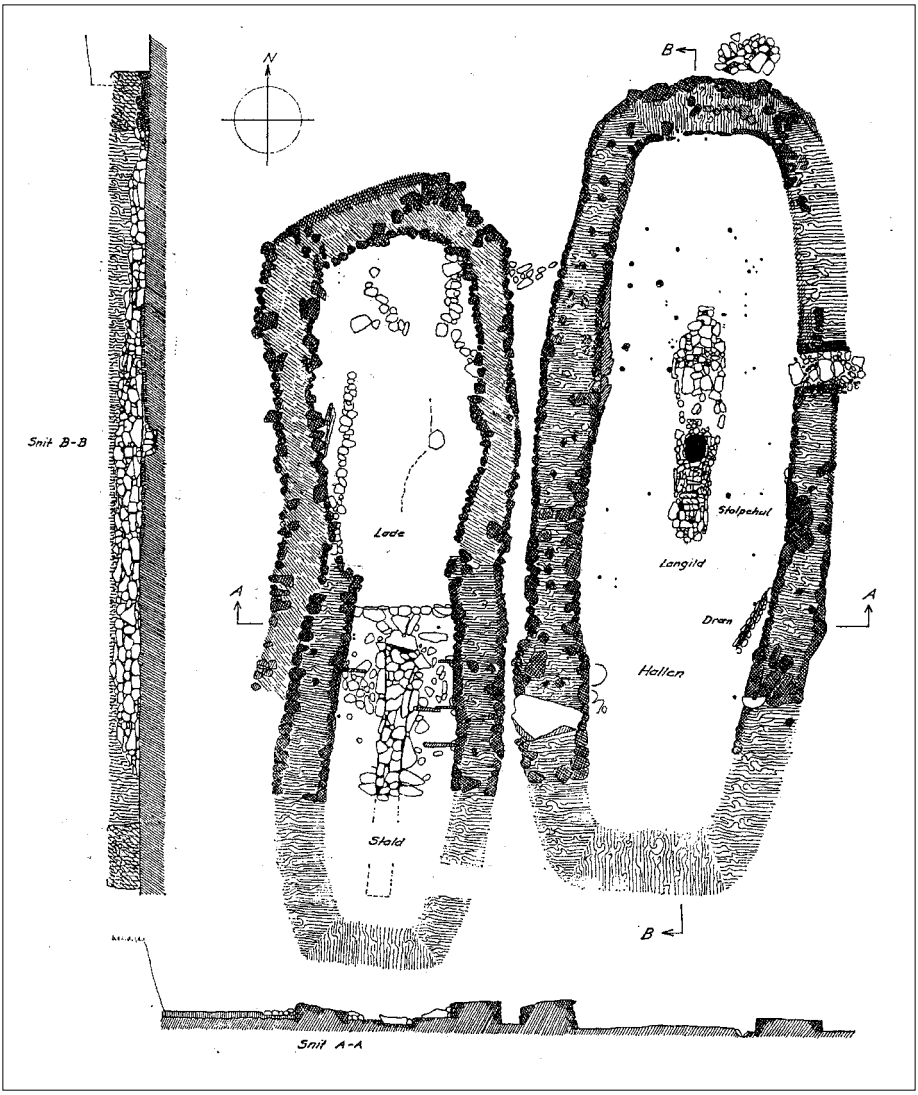

Fig. 3.5. Plan of the site of Niðri á Toft in Kvívík (after Dahl 1968). Scale 1:221

one of the few major publications which Dahl could consult for comparative purposes (Nørlund 1948).

With this very heterogeneous frame of reference, compiled from his personal experience and from publications relating to regions that widely differed geographically within the Viking world, and based on highly different academic traditions, it was not without reservations that Dahl wrote the concluding paragraphs in his article on Niðri á Toft in Kvívík. Dahl was very tentative in his conclusions being aware

that the question of the earliest settlement of a nation is a sensitive one. It was probably an intentional strategy of his to refer to leading scholars and colleagues abroad not only by their names but also by their titles and academic positions, thereby adding credibility to his own arguments.[4] After having discussed the artefact assemblage and the morphology of the house structures Dahl (1951, 93; my translation from Faroese) wrote:

> These artefacts, and the fact that the hall has the ancient characteristic of curved walls, point to the Viking Age. I dare not go any further than that at the moment, but hopefully the day will soon come when the Faroese soil will yield up its first definite Viking Age objects.

The ultimate archaeological confirmation of Viking Age settlement in the Faroe Islands, which Dahl was forecasting in the above-mentioned quotation, turned up a few years later when the first Viking cemetery was located at the site known as Yviri í Trøð in Tjørnuvík on Streymoy. Here twelve poorly furnished and sparsely equipped graves were excavated, one of which contained a bronze ringed pin of Hiberno-Scandinavian type (Dahl and Rasmussen 1956). On the evidence of this tenth-century pin, Dahl (Dahl and Rasmussen 1956, 165; my translation from Faroese) eventually could state that

> the graves in Tjørnuvík are beyond doubt from the Viking Age. The burial customs have their closest parallels in Norway, but the graves themselves can best be paralleled with Norse Viking graves from the neighbouring archipelagos south of the Faroe Islands.

Dahl's pioneering work was to become the initial step in establishing archaeological science in the Faroe Islands. The sites Niðri á Toft in Kvívík, Yviri í Trøð in Tjørnuvík, and Við Gjógvará in Fuglafjørður are today inextricably bound up with the name of Sverri Dahl (Dahl 1951; 1958; 1971a; 1971b; Dahl and Rasmussen 1956). These investigations gradually produced substantial archaeological evidence of the Scandinavian *landnám* in the Viking Age, thus supporting in general the information from written sources such as the so-called *Færeyinga Saga* (*Saga of the Faroe Islanders*).

Viking Age Settlement

The *Saga of the Faroe Islanders* is a compilation of several fragments of various sagas which were probably all written *c*. AD 1200. It records that the first settler was

[4] Dahl referred to Jan Petersen (director of the Stavanger Museum), Kristján Eldjárn (director of the National Museum of Iceland), Haakon Shetelig (professor of archaeology in Bergen), Sigurd Grieg (curator at the National Museum of Norway), and Holger Arbman (professor of archaeology in Lund, Sweden).

named Grímr Kamban and that he arrived in the Faroe Islands during the reign of the Norwegian king Harald Fairhair (Foote 1965). If one is to believe the statements of the saga, the settlement of the Faroe Islands must have commenced at the time of the Battle of Hafrsfjorð (*c*. AD 872) where Fairhair allegedly gained total supremacy over Norway.

The saga, however, further states that Grímr Kamban's grandchild took part in the *landnám* of Iceland, which is traditionally dated to the 870s. If this is to be believed, Grímr Kamban cannot be consigned to the reign of Harald Fairhair (Halldórsson 1961). Attempts to solve this chronological problem have been made, dating Grímr Kamban and thereby the *landnám* in the Faroe Islands back to *c*. 825. Even if this interpretation of the information in the saga were to be accepted, it has to be noted that most of the historical events it described seem to have taken place in the late tenth century. Thus they are not related to the *landnám* process, but rather to the attempts by successive Norwegian kings to subdue and control the islands.

Dahl's excavations demonstrated convincingly that Viking Age farmsteads could be located and investigated in the Faroe Islands and that they tended to occur close to present-day farms. Although the excavated Viking Age settlements produced huge numbers of objects, it has, in practice, proved difficult to suggest more than just a rough dating of the excavated structures. Thus, in the light of present knowledge, it is obvious that a number of sites which he assigned to the Viking Age must be dated to the medieval period instead. In addition, it was difficult for Dahl to achieve a good overall view of Viking Age farmsteads, as only rather limited areas were normally available to him for excavation.

The last decades have seen increased levels of archaeological activity in the Faroe Islands and, especially in the 1980s, some large-scale rescue excavations of settlements have taken place. For the first time since the era of Dahl's investigations *Føroya Fornminnissavn* (the National Museum of the Faroe Islands) had an opportunity to excavate a Viking Age settlement at the site called Toftanes in the village of Leirvík (Stummann Hansen 1988; 1989; 1991; 1993) (figs 3.4 and 3.6). The excavation uncovered four contemporary buildings, all forming part of the same farmstead. In its initial phase, however, the farmstead only consisted of two parallel buildings, houses I and II (fig. 3.7), with house II functioning as the dwelling (with a byre in the lower-lying end) while house I was interpreted as an outhouse. The site produced a huge amount of artefacts and can, on the basis of this, be dated to the ninth to tenth centuries AD. A corroboration of the archaeological dating has been provided by three radiocarbon dates from floor-layers in building I, which provide a calibrated range of AD 870–1020 (at one sigma) or AD 780–1040 (at two sigma) (Stummann Hansen 1988, 75; Edwards and others 1998, 181).

Compared to the excavations conducted by Dahl, the area investigated at Toftanes was far more extensive (approximately 900 m^2) thereby providing the potential for not only a more detailed understanding of the character and extension of a Viking settlement, but also for its meaningful comparison with other sites which have been subjected to large-scale excavation. Thus it seems that, on the basis of its artefact

Fig. 3.6. View from the top of Kalsoy over the village of Leirvík (photo: S. Stummann Hansen)

assemblage as well as its layout, the second phase of Toftanes with its four buildings can be paralleled with the earliest Scandinavian phase at Jarlshof in Shetland. Each site is characterized by two oblong buildings with two smaller outhouses or extensions (Stummann Hansen 1996a, 123; 1996b, 53).

Another important site to be excavated in the 1980s was that of Argisbrekka near the northern tip of Eysturoy (Mahler 1991a) (fig. 3.4). This site, which comprised some seventeen buildings, was interpreted by the excavator as a shieling or *sæter* and was dated to the Viking Age and medieval period. This excavation formed the starting point for a renewed interest in the whole concept of shielings as a part of the economy in the Viking Age of the North Atlantic (Mahler 1991a; 1991b; 1993; 1996).

The graves from the site Yviri í Trøð were until a few years ago the only known Viking graves in the Faroe Islands. In 1989 another Viking cemetery was found at the site Við Kirkjugarð in the village of Sandur on Sandoy (Arge and Hartmann 1992) (fig. 3.4). Here at least twelve east-west orientated graves were excavated. Very little skeletal material was preserved and the graves, like those in Tjørnuvík, were in general rather poorly equipped with grave-goods. The excavators have so far been very reluctant to assign any firm date to the cemetery or to venture whether it represents a Christian or a pagan population (Arge and Hartmann 1992, 20).

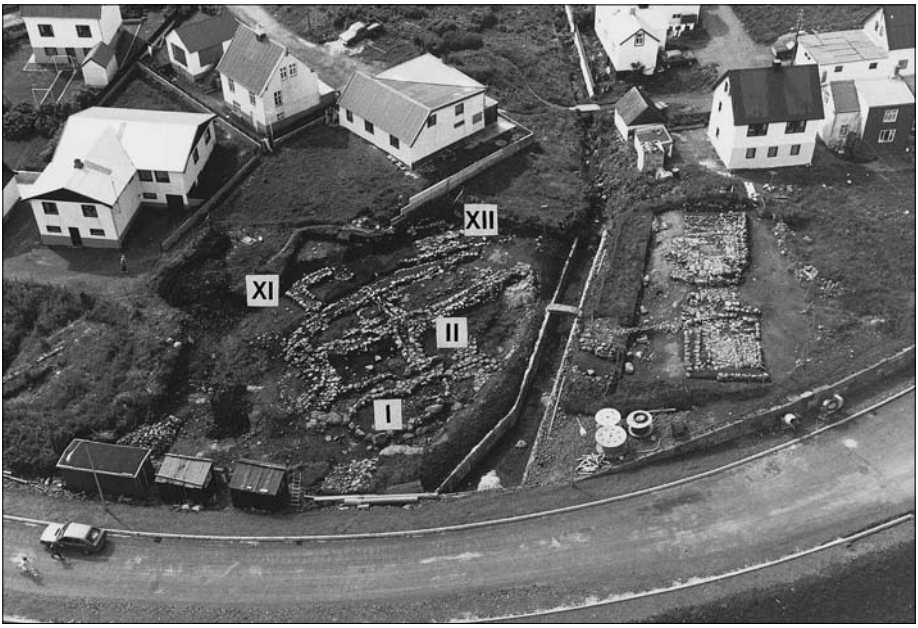

Fig. 3.7. Aerial view of the excavation of the Viking Age farmstead at Toftanes, Faroe Islands. I: outhouse, II: dwelling-house, XI: additional outhouse, XII: fire-house. The building just above the Viking site is the present day farm at Toftanes. (photo: Steffen Stummann Hansen/Føroya Fornminnissavn)

The Material Culture of the Viking Emigrants

The material from burials and stray finds in the Faroe Islands is sparse and thus of limited value at the moment. However, the archaeological material from excavated settlements is varied and quite extensive.

Shards of soapstone (Old Norse: *klebersten*) vessels are very common on settlement sites from the Viking Age. In fact, the Viking Age in the North Atlantic is considered to be aceramic, for pottery seems to have been completely substituted by soapstone vessels. In the Faroe Islands the Viking Age phases at the sites of Niðri á Toft, Við Gjógvará, and Toftanes all appear to be aceramic (Stummann Hansen 1988, 75). It is obvious that the Scandinavian settlers preferred soapstone and it is very common for shards from broken vessels to be reused for other purposes—for instance as spindle whorls, net and line sinkers, or weights.

While the only types of stone to be found in the Faroe Islands are basalt and tuff, it is usually accepted that the soapstone recovered there derives from Norway, either as imports obtained by trade or as part of an initial cargo at the time of the settlement. This situation differs, for instance, from Shetland where soapstone occurs locally. There it has been documented, through the identification of quarries, that

soapstone was exploited for the manufacture of vessels during the Norse period (Hamilton 1956, 206; Butler 1989).

It is interesting to note that most of the soapstone shards from Toftanes have been secondarily worked, many of them into spindle whorls. The same trend was characteristic of the earliest Scandinavian phase at Jarlshof in Shetland (Hamilton 1956, 207), which might indicate that the vessels belonging to this phase were imported (Hamilton 1956, 130). The equally extensive number of shards from the late Viking/early medieval site at Underhoull in Unst, Shetland (Small 1967), show hardly any signs of having been secondarily worked. This might indicate that either soapstone was not as easily available to the Scandinavian settlers in the Faroe Islands as it was in Shetland, where natural sources were abundant, or that the Shetland soapstone industry had been established by the later period and could easily provide the settlements with all the items that they required (Stummann Hansen 1998, 126).

The exploitation of soapstone in Shetland may have differed from that in Norway where there is also an abundance of natural outcrops of this type of stone (Skjølsvold 1961; Resi 1979). The industry in Norway may have supplied large markets in the towns of Viking Age Scandinavia, while Shetland remained a wholly rural society throughout the Viking and medieval periods (Butler 1989, 204). This does not, however, exclude the possibility that the soapstone industry in Shetland may have supplied other rural communities in the North Atlantic, for instance in the Faroe Islands. Unfortunately, attempts to determine at which quarry a given object was produced have proven fruitless (Butler 1989, 204).[5]

Another type of stone that was necessary for daily life was schist. As with soapstone, it does not occur in the Faroe Islands and therefore had to be imported either as raw material or as semi-manufactured or manufactured items. It was used for whetstones and quern stones, which occur at all Viking Age settlement sites. The schist used for whetstones is of at least two different types, since both light, coarse-grained and dark, more fine-grained types are represented. The source of the first type has been identified as Eidsborg in Norway (Myrvoll 1985; Mitchell and others 1984), but the origin of the dark schist has not yet been established. Although it cannot be stated unequivocally, there is good reason to suggest many whetstones of light schist found on North Atlantic sites do originate from Eidsborg, reflecting links of communication and exchange between Norway and the emigrant communities in the North Atlantic.

Querns of schist, both complete and fragmentary, have been found at Toftanes and Niðri á Toft. One of the two intact examples from Toftanes was furnished with a groove for the insertion of iron bars on its under surface and a collar around the central hole on its upper surface (Stummann Hansen 1993, 482–83). These features seem to occur commonly in the western part of the Viking world, as it is represented

[5] More research on the geological source of steatite objects from settlement sites is badly needed. Such a project has the potential, as has already been pointed out by Small, to provide a statistical determination of trade patterns in the North Atlantic (Small 1970, 183).

in, for instance, Shetland (Hamilton 1956, pl. XXXV: 10–11) and Greenland (Krogh 1982, 105). To my knowledge it is not evidenced in Scandinavia during the Viking Age, but similar finds are known from mainland Scotland and the Scottish isles. The origin of this form of quern, therefore, is probably to be sought in the south (Stummann Hansen 1993, 478, fig. 31.8).

At Toftanes a fragment of an armlet of jet was found (Stummann Hansen 1993, 481–82).[6] Similar armlets are known from Viking Age graves in Iceland (Eldjárn 1956, 332, fig. 148), Orkney (Grieg 1940, 86, fig. 47), and Caithness on the Scottish mainland (Grieg 1940, 24, fig. 8). Fragments of armlets of jet or jet-like materials were also found on settlement sites at the Brough of Birsay, Orkney (C.L. Curle 1982, 66), and Jarlshof, Shetland (Hamilton 1956, fig. 56: 7), while jet armlets, finger rings, and raw material were also abundant in Viking Dublin (Wallace and Ó Floinn 1988, 22). Although jet originates from deposits in Whitby, near York, there is good reason to suggest that those armlets from sites in the North Atlantic were actually produced in Dublin (Stummann Hansen 1993, 481). Jet objects have also been found in Norway, where their find spots concentrate in its south-western parts (Shetelig 1946, 9; Wamers 1985, 71, 117).

The amount and variety of metalwork is rather poor in general. As mentioned above, the graves in the Faroe Islands are poorly equipped with grave-goods, and metalwork occurs only in small quantities on settlement sites. One metalwork item, however, is represented on several sites in the North Atlantic, including the Faroe Islands, and that is the ringed pin of Hiberno-Scandinavian type (Fanning 1983; 1994). In the Faroe Islands these have been found at Toftanes (Stummann Hansen 1988, 69, fig. 9; 1991, 49, fig. 9; 1993, 479), Argisbrekka (Mahler 1991a, 66), and Yviri í Trøð (Dahl and Rasmussen 1956, 162) (fig. 3.8). Most of these pins belong to the polyhedral-headed type, whose distribution is largely confined to the western part of the Viking world. They have mostly been found in Ireland, the Isle of Man, Scotland, the Western Isles, Orkney, Shetland, the Faroe Islands, Iceland, and Newfoundland (Fanning 1983; 1994). Their distribution pattern seems to correspond to that of the jet armlets of the tenth century (fig. 3.9).

Iron was, of course, a very important metal to the settlers, needed for knives, locks, needles, scissors, sickles, scythes, boat rivets, and fishhooks among other objects. Unfortunately, however, iron objects preserve poorly in the soils of the Faroe Islands (Arge 1993b, 21). It has proven difficult to establish from the few preserved objects from Viking contexts whether they were imported or the work of a local smith. Nevertheless, there is other archaeological evidence for local smithing, namely forge stones, moulds for casting, and slag (Arge 1993b, 21).

The forge stones, which have been found at Argisbrekka and Toftanes, for example, were normally produced of shards from soapstone vessels, but also occur in tuff, as is the case with the moulds. Slag occurs frequently at the Viking sites and

[6] The material has been kindly identified by Dr. Fraser Hunter (pers. comm.), National Museums of Scotland.

seems to reflect a smithing process. Of special interest is the above mentioned site of Við Kirkjugarð. During an excavation here in 1980, a pit filled with ash, slag, and iron was found. It has been interpreted by the excavator as evidence of a smithing or smelting industry (Diklev 1981, 18; Arge 1993b, 23).

While there is rather substantial archaeological evidence for smithing in the Viking Age, there is still no physical evidence of an iron extraction industry. It is a possibility that bog iron was extracted, while peat could be an important fuel in the treeless islands. As pointed out by Símun Arge (1993b), however, this is a topic which needs to be studied more closely before anything definitive can be concluded.

One very important body of material is wood. The conditions for survival of wooden objects seem to be optimal on most Faroese sites. The Viking Age sites Niðri á Toft, Við Gjógvará, Argisbrekka, and Toftanes have all yielded large numbers of wooden objects which, in quantity as well as quality, can be compared to those of urban Viking sites like York and Dublin (see, for instance, Arge 1995; Dahl 1951; 1979; Larsen 1991; Mahler 1986; Stummann Hansen 1988; 1991).

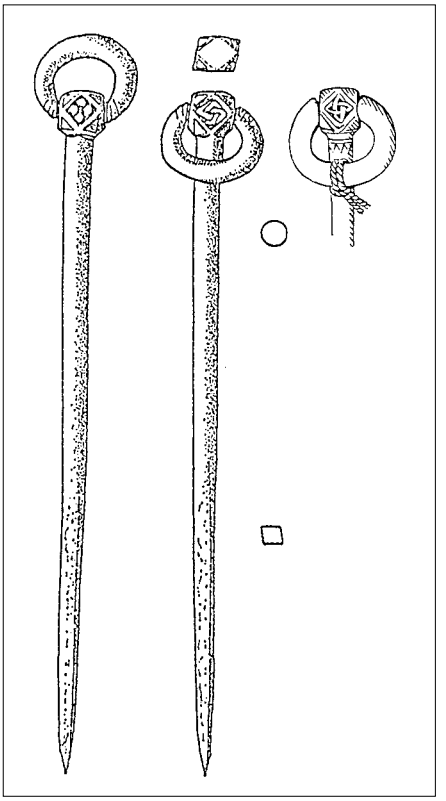

Fig. 3.8. Polyhedral-headed bronze ringed pin of Hiberno-Norse type from Toftanes (drawing: Aa. Andersen) and, to the right, head of ring from Yviri í Trøð (after Dahl and Rasmussen 1956). Scale 1:1.33

Of four wooden bowls from Toftanes, totally or partially preserved, three were made of alder (*Alnus*), while one—a cheese bowl—was made of common spruce (*Picea abies*) (Stummann Hansen 1988, 77). As none of the other wooden objects identified to date were made of alder, there is certainly an indication in this evidence that the Scandinavians were selective in their use of wood species for different purposes.

A more spectacular find is that of a wooden gaming board with the old Norse game of *hneftafl* carved on its underside, while on the upper side the game of 'Nine Men's Morris' was carved (Stummann Hansen 1988, 72–73). The nearest parallel to this gaming board from Toftanes derives from the famous tenth-century boat grave at Gokstad in the Oslo Fjord area in Norway (Nicolaysen 1882, 46, pl. VIII). Another group of finds are small carved boat models which must be interpreted as toys. Parallels for these have been found on other Viking settlements in the Faroe Islands and elsewhere in the Viking world (Dahl 1979, fig. 1c; Mahler 1986).

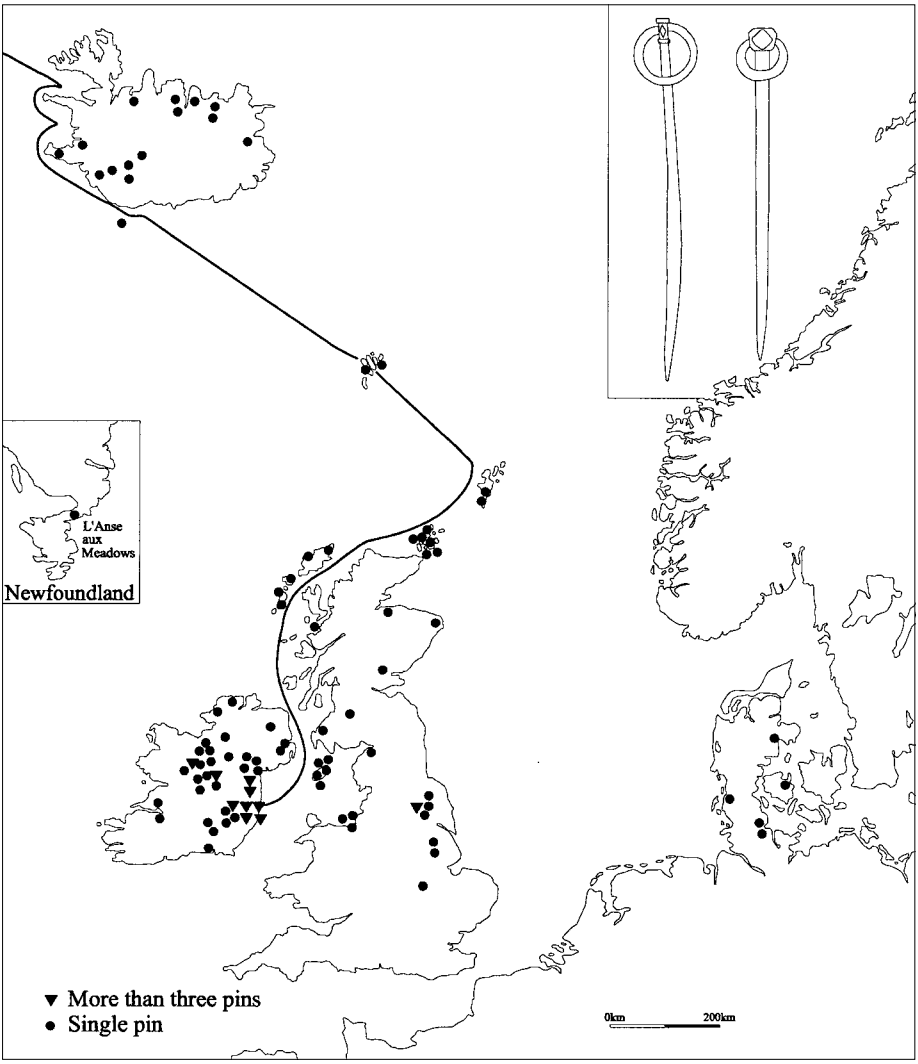

Fig. 3.9. The distribution of plain-ringed baluster- and polyhedral-headed ringed pins in conjunction with the western sea-routes of the Vikings (T. Simpson after Fanning 1994)

In the treeless islands the settlers were very dependant on supplies of driftwood. While driftwood further south in the North Atlantic has been regarded as coming from the North American continent (Dickson 1992), much of the wood on the Faroese sites is normally accepted as being from Siberia, for instance *Larix* (larch) and *Picea* (spruce), which is also evidenced in the material from Argisbrekka and

Toftanes (Malmros 1994; Christensen 1998). Nevertheless, there is no doubt that timber and wooden objects were imported and traded in the North Atlantic. Normally one would think that timber came from Norway. On the other hand saga-sources actually suggest, as already mentioned by Small (1970, 181), that timber could also be imported from Scotland and the Western Isles.

Through pollen analysis and wood identification it can now be established that a significant amount of the wood from the Faroese sites seems to be of local origin, thereby indicating that the islands were not as treeless as is frequently assumed. Thus broad-leafed birch (*Betula*), willow (*Salix*), aspen (*Populus*), and juniper (*Juniperus*) all seem to have been present at the time of the Scandinavian arrival (Malmros 1994; Christensen 1998) while hazel (*Corylus*) seems to have been introduced by the settlers which is evidenced in, among other things, a rather high number of hazel nuts found in the floor-layers of the Viking houses.

One of the wood species which seems to have been extremely useful to the emigrants was juniper. The exploitation of juniper for different purposes—wicker-work, for example—was known in Norway, and this practice was maintained by the Scandinavian settlers in the Faroe Islands (Stummann Hansen 1988, 72; Larsen 1991). At all Faroese settlement sites mentioned in the text an extensive group of finds consists of cords of twined juniper branches which served a number of different purposes (keeping barrel staves together, for example) (Stummann Hansen 1988, 72; Larsen 1991). Pollen diagrams from the Faroe Islands show that the immigrants quite rapidly decimated the species. It seems to have survived at a lower level during the medieval period which might indicate that because of its extreme usefulness it was deliberately protected from sheep and other animals. Today it occurs only in a few remote places in the mountains. The character of the human impact and the reasons for the juniper decline have become a matter of debate in recent years (Stummann Hansen 1988, 77; Jóhansen 1971, 151; 1985, 55, Larsen 1991, 54; Small 1992, 3).

The Architecture of the Vikings

Over the past number of decades research into farmsteads and settlement patterns in southern Scandinavia (Becker and others 1980; Hvass 1993) and in south-western Norway (Myhre 1982) has made it possible to establish a typology of Iron Age and medieval architecture and, in addition, has demonstrated the similarities in building traditions between south-western Norway and Jutland in western Denmark (Hvass 1979; Myhre 1982). In his analysis of the Migration Period material from south-western Norway, Bjørn Myhre (1982, 206) describes the typical farmstead there:

> There is a clear tendency to arrange the longhouses parallel in the yard. [. . .] Out of 21 well-mapped yards with two parallel longhouses, six have an open yard between them, seven only a narrow passage, while at eight yards the houses lay wall to wall. Similar arrangements of the houses in the yards can be found e.g. at Vorbasse in Jutland.

This similarity in the architecture of the Migration Period buildings has recently been demonstrated for the Viking Age as well (Stummann Hansen 1998; 1999). Although most of the Faroese settlements have been only partly (Niðri á Toft and Við Gjógvará) or almost completely (Toftanes) excavated, a rather clear picture seems to emerge. At Niðri á Toft, as well as at Toftanes, the earliest phase is characterized by two parallel buildings with one of these obviously being the dwelling with the classic longfire along its axis. At Toftanes a byre was documented in the lower-lying end of the building (Stummann Hansen 1998; 1999). At Niðri á Toft Dahl proposed an alternative interpretation by suggesting that the smaller building was the byre (fig. 3.5). While it has been documented at Toftanes that the two buildings are contemporary, this is not the case at Niðri á Toft. Recently, the site of Niðri á Toft has been reanalysed and reinterpreted by Anna Katrin Matras who concludes that there might very well have been a byre in the lower-lying end of the dwelling house here too, as well as a structure beneath the building which was interpreted as a byre by Dahl (A.K. Matras 1995). The topographical setting of the dwelling houses is also notable. At Niðri á Toft, Við Gjógvará, and Toftanes the buildings were aligned downslope, and in all three cases it can be assumed that the byre was situated in their lower-lying ends.

Even though the comparative material is still rather limited, the Faroese longhouses of the ninth to tenth century form part of a group of similar house structures identified or excavated in other Scandinavian emigrant communities in Orkney and Shetland. Buildings of the same scale and with similar morphological features, as well as the same topographical setting, are known from, for instance, the Brough of Birsay in Mainland Orkney (Radford 1959, 21–23), Jarlshof (Phase 1) in Mainland Shetland (Hamilton 1956, 107), Hamar in Unst, Shetland (Stummann Hansen 1998, 128; 1999; 2000), and Setters (Larsen 1997; Stummann Hansen 2000). A trial excavation at Hamar has demonstrated that there were benches along the walls in the upper part of the house (Stummann Hansen 2000, 90–91).

In south-west Norway a longhouse, of the same morphological layout, size, and topographical setting, was excavated at the site of Oma in Rogaland in 1931 (Petersen 1933, 66–68; Myhre 1980, 345–47). The site was dated by the excavator to the early medieval period or, at the earliest, the late Viking Age (Petersen 1933, 66–68; Myhre 1980, 345–47) and, according to Petersen as well as Myhre, there was no byre in the house. Through ongoing re-excavations at this classic site it has recently been possible to establish evidence for the existence of a byre in the lower-lying end of the house, thereby establishing a link between the architecture of the emigrant communities and that of one of their assumed regions of origin (Stummann Hansen 1999).

Thus it seems that the Viking houses in the Scandinavian emigrant communities of the Orkney, Shetland, and Faroe Islands, as well as south-west Norway, are typically aligned downslope. This characteristic may be explained by the necessity of constructing the byre in the lower-lying end of the building. The topography was apparently more important for the location of such houses than, as often presumed, the prevailing wind direction.

By having byre and dwelling under the same roof this group of houses differs from the early medieval farmsteads known from Iceland and Greenland, where the byre always occurs as a separate building. The question, therefore, is whether a geographical or a chronological factor explains this. At the site Vorbasse in Jutland, Denmark, an extensive rural Viking settlement was excavated during the 1970s (Hvass 1980). The first phase of the settlement was characterized by farmsteads with byre and dwelling under the same roof but, when the settlement was restructured later in the Viking Age, this pattern altered and the byres became separate buildings. This phase of reorganization can now be dated by dendrochronology to after AD 950 (Stummann Hansen 1999). The second phase of the settlement is characterized by its famous Viking halls of the Trelleborg type. The earliest dates for this type of building derive from the fortresses of Trelleborg and Fyrkat, which have now been safely dated by dendrochronology to AD 980/981 (Olsen 1980; Bonde and Christensen 1984). Thus it seems that the change from byre-dwellings to dwelling and byre as separate buildings took place between AD 950 and 980 (Stummann Hansen 1999).

A Viking Farmstead in the Faroe Islands: A Model

There seems to be a strong tendency in Norse archaeology to deal with the Faroe Islands and the Shetlands as a more or less defined unit. This tradition of combining and comparing the two groups of islands has materialized in various fields of research, including environmental studies (Jóhansen 1985), place-name studies (MacGregor 1984; 1986), and human geography and archaeology (Small 1969).

As far as environmental conditions are concerned, the differences between the Faroe Islands and the Shetlands are few when compared to their difference to the west Norwegian landscape. As pointed out by Alan Small, these latter differences are of such magnitude that they must have presented the Scandinavian settlers with many problems in their new and alien environment (Small 1970, 179). In addition, the Faroe Islands and the Shetlands differ from Orkney and the coasts of Caithness in Scotland to the south, for their landscapes are much more hilly and mountainous and have relatively less land with agricultural potential.

Despite the similarities, there are certainly environmental differences between the two groups of islands. For instance, the mountains of the Faroe Islands rise to a height of nearly 900 m, while the highest mountains on Shetland achieve only about half this height. Consequently, the land available for agriculture is much more scarce in the Faroe Islands, where settlements are restricted to low-lying coastal areas.

In spite of such differences, Small found the similarities between the topography of the Shetland and Faroe Islands to be sufficient to allow him to propose a 'geographical model' for the Scandinavian settlement in the two archipelagos, stressing that the environmental conditions of both groups of islands only facilitated settlement in a rather limited range of areas (Small 1969, figs. 1–2). This model was based on the following preconditions for foundation of a primary Scandinavian

farmstead: 1) access to the sea, with a reasonable site for pulling up a boat; 2) a patch of fairly flat, reasonably well-drained land, suitable for the construction of a farmstead and with the potential for some cereal cultivation; and 3) extensive grazing areas, since the numbers of livestock which the poor vegetation of the islands could support would be rather low (Small 1969, 149). One could add access to fresh water to these preconditions.

Viking Age settlement sites in the Faroe Islands fit this model well (Stummann Hansen 1988, 78). Given that more research into the Scandinavian settlement has been conducted since Small's publication, however, a more detailed model can now be proposed for a *landnám*-phase farmstead.

Until the end of the nineteenth century the population of the Faroe Islands was predominantly composed of farming communities. Although fishing, fowling, whaling, and cattle and sheep breeding had great economic importance, the rights to exercise these secondary occupations were closely dependant on the ownership of land. As stated by Thorsteinsson (1981, 189):

> Landed property or the right to use it was therefore the dominant factor in society and, apart from purely geographical circumstances, the determining motive in the development of settlements.

Around the year AD 1600 the settlements consisted of approximately eighty-five villages which were often subdivided into groups of houses (Faroese: *býlingar*). These *býlingar*, situated in what could be termed the settlement areas (Faroese: *heimrustir*), were clearly separated from each other and had their own infields attached. Within these areas (Wåhlin 1989, 29)

> up to late in the nineteenth century, the backbone of society was the solid farmer on his middle-size farm, where the families delivered most of the manual work and consumed most of the production. The small-holders and farmhands and maids were linked by many bonds to the couple of hundred farms of this type, which could number up to 20 people, but normally the number of family members and servants did not exceed 10.

Thus the population, and thereby the working force, was concentrated on rather few major farms (Faroese: *býlinger*) which constituted the backbone of the Faroese settlement structure as expressed in the villages (Faroese: *bygdir*). Rights to the outfield areas were determined by ownership of land. The settlement areas have been legally fixed from an early period and may even encompass one thousand years of farm history.

Despite the increase in archaeological evidence, modern research into the early settlement patterns still depends on the results of only a small number of archaeological excavations. The importance of such work is probably best demonstrated in the village of Leirvík, where the excavation of Toftanes within the last ten years has now been supplemented by the investigation of another farmstead, Uppistovubeitinum,

that was probably abandoned in the medieval period (Arge 1997a; 1997b). The village of Sandavágur, at Vágoy, has also been the subject of a number of archaeological excavations the results of which allow for a more detailed study of its settlement pattern (Arge 1997b).

There are no grain-growing areas in the Faroe Islands today, but this picture was different in the Viking Age. It has been possible to identify pollen of barley type and it is fair to assume that cereal cultivation played an important role in the Viking Age economy. In this context, another widely occurring feature which must have been of importance to the early Scandinavian settlement is that of the horizontal mill (Batey 1993; Stummann Hansen and Larsen 2000; but cf. L. Debes 1673; Svabo 1782, 279–80; Landt 1800, 181; Williamson 1948, 222).

Against this background, the following model for a Viking farmstead in the Faroe Islands is suggested:

1) It consisted of at least two buildings, situated parallel to one another. One comprised a longhouse of *c*. 22 m in length, with classic Viking Age features, such as a longfire along the axis of the house and curved walls. The standard form contained three rooms separated by divisional walls: the upper room was probably for sleeping, the central was what could be termed the living room, with its fireplace, while the lower room contained the byre. The house may have had a sunken floor in its upper part. Alongside this building was situated another oblong one which must be interpreted as an outhouse.
2) The longhouse was aligned downslope with the byre located in its lower-lying end; from there a drain ran out through an opening in the gable. Outside and below the byre end there was a pit for collecting the outflow from this drain (this has been documented at Toftanes). The fact that the houses were aligned downslope may, in some cases, mean that there was an upper floor in the lower-lying end.
3) The farmsteads were situated close to a stream (Niðri á Toft, Við Gjógvará, Toftanes) where a horizontal mill probably functioned.

Pre–Viking Age Activity in the Faroe Islands?

While archaeological confirmation of the Viking Age Scandinavian *landnám* may be safely established there has been less certainty regarding the question of earlier activity in the islands. It has been known for some time that the archipelagos north of mainland Scotland—the Orkney and Shetland Islands—were already inhabited during at least the Mesolithic and Neolithic periods respectively (Ritchie 1995, 20–21). Thus, these two archipelagos were parts of a wider world, with early possibilities for communication and contact with surrounding communities.

From even the most northerly of the two archipelagos, Shetland, Middle Iron Age (200 BC–AD 400) stone-built towers, the brochs, have produced Roman imports

(Ritchie 1995, 111). Moreover, Late Iron Age (AD 400–800) Shetland was characterized by a Pictish community which was converted to Christianity prior to the Viking Age (e.g. Morris 1996). Although one could say it was geographically situated on the fringe, Shetland was nevertheless an integrated part of the 'known' world in later prehistory.

The Faroe Islands, located beyond the horizon of that world, were different. From the Scottish mainland one can actually see the archipelago of Orkney; from Orkney one can see the most southerly of the Shetland Islands, Fair Isle, and from there the main group of the islands. From there, however, one cannot see anything further to the north. The Faroe Islands cannot be seen from Norway, the Western Isles, or Shetland and it is probably due to this fact that they only became part of the known world at a relatively late stage. Whether this took place during the Viking Age, earlier in the Iron Age, or earlier still has been the topic of ongoing discussions. These have had different starting points, depending on the historical, archaeological, linguistic, or environmental evidence employed, and consequently up to three or four phases of *landnám* or settlement have been proposed (H. J. Debes 1990; 1993).

In the late 1980s, the late Faroese palynologist Jóhannes Jóhansen (1937–95), of the *Føroya Náttúrugripasavn* (the Faroese Museum of Natural History), published the results of his botanical investigations which led him to argue for several pre–Viking Age settlements in the Faroe Islands, starting in the Neolithic (Jóhansen 1989). The earliest of these cannot be substantiated by any archaeological evidence and will not form the subject of further discussion here.[7] The later possible episodes of pre-Viking human impact do require further consideration. First, however, another body of evidence is of great relevance.

As in Iceland, there exists a strong tradition regarding pre–Viking Age Celtic (Irish) activity or settlement on the Faroe Islands. The Irish ecclesiastic, Dicuil, in his geographical treatise *De mensura orbis terrae*, written at the Carolingian Court *c*. AD 825, described how he met a holy man who, after two days' sail 'from the northernmost British Isles' in favourable conditions, had reached a group of islands. These are traditionally identified as being the Faroe Islands. Dicuil further referred to another set of small islands which had been inhabited by Irish hermits for about a hundred years, until they fled from the Vikings leaving the islands to sheep and seabirds. Dicuil is rather confusing here as both groups could be identified as the Faroe Islands (Lamb 1995, 13).

The routes of Christian monks, who allegedly travelled north in search of lonely places suitable for solitary contemplation of the divine (Lamb 1995, 12), seems to be reflected in a range of place-names containing the element *papar*, thus implying an

[7] At, for instance, the location Hóydalar, near Tórshavn, pollen of *Plantago lanceolata* has been identified in deposits which have been radiocarbon-dated to *c*. 2300 BC. Jóhansen regarded this as a safe indicator of human presence. It should be noted, however, that this species occurs long before the introduction of agriculture elsewhere in north-western Europe (Claus Malmros pers. comm.).

Irish settlement in Orkney and Shetland as well as the Faroe Islands and Iceland (Waugh 1991, 62; Fellows-Jensen 1996, 115). The Irish historian Alfred P. Smyth (1984, 168) has stated that these early Celtic hermits 'have left a trail of place-names coined in the speech of the Northmen who later followed in their tracks'. According to Smyth, these place-names in Orkney, Shetland, the Faroe Islands, and Iceland indicate not only the sea routes of Irish hermits in the seventh and eighth centuries, but also—possibly seasonal—positions of fearless Christian hermits (Smyth 1984, 169).

A settlement by Irish ecclesiastics could be regarded as a result of Irish influences on the Pictish church of Orkney and Shetland and, thereby, further expansion in the North Atlantic. The monastery at Iona in the Western Isles is often regarded as the central starting point or base for this expansion. It should be noted, however, that more recent studies have emphasized the possible influence and importance of the Northumbrian church (Morris 1989).

The generally understood meaning of the word *papar*, reflecting Christian anchorite activity or settlement, has recently been criticized by Raymond Lamb (1995) who argues that it was, instead, a general Norse term for Christians. Thus, on most locations in Orkney and Shetland the papar names seem to be associated with prime-quality farmland where one would expect to find a concentration, rather than a scarcity, of population (Lamb 1995, 15). At the same time, Lamb points to the fact that no papar names are found in direct association with remote stack sites, occurring instead in places of high population density, indicating that the papar may have been concerned with pastoral duties rather than eremiticism (Lamb 1995, 17). The papar in Shetland then, according to Lamb (1995, 21), were clergy of the Roman Church, and their duties were missionary and pastoral. Christianity was probably closely linked to the exercise of elite power in this context and therefore might not have had an anchorite character at the time of the Scandinavian arrival. This is quite a different scenario to the presumed uninhabited Faroe Islands, where Dicuil specifically referred to hermits.

Dicuil stated that Irish hermits had been going there (the Faroe Islands?) for about a century, that is starting *c*. AD 725, and that they, at the time of his writing, had been wiped out by Scandinavian pirates. These statements have led to the following presumptions:

1) that Irish ecclesiastics were present in the islands prior to the Scandinavian *landnám* of the Viking Age, and
2) that the Scandinavian *landnám* took place *c*. AD 825.

Arge has discussed the topography to which the papar names in the Faroe Islands are linked and has argued that these cannot be used as indicators of Celtic settlement or activity (1989, 106) as they are in inaccessible locations (1989, 106). This, however, may seem a bit too categorical as, in Shetland, settlements are sometimes characterized by small, turf-built, cellular house structures situated in extremely exposed and remote locations which, in many cases, have seen no human settlement or even activity since. Typically the settlements are situated on slopes facing the sea thus rendering them invisible from inland (Lamb 1974).

Similar topographical locations occur in the Faroe Islands, but here settlements of this character have never been located. This might be due to heavy coastal erosion, though it should be noted that serious and systematic attempts to locate such structures have never been made. Instead, attempts to substantiate the tradition of a Celtic pre-Viking settlement have been made by reference to words of Celtic origin in the Faroese language, for instance in the island names of Lítla Dímun and Stóra Dímun (Jacobsen 1902, 4). It should be noted, in this connection, that Celtic activity and impact does not necessarily need to be of early date and could just as well have developed out of contacts in the Viking Age (for a discussion and related references see Arge 1989; H.J. Debes 1993; Fellows-Jensen 1996).

Jóhansen's palynological studies have provided a new impetus to the discussion about a Celtic presence. In addition to the Neolithic evidence discussed above, he identified *landnám* horizons at AD 600–50 and AD 850–900. These data were interpreted as indications of, respectively, a Celtic pre-Viking *landnám*, as mentioned by Dicuil, and a Scandinavian *landnám* in the Viking Age (Jóhansen 1971; 1979). It should be noted, however, that in none of Jóhansen's diagrams are both *landnám* horizons represented. Furthermore, the validity of his dating has been met with scepticism from natural scientists, historians, and archaeologists (Arge 1989, 111; 1993a, 467; Buckland 1992; Krogh 1986; Malmros 1994).

The radiocarbon-dated pollen diagrams have also been used as evidence for assigning a number of relict field systems, situated on steep slopes in, for instance, the islands of Mykines and Suðuroy, to a Celtic pre–Viking Age settlement (Jóhansen 1979). However, it has proven impossible to date the fields directly or to place them in any safe historical context. The radiocarbon dates are not directly linked to the preserved structures, but derive from samples taken in a nearby bog. These fields thus cannot substantiate the hypothesis of a pre–Viking Age Celtic settlement (Arge 1989, 111).

From the archaeological point of view there has been widespread reservation about the interpretation of the written records as well as of the results of the pollen analytical investigations. As mentioned above, it has not been possible to identify settlement remains, and the only archaeological argument for a Celtic, pre-Viking *landnám* has been a number of cross-inscribed gravestones at the graveyard of Ólandsgarður on Skúvoy (Dahl 1968, 190) (fig. 3.4). Some of these gravestones may be paralleled with others in the Scottish area which can be dated to late in the Viking Age, and this would appear to argue against the notion that they are pre–Viking Age in date. Consequently, there now seems to be general agreement that they might very well represent a Celtic or Hiberno-Scandinavian impact on the Faroe Islands from the south during the Viking Age (Dahl 1968, 190; Arge 1989, 108). Whether this is the case or not, however, depends on the dating of the Skúvoy slabs and it does not appear that this matter has yet been resolved beyond dispute.

It can therefore be concluded that the tradition of Celtic, pre–Viking Age activity or settlement in the Faroe Islands during the seventh to eighth centuries is primarily based on the work of Dicuil, the validity of which is dubious as it is unclear whether

he is actually referring to this archipelago. Next to this evidence come a number of radiocarbon-dated pollen diagrams. In none of these, however, has it been possible to point out two *landnám* horizons. On the contrary, *landnám* horizons in individual diagrams have been dated to respectively *c*. AD 600 and the early Viking Age (*c*. AD 800)—with the dates subject to criticism on the basis of possible bioturbation within the deposits sampled (Buckland 1992). Although recent pollen investigations indicate a pre-ninth-century date (Hannon and others 1998; Hannon and Bradshaw 1999), the concept of Celtic pre-Viking activity thus still lacks conclusive archaeological proof.

The Character and Origin of the Viking Age Settlement

As discussed above, the building customs, artefact assemblages, and radiocarbon dates from Toftanes and Argisbrekka now provide convincing archaeological evidence for a Scandinavian *landnám* during the Faroe Islands in the early Viking Age (the ninth century). The radiocarbon dates suggest that such a *landnám* took place no later than the last quarter of the ninth century. What remains to be described and explained then is the question of the character and origin of this *landnám*.

In recent years the question of whether contact between Scandinavia and the British Isles and Ireland was of an earlier date than so far assumed has been debated (Myhre 1993). Myhre refers to Birthe Weber's publication of Pictish/early Scandinavian combs from Orkney and Shetland which are allegedly made of reindeer antler, thereby demonstrating early contact between the Northern Isles of Scotland and Norway (Weber 1993; 1995). Furthermore, Myhre notes early dates for Viking graves in the Hebrides and early Irish artefacts in Viking graves in Norway (1993, 187; 1998, 8). On the other hand, serious doubts have been raised about the early dates, based on artefacts, for sites like Jarlshof in Shetland and the Scandinavian settlement of Scotland in general (Bigelow 1992, 9–10; Crawford 1987, 40–41; Morris 1985, 210; see Barrett this volume).

According to Myhre, one of the purposes of the early (eighth-century) Scandinavian raids may have been to react to the expansion of a Christian mission which may also have been operating in Norway. There may be some logic in this argument, but there is also a lack of archaeological and historical evidence. Myhre explains the lack of early Scandinavian finds in the Scottish Isles by suggesting that the first emigrants and their material culture were quickly integrated with the local Pictish population.

Contrary to the cases of Shetland and Orkney, which are both en route to the British Isles and Ireland, the Faroe Islands and Iceland were not stages in an established sailing route. It therefore seems appropriate to separate the discussion of pre–Viking Age contacts across the North Sea into two topics: firstly, contact with the Scottish isles, the Scottish mainland, and Ireland and, secondly, eventual contact with the Faroe Islands and Iceland.

In connection with the argument for early Scandinavian contact with the British Isles and Ireland, Myhre also involves the North Atlantic, referring to early-seventh-

century radiocarbon dates obtained for house structures at the site of Herjólfsdalur in the Vestmannaeyjar of Iceland. There is no doubt that these house structures are of Scandinavian character and, if the dates are correct, represent convincing archaeological proof of a pre-Viking *landnám* (Hermanns-Auðardóttir 1989). The radiocarbon dates, however, have been strongly questioned by a wide range of scholars and there seems to be nothing in the archaeological record from the site which substantiates such an early date (see comments in Hermanns-Auðardóttir and others 1991).

The concept of a pre–Viking Age settlement in the Faroe Islands has primarily been based on the tradition of Irish hermits discussed above, combined with Jóhansen's palynological investigations arguing for a *landnám* horizon at *c*. AD 600. In his earliest works Jóhansen connected the pollen evidence with the historical tradition, even though the latter, according to Dicuil, was nearly a hundred years later than Jóhansen's *landnám* horizon (Jóhansen 1971; 1979). Later, in his doctorate of philosophy thesis from 1985, Jóhansen mentioned the possibility that it was not necessarily Irish people who set foot in the Faroe Islands at this time (1985, 58). This possibility has also been pointed to by Knud Krogh in a subsequent discussion between him and Jóhansen (Krogh 1986; Jóhansen 1986). It was thus argued that the so-called pre–Viking Age *landnám* was not necessarily of Celtic origin and may well have been Scandinavian. If the hypothesis of a pre-Viking settlement in the Faroe Islands is accepted the question thus remains whether it was of Celtic or Scandinavian character, or both.

If Irish hermits *were* active in the Faroe Islands and Iceland prior to the Viking Age, and there *were* contacts between the British Isles/Ireland and Scandinavia at this time, the existence of the Faroe Islands may have been known to the Scandinavians as early as the seventh century (Smyth 1984, 169). However, it is hard to understand why Scandinavian society should have shown any geopolitical interest in them at this time. A possible desire among the Scandinavians to counter the expansion of Christian ideology, as argued by Myhre, makes no sense when considered in relation to the Faroe Islands or, for that matter, Iceland. The ravaging of monasteries in the British Isles and Ireland may have been of understandable military, political, and strategic importance, but there was hardly anything to be gained by going to the Faroe Islands to bother a supposedly few and completely harmless hermits who literally had turned their backs to the world. Any argument about trading and raiding, valid for the Northern Isles of Scotland, will fail too when considering the Faroe Islands. Who could one plunder or trade with there?

Thus the Faroe Islands were probably of no major interest to the Scandinavians until the need for land, and thereby a regular *landnám*, came into effect. The most likely explanation still seems to be that this need should be seen in the context of events which took place in Norway and Scandinavia generally towards the end of the ninth century. This leaves us then with the question of where those settlers of the Viking Age came from.

There are very strong traditions in Scandinavian archaeology about the origins of the Scandinavian settlers. One tradition has it that the settlers of the Faroe Islands

and Shetland came from south-western Norway during the reign of Harald Fairhair in the late ninth century. This could be termed the *Norwegian link*. The alternative tradition has it that a significant number of the settlers came from the south, particularly the Western Isles. The latter view is largely based on evidence from written sources such as the *Annals of Ulster* and the Norse sagas, as well as place- and personal names, which suggest that Norse settlers in Scotland and the Western Isles were forced up into the North Atlantic in the late ninth century (e.g. Mac Airt and Mac Niocaill 1983). These Hiberno-Scandinavian peoples—the *Gall-Ghaidheil* or their equivalent (see Barrett this volume)—thus represent a southern, Scottish influence in the Viking Age rural communities of the North Atlantic (Smyth 1984, 161; Crawford 1987, 127). This tradition could be termed the *Scottish link*.

Smyth (1984, 168) sees the Scottish connection evidenced in the sailing route into the North Atlantic which Irish hermits, from the monastery of Iona in the Inner Hebrides, may have established in the centuries prior to the Viking Age (fig. 3.10). Regarding the Faroe Islands and Iceland, he even discusses a 'Scottification' prior to the Scandinavian settlement of the North Atlantic.

> For too long we have treated the Columban phase of Scottish Christianity in isolation from the later Scandinavian period, and equally, Scandinavian historians have tended to treat the discovery of Iceland by the papar as an event which had no bearing on later Scandinavian history, treating voyages of the celibate papar as a sort of demographic cul-de-sac. This approach shows a remarkable lack of economy—involving as it does the idea that Iceland was discovered twice within a century—but it also fails to appreciate the profound impact which Iona had on Scandinavian civilization as soon as the Vikings came into sustained contact with it. (Smyth 1984, 172)

In later centuries there is no doubt that Hiberno-Scandinavian settlements such as Dublin must have played a rather important role in the development of the Viking Age communities in the North Atlantic. On the basis of present knowledge it is very difficult to judge to what extent the rural Scandinavian communities, like the Faroe Islands, became integrated in trading systems and networks or how their cultural identities were established. It is, however, interesting to note that some finds probably did enter the rural communities of the North Atlantic from Scotland and/or Ireland: jet armlets, ringed pins, and quern stones. One can thus accept that the history of the Viking Age of the North Atlantic reflects an amalgam of processes and events and that the sea was carrying a great deal of traffic.

Seen in this perspective the so-called *Saga of the Faroe Islanders* may provide further illumination. Could one image a fairly disorganized *landnám* in the ninth century with its starting point in areas to the south, primarily the Western Isles, which after the end of the ninth and during the tenth centuries saw an increasing number of attempts by the Norwegian Crown to undermine and subsequently take over the islands? Is this what is reflected in the text of the saga?

Fig. 3.10. The Monastery of Iona on the Inner Hebrides was raided by Vikings in AD 795, 802, and 806. The monastery was an important centre for the early Irish Church and Smyth suggests that it was here that Dicuil heard about the Faroe Islands. Was it via contact with this Christian centre that the Scandinavians became acquainted with the islands in the North Atlantic? (photo: J.H. Barrett)

Conclusion

The Faroe Islands were probably the first area of western Viking Age settlement that was not already inhabited when the Scandinavians arrived. Although there might have been a limited presence of Irish ecclesiastics during the centuries leading up to the Viking Age, it is evident that it was Scandinavian activity which eventually changed the Faroese landscape.

The Scandinavian emigrants in the Faroe Islands brought with them their identity in the form of a very standardized architecture. They transplanted the classic Viking longhouse everywhere. These buildings convey a strong concept of what a 'house' was and what 'home' was (cf. Burmeister 2000). Viking emigrants could travel anywhere in the North Sea and North Atlantic region and still feel at home. They were virtually travelling in a Scandinavian world (Stoklund 1984; Scott 1994; Stummann Hansen 1998; 1999). At the same time, in portable material culture, they demonstrated their insular identity as it developed through contacts with Celtic communities in the British Isles and Ireland. This identity is demonstrated through the ringed

pins, armlets, and finger rings of jet and jet-like materials and the adoption of quern and mill technology.

The Scandinavian settlers in the Faroe Islands organized a community which did its best to adapt to the prevailing social and environmental conditions. The settlers then tried to stay free of Norwegian royal supremacy, as recorded in the *Saga of the Faroe Islanders*. This process no doubt reflected the first stages of creating a cultural identity in which the occupants of the Faroe Islands probably came to regard themselves as *Faroese*.

During the early medieval period the Faroe Islands became much more integrated with the Norwegian kingdom. In 1035 the islands became an estate under the Norwegian Crown. After the Faroese community seemingly adapted Christianity around AD 1000, the islanders acquired their own diocese with an episcopal residence at Kirkjubøur (fig. 3.11). After having referred to the diocese of Lund in Southern Sweden to start with, the Faroe Islanders came under the diocese of Nidaros (Trondheim) in Norway *c*. AD 1152. In 1277 the Norwegian king imposed his law on the Faroe Islands, thereby taking lawmaking out of the hands of the Faroese *Løgting*. Also in the late thirteenth century the Norwegian king, on the one hand, banned Hanseatic merchants from doing business in the Faroe Islands and, on the other, promised to send at least two vessels per year, thereby establishing a de facto monopoly on trade which kept the Faroe Islanders totally dependent on the Norwegian king.

In the mid-fourteenth century the islands were badly ravaged by the 'Black Death', which seems to have claimed a huge death toll among the population with whole village communities vanishing. It took the islanders centuries to overcome the effects of this disease. In 1380 the Faroe Islands, with the Kingdom of Norway, came under Danish rule, but they continued to be ruled as a part of Norway. Dutch merchants were now given the same rights of trading as the Hanseatic League, and partly the English, had already obtained.

During the sixteenth century the islands were heavily raided, especially by Algerian pirates who carried off people and animals. The Reformation was completed around 1540, and instead of Latin the Danish tongue then became the language of the Church. During this period the islands became more closely linked to Bergen in western Norway and even when the governing of the islands was moved to Copenhagen in 1620 they still retained Norwegian laws.

During these centuries all trading on and with the Faroe Islands was monopolized by a few persons who had been granted these privileges by the Danish king. In 1709, however, the monopoly became a royal one as the Danish king took over trading rights himself. This situation prevailed until 1856. The written records of these centuries of monopolized trade tell of several periods where hunger and diseases were evident.

In 1814, at the peace treaty after the Napoleonic Wars, Denmark was forced to cede Norway while the Faroe Islands, like Iceland and Greenland, remained under the Danish Crown. It was in the wake of this event that the one-thousand-year-old *Løgting* was abolished and the islands became a separate county in the Danish Kingdom. With this event we arrive back at the beginning of this chapter.

Fig. 3.11. The medieval episcopal residence of Kirkjubøur, Streymoy (photo: S. Stummann Hansen)

To conclude, Scandinavian settlement in the Faroe Islands in the Viking Age was probably an amalgam of processes which can be difficult to reconstruct today. However, the architecture, boat-building traditions, place-names, and archaeological finds do tell stories of how these people chose to organize and present themselves. In this light the archaeological assemblage can be confronted with the evidence from the written records. Mixing Scandinavian and insular traditions, Viking Age immigrants in the Faroe Islands succeeded in forming a cultural identity which probably rapidly turned them into *Faroe Islanders*. This flexible yet distinctive identity provided them with an instrument for coping with the major and minor challenges they had to face throughout history. The Faroe Islanders managed, despite difficult odds, to survive as a community and to eventually become a nation. It was this long story which, among other things, fuelled the intense debate in the Faroese *Løgting* that August in 1923.[8]

[8] I want to express my thanks to Anna Katrin Matras, Copenhagen, for information on her reanalysis of the site Niðri á Toft. Further my thanks to Føroya Fornminnissavn for providing me with the photographs in figures 3.2 and 3.3, and to Hákun Andreassen, *Føroya Landsskjalasavn* (Faroese National Archives) for information on several issues. Finally, I want to express my sincere gratitude to John Sheehan, Department of Archaeology, University College, Cork, for his critical comments and for improving my English.

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Culture Contact in Viking Age Scotland

JAMES H. BARRETT

Introduction

The Viking Age colonization of northern and western Scotland has been a subject of scholarly inquiry for almost a millennium, starting with the learned speculations of medieval sources such as *Orkneyinga Saga* (Jesch 1992). By the nineteenth century (e.g. Anderson 1873a), this tradition had developed an interdisciplinary approach—combining historical, archaeological, and onomastic evidence—which has continued to the present. The literature on the subject is now extensive (see Morris 1992). In the last two decades alone approximately twenty major reviews of Viking Age Scotland have appeared in print and more are forthcoming (e.g. Morris 1985; B.E. Crawford 1987; Thomson 1987; Bigelow 1992; Batey and others 1993; A. Ritchie 1993; B.E. Crawford 1995a; Armit 1996; Morris 1996a; Brown 1997; Hunter 1997; Graham-Campbell and Batey 1998; Morris 1998; Ó Corráin 1998a; B.E. Crawford 1999; Sharples and Parker Pearson 1999; Batey and Sheehan 2000; B.E. Crawford 2000; Owen forthcoming).[1]

The complexity of this research is considerable. The primary documentary evidence is very limited and what exists is scattered among Irish, Scottish, English, Icelandic, and continental sources of variable historicity (see B.E. Crawford 1987, 3–9 and below). Unlike England, where Domesday provides an early record of place-names, the Scottish onomastic record must be interpreted from extremely late (often post-

[1] As this chapter goes to press four new studies of the Viking Age colonization of Scotland have just been published (Bäcklund 2001; B. Smith 2001; Thomson 2001, 40–55; Woolf 2001) and numerous conference papers have been given on the subject—most recently at the Fourteenth Viking Congress.

medieval) sources with all of the ambiguities of interpretation and dating this entails (Fellows-Jensen 1984, 148). Study of the archaeological evidence (limited in absolute quantity, but complex in its detail) has of necessity been subdivided into numerous categories requiring specialist expertise. Any attempt to synthesize this diverse body of data runs the risk of naivety in the interpretation of some or all elements.

Given this preamble, why attempt yet another discussion of Viking Scotland? The answer is threefold. First, new archaeological evidence regarding the Scottish Late Iron Age (or 'Pictish' period, *c*. AD 300–800) and Viking Age (*c*. AD 800–1050) is being generated at a remarkable rate (e.g. Ballin Smith 1994; Morris and others 1995; Morris 1996b; Buteux 1997; Lowe 1998; Nicholson and Dockrill 1998; Sharples 1998; Owen and Dalland 1999; Owen and Lowe 1999; Sharples and Parker Pearson 1999). Second, categories of evidence generated by archaeological science (particularly zooarchaeology, archaeobotany, and stable isotope analysis) and genetics have only recently entered serious debate regarding Scandinavian settlement and influence (Bond 1998a; Barrett and others 1999; Barrett and others 2001; Helgason and others 2001; Wilson and others 2001; Neighbour and Montgomery forthcoming). Last, and most important, the study of Viking Age Scotland has been little influenced by theoretical advances in the interpretation of migration and culture contact in early medieval Europe and beyond (e.g. Shennan 1989; Amory 1993; Graves-Brown and others 1996; S. Jones 1997; Pohl and Reimitz 1998; Frazer and Tyrrell 2000; Hadley and Richards 2000).

This chapter aims to integrate these new data and perspectives with the results of past research. It first considers the existence, timing, location, and scale of Viking Age migration from Scandinavia to Scotland. The study then attempts to model the production, reproduction, and manipulation of ethnicity during the resulting episode of culture contact.

Some Definitions

To begin, it is necessary to define 'Norse', 'migration', and 'ethnicity'. In Scottish archaeology, the term 'Norse' has been widely employed to designate anything with a Norwegian affiliation which dates to the Viking Age (*c*. 800–1050) or Middle Ages (post 1050).[2] The broader term 'Scandinavian' is less demanding of the limited extant evidence, but the predominately Norwegian connections of early historic Scotland are relatively clear (B.E. Crawford 1987, 1–2, 114–15; Wamers 1998).

Migration and ethnicity are concepts with long and contentious histories (see S. Jones 1997; Burmeister 2000). Migration—'a movement of people in geographic

[2] The term Late Norse is also used as a subdivision of the Middle Ages in studies of northern and western Scotland, ending along with Norwegian political control: 1266 in the Western Isles, 1468/69 in the Northern Isles (e.g. Morris 1985, 210–11; Graham-Campbell and Batey 1998, 2) and the thirteenth to fourteenth centuries in Caithness and Sutherland (see B.E. Crawford 1982; 1985).

space in which there are changes both in physical and in the social milieu' (Andresen 2000)—lost favour as an archaeological model in the mid- to late twentieth century. However, it did not disappear as a real phenomenon of past or present (Anthony 1990; Lucassen and Lucassen 1997a, 9; Chapman and Hamerow 1997) and has re-emerged as an important issue in early medieval studies (Härke 1998; Burmeister 2000; Trafford 2000). The definition of ethnicity is more complex. As a central concept of anthropology and archaeology it has attracted a voluminous and contentious literature (see Wolf 1994; S. Jones 1997; Trafford 2000). Nevertheless, some consensus has emerged in recent decades. Ethnicity is self-defined, fluid, and situational. Moreover, there are no simple correlations between ethnicity, material culture, speech communities, and biological ancestry (Barth 1969; Trigger 1978, 122–31; S. Jones 1997, 73–76; Townend 2000).

Historical and Onomastic Evidence

Given the ambiguity of ethnicity we are fortunate to have fleeting historical evidence that clear distinctions were made between incoming Scandinavians and the two cultures of eighth- to ninth-century Scotland with whom they had most contact: the Scots of Dál Riata (in Argyll and the Inner Hebrides), who spoke a Q-Celtic language, and the Picts (in east mainland Scotland, the far north, and probably the Outer Hebrides), who are now thought to have been P-Celtic speakers (Foster 1996, 11–12, 23–24). Scandinavians were known as foreigners, *Gall*, in Gaelic sources such as the Irish annals, and a new term, *Gall-Ghaidheil*, was invented for Gaelic speakers of Scandinavian origin or descent (Jennings 1996; Clancy forthcoming). Similarly clear distinctions seem to have existed between the Picts and Scandinavians in mainland Scotland (Broun 1994, 27–28; see below), although explicit references to identity are lacking for the Northern Isles.

It is thus possible to recognize Scandinavians as a feature of late-eighth- to ninth-century life in Scotland. Unfortunately, however, direct or even indirect references to migration and settlement are few in number and ambiguous in meaning. Later medieval sources fill this gap, but are at best distorted and at worst mythology (e.g. Helle 1993, 5; Ní Mhaonaigh 1995, 356).

Based on the earliest contemporary historical sources, Norse settlement in Scotland has traditionally been dated to around the turn of the ninth century (e.g. Hamilton 1956, 106; Wainwright 1962a, 126–33, 140). This was the period of the earliest Viking raids—beginning with those on Lindisfarne in 793 (ASC 'D' 793), 'all the islands of Britain' (probably the Hebrides) in 794 (AU 794) and both Rathlin Island and the Isle of Skye in 795 (AU 795).[3] It has long been suggested that the

[3] An earlier raid on the monastic community of Eigg, Inner Hebrides, in 617 has also been attributed to Norse activity, but this would appear to be a late accretion to a story of internecine strife common enough in the 'Celtic' west (Morris 1998, 76–77).

Northern Isles were settled as bases for these early raids. As Christopher Morris (1998, 74) observes, however, this is an assumption lacking direct evidence. In the context of the Inner Hebrides and Argyll, where much of the raiding actually occurred, Donnchadh Ó Corráin (1998a, 322–25) and Andrew Jennings (1996; 1998) have argued that the upheaval itself is indicative of Scandinavian settlement. This would date the earliest migration to the first quarter of the ninth century, ending with an attack on Iona in 825 which was followed by relative tranquillity. Jennings (1996, 66) supports this hypothesis with the observation that the term *Gall-Ghaidheil*—which referred to the inhabitants of western Scotland from Eigg to Galloway by the twelfth century (Clancy forthcoming)—was used as early as 856 (AU 856). According to his argument, this implies a period of settlement long enough for the emergence of a group with mixed Norse and indigenous ancestry.

There are reasons, however, to be sceptical of these early dates. Firstly, semi-permanent bases were not established in Ireland or England until 841 and 850 respectively, approximately half a century after the earliest raids in these regions (Graham-Campbell 1998, 106; Richards 2000, 23; see Wormald 1982, 132). Secondly, Thomas Clancy (forthcoming) has convincingly argued that *Gall-Ghaidheil* is best translated as 'Gaelic-speaking foreigner'. It need not indicate residence longer than would be required to achieve bilingualism.[4] Thirdly, the geographic implications of the term are known to have changed over time (Clancy forthcoming). Although it may well be a reasonable assumption, the *Gall-Ghaidheil* cannot be definitively associated with western Scotland until the Middle Ages and actually disappeared from reliable sources between 857 and 1034 (Clancy forthcoming).

An important recent contribution to the date of Norse settlement in Scotland is Ó Corráin's (1998a) argument that the Irish term *Laithlinn* and its variants (*Lothlend*, *Laithlind*, and later *Lochlainn*) originally referred to areas of Scotland under Scandinavian political control. If correct, reliable references to Norse kings in Scotland begin in 848, when the *Annals of Ulster* record the death of 'Tomrair (Þórir) the earl, heir-designate of the king of *Laithlind*' (Ó Corráin 1998a, 300, emphasis in original).[5] Moreover, if these were territorial rather than sea kings the earliest Norse conquest or migration probably preceded this date (Ó Corráin 1998a, 320–37).[6]

The search for historical evidence of Scandinavian migration also leads to an entry attributed to 851 in the *Annals of the Four Masters*. It describes Gofraid mac Fergusa as lord of the *Innse Gall* (isles of the foreigners or Norse), a term for the Hebrides

[4] Note that the late interpolations regarding the *Gall-Ghaidheil* in the *Fragmentary Annals* must be excluded from discussions of the ninth century (Ó Corráin 1998a, 326; Clancy forthcoming).

[5] This argument is complicated by the fact that the term was connected with Norway by 1072 and could refer to Scotland or Norway in twelfth-century sources. Nevertheless, Ó Corráin has demonstrated that earlier sources all show exclusively Scottish associations.

[6] Although, *contra* Ó Corráin, it is debatable whether this should be pushed as early as the first quarter of the ninth century.

otherwise well known from 989 on (Dumville 1997, 17; Clancy forthcoming). Given the late compilation of this source, however, David Dumville (1997, 17) has dismissed the reference as an anachronistic interpolation—an argument which Alex Woolf (forthcoming) has recently developed in greater detail.[7]

For further evidence of mid-ninth-century settlement, one must turn to the continent. The most important record regarding western Scotland is the entry for 847 from the *Annals of St Bertin*. Graham-Campbell and Batey (1998, 45) interpret the relevant passage as a reference to the Hebrides and translate it as

> The Scotti, after being attacked by the Northmen for very many years, were rendered tributary and [the Northmen] took possession, without resistance, of the islands that lie all around and dwelt there.

The term *Scotti*, taken from the Latin original, could certainly imply Dál Riata, but the likelihood that Ireland was intended must also be accepted (cf. ASB 847; Nelson 1991, 65). In the latter case the reference *could* refer to the Hebrides, but alternative candidates also enter the equation.

The *Life of Findan*—written on the continent late in the ninth century—is the most important contemporary document regarding events in the Northern Isles. It provides an apparently historical account of an Irish aristocrat's escape from Norse slave traders in Orkney and his subsequent stay with a bishop who could speak Irish (Christiansen 1962; Omand 1986; Thomson 1986). If historical, the events can probably be dated no later than the 840s (Thomson 1986, 279). This bishop has occasionally been identified as a 'Pict' and his existence equated with continuity of Pictish authority in Orkney (Forsyth 1995, 693; Lamb 1995, 23; Lowe 1998, 8). As Thomson (1986, 280) has noted, however,

> since the *Life* describes Orkney as lying next to the land of the Picts (*iuxta Pictorum gentem*), it was clearly not regarded as part of Pictland, and so must already have been under Norse control.

Although none of these sources provides an unambiguous record of Norse settlement, they are most consistent with the interpretation that some migrants were *established* in both northern and western Scotland by the mid-ninth century. Presumably the process of settlement had begun slightly earlier, perhaps in the second quarter of this century. However, intermittent periods of conflict between the Pictish kingdom (after *c*. 843 the merging kingdoms of Dál Riata and Pictland, which became known as Alba by *c*. 900) and Scandinavian raiders continued into the early years of the tenth century (Broun 1994; Ó Corráin 1998a, 320–37). It is thus unwise to assume

[7] Ó Corráin (1998a, 312) has drawn attention to another possible ninth-century reference to *Insi Gall*, in the literary text *Cath Maige Tuired*, but notes considerable controversy regarding its date.

that the process was completed by the mid-ninth century or that the geographic extent of Norse colonization was stable enough for it to be reconstructed in any detail.

The limited historical record can, however, be supplemented by onomastic evidence. The distribution of Norse place-names suggests that Scandinavian settlement was ultimately quite extensive. There are virtually no surviving Pictish place-names in the Northern Isles and Outer Hebrides, and few occur on the north mainland of Scotland (Wainwright 1962a, 122; Fellows-Jensen 1984, 151; Andersen 1991; Waugh 1993). The geographical extent of initial settlement in the Inner Hebrides and west mainland is more difficult to ascertain due to the re-emergence of Gaelic political ascendancy and language, particularly after the twelfth century (Andersen 1991, 135; McDonald 1997, 39–67). Nevertheless, some Norse settlement probably occurred along the entire western seaboard 'throughout the Outer and Inner Hebrides, along the western littoral, and even on the islands in the Firth of Clyde' given the distribution of place-names derived from topographical features (Jennings 1996, 62). The area of Norse speech then retracted to the north and west based on the more limited distribution of (possibly later) habitation elements and differences in the surviving ratios of Norse to Gaelic names (Andersen 1991; Jennings 1996, 64–66; see fig. 4.1).

It is tempting to use differences in the density of place-names derived from Norse, Gaelic, and Pictish as a proxy for the intensity of initial Scandinavian settlement. The names cannot be closely dated, however, and thus provide little evidence regarding relative population sizes. Many Norse names had long lives as active elements of the onomasticon and are first recorded in late or post-medieval sources (Fellows-Jensen 1984, 148; Thomson 1995). The common Norse generic *bólstaðr* (a farm or portion thereof), for example, 'was productive from at least the beginning of the Viking Age to far into the medieval period' (Gammeltoft 1998, 25). Differences in the density of Scandinavian place-names in Scotland are thus related to both the density of settlement by Norse speakers at any one time and the history of language change—factors which are probably interrelated but certainly not synonymous. It is thus impossible to say from the onomastic evidence alone that the level of migration was less in mainland Argyll and the Inner Hebrides (with their low density of Norse place-names and rapid resurgence of Gaelic) than in Orkney or Shetland where Norse names continued to be coined for many centuries.

Archaeological Evidence

Pre–Viking Age Contact?

Over the past decade, it has been suggested that a small corpus of archaeological evidence is consistent with some contact between Scandinavia and Scotland prior to the Viking Age. Early insular metalwork in Norwegian graves has been tentatively interpreted in this light (e.g. Myhre 1993; 1998, 8), but is more likely to represent

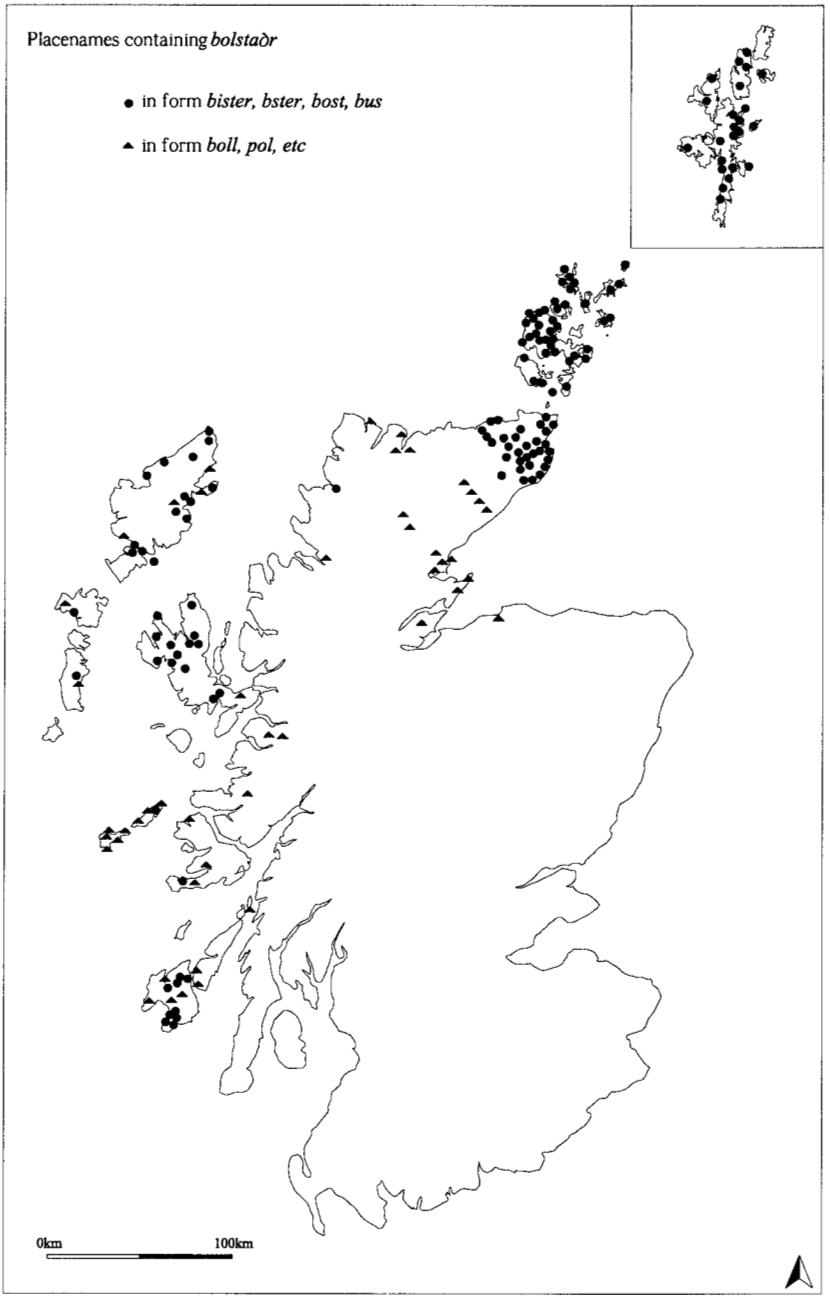

Fig. 4.1. Distribution of Scandinavian place-names in Scotland including the habitation element *Bólstaðr* (T. Simpson after Nicolaisen 1982, fig. 3)

Viking Age raids on monastic treasuries containing centuries of accumulated wealth (Ó Corráin 1998b, 433; Wamers 1998, 42–51; see also Gaut 2001). Orcadian Late Iron Age combs which may be made of reindeer antler show greater potential (Weber 1992; 1993; 1994; Ballin Smith 1995; Myhre 1998, 8). This species was extinct in Scotland by *c.* 8000 BP (Clutton-Brock and MacGregor 1988, 32), implying trade with Norway. However, the identification of highly worked antler is difficult, leading to some scepticism regarding this interpretation (e.g. Graham-Campbell and Batey 1998, 23; A.N. Smith 1998a, 131). Replication studies will clearly be necessary to confirm or refute it, but the suggestion is not inherently unreasonable. Orkney's population of red deer was limited in the Iron Age, and Shetland—where antler combs are also common in both Late Iron Age and Viking Age contexts (e.g. A.N. Smith 1998b, 156–57)—is unlikely to have ever supported the species (e.g. O'Sullivan 1998, 91). Antler must have been imported from somewhere and, in the case of Shetland at least, Norway is as likely as the Scottish mainland. Contact and trade between Scandinavia and Scotland may thus have preceded the Viking Age, but the limited data set (twenty-four combs) would still be inconsistent with large-scale population movement. For archaeological evidence of migration one must look to ninth-century developments in burial, settlement, and economy.

Burials

At the start of the Viking Age, burial differed in Norway and Scotland. Inhumation was practiced in both regions (alongside cremation in Norway) (Ashmore 1980, 346; Ambrosiani 1998, 408), but the similarity ends there. Scottish graves were typically unaccompanied, occasionally under small kerbed cairns or ditched mounds (Ashmore 1980, 346). Conversely, Norwegian burials frequently included grave-goods and personal ornaments of distinctive Scandinavian style and provenance. Norse graves could also entail earthen mounds and burial chambers, the most impressive of which employed boats or ships as part of the monument (e.g. Blindheim and others 1981; Solberg 1985; Owen and Dalland 1999, 47–50). The appearance of *c.* 130 graves with some or all of these characteristics in Viking Age Scotland thus provides archaeological corroboration of Norse migration (Graham-Campbell and Batey 1998, 47).[8] The distribution of these graves approximates that of Norse place-names and provides independent evidence regarding the extent of Norse settlement (fig. 4.2). Although curiously rare in Shetland they are otherwise relatively evenly distributed among the Scottish Islands (and the northern mainland coast) from Orkney to the Inner Hebrides and Arran.

Although the absolute number of known graves is modest, this must be assessed vis-à-vis a rapid conversion to Christianity (see Morris 1996c; Barrett and others

[8] See Burmeister (2000) for an alternative view of the value of burials as indicators of migration.

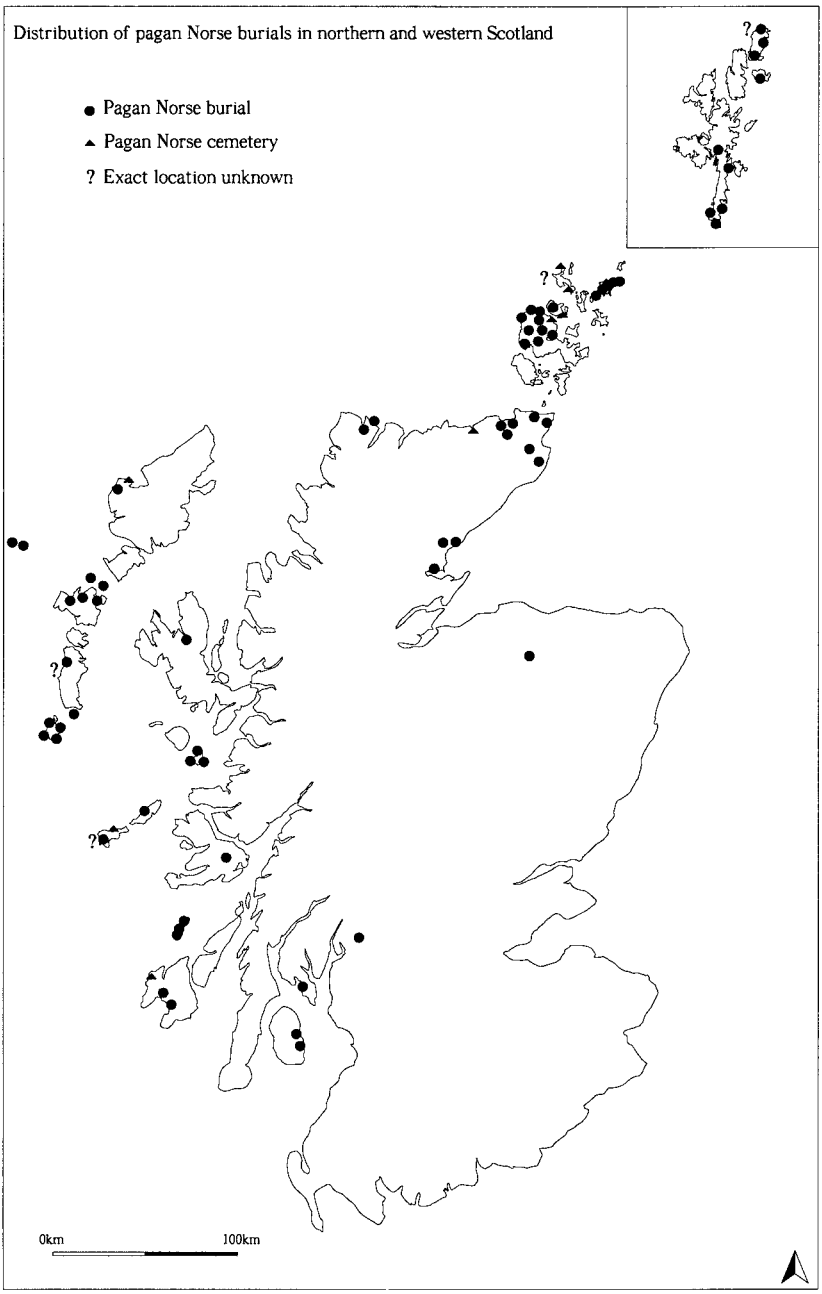

Fig. 4.2. Distribution of Scottish Viking Age burials including grave-goods (T. Simpson after Graham-Campbell and Batey 1998, fig. 7.1)

2000a; Barrett forthcoming) and the low population density of a rural area, large portions of which were not cultivable. It is instructive to compare the Scottish and English evidence for Scandinavian-style graves in light of the Nicholas IV tithe records of 1291–92—a proxy indicator of the relative wealth and, presumably, population density of the two regions (accepting that the predominantly Danish ancestry of the English migrants is an additional variable). England has produced fewer than twenty-five Viking Age burials with grave-goods, compared to Scotland's *c*. 130 (cf. Graham-Campbell and Batey 1998, 47; Richards 2000, 142). This large dichotomy exists despite the fact that the tithe which could be collected in dioceses such as York, Lincoln, Carlisle, and Durham was over twelve times that of Caithness and twenty-six times that of Sodor (the Western Isles and Man) (McNeill and MacQueen 1996, 300–301). Accepting the likelihood of some Scandinavian migration in Viking Age England (cf. Brooks 2000a; Richards 2000), the Scottish burials with grave-goods are clearly consistent with the movement of people and/or ideas on a significantly larger scale.

Typological analysis of grave-goods from these burials has played a major role in discussions of the chronology of Viking colonization (e.g. Brøgger 1929, 121; Shetelig 1945; Wainwright 1962a, 132–33; B.E. Crawford 1987, 119–21; Myhre 1993; Graham-Campbell and Batey 1998, 152–54; Morris 1998, 88; Paterson 2000). There is little evidence, however, to contradict or improve on the mid-ninth-century date implied by the historical record. A few objects, such as the Berdal-type oval brooches from Clibberswick, Shetland, have been tentatively dated to *c*. AD 800 (see Myhre 1993, 190–91), but all are equally or more consistent with the mid-ninth century (Graham-Campbell and Batey 1998, 153–54; Paterson 2000). Three graves contained coins, but the earliest, from King's Cross Point, Arran, and Kiloran Bay, Colonsay, both include stycas of Archbishop Wigmund of York dating between 837 and 854 (Graham-Campbell and Batey 1998, 152). On the basis of the artefactual evidence, Graham-Campbell and Batey (1998, 154) have recently argued that 'the period from about the mid-ninth to the mid-tenth century would appear to include the great majority, if not all, of the pagan Norse graves known from Scotland'. Radiocarbon assays of human and animal bone from these graves are less precise, but do not contradict a ninth-century origin (Barrett and others 2000a, Table 1).

Settlements

Dating the earliest Norse settlements is more complex. The fundamental problem is how to define architecture, artefacts, and sites of Norse style during the initial contact or 'interface' period (see A. Ritchie 1974; Morris 1985, 213; 1998, 85–86; Hunter and others 1993, 275; Myhre 1993, 194; Buteux 1997, 261–64; Graham-Campbell and Batey 1998, 163–64; Dockrill 1998, 74–75; Batey and Sheehan 2000, 137–38). Like burial customs and grave-goods, the domestic material culture of pre– and early Viking Age Scotland and Norway did differ. The Norse preferred steatite

vessels over pottery (Butler 1989, 194), and rectilinear longhouses (broadly defined as long, narrow buildings with straight or slightly curved walls) were favoured over curvilinear, cellular, structures throughout Scandinavia (Scott 1993; Stummann Hansen and Waugh 1998, 135–37; Stummann Hansen 1999). The Picts favoured the reverse (e.g. Lane 1990; Ralston 1997, 22–23; MacSween 1998). Each group also used distinctive comb and pin forms (Foster 1990; Weber 1993, 165–66). In Scotland, however, the patterns of vessel use and architectural form were quantitative trends rather than absolute distinctions (Morris 1991, 72; Hunter and others 1993, 279; Owen forthcoming). Moreover, the earliest Viking Age sites, particularly Buckquoy (A. Ritchie 1974; 1977), the Brough of Birsay (Curle 1982, 58), Pool (Hunter and others 1993, 279), and Skaill, Deerness (Buteux 1997, 261–64), have yielded complex mixtures of material culture in 'Pictish' and 'Norse' styles.

Despite this ambiguity, steatite vessels and rectilinear longhouse architecture have been universally (if sometimes implicitly) used as criteria for recognizing Norse settlement (recent examples include Neighbour and Burgess 1997, 114; Dockrill 1998, 74; Owen and Lowe 1999, 293). The reason for this tradition is clear—the degree to which either are known from pre–Viking Age Scotland is in fact very limited. It is worth considering the evidence in some detail.

Steatite is locally available in Shetland, but not in Orkney or the Western Isles (Butler 1989). It was used on a small scale in the Northern Isles for both manufactured objects and pottery temper from the Neolithic on (Butler 1989, 194). However, its floruit in the prehistory of Orkney and Shetland was the Bronze Age, when large urns were employed for cremation burial (A. Ritchie 1995, 92). Subsequently, the use of steatite objects, particularly vessels, was extremely rare until the Viking Age. Scalloway, Shetland, is one of the few Iron Age sites to produce soapstone vessels, but only two shards from a single pot were recovered from secure contexts (Sharman 1998, 139). More recently, a few steatite vessel shards (three in the 1999 field season) of possible Iron Age date were recovered from Old Scatness, Shetland, but these differ in style and quantity from the much more abundant Viking Age material at the same site (Forster 2000, 18–19; Julie Bond pers. comm.). Moving to Orkney, no steatite vessels were recovered from Late Iron Age Howe, where the only artefacts of this material were a possible sling stone, a single bead, and several spindle whorls (Ballin Smith 1994, 191–92). The largest number of soapstone artefacts (ten vessel shards and one unidentified fragment) from any putative Late Iron Age context were found at Site 6 of Skaill, Deerness (Porter 1997, 141–42). However, Skaill is a multi-period site including a Viking Age phase and Site 6 was reconstructed from a 'very slight' written record following the unfortunate death of Peter Gelling, its excavator (Buteux 1997, 38). It is thus conceivable that the steatite represents intrusive Viking Age or later midden filling earlier structures. In any case, no Iron Age assemblage can remotely compare with the quantities of worked soapstone from later Viking Age contexts. There were over 66 kg from the ninth- to eleventh-century phases of Pool alone (Hunter and others 1993, 280). Given this pattern, and the earlier popularity of steatite in Norway (Butler 1989, 193–94), it would be

unwise to discard this material as a pragmatic indicator of Norse migration. The fact that it applies only to northern Scotland, with pottery remaining common in the Hebrides (Lane 1990), will be considered below.

A similar picture emerges from a survey of pre–Viking Age rectangular architecture. Rectilinear elements do occur in the generally curvilinear architecture of Phase 8 (fourth to seventh century) at Howe (Ballin Smith 1994, 99), a Late Iron Age rectangular courtyard was identified at Pool (Hunter and others 1993, 275), and post-broch rectilinear structures such as the Wag of Forse, Caithness, have been known for many years (Morris 1991, 72). It is likely that similar architectural features will continue to be found in Iron Age settlements—the 'sub-rectangular' Structure 8 at Old Scatness is a recent example (Dockrill 1998, 70). Excluding the Pool courtyard, however, the buildings in question do remain cellular—if 'axial' rather than 'radial' in plan (Hunter 1986, 26; Morris 1993, 295). They are also the exceptions which prove the rule in a now widely known Late Iron Age tradition of cellular and curvilinear architecture which extends from Shetland (e.g. Dockrill 1998, 68–73; Sharples 1998, 80) and Orkney (e.g. A. Ritchie 1977; Morris 1989; Hunter 1986; Hunter and others 1990) to the Western Isles (e.g. Crawford and Switsur 1977, 130; I.A. Crawford 1986, 12–13; Neighbour and Burgess 1997; Sharples 1999, fig. 2; Harding 2000, fig. 7).

In sum, the *earliest Scottish appearance* of settlements with longhouse architecture, steatite vessels, and other objects of Scandinavian style remains a useful general indication of the date of Norse migration (see also Burmeister 2000). Once introduced, these previously Scandinavian traditions would have entered the local vocabulary of material culture and thus cease to imply direct Norse provenance (see below). Nevertheless, the earliest records should remain useful as a *terminus post quem*.

Unfortunately, however, methodological problems remain. Many of the crucial settlements are components of multi-phase sites (e.g. Hamilton 1956; A. Ritchie 1977; Curle 1982; Hedges 1983; Hunter 1986; Hunter and others 1993; Morris 1995; Buteux 1997) with their concomitant problems of residual and intrusive material (see Foster 1990, 168 regarding combs). Moreover, the use of stone and turf architecture and the lack of waterlogged conditions have prevented the preservation of timber for direct radiocarbon or dendrochronological dating. Olwyn Owen (2002) has suggested that we could also be missing the earliest Scandinavian houses, which may have been built entirely of timber, in our search for stone and turf.

When all of these factors are combined there is little unambiguous settlement evidence with which to date the first phase of Norse migration (fig. 4.3). Early Viking Age sites are not yet known on the Scottish mainland (Batey 1991). The excavated structures and middens at Freswick Links, Caithness, are of earlier (Pictish) and later medieval character and date (Morris and others 1995, 260–64). The situation is better in the Northern Isles, but chronological resolution remains poor. In the case of early excavations at Jarlshof, Shetland (Hamilton 1956), Underhoull, Shetland (Small 1966), and the Brough of Birsay, Orkney (Curle 1982), the problems are limited stratigraphy and the absence of archaeometric dating. Hamilton's (1956, 106) report

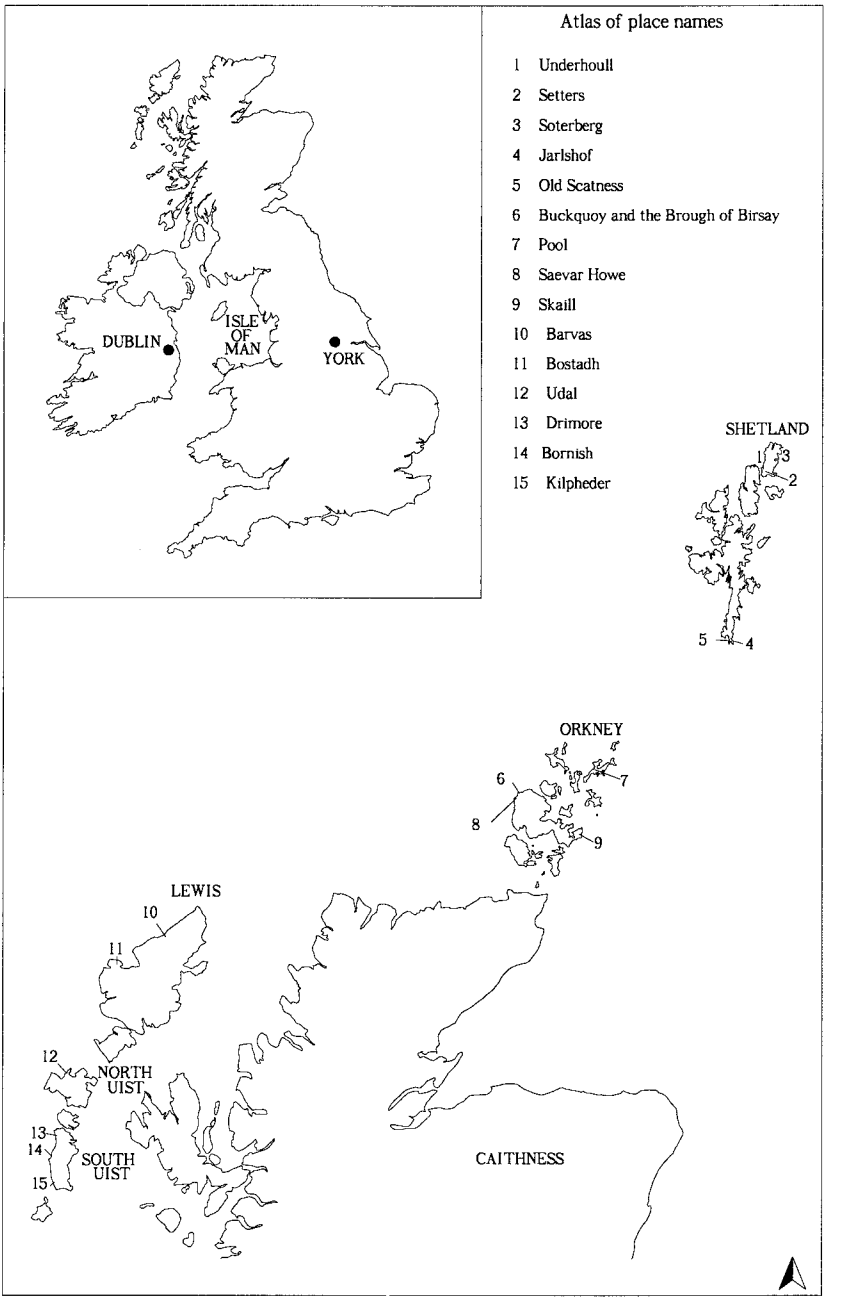

Fig. 4.3. Viking Age settlements with architecture or finds of Scandinavian style in northern and western Scotland (J.H. Barrett and T. Simpson)

on Jarlshof suggested AD 800 for the start of Norse settlement, but this was based on records of more southerly raids rather than independent archaeological criteria. The earliest Scandinavian occupation of this site may actually be somewhat later given the recovery of a tenth-century ringed pin in the primary phase (Stummann Hansen and Waugh 1998, 122; see also Ashmore 1993). Based on reassessment of both architectural features and the finds assemblage, Underhoull probably dates to the late tenth to twelfth centuries rather than the ninth century as was initially implied (Bigelow 1987, 25; Stummann Hansen 1996, 121–22; Stummann Hansen and Waugh 1998, 123). The stratigraphically mixed 'lower Norse' horizon of the Brough of Birsay (Curle 1982, 53–71) contains artefacts of possible eighth- to late-tenth- or eleventh-century date. However, more recent excavation (Hunter and Morris 1981; 1982; Hunter 1986; Morris 1995) places the earliest dateable rectangular structures on the site to 'the last half of the ninth century' (Hunter 1986, 104).

A tight chronology has proven elusive even for more recent excavations. Ambiguous stratigraphy is also an issue at Skaill, Deerness, due to the premature death of its excavator (Buteux 1997, 1–3). Irregular and thus culturally ambiguous structures (Houses 1 and 2) associated with Pictish-style combs preceded a rectangular 'hall-house' (House 3) and artefacts of clear Scandinavian style (Edwards 1997, 76–78). The ambiguous structures may have been erected in the eighth or ninth centuries, but the first longhouse could not be dated more closely than the ninth to eleventh centuries (Edwards 1997, 77).

An Anglo-Saxon coin of Burgred, type d (866–68) was recovered from a drain of Phase IIc at the settlement site of Saevar Howe, Orkney (Batey and Morris 1983, 93; Stevenson 1986, 340). It was pierced, however, and may thus have served a non-monetary role for many years after its minting.

Several longhouses which *may* belong to the early Viking Age based on building morphology have recently been surveyed in Unst, Shetland (Stummann Hansen and Waugh 1998, 123–30; Stummann Hansen 2000). Three of these, Hamar, Setters (Belmont), and Soterberg, have been the focus of preliminary excavation, but cannot yet be dated more precisely than the Viking Age as a whole (Larsen 1997a; 1997b; Larsen and Stummann Hansen 1998; Stummann Hansen 2000).

At Buckquoy, Orkney (A. Ritchie 1974; 1977), a sequence of three rectangular structures were stratigraphically below a Viking Age burial dated to the mid-tenth century based on a lightly worn coin of Eadmund (939–46). This settlement in turn overlaid a distinctively Pictish 'figure of eight' building. The latter could not be closely dated, but Ritchie's suggestion that the presumed Norse settlement is unlikely to postdate the ninth century is reasonable. The importance of this site lies in the co-occurrence of Pictish-style combs and pins with rectilinear architecture which probably reflects Norse influence (but see Graham-Campbell and Batey 1998, 161–63).

The earliest well-dated evidence for Norse migration presently comes from Phase 7 at Pool, Orkney. As at Buckquoy, Pictish-style objects (combs, hipped pins, and pottery) co-occurred with rectangular architecture. Portable artefacts of Scandinavian type (steatite objects and an antler comb) have also been recognized from this

Phase (Hunter and others 1993, 277–80). Based on four radiocarbon assays from Sub-phase 7.1, Hunter and others (1993, 280) have dated the earliest Norse settlement at the site to the ninth century. When recalibrated at two sigma using the 1998 curve (Stuiver and others 1998) the results are AD 428–652 (GU-1998, 1505+50 BP), AD 662–893 (GU-2002, 1250+50 BP), AD 657–890 (GU-2004, 1270+55 BP), and AD 775–1032 (GU-1807, 1105+70 BP).

Looking to the future, the large-scale excavations at Old Scatness, Shetland, may have the greatest potential to illuminate the date of Norse settlement in the Northern Isles. Presently, steatite artefacts of Norse style have been recognized in the fill of a cellular 'figure of eight' building, Structure 5, and on a floor surface built into the fill of a pre-existing Late Iron Age wheelhouse, Structure 11 (Dockrill 1998, 71–75). The finds from Structure 5 include a steatite line sinker with tenth century parallels (Bond 1998b, 88–89; Dockrill 1998, 73–74). Radiocarbon dates on carbonized barley from the relevant stratum of Structure 11 have yielded assays of AD 781–1018 and AD 692–982 (AA-345343 and AA-34529 respectively, calibrated at two sigma), and carinated steatite bowls from the site have probable eighth- to ninth-century Norwegian parallels (Dockrill and Bond 2000, 12).

Turning to the west, 'no [Scandinavian] settlement remains which can be definitely attributed to the Norse period have been recognized in Argyll' (Brown 1997, 230).[9] Many sites of Viking Age or medieval date have been identified in the Hebrides from Lewis in the north to Tiree in the south based on surface finds of distinctive pottery, particularly platters (Lane 1990, 128–29; Sharples and Parker Pearson 1999, 46). Given the lack of Norwegian parallels for this material, however, it is not a useful indicator of migration. In fact baking plates (made of schistose soapstone in this case) are later introductions in Scandinavia (Weber 1992).

On excavation, six settlements in the Outer Hebrides have provided evidence consistent with Norse settlement or influence: The Udal, Drimore, Barvas, Bostadh, Bornish, and Kilpheder. Rectangular structures associated with artefacts of Scandinavian style at The Udal, North Uist, have been attributed to the mid- to late ninth century (Crawford and Switsur 1977, 131, 135; I.A. Crawford 1986, 13; see Graham-Campbell and Batey 1998, 175). However, the crucial radiocarbon date, on whalebone, is impossible to interpret due to marine reservoir effects (see Dyke and others 1996; Barrett and others 2000b). The date of a single Norse house excavated at Drimore, South Uist, in 1956 is also ambiguous, being attributed to either the ninth or early tenth centuries (Maclaren 1974, 15), and the Norse phase at Bostadh is not yet dated (Neighbour and Burgess 1997, 114). The remaining sites in the Hebrides are all later. Barvas, Lewis, is dated to the tenth to eleventh centuries (Armit 1996, 192), Kilpheder, South Uist, to the eleventh to thirteenth centuries (Brennand and others 1998, 35–36; Sharples and Parker Pearson 1999, 51–55), and the relevant phases of Bornish, South Uist, to the eleventh to thirteenth centuries (Sharples and

[9] Although indigenous sites such as the royal stronghold of Dunadd in Dál Riata may have continued in use (Lane and Campbell 2000).

Parker Pearson 1999, 51–55; Sharples 2000, 3). None yet indicate Norse migration as early as the ninth century—as is implied by Pool and perhaps Scatness in the Northern Isles.

Economic Patterns

Changes in the diet and economy of Viking Age Scotland may also be related to Norse migration—partly as introduced elements of a Norse world view and partly as necessary adjustments to a net increase in population. In comparative perspective, the introduction of new (often more intensive or extensive) subsistence practices and even new species is a well-known corollary of migration (Rindos 1984, 277–84; Crosby 1993). Changes dating to the Viking Age have been recognized in both the marine and terrestrial economy of northern Scotland, and similar patterns are beginning to emerge in the west.

Evidence for intensification of the maritime economy is accumulating rapidly. The number of fish bones from pre–Viking Age settlements is typically small. Moreover, the species and sizes of fish represented are consistent with predominately littoral activity. In contrast, Viking Age assemblages contain large quantities of fish bone from species indicative of greater economic investment and return. Large cod and related fishes were widely exploited in northern Scotland (Wheeler 1977; Nicholson 1998; Barrett and others 1999; 2001), whereas herring took on particular importance in the Western Isles (Ingrem 2000; Ruby Cerón-Carrasco pers. comm.). Stable isotope analysis of human skeletons of Late Iron Age and Viking Age date from Orkney and the Outer Hebrides also suggests that the dietary importance of marine protein increased in the ninth to tenth centuries (Barrett 1999; Barrett and others 2001; Neighbour and Montgomery forthcoming; see fig. 4.4). It is thought that the economic importance of seabirds increased at the same time (Mead 1999; Serjeantson 2001). Moreover, given that linen has traditionally been used for fishing lines and nets (Coull 1996, 56; von Brandt 1984, 75), the abundance of flax in many Viking Age assemblages (Bond and Hunter 1987; Bond 1998a; Dickson and Dickson 2000, 253–54; Poaps 2000) may also relate to intensification of the maritime economy. In addition to providing more food to support an immigrant population, this pattern is consistent with the Norse introduction of a maritime oriented world view. Line fishing for cod and related species was well established in pre–Viking Age Norway (Perdikaris 1999), and the Norwegian ritual of boat burial—which was also exported to Scotland—hints at the sea-lore with which it would have been associated (see Owen and Dalland 1999, 47–50).

Evidence for Viking Age intensification in the terrestrial economy has proven more variable. The increase in flax production just discussed may have partly served a maritime end, but it was an agricultural process and would have provided textiles and oil in addition to lines and nets (Bond and Hunter 1987). This crop also had important symbolic associations within Norse mythology in its own right (Owen and Dalland

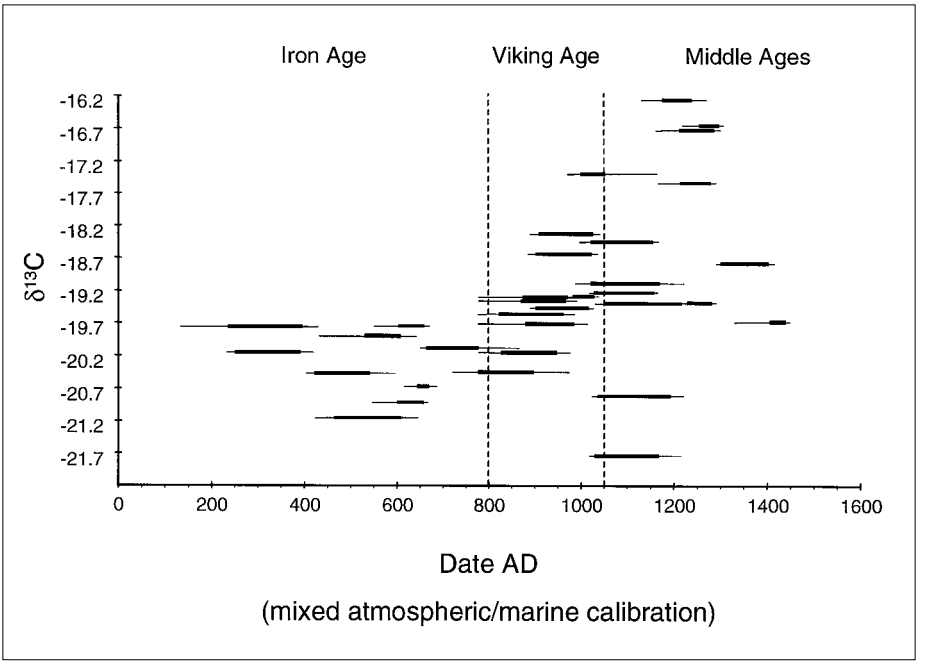

Fig. 4.4. Temporal trends in the marine contribution to the northern Scottish diet based on $\delta^{13}C$ and radiocarbon assays of human bone (after Barrett and others 2000a, fig. 4). More positive $\delta^{13}C$ values imply a greater reliance on marine foods. The dates are calibrated using the 1998 'mixed' atmospheric/marine data set and estimates of % marine carbon (Stuiver and others 1998; Barrett and others 2000b).

1999, 79). In contrast, the pattern of increased dairying observed at Pool (Bond 1998a, 86) is less clear in comparative perspective. The relevant ageing evidence from the Northern Isles is not easily compared (Barrett 1995, 552–56), and this pattern has not yet been corroborated by zooarchaeological research in the Western Isles (Mulville 1999, 24).

Much discussion of economic intensification in the region has related to the initial development of anthropogenic 'plaggen' soils[10] in the Iron Age or earlier (Simpson and others 1998a; 1998b; 1999) and their probable expansion in the Middle Ages (Simpson 1997; Barrett and others 2000a, 20–21). Nevertheless, pollen evidence from northern and western Scotland may suggest Viking Age agricultural expansion (Dark 1999, 164–65). A radiocarbon date of AD 776–1022 (1120+60 BP calibrated at two sigma after Stuiver and others 1998) at Machrie Moor on Arran marks a phase of

[10] Created by adding seaweed, animal dung, and turf to agricultural fields (Simpson 1997, 365).

deforestation associated with an increase in cereal-type pollen and other agricultural indicators (Robinson and Dickson 1988 in Dark 1999, 164). Several pollen cores from the Oban area of Argyll also reveal evidence for deforestation and the expansion of agricultural production around the turn of the first millennium (Macklin and others 2000, 118), and new palynological evidence from Kebister in Shetland is consistent with a local expansion of cultivation in the Viking Age (Butler 1999, 66).

Interpretation of the evidence for agricultural intensification or expansion is complicated by the confounding influence of the so called 'Medieval Warm Period'—the beginning of which was broadly contemporary with the Viking Age (Dark 1999, 20, 165). Fishing and dairying are less likely to increase in warmer conditions. Even in these cases, however, it is necessary to disentangle the impact of Norse cultural patterns or migration-induced population increase from wider secular trends. The Viking Age was a period of economic intensification throughout Europe, associated with the growth of urbanism and increasing trade of staple goods including cereals and cured fish (Barrett and others 2000a). Norway itself underwent significant agricultural and other economic expansion in the tenth to eleventh centuries (Christophersen 1991; Myhre 1998).

Chronology may ultimately provide the key to unravelling these issues. The period of economic expansion and intensification in Norway is the end of the Viking Age—possibly after the opportunities for migration to Scotland, Ireland, and the Norse colonies of the North Atlantic had diminished (cf. Myhre 1998, 17; Ó Corráin 1998b, 434). Moreover, the major growth in Europe's marine fisheries began at and after the turn of the first millennium AD (A.K.G. Jones 1988; Enghoff 1999; 2000; Barrett 2001)—following which a second and larger increase in fishing is also evident in the zooarchaeological record of northern Scotland (Barrett 1997; Barrett and others 1999; Barrett and others 2000a, 16–19; Ingrem 2000).

Most of the Scottish evidence for Viking Age economic change cannot yet be closely dated. Nevertheless, data from Pool (Nicholson 1998) and the few burials of Norse style currently subjected to stable isotope analysis (Barrett and others 2000a, Table 1) suggest that the phenomena may be contemporary with the earliest (i.e. ninth to tenth century) settlement and burial evidence for Norse migration.

If these economic changes are related to Norse migration they may shed some light on the scale of the phenomenon. Barrett and others (1999; 2001) have argued that fundamental changes in subsistence activities are more likely to result from large-scale migration than from the influence of a small immigrant elite. This is particularly likely in the case of fish consumption, which was probably associated with relatively low status in Scandinavian Scotland (Barrett 1995, 280). Unlike changes in language and media of display such as grave-goods, there would be little motivation for the indigenous population to adopt new economic practices unless they were necessitated by demographic change (see Burmeister 2000). The intensification of fishing and other aspects of the Viking Age economy can thus be tentatively interpreted as the distinct cultural practices of a large immigrant population, a reaction to the economic shortfall it would have caused, or a combination of the two.

Genetic Evidence

In recent decades several attempts have been made to illuminate the genetic relationships between the present occupants of northern and western Scotland and their possible source populations (e.g. Roberts 1985; 1986; 1990; Walter Bodmer pers. comm.). Prior to new applications using mtDNA and Y-chromosome variation (Helgason and others 2000; 2001; Wilson and others 2001), however, even the most meticulous work produced ambiguous results (see Evison 2000). The Icelandic geneticist Agnar Helgason and his colleagues (2001, 731) now argue that it is possible to estimate 'the relative contributions of the Gaelic [defined as Irish or mainland Scottish provenance rather than language] and Scandinavian source populations to the mtDNA pools of the islands and coastal populations of the North Atlantic'. Based on their calculations, modern Orcadians exhibit approximately 36% Scandinavian ancestry, a figure which compares with *c*. 12% for the Western Isles, *c*. 13% for Skye, *c*. 14% for the north-west coast of mainland Scotland (mainly Wester Ross, Caithness, and Sutherland), and *c*. 38% for Iceland (Helgason and others 2001, 725, 735). These results relate to female migrants only given that mtDNA is inherited exclusively through the maternal line. Parallel research on Y-chromosome variation in Orkney (Wilson and others 2001) and Iceland (Helgason and others 2000) suggests that the number of male migrants of Scandinavian origin is likely to be higher.

If accepted by the wider genetics community, these new results corroborate the pattern of Norse migration sketched out thus far on the basis of historical, archaeological, and onomastic evidence: it happened, it was probably of significant scale, and it may have been more intense in the north than in the west. Like place-names, however, this evidence lacks chronological resolution. It charts the modern, rather than ancient, distribution of genetic material.[11] It is possible, for example, that Gaelic speakers of Scottish ancestry repopulated the Western Isles during the Middle Ages with support from both the emerging Scottish state and the semi-independent Lordship of the Isles (McDonald 1997). Moreover, the high proportion of Scandinavian ancestry in Orkney could relate to the long period—from the Viking Age until 1468—during which close economic, political, and social ties were maintained between the regions (Thomson 1987). It is also appropriate to reiterate the distinction between biological populations, speech communities, material culture, and ethnic groups. The genetic evidence is important, but alone it brings us little closer to an understanding of culture contact in the Viking Age (cf. Hines 2001).

Cultures in Contact: Ethnicity in Viking Age Scotland

However ambiguous and patchy the available historical, archaeological, and genetic evidence, it does indicate the existence, approximate date, and general extent of the

[11] The study of DNA from Orcadian archaeological material has been attempted, but so far with limited success (e.g. Miller 1996).

Norse colonization of Scotland. The archaeological evidence all points to the introduction of burial traditions, building customs, artefact styles, and economic patterns of probable Norwegian origin at some point in the ninth century. The most closely dated finds, from grave contexts, support the historical evidence that migration probably began in the middle of this century—probably no earlier than the second quarter (cf. Graham-Campbell 1998, 106). The general distribution of settlement implied by Norse place-names is corroborated by the distribution of these burials. It probably included the Northern Isles, the Outer Hebrides, the Inner Hebrides, the Scottish mainland north of the Moray Firth, and the western mainland littoral as far south as the islands of the Firth of Clyde.

It is impossible to estimate the absolute scale of migration from this evidence. However, the number of Scandinavian-style graves exceeds those of England where settlement is known from both reliable historical sources and the eleventh-century archive of place-names provided by the Domesday Book (Fellows-Jensen 1984; Richards 2000). Economic changes such as the intensification of fishing and flax production may also imply large-scale immigration. The widespread influence of Norse material culture (and language), particularly in the Northern Isles, is also consistent with this interpretation. Conquest by a small immigrant elite, as in the Norman invasion of England, seldom leads to change of this kind (Burmeister 2000, 552). Genetic evidence also implies a significant, if minority, immigrant population. However, this last category of evidence describes the recent rather than the Viking Age population.

The evidence considered thus far also reveals something of the cultural complexity which a migration into previously occupied territory inevitably entails. Irish annalists constructed a new linguistic category, *Gall-Ghaidheil*. Moreover, it has proven difficult to date the earliest settlements of Norse migrants partly due to the co-occurrence of material culture of both indigenous and Scandinavian styles, and the modern population of northern and western Scotland is of mixed biological ancestry.

The practical outcome of this complexity is an ongoing debate regarding the character of the colonial episode. It has been acknowledged for many years—especially since Anna Ritchie's (1974; 1977) work at the site of Buckquoy—that there is conflicting evidence regarding the nature of culture contact. Numerous models have been proposed in an effort to reconcile what has been perceived as a contradiction between evidence for both large-scale migration and some survival of 'Pictish' material culture (to which DNA of Scottish provenance could now be added) (e.g. Buteux 1997, 262). Christopher Morris (1996a) and Olwyn Owen (forthcoming) have recently provided balanced reviews of this literature, but resolution of the issue has proven elusive.[12] This problem is not simply a matter of poor evidence; it is an intrinsic aspect of ethnic expression.

[12] See also Bäcklund (2001) and B. Smith (2001). These studies, published as this book goes to press, continue the attempt to reconcile divergent evidence for continuity and change.

Before continuing, it is worth considering the concept of ethnicity in greater detail. Siân Jones has observed a fundamental dichotomy between primordial and instrumentalist perspectives. The former views ethnicity as an intrinsic and largely immutable aspect of a person's identity (S. Jones 1997, 65 with references):

> It is argued that primordial bonds between individuals result from the givens of birth—'blood', language, religion, territory and culture—which can be distinguished from other social ties on the basis of the 'ineffable and unaccountable' importance of the tie itself. [. . . P]rimordial attachments are involuntary and possess a coerciveness which transcends the alliances and relationships engendered by particular situational interests and social circumstances [. . .].

In contrast, the instrumentalist approach conceptualizes ethnicity 'as a dynamic and situational form of group identity' (S. Jones 1997, 73). It owes its origin to the Norwegian school of Fredrik Barth (1969; 1994) and entails four key tenets. Firstly, ethnicity is not fixed. Secondly, it is about demarcating difference vis-à-vis other groups and may thus be most obvious during culture contact. Thirdly, ethnicity is about making one's own way in the world—it is about agency. 'Barth argues that individuals pass from one categorical identity to another in order to advance their personal economic and political interests, or to minimize their losses' (S. Jones 1997, 74). Lastly, different elements of culture (including material culture) can be used to express ethnicity in different contexts. There is no 'one-to-one correlation between culture and ethnicity' (S. Jones 1997, 76).

S. Jones (1997, 81; after Keyes 1981a) goes on to suggest that the dynamics of a particular case study can be illuminated by exploring the degree to which primordial and instrumentalist tendencies are expressed. Defined in this way, ethnicity embraces the complexity of culture contact and prevents the automatic conflation of important differences such as biology, language, and 'culture'. Nevertheless, one can sympathize with the general hesitancy to apply the concept to Viking Age Scotland (see Myhre 1993 for an exception). The critical question is whether the recent ethnographic contexts on which our understanding of ethnicity depends are appropriate analogues for the distant past (Cameron 2000, 555; see Fabian 1983 for a broader discussion of the problem). It is necessary to ground the theory by comparison with specific examples from Viking Age primary sources.

The documentary record is sparse for early historic Scotland, but examples from English and Irish sources do provide a useful illustration of how primordial and instrumentalist tendencies could be played out (fig. 4.5). Intrinsic, primordial, identity was clearly recognized in thought and action: Ohthere (Óttarr) was able to differentiate between the peoples of Scandinavia during his late-ninth-century visit to King Alfred's court (Lund 1984; see Helle 1998, 239–42); Danish identity marked the condemned in the massacre ordered by Æthelred II on St Brice's Day of 1002 (ASC 'C' 1002); and the Dublin Norse were expelled from Ireland in 902, probably to become refugees in north-western England (AU 902; Graham-Campbell 1998, 107–10).

Ethnicity in Viking Age Britain and Ireland

Primordial Tendencies:
- **Late Ninth Century** Óttarr differentiates the peoples of Scandinavia (Lund 1984; Helle 1998, 241)
- **902** Dublin Norse expelled (AU 902)
- **1002** St Brice's Day massacre of the Danes in England (ASC 'C' 1002)

Instrumentalist Tendencies:
- **856** The *Gall-Ghaidheil* are allies of Mael Sechnaill (AU 856)
- **Mid-Ninth Century** Marriage of daughters of Cerball mac Dúnlainge, king of Osraige, to Norsemen (Byrne 1973, 162)
- **878** Guthrum baptized as Athelstan (ASC 890; Kershaw 2000)

Fig. 4.5. Examples of primordial and instrumentalist tendencies during Viking Age culture contact in England and Ireland

Conversely, there are also Viking Age examples of the rapid and strategic manipulation of ethnicity. The *Gall-Ghaidheil*, Irish speakers of Scandinavian origin or descent, fought beside the Irish king Mael Sechnaill as early as 856 (AU 856; Clancy forthcoming), and Guthrum, the Danish conqueror of East Anglia, became King Alfred's godson (adopting Christianity, an English name, and the institutions of native kingship along the way) in the 870s and 880s (ASC 890; Kershaw 2000). There is a hint of this fluidity even in the most primordial of cases. It is unclear, for example, who was expected to meet an unpleasant end on St Brice's Day of 1002—Æthelred could not have intended the 'English' descendants of ninth-century 'Danish' settlers (Innes 2000, 65–67). Nevertheless, ethnicity was clearly recognized as a basis for concrete action in Viking Age Britain and Ireland. However malleable it might have been in the long term, one could not always outrun its shadow.

In light of the duality of ethnic expression, the existence of potentially conflicting evidence from early historic Scotland should not be surprising. Only some elements of culture (material or otherwise) are likely to be employed as expressions of ethnicity at any given time—leaving room for considerable ambiguity in the historical, linguistic, and archaeological record. Moreover, it is clear that there was a multiplicity of possible contact scenarios in Viking Age Britain and Ireland, none of which were mutually exclusive across time or space—from mass execution or expulsion as refugees to language change and the cultivation of fictive or real kinship ties (fig. 4.5). Nevertheless, it is difficult to resist the temptation to move beyond such bland observations and model the social dynamics particular to Viking Age Scotland.

One approach has been to assess the conflicting evidence in terms of the relative importance of war and peace—a trend which has occasionally led to highly polarized debate (e.g. I.A. Crawford 1981). It is clear that warfare did occur between Scandinavian,[13] 'Scottish', and Pictish factions—it is explicitly recorded from the

[13] 'Norwegians' and 'Danes' were both recorded (Ó Corráin 1998a, 320–337).

time of the first raids to the tenth century. Evidence regarding the Scottish southwest has been discussed above, but the Scandinavian impact on the Picts was equally severe (Broun 1994, 27–28; Ó Corráin 1998a, 320–37). The Northern Isles are not mentioned directly, but Orkney was almost certainly within the purview of the Pictish state by the eighth century (Foster 1992, 228; Lamb 1995, 18–19), and records survive regarding warfare elsewhere in the polity. Dauvit Broun (1994, 27–28) has summarized the relevant evidence:

> The Old Scottish Chronicle, evidently based on a lost set of Scottish annals from the mid-ninth to the mid-tenth centuries, informs us that, in the reign of Cináed mac Alpin, 'the Danes wasted Pictland to Clunie and Dunkeld'. [. . .] If this key source is supplemented by Irish annals, a picture of regular devastation soon emerges which can be grouped in three periods, 839 and into Cináed's reign; the 860s and 870s; and the 890s and early years of the tenth century [. . .]. Indeed, the reign of Cináed's son Constantín (862–876/7) seems to have been especially desperate, with references to great slaughter, all the lands of the Picts being raided, hostages taken and exactions levied, and two occasions when invaders prolonged their stay.

In southern Pictland, Cináed mac Alpin's new dynasty ultimately succeeded in holding the Scandinavians at bay (Broun 1994), but the north mainland (Sutherland and Caithness) and islands were lost from Pictish control. The first Scottish king known to have effectively re-exerted influence in the far north was William the Lion who led an army into Caithness in 1196 (B.E. Crawford 1985, 31).

The relevant question is thus not whether warfare occurred, but when. Recent attempts to model the Norse colonization of Scotland have thus tended to reconcile the divergent evidence for continuity and change in terms of chronology. These efforts fall into two broad positions. The most widely held view is that informal, small-scale, and relatively peaceful migration began in the early to mid-ninth century (corresponding with the co-occurrence of material culture of Pictish and Norse style at sites such as Buckquoy, Pool, and the Brough of Birsay). This process was followed by Norse political, linguistic, and cultural domination (perhaps military conquest) late in the ninth century during the formal establishment of the earldom of Orkney (e.g. Morris 1985, 213; Hunter and others 1993, 275; Morris 1998, 85–86; Hunter 1997, 244; Buteux 1997, 262–64; Owen forthcoming). An alternative model, proposed by Bjørn Myhre (1993) and reflected in the writing of Brit Solli (1996, 92), also envisions a long tradition of population movement, but pre-dating the Viking Age. This phase of peaceful and archaeologically ephemeral contact was then followed by a crystallization of ethnic tension and its material expression at some point in the eighth century due to increasing 'Christian' expansionism around the North Sea.

These models force us to recognize that changes observable in the political organization, material culture, language, and biology of early historic Scotland may not all be contemporary. Nevertheless, they do leave room for alternative interpretation (Barrett and others 2000a, 4–9). Firstly, the conclusion that the earldom of Orkney was established in the late ninth century, following earlier 'Viking' settlement,

ultimately relies on high medieval sources—saga evidence (e.g. OS chap. IV) and the *Historia Norwegiae* (AES I, 330–31)—which describe events now known to be unhistorical (Morris 1985, 212; 1998, 82–83).[14] In particular, Harald Fairhair's alleged conquest of Orkney was probably modelled on the much later activities of Magnus Barefoot (Sawyer 1976; Morris 1985, 212). These sources incorporate an anachronistic vision of Norwegian royal authority in the ninth century. In the words of Donnchadh Ó Corráin (1998b, 425):

> Effective Norwegian royal power emerged in the early eleventh century. In the early Viking Age there were no Norwegian kings able to direct and control raiding and settlement in Scotland or Ireland and the kings or sons of kings mentioned in the Irish annals (for example Tomrair erell, tanise righ Laithlinde, Amlaim mac righ Laithlinde) cannot be linked to any Norwegian dynasty.

In the case of the second model, trade connections may have existed between Norway and Scotland prior to the Viking Age, but the dating evidence discussed above would place migration and settlement no earlier than the mid-ninth century.

If the unreliable high medieval sources are excluded from consideration, no chronological division can presently be drawn between possible acculturation processes at sites such as Buckquoy and Pool on the one hand, and the earliest archaeological and historical evidence for warfare and large-scale migration on the other. If one accepts that the mid-ninth century was the main period of settlement, it follows that burials of Norse style—including objects of Scandinavian provenance—were common among first-generation migrants. Although it cannot be closely dated, the adoption of longhouse architecture, steatite vessels, and/or other aspects of material culture in a Norse style in the Northern Isles and Outer Hebrides may be concurrent with these graves. There was also a broadly contemporary shift towards Norwegian economic patterns—particularly large-scale fishing—in the north and probably the north-west.

What cannot yet be said with any certainty[15] is whether the occupants of Viking Age graves and settlements of Norse style were of Norwegian or indigenous *biological* ancestry. It is highly unlikely, however, that all of them were immigrants. Unless we assume the most extreme result of culture contact possible—a St Brice's Day massacre or the Norse expulsion from Dublin, neither of which were successful in the long run[16]—the biological descendants of Pictish and Gaelic speakers still lived and died in northern and western Scotland.

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[14] The latter source, for example, refers to the Picts as little people who lived underground (AES I, 330–31).

[15] In the present absence of large-scale isotopic provenancing and successful ancient DNA analysis (see Miller 1996; Neighbour and Montgomery forthcoming).

[16] Æthelred's order to exterminate all the Danes in England was retracted (Innes 2000, 65) and Dublin was refounded in 917 (Clarke 1998, 332).

This conclusion is supported by genetic evidence for modest Scandinavian ancestry among the modern occupants of northern and western Scotland (Helgason and others 2001, 735). As discussed above, it has also been argued on the basis of more traditional archaeological and historical data. Indigenous material culture, such as the Westness Brooch and Insular belt-fittings, does occur in Norse-style *graves* (although the former could represent plunder) (Morris 1998, 80; Paterson 2001), and is well known in northern *settlement sites* (see above). Although conceivably transported from Ireland, the Hunterston Brooch, found in Ayrshire, may also encapsulate the combination of cultural traditions in Scandinavian Scotland. It is an object of Irish style marked with a Celtic name inscribed in Norse runes (Graham-Campbell and Batey 1998, 43). Survival of the indigenous population may also be implied by the fact that pre–Viking Age burials were respected in Orkney, rather than desecrated as on the Isle of Man (cf. Kaland 1996; Tarlow 1997). The same conclusion is suggested by evidence for both Christian and pagan practice in the Northern Isles (possibly associated with distinct political factions) at least by the tenth century (Stevenson 1981; Morris and Emery 1986; Lamb 1995; 1998; Morris 1996c; Lowe 1998, 8; Owen and Lowe 1999, 290–93; Barrett and others 2000a; 2000b; Barrett forthcoming).

The level of continuity is more marked in the Outer Hebrides, where the indigenous practice of semi-subterranean architecture continued and pottery (albeit in new styles) remained in use (Sharples and Parker Pearson 1999, 58). In the Inner Hebrides and Argyll, continuity of the local Gaelic population is suggested by the probable survival of Iona as a monastic centre and royal burial ground of the kings of Dál Riata (Jennings 1998, 42–43). Moreover, it is unlikely to be a coincidence that the term *Gall-Ghaidheil*, 'Gaelic-speaking foreigners', came to be associated with the western seaboard from Eigg to Galloway (Clancy forthcoming).

Some elements of indigenous practice survived even into the early Middle Ages. Semi-subterranean architecture continued in the Outer Hebrides, and certain pin (and for a short time at least, comb) types remained in use (Foster 1990). Gaelic was probably spoken increasingly in parts of the Western Isles and Argyle (Andersen 1991, 147). Moreover, we have no idea when Pictish died as the language of hearth and home in the north. By way of comparison, the last Norse documents from the Northern Isles date to the fifteenth century (e.g. REO no. 18), while Norn, a Norse dialect, survived as a spoken language into the eighteenth century (Fenton 1978, 617).

In sum, the present evidence does imply both large-scale Norse migration *and* the coexistence of indigenous and immigrant groups in terms of material culture, biology, language, and—by implication—possibly self-conscious ethnicity as well. It is similarly clear that the results of this process were different in the Northern Isles, the Outer Hebrides and Argyll, and the Inner Hebrides.[17] Thus it is no longer necessary to ask whether there was continuity from the Scottish Late Iron Age to the

[17] See also Woolf (2001, 436) who independently addresses some of the same themes.

Viking Age, but it is critical to consider why the ultimate expression of ethnicity varied from region to region. Why was Gaelic language ultimately adopted by both native and newcomer in Argyle whereas Norse became the dominant language in the Outer Hebrides and the Northern Isles? Why did classic Scandinavian longhouse architecture become *de rigueur* in the north, but not in the west?

These are complex questions, but it is possible to suggest several relevant variables. Regional differences in the density of immigrant settlement was clearly one factor, as is implied by the onomastic and genetic evidence discussed above. Migration is an ongoing process rather than an event (Anthony 1990), and connections with Norway which continued until 1468/69 in the Northern Isles were severed by 1266 in the Hebrides and ceased to be maintained much earlier in Argyll (Duncan and Brown 1957; Donaldson 1990; McDonald 1997). Moreover, early migrants to the Hebrides and Argyll may have moved on to Iceland as suggested by both genetic evidence and medieval tradition (Helgason and others 2001).

However, the relatively even distribution of Scandinavian-style burials from Orkney to Arran implies that other factors may also have been involved, particularly in the ninth to tenth centuries (Graham-Campbell and Batey 1998, 151). The negotiation of power and status must have been equally important. The death of Pictish in the north and the continuity of Gaelic in Argyll are useful examples.

The virtual absence of surviving Pictish place-names in the Northern Isles and Outer Hebrides could result from their adaptation into Norse forms as suggested by Berit Sandnes (1999, 31–32), but there must be an underlying explanation for this process itself.[18] An extreme view would be that the indigenous population lost control or ownership of land, and thus the power to name it. However, the death of a language must involve the active participation of its former speakers. As Nancy Dorian (1981, 40 with references) has emphasized, this is typically motivated by differences in status and power:

> Choice of language is relatively easily imitated, as behaviors go; unlike imitation of dress, diet and general living style, it [linguistic behavior] can often be achieved without much financial outlay. Certainly linguistic assimilation of the masses to the language of the elite is a recurrent phenomenon; within the Celtic world alone, the romanization of Gaul and the saxonization of British England are classic examples [. . .]. In terms of acculturation studies, the adoption of a dominant-culture language (even to the exclusion of their own) by members of a subordinate or peripheral culture is an adaptive or coping strategy.

We must assume that the 'Picts' found it strategic to emulate their Norse-speaking neighbours.[19] As Olwyn Owen (forthcoming) has recently suggested, this choice

[18] Note that Richard Cox's (1999) suggestion that the Ogam inscriptions of Scotland are in Old Norse has been excluded from consideration on the basis of counter-arguments by Michael Barnes (1999).

[19] *Contra* Woolf (2001, 436), who dismisses the well-established process of elite emulation.

may have been heavily influenced by the shift to Gaelic in the Alban court of mainland Scotland. By the tenth century there was no longer a Pictish-speaking elite which could serve as a model for descendants of the indigenous population of northern and western Scotland.

The situation in Argyll and the Inner Hebrides was almost the reverse. The differing distribution of Norse topographical and habitation place-name elements (Jennings 1996, 62–66) and the medieval association of the *Gall-Ghaidheil* with Argyll and Galloway (Clancy forthcoming) suggest that it was the migrants who emulated local practice in this region. Norse was replaced by Gaelic despite significant Scandinavian settlement (see above). The relative proximity of Scottish royal authority—perhaps represented by continued occupation of the elite site at Dunadd—is unlikely to be a coincidence (Lane and Campbell 2000; see also Duncan and Brown 1957; Jennings 1996; McDonald 1997). Local relationships of power and status may also have influenced language history in this region.

To conclude, these observations are neither new nor surprising. The scale of population movement and relations of status and power are important variables in any study of migration (e.g. Lucassen and Lucassen 1997a). Nevertheless, they do help explain the existing evidence and also imply a third factor influencing the diversity of ethnic expression in Viking Age and 'Late Norse' Scotland. Developments in language, material culture, and other aspects of behaviour required decisions, conscious or unconscious, by the descendants of *both* the indigenous population and the Norse migrants. The choices made represent alternative primordial and instrumentalist solutions to the tensions inherent in culture contact. In northern Scotland, the descendants of Norse migrants retained their language, significant elements of their material culture, and probably even their economic patterns. The indigenous population adopted these practices and perhaps self-conscious 'Norse' ethnicity as well. In western Scotland, where burial evidence may suggest an initial migration of similar magnitude, new styles of architecture and pottery emerged in the Outer Hebrides (Sharples and Parker Pearson 1999) and the Irish-speaking foreigners, the *Gall-Ghaidheil*, became associated with Argyll and Galloway (Clancy forthcoming). In the former case we may see major changes in the practices of both groups; in the latter it is the Norse who emulated indigenous behaviour.[20]

[20] The work presented here owes its origin to my time as a doctoral student under the guidance of Christopher Morris and Paul Buckland at the Universities of Glasgow and Sheffield. An early version of the paper was written in 1997, but it was heavily revised for publication in 2001. The many people who have contributed off-prints, ideas, and unpublished reports over these four years are too numerous to mention, but I would like to record a collective debt of gratitude. Special thanks are owed to Thomas Clancy, Tim Neighbour, Olwyn Owen, and Alex Woolf for allowing me to cite their forthcoming papers.

ABBREVIATIONS

AES, I *Early Sources of Scottish History A.D. 500 to 1286,* vol. I, trans. by A.O. Anderson, Stamford: Paul Watkins, 1990[1922]

ASB *Annales de Saint-Bertin*, trans. by F. Grat, J. Vielliard, and S. Clémencet, Paris: Librairie de la Société de 1'Histoire de France, 1964

ASC *The Anglo-Saxon Chronicle*, trans. by D. Whitelock, DC Douglas, and S.I. Tucker, London: Eyre and Spottiswoode, 1961

AU *The Annals of Ulster (to A.D. 1131)*, trans. by S. MacAirt and G. MacNiocaill, Dublin: Dublin Institute for Advanced Studies, 1983

OS *Orkneyinga Saga*, ed. by F. Guðmundsson, Reykjavík: Hið Islenzka Fornritafélag, 1965

REO *Records of the Earldom of Orkney*, ed. by J.S. Clouston, Edinburgh: The Scottish History Society, 1914

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The Vikings and Ireland: Ethnicity, Identity, and Culture Change

HAROLD MYTUM

Introduction

The Viking impact on Ireland has always been recognized as significant. From the time of the writing of the annals, the raiders and then invaders were seen as affecting early Christian culture (Etchingham 1996). There has been a wide range of attitudes to this intervention from modern scholars, and most traditional views emphasized the destructive features of the Viking raids and their disruption of cultural forms (Binchy 1962; Henry 1967), though others have pointed out that raiding was already well established and the Norse merely added another dimension (Lucas 1967). Understanding of the Norse has been transformed recently by excavations and the subsequent analyses in Dublin (Wallace 1992a) and latterly Wexford, Waterford, Cork, and Limerick (Wallace 1992b; Hurley and Scully 1997; Hurley 1998), and by numerous artefact studies (Graham-Campbell 1976; Dunleevy 1988; Lang 1988; Fanning 1994; Walsh 1998; Sheehan 1998a; 1998b; Harrison 2001). There has also been reconsideration of many of the written sources, with a critical awareness of not only dating but also the purposes behind many of the texts and so the ways in which they can be interpreted (Doherty 1998; Ó Corráin 1998a; 1998b).

The scale of research on Viking Age Ireland has been very considerable in recent years. Interest has been shown not only by archaeologists and historians, but also by art historians, historical geographers, and linguists. The results have appeared in a range of textbooks, journals, and monographs, but also in several interdisciplinary volumes which have helped to shape the subject in the last decade or so (H.B. Clarke 1990; Edwards 1990; Aalen and Whelan 1992; Clarke and others 1998). Despite all

this analysis, study of ethnicity and identity within and between different groups in early medieval Ireland has remained relatively undeveloped within archaeology. Moreover, recent excavation evidence suggests some revision to the chronology of settlement, particularly in Dublin. Some reassessment is therefore opportune, continuing the analysis of culture change in Ireland already set out for the pre-Viking contact period (Mytum 1992), but recognizing some of the more recent considerations of ethnicity (Jones 1997), agency (Giddens 1984), and *habitus* (Bourdieu 1990) which can be seen to inform the study of small-scale interaction and the construction of meaning.

Ethnicity

Archaeologists have long been aware that ethnicity is not an absolute, identifiable through skeletal remains or through diagnostic artefacts which indubitably reflect a particular ethnic style. It is a socially constructed phenomenon which may have some relationship with descent, but which can be chosen and manipulated to varying degrees in different circumstances (Jones 1997).

It is clear that genealogies in the early medieval period could be created to serve political purposes of legitimization by both Irish and Vikings (Ó Corráin 1998a); the same may have been the case with ethnic affiliation. In the documentary sources, language and name forms are used to indicate ethnicity. These may be appropriate, since they were chosen or ascribed by contemporaries based on their perceptions, rather than on genetic data. Artefact forms and styles are more problematic, however.

The role of ethnicity within social identity is one with which archaeologists have become increasingly concerned. There are many problems with studying this issue in a prehistoric period where only the material culture patterns are available, but in the historic period the issue can be examined with more confidence. In many culture-historical examples within the early medieval period archaeologists simply took names from documented sources and applied them to the material evidence thought to be appropriate. In a sense this is still the case with material described as native, Viking, or Hiberno-Norse in current literature. Material culture tends to be seen as a passive reflection of ethnicity (and also of status and gender) rather than an active element in its negotiation. There is, however, now an increasing awareness of different cultural contexts involving the manufacture, use lives, and discard through which items may pass, though the functional and symbolic implications of this have as yet not been greatly explored.

Ethnicity, Identity, and Self-Identity in Ireland

The Vikings who first raided, then established settlements in Ireland were themselves an ethnic mix of Norwegian and Danish groups, but the term ‘Norse’ has been applied to the settlements and their inhabitants because of the ethnicity of their

rulers. In reality the inhabitants of Dublin, Wexford, Waterford, and other settlements would have been a mixture of diverse Viking groups, and probably included within their number also wives, servants, and slaves of other ethnicities including Picts, Welsh, Saxons, Manx, as well as Irish. This is important to remember when considering artefactual evidence which will not always directly correlate with the dominant ethnicity.

Ó Corráin (1998b) has provided a persuasive explanation as to why the pattern of Norse settlement in Ireland failed to take the form that it had in Scotland, Man, or northern England. He suggests that the Irish literary class had by the late eighth century developed within the elite the concept of an Irish identity based on language and culture and defined and justified through genealogy and origin myths (Ó Corráin 1985). It was in contrast to this identity that the Norse could be seen to be 'other'; they were *gaill*, 'foreigners'. This should, given the form of political complexity in Ireland, be considered ethnic rather than nationalistic, since it was based on models of kinship and descent rather than occupation of territory. If the model of identity outlined by Ó Corráin can be accepted, then there is good reason to differentiate between the Irish and Vikings as two distinct categories not only in our current archaeological and historical classifications, but as categories having contemporary meaning at that time.

It can be taken that the division between Vikings and Irish was also recognized by the Norse kings, though no contemporary sources survive written under their authority. Ó Corráin (1998a) suggests that the raiding of Ireland was largely undertaken from a Viking kingdom established over the northern and western Isles which was established early in the ninth century. From thence, expeditions came to Ireland to gain control. The Irish annalistic references indicate these communities of Vikings already settled in Ireland were treated differently from those of the indigenous Irish, suggesting that clear ethnic divisions were being recognized by the Norse kings. The Viking settlers had to give over hostages, but the Irish had to pay tribute; this distinction suggests that the former were seen as free, the latter as a subject population (Ó Corráin 1998a, 301).

Ethnicity can be seen to have played a significant role in group definition, but two other factors should be noted here. One element of difference is social, in that indigenous Irish social structures were heavily reliant on a kinship structure, supported by extensive if not always historically reliable genealogies. In this way the elite identified themselves as distinct and justified in their rule, and the free farmers gained legitimacy in their claims over land and rights to common resources. The Vikings entered Ireland having no such relevant history of associations and relationships, and so were alien and at a social and economic disadvantage. It was not possible for Irish-Viking relationships to be based on the same criteria of blood relationships or fosterage of children in the first phases of contact; over a period of interaction, these indeed became important mechanisms for integration. A network of social obligations was then established between individuals and groups of different ethnicities which allowed the Vikings to participate more fully in politics and economics.

The other aspect of culture which was a vital element in self-definition was that of religion. Whilst Ireland was now a Christian country, the Vikings were pagan. Interestingly, Doherty (1998) points out that a shift in the clerical literature, with an emphasis on conversion, may have come about because for the first time for generations the Church was coming into contact with pagans on home soil. The imperative for conversion, the major theme in the early Church, could be revived with the presence of immigrants holding different religious views. This has also been suggested by Bradley (1992, 52) with regard to the symbolism behind saints' names chosen for church dedications.

There were three interrelated aspects of the definition of 'self' and 'other' that are relevant for group identity: ethnicity, kinship, and religion. The cultural behaviour of the two ethnic groups was different, and this has a clear archaeological imprint, but many of the material features can be seen to have both reflected and created the identities within all three aspects.

Archaeologists have not yet considered in any detail the ways in which material culture operated in the definition and redefinition of ethnicity in early medieval Ireland, though current approaches to silver from hoards illustrates some of the ways forward. Ó Floinn (1998, 155–57, 165; see also Sheehan 2001) has pointed out that the data need to be placed in appropriate cultural contexts with regard to find spots. Graham-Campbell (1995, 33) notes that the patterns of use prior to burial have not been explored, despite the use histories of many items indicated by the pecking marks where the bullion quality has been checked, and the role of meanings of the silver as bullion and artefact could also be added here. Sheehan (1998b) suggests that the transfer of much bullion, as seen in arm rings and to a lesser extent coins and ingots, could relate to varying combinations and types of trade and tribute as well as a product of raiding. Emphasis has still tended to focus on extant hoards, rather than seeing these as an archaeologically visible element—even by-product—of a wider use and role for the silver bullion and the artefacts (arm rings, brooches, and pins) as active items of material culture. The terms 'native', 'Viking', and 'Hiberno-Norse' are widely used within modern archaeological studies; the problems of associating styles with ethnic groups are widely recognized, but as yet no one has attempted to overcome them.

A Chronology of Contact

The historically derived structure of research on the Vikings in Ireland divides time into a number of blocks, with the phases precisely dated using annalistic entries (Byrne and Doherty 1982). Whilst these time blocks are historical, some are perceived as having distinctive material culture correlates which are archaeologically identifiable. Within each phase it is possible to consider Irish and Viking identities on the one hand, and the nature and frequency of contacts based on documented and material evidence on the other. In this way some understanding can be gained of the role of contact between the two groups in cultural change. The first phases belong to

a period when the political and cultural distinctions between Norse and Irish can be most easily identified, with archaeological correlates in art styles, weapons, and burials. In the later phases, after about 917, this distinction is less clear, suggesting that some acculturation had already taken place, but also making it more difficult to study the continued interaction between Norse and Irish, and the significance of such terms. For that reason, greatest attention is given here to the earlier phases, as they reveal the initial processes of contact and cultural change. It is likely that, as the archaeological evidence for the sequence of urban development becomes more refined, and newly identified rural settlements are defined and dated, an independent archaeologically based chronology could be developed. This will only be possible once recent excavations are published, but it is likely to provide a very different emphasis to the historical framework which is presently available and structured mainly around the annalistic entries.

Phase One: Sporadic Raiding

The first phase starts in 795, with the first recorded raid on Rechru (now thought to be Rathlin Island). Thereafter, a range of annalistic references allows a pattern of occasional raiding to be identified which is widespread and lasts until 837. Clearly, the contexts for interaction are extremely limited; material culture is taken away and becomes incorporated within Norwegian Viking culture in the form of items some of which eventually become deposited in graves. Here the items may be reused intact, though for different purposes, such as reliquaries being taken from a monastic Christian context and used as containers in a secular pagan one, or may be modified for uses in a different cultural context (Wamers 1983; 1998). In these cases there is not cultural interaction, merely the transfer of items seen as exotic and perhaps linked to the heroic deeds of acquiring them.

It is possible, however, that even during this intermittent raiding phase some forms of contact between leaders may have taken place. Moreover, if Ó Corráin (1998a) is correct in seeing the establishment of an early-ninth-century Norse kingdom extending as far south as the Western Isles (see Barrett and others 2000, 4–9 for an alternative view), diplomatic contact would have been relatively easy to establish and maintain. This could also imply that some of the finds found in Norway were not the result of raiding directly, but had come through trade or kinship links back from the Scottish isles to Scandinavia (Ó Corráin 1998b, 438). The rival interpretations hinge on the one hand upon the location of the documented kingdom of *Lochlainn*, and on the other the character, distribution, and date of deposition of finds in Scandinavian graves.

Two Irish kings had the name Bróðir by the early 850s. If it is Norse, as seems likely, this implies intermarriage early in the ninth century assuming that Norse mothers were responsible for giving their children familiar names (Ó Floinn 1998, 163). That the raiding appears sporadic in the annals may hide greater planning and

local knowledge through alliances with indigenous leaders than at present can be clearly demonstrated; if women were brought to Ireland for cementing such alliances this would further indicate recurrent contact. Women were certainly present in Ireland during the following phase (see below). The contact between Norse and Irish would have been largely associated with economic interaction which would, by its nature, not be recorded in the documentary sources and is hard to date precisely enough at present through the material culture.

Within Ireland, the indigenous reaction to Viking incursions in this phase has little material form. The traditional view that material culture production was irreparably disrupted by the raiding is not now accepted (Doherty 2001), but there must have been considerable impact on both secular and ecclesiastical structures in the areas where raids were experienced. The destabilizing impact of raiding has been implicated as a major factor in the change from Pictish to Gaelic culture in Scotland (Broun 1994), and whilst it did not have that overall effect in Ireland it would have had significant impact on localities and regions. At one level there would have been a loss of resources, firstly from a raided monastery, but secondarily from its estates and secular patrons who would have had to make good, at least to a point, the losses incurred. This may have led to a greater intensity of production either of the required finished goods or of primary agricultural products which could be exchanged for them. Secular patrons may have been encouraged to raid elsewhere or impose greater demands on clients to refit destroyed monasteries. Such knock-on effects of raiding are not archaeologically detectable, but the speed with which some monasteries apparently obtained material which could be worth raiding again (Ó Corráin 1972, 82–89) shows that they must have been able to mobilize resources on a scale that would have had a wider impact. The Norse, however, only provided an additional raiding force as indigenous conflict was already well established. What is different about the Norse raiding is that it may have included more ecclesiastical wealth, and led to an export of such resources from the island, rather than redistribution from weak to powerful within Ireland.

Phase Two: The Time of the *Longphort*

The next phase is marked by the presence of larger fleets, operating from fixed points established within Ireland, over a period of roughly forty years from 837 to 876. The typical *longphort* base may have been a specially constructed fortified settlement, and several have been tentatively identified on the basis of surface remains, as at Dunrally, Co. Laois (Kelly and Maas 1995). The possibility that existing monasteries could sometimes have been utilized as enclosed settlements with already built accommodation has been suggested by Ó Floinn (1998, 163). Some *longphuirt* were only occupied over a winter, but others were more permanent, as with the settlement on the River Liffey established in 841 which O'Brien (1998) suggests was near the ford at Islandbridge. Ó Floinn (1998) adds the possibility of further settlement downstream largely on the basis of burial evidence.

Recent extensive excavations at several sites in the Temple Bar area (at Fishamble Street, Essex Street West, Exchange Street Upper, and Copper Alley) have revealed for the first time a clear, long sequence of occupation in the area (Gowen with Scally 1996); the key results have been made widely available through a brief but informative interim report (Gowen 2000a). The full implications of this evidence will only become clear with publication of a final report including detailed structural analysis and consideration of artefacts and environmental data, but already some interpretation is possible. The earliest phases, levels 1, 2, and 3, did not reveal evidence of typical Dublin Norse buildings, and whether any of these were linked to the Norse or suggest existing indigenous settlements is unclear. However, both levels 1 and 3 consisted of rectangular buildings which are not well paralleled in indigenous contexts, with the first resembling Anglo-Saxon structures (Gowen 2000a). Level 1 is dated to AD 780–890 by a single radiocarbon assay (at one sigma), and level 3 produced a late-eighth- to late-ninth-century date (Gowen 2000b). Early in level 4 (the mid- to late ninth century), however, the settlement was restructured and laid out in Fishamble Street with typical Dublin Norse buildings (as defined by Wallace 1992a) set within plot boundaries which remained in place through subsequent phases (Gowen 2000c). Although this settlement was contemporary with and no doubt associated with the *longphort* it was not enclosed which may mean that it was not actually within the fortified area (Gowen 2000a). Nevertheless, it indicates that the types of structures and the organization of space identified elsewhere in later phases was in place from the mid- to late ninth century.

The major form of Dublin building is that defined by Wallace (1992a) as the Type 1 house (fig. 5.1). This was rectangular in shape, but it had slightly rounded corners due to the use of wattle construction. Usually there was a doorway in the centre of each of the short walls, with a central path through the building, interrupted in part by a central hearth. On each side were raised areas for sitting and sleeping, though the corners could be separated off and some were used for storage. These houses were placed end-on within narrow plots and could have other associated structures on the same plot. They have been found in various parts of the settlement associated with a range of crafts, suggesting that they were the generic vernacular architecture of the inhabitants.

The Type 1 building remained the norm throughout the whole period, and this raises questions about its origin. Wallace is certain that this was the cultural norm for the original inhabitants of the re-established Dublin (see below); it can be considered in Clarke's terms to be their mental template for a house (D.L. Clarke 1968). Given the evidence from the Temple Bar excavations (Gowen 2000a), it would seem that the form could have developed during the time of the *longphort*. After considering all the evidence up to 1992, Wallace suggested that the most likely source for the design was that of indigenous building traditions, and this would still seem plausible even as the implications of the Temple Bar data are still being absorbed. Certainly by the tenth century, indigenous Irish buildings were rectangular and could have been of the three-aisle type. Relatively few sites of the period have been excavated,

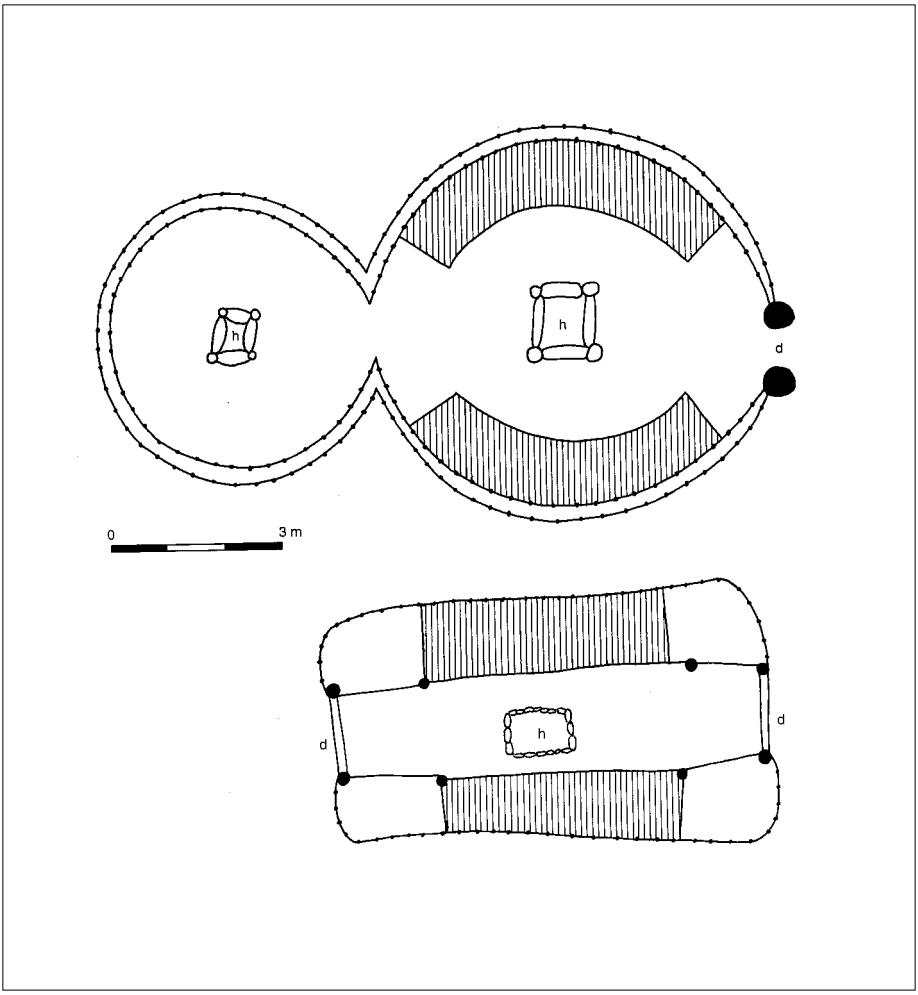

Fig. 5.1. Simplified plans of excavated wattle-walled houses with excellent preservation of internal features. Top: main house at Deer Park Farms, Co. Antrim (after Lynn 1988). Bottom: schematized Type 1 Dublin house (after Wallace 1992a).

particularly in the east of the country, which limits the relevant parallels. The implication, then, is that there was close cultural contact leading to the adoption of not only the building form, but by association the organization of life and household within the dwelling. This aspect has yet to be explored, as Wallace has concentrated on the architecture in the first instance, a necessary beginning given the quality and quantity of the Dublin evidence (Wallace 2001, 37). Alternative explanations include a fusion of Norse and Irish features (with similar implications for acculturation as

the presently favoured interpretation) or a less likely possibility of introduction from the continent (Wallace 1992a, 93).

Wallace (1992b, 55) noted that some buildings at Whithorn were thought by the excavator to be similar to Dublin. The full Whithorn report has subsequently been published, and there are numerous more or less certain rectangular buildings (probably of wattle construction) with rounded corners at the site (Hill 1997). It is thus also possible that the building style was a western British form, perhaps encountered by the Norse in the west of Scotland and north-west England. Likewise, indigenous Irish and western British contacts could have meant that influences and ideas spread within monastic or secular contexts independently of the Norse. Wallace rightly emphasizes that there may have been some adaptation of design to fit an urban context, but early Dublin was probably no more crowded (though perhaps spread over a larger area) than contemporary large monastic centres in Ireland or around the Irish Sea.

In the Dublin houses the pattern of food preparation, social interaction, and sleeping can be seen to focus around the hearth and the benches each side. The four corners offered subsidiary spaces of apparently lesser social significance. There is not an equivalent degree of preservation of internal features in a rectangular indigenous Irish building, but the wattle round houses from Deer Park Farms, Co. Antrim, offer a valuable comparison. Here the same pattern of central hearth and opposing benches can be seen, wrapped round the house walls (Lynn 1988). Only limited space was left at the end of the benches, but there was more circulation area around the central hearth. Most indigenous Irish houses were single-roomed structures, but here is an example of a double-roomed dwelling, as also noted in other regions in stone (Mytum 1992, 112–15). Most of the ways of living within this round building could have been identical to those in the Dublin Type 1 house; the main room at Deer Park Farms has an almost identical floor area to the typical Type 1 house. Wattle construction (both single wall and double wall) is found widely in both indigenous and Norse contexts. These similarities may reflect cultural influences or fusion, or merely similar solutions to similar problems. The potential for combining structural, artefactual, and environmental evidence in and around such buildings offers great opportunities for the study of *habitus* (Bourdieu 1990). Certainly there is limited space for non-domestic activity or large-scale storage, though some supplies could have been hung from the roof.

Another example of a *longphort* of some lasting importance is that of Annagassan, Co. Louth. This was also founded in 841 but would seem to have been occupied for at least a century, though it was not a politically independent unit for all that time (Bradley 1988a, 66, 68).

The general historical view of contact between Irish and Norse during this phase is again one of raiding, with many annalistic entries in this vein. There can be little doubt that the Viking attacks during this period had a considerable impact on the monasteries and regions attacked, for the reasons given above. Etchingham (1996) suggests that up until about 850 Viking church raiding was widespread, thereafter it was concentrated on a relatively few major monastic establishments, now related to

political alliances with the indigenous Irish. The first annalistic notice of an alliance between the Norse and an Irish king of north Brega is in 850 (Etchingham 1996, 49). These political agreements remained extremely unstable, however, and indeed the Norse were not themselves united (Doherty 1998, 305–08). For example, the king of Osraige, Cerball mac Dúnlainge, not only fought the Norse but also formed alliances with and between the Dublin factions, to the point that Byrne (1973, 162) sees him as a protector of the Dublin kingdom. By this phase, however, the Irish also made alliances amongst themselves that led to successful campaigns against Norse power centres. An example of such a successful alliance was the attack on Clondalkin in 867, with many Norse fatalities and the burning of the fort (H.B. Clarke 1998, 336). The result of such pressures, each for particular Irish dynastic and political purposes, was that the area of Dyflinarskiri was not allowed to expand in the way that settlement spread over much of northern England.

Archaeological evidence is also accumulating which suggests that by this phase peaceful interaction was occurring, and probably on some scale. The apparently unenclosed settlement revealed in the Temple Bar excavations does not suggest a Norse settlement under perpetual threat. An analysis of the grave-goods found with burials in the Dublin area demonstrates a surprisingly high proportion of grave-goods associated with trading, though weapons were still the most common items (Ó Floinn 1998, 142–43). The role of trade can be further appreciated through the large amounts of silver entering indigenous Irish circulation from about the middle of the century, during the *longphort* phase (Sheehan 2001, 59). The role of silver is discussed at greater length with regard to the next phase.

Despite this interaction, the *longphort* burial ritual and the range of artefacts from the graves indicates a sense of identity that can be correlated with an ethnic term such as Norse. In the early cemeteries found at Islandbridge and Kilmainham, male graves were predominantly weapon burials. The Dublin burials with swords would seem to all belong to this phase of settlement, with most swords being of types C and H, the latter in particular suggesting an origin in western Norway (Walsh 1998, 235). On the basis of burials, women were certainly in a small but significant minority of perhaps 1:10 (Ó Floinn 1998,142). These women are assumed to be Norse because of the jewellery they were buried with on death. Their ancestry, however, remains obscure—some also had Insular-style pins and brooches. The form, location, and contents of the burial grounds suggest that all were pagans.

Phase Three: Relative Peace

Another period of forty years, from 876 to 916, was relatively quiet in terms of raiding within Ireland. Iceland was opening up as a land for settlement, and England and France were attractive raiding destinations. The Norse were also expelled from Dublin in 902, though this may have only been the elite. Graham-Campbell (1992a) has convincingly argued that the Cuerdale hoard represents some of the wealth taken

by those who retreated across the Irish Sea and settled around the Ribble estuary, though the hoard also shows the deposit augmented by coins from their allies and kin in York. How extensively the Norse were distributed within north-west England, and what contacts they made at this time with other areas such as south-west Scotland, the Isle of Man, or north Wales, is unclear, though some of the leaders were in Scotland and Man (Wallace 1990, 83). Excavations at Viking settlement sites such as Llanbedrgoch, Anglesey, attest to an active pattern of trading connections around the Irish Sea (Redknap 1997), but no settlements have been located that can be directly connected to the exiled groups. To what extent there may have been acculturation during this time is an issue which has been raised in the context of the following phase, and has been a major concern of Wallace (1990), who considers that concepts of urbanism may have been learnt during this political exile.

It is possible that some Norse may have remained in Ireland, politically subdued but able to carry on peaceful economic activity. Certainly the continuity of occupation and plot boundaries at the Temple Bar excavations (Gowen 2000b; 2000c) shows that the abandonment was not as clear-cut as the documentary sources imply. Research on other sites such as Annagassan, Co. Louth, may also demonstrate that they could have remained in use. One Norse-style rural settlement has recently been found just south of Dublin and was probably established in the later ninth century. Interestingly, the first phase of building was more of a longhouse form, whilst the second was more similar to those encountered in great profusion and with excellent preservation in the later deposits in Dublin (Ó Neill 1999).

Contact between the Vikings and the Irish continued in some form at this time. Five mixed silver hoards have been recovered which belong to the period during which Dublin was supposedly abandoned (Sheehan 1998a, 169). When the pattern of all coin-dated hoards (just coins or mixed hoards) is plotted (fig. 5.2), it is clear that a phase of increased silver use and hoarding began at the start of the tenth century. The political and military abandonment of Dublin seems to have been no hindrance to the initiation of this trend. Many other hoards are probably of the same date, but include only less securely dated artefacts. The arm rings which form a common element in Irish silver hoards were probably manufactured in Dublin, though some of the types found in the south-west may have been made in the Munster towns (Sheehan 1998b). There are two main forms, the broad-band type and the less common coiled form, each with subtypes (Sheehan 1992; 1998a). Though often cut up in the process of economic or social transactions, the frequency of intact examples might suggest that they retained particular status if kept whole (Graham-Campbell and Sheehan 1996). Ingots are also frequent finds in hoards, indicating recycling. Sheehan (2001) has recently reconsidered the source of the silver, and indeed the inspiration of the arm-ring forms so popular in Ireland, and confirms and develops the argument to support a Danish link for this material.

Artefacts of less value also suggest contacts and movements. Links between Denmark and Ireland at the end of the ninth century are suggested by Fanning (1994, 53) on the basis of the development of ringed pins in Denmark at that time. Some of the

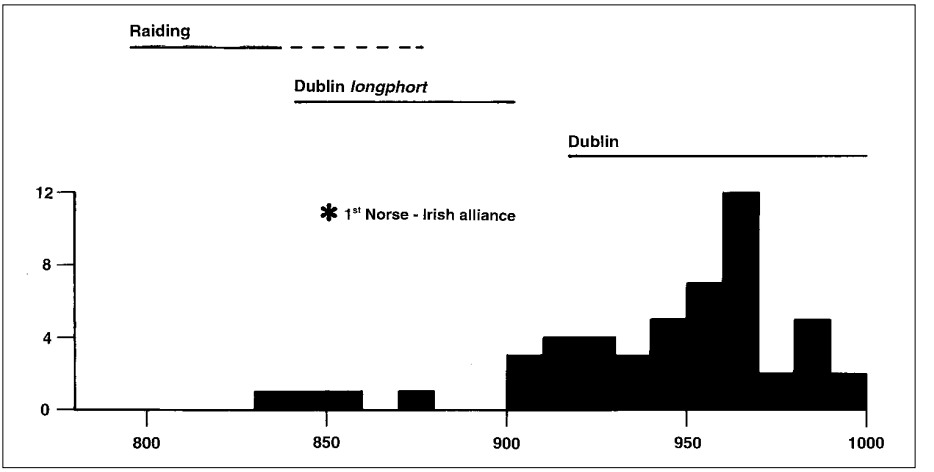

Fig. 5.2. Coin-dated silver hoards from Ireland to 1000.
Hoards of coins and mixed coins are included.
(based on Blackburn and Pagan 1986, as revised by Sheehan 1998a)

ringed pins found in Britain during the late ninth and early tenth centuries could relate to the Dublin exiles (Fanning 1994, 54). The purpose of many motif-pieces remains uncertain, but they have been found in some numbers at Dublin and at a wide range of indigenous sites (O'Meadhra 1987).

Silver was made into brooches, particularly the bossed penannular and ball types, which developed in the late ninth century. There is little disagreement amongst current scholars that the silver came from Viking suppliers, but there is no unanimity regarding the ethnic and cultural affinities of the producers. There are three views reflecting different forms of relationship between Norse and Irish. One view is that the brooches were made by the Irish in indigenous contexts (Graham-Campbell 1976; Sheehan 1992, 45), another that Irish craftsmen were involved but in a Viking milieu such as Dublin (Johansen 1973), and yet another that Scandinavian craftsmen were used (Michelli 1993). Clearly each carries different implications regarding contacts between Vikings and Irish. The ball-type brooches are considered less controversially to be indigenous products (Graham-Campbell 1983), though the style was adopted by the Hiberno-Norse and spread back to Scandinavia (Graham-Campbell 1987). Recent close examination of the indigenous pennanular brooch of the Ardagh type from Killamery, Co. Kilkenny, has shown that this native form has Viking-style stamped lozenge decoration on its pin, a design feature also noted on the brooch perhaps from Strokestown, Co. Roscommon (Whitfield and Okasha 1992). This clearly reflects a mixture of technical and stylistic features, though the context of the production and use is still obscure. The date range for the indigenous silver items would seem to cover a period which includes the Norse eviction from Dublin, but

extends both earlier and later. Whilst closely dating many of the hoards within the period is difficult, they suggest continuity of contact and circulation of material.

The spatial distribution of the silver in hoards in the period up to about 1000 shows a concentration of those with coins around Dublin and Annagassan, as well as parts of the Irish midlands to the east, always under indigenous control (fig. 5.3). Beyond the hoards with coins is a concentration in the midlands of hoards dominated by arm rings and ingots. In the south of Ireland there is a scatter of hoards including coins, but slightly more of those without. There is no evidence of concentration around other Norse settlements, suggesting that they did not have such an important impact as Dublin. The hoards in the north are not linked to any known Viking base, but presumably reflect contacts between this region and Dublin to the south and the Western Isles to the north.

Trade, particularly in slaves, was a major source of income for the Irish (Sheehan 1998a, 175); these would have been sold to Dublin for export (Kenny 1987), at least whilst it was in occupation. The Norse may thus have provided a market for a commodity not previously perceived in Ireland, and one for which a ready export market existed. This may have increased the desire of indigenous kings to engage in raiding. In this context, the native development of souterrains would make considerable sense. These underground hiding places would have allowed for the protection of people as well as supplies (Warner 1979). Though the distribution of souterrains does not correlate with particular indigenous kingdoms (Warner 1986), they could still reflect zones of conflict where more than one side would have concentrated efforts on slave raiding, and where geology allowed the construction of souterrains as refuges for those being sought. The construction and primary use of souterrains would seem to have been through the ninth and tenth centuries, though dating in most cases is problematic.

Phase Four: The Re-establishment of Dublin

According to historical sources, Dublin was resettled in about 917, following setbacks in England, and it thereafter formed the base for much Norse activity including trading, raiding, and military action to support political ambitions. As discussed above, excavations now suggest that in some areas occupation was continuous, and the documents refer not to settlement but political control. Much occupation from the early tenth century onward is now known (Wallace 1990; Gowen 2000d). Wallace's previous excavations on Fishamble Street indicated that an intensively occupied and organized plot structure existed from the middle of the tenth century (Wallace 1992a, 65), and this long remained the accepted chronology. More recent work in the same street, however, can now push the inception of this pattern back to the mid- or late ninth century, with a subsequent increase in the intensity and area of occupation from the early tenth century (Gowen 2000c). The line of the road on which the most dense housing was arranged was established around the latter date

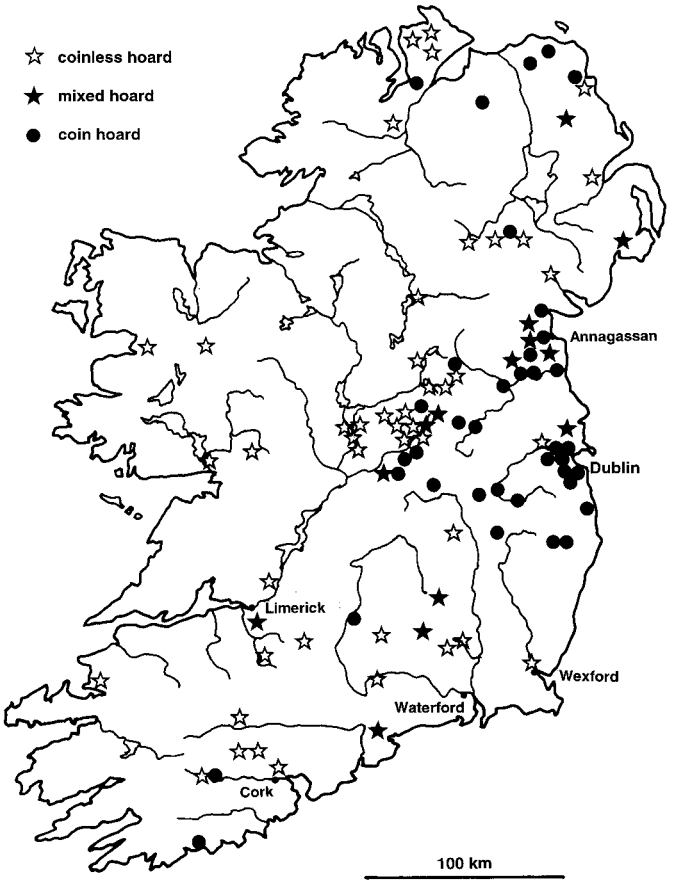

Fig. 5.3. Distribution of silver hoards in Ireland up to *c*. 1000 (adapted from Sheehan 1998a)

(Gowen 2000c). Some areas would seem to have still been open until at least the late tenth century. A hoard in Castle Street which could be dated to about 995 was stratigraphically close to the earliest occupation there, suggesting that this had previously been undeveloped (Wallace 1992b, 40). Moreover, there was a metalworking zone in the Temple Bar excavation area which lasted into at least the mid-twelfth century (Gowen 2000d).

The period of settlement in England, together with the close political associations of the Dublin kings with the urban centre of York, was seen by Wallace (1990) as central in the development of aspirations to create an urban form. This may have to be modified based on the Temple Bar evidence for earlier developments (Wallace 2001, 37), but it would seem that the substantial extent of the intensely packed settlement only occurs from this period onward. H.B. Clarke (1998) considers that an urban form does not emerge until later and suggests that Dublin and other Norse centres throughout this period cannot be considered more than proto-urban. The origins of urbanism in Ireland has been a subject which has incited a range of views, some rather forcefully put, which involve varying definitions of urbanism, the role of Norse settlements, and the characteristics of larger monasteries developing within the indigenous system (Bradley 1992; Ryan 1996). There is more that archaeology could offer to this debate.

Though controlled by the Norse, Dublin featured two possibly reused prehistoric features, the Long Stone and the *þing* mound, which were used to continue or create an indigenous Irish style of inauguration site (Doherty 1998, 301–05). Doherty further suggests that this was due to the ambitious and able Norse king known as Amlaíb Cúarán in Irish sources and Óláfr *kváran* in Norse, who gained the throne in 945. He converted to Christianity, yet combined symbols and meanings from Norse and Irish, pagan and Christian. This use of many symbols, some with multiple meanings, indicates a consciousness in the cross-cultural manipulation of material culture by the elite.

Phase Five: The Emergence of Major Trading and Population Centres

Dublin: The archaeological evidence suggests very strongly that Dublin was by far the largest and most important trading and population centre within Ireland for the period, whether it should be termed urban or not. It had a significant impact on its hinterland, but this impact operated at varying scales, intensities, and social levels. This observation has implications for the nature of cultural interaction between Norse and indigenous Irish. Most evidence perhaps inevitably comes from the elite, notably through documents. By the later tenth century, for example, more royal marriages between the ethnic groups can be identified (Ó Cuív 1988). The elite are also visible materially, mainly through the characteristics and distribution of silver metalwork. Other evidence from structures and ecofacts, however, is also indicative of relationships at lower social levels.

Whilst archaeological and historical inquiry has focused primarily on the Norse trading centres, it has been recognized that some rural areas were also under Norse control (fig. 5.4). These could have provided at least some of the supplies necessary to provision the relatively dense settlements, though the degree to which there was also an indigenous population left is uncertain. Using later documentary sources and place-names, Bradley (1988a) has defined an area which may have been under Dublin control, commonly called Dyflinarskiri, or the shire of Dublin. At times, quite a large area may have been subject to the rule of Norse kings, and it is difficult to balance the political fluctuations evident from the annals with fixed points and areas. Bradley also emphasizes the difference between control and settlement; this could apply in both directions, with Norse controlling indigenous Irish-settled areas and successful Irish kings dominating areas where there were Norse settlers.

Environmental archaeology has begun to shed light not only on the conditions within Norse Dublin, but also on the scale and nature of resources obtained from beyond the settlement. The utilization of botanical resources from the region has been examined in some detail by Geraghty (1996), who has highlighted some of the implications of provisioning a nucleated settlement the size of Dublin. She notes the use of managed woodland not only to supply all the hazel necessary for the frequently rebuilt wattle houses, but also for other structures. Moreover, much wood was necessary for fuel. Grassland was necessary for feeding livestock, and arable land was required for the wide range of crops known from the settlement. Many of the resources from upland areas were beyond Norse control (fig. 5.5), though much of the core area of the Dyflinarskiri was fertile land able to sustain a wide range of agricultural and woodland management strategies. Much of the food provisioning could therefore have been obtained from the Dyflinarskiri, and it is unclear how much came from indigenous suppliers beyond.

The faunal evidence from a small number of excavated assemblages suggests that indigenous management of cattle herds normally maximized dairy production, but the demand for meat in Dublin produced a distinct demand (McCormick 1983). As yet, only a preliminary report on the consumer aspect of this relationship is available from the Dublin assemblages, and few rural sites have been excavated in the region and studied at an appropriate level of detail. Beef was the major meat source, but the animals consumed in Dublin were much smaller than on indigenous Irish sites. McCormick notes that this pattern could have resulted from the inferior animals being sent off to the market while the better beasts were kept for breeding; but suggests that the size differences are more likely to reflect the overall quality of the stock and its management (McCormick 1983, 262–64). He attributes this pattern to a general decline in the standard of cattle breeding amongst the Irish as the social role of this species (as a symbol of wealth and prestige) was replaced by production to serve market demand. This is certainly a likely explanation, one further strengthened by the shift from cattle to silver as the primary medium for the storage and exchange of wealth. The assumption behind the study of faunal remains from Dublin has been that they were supplied by the indigenous Irish; ring-fort excavations and

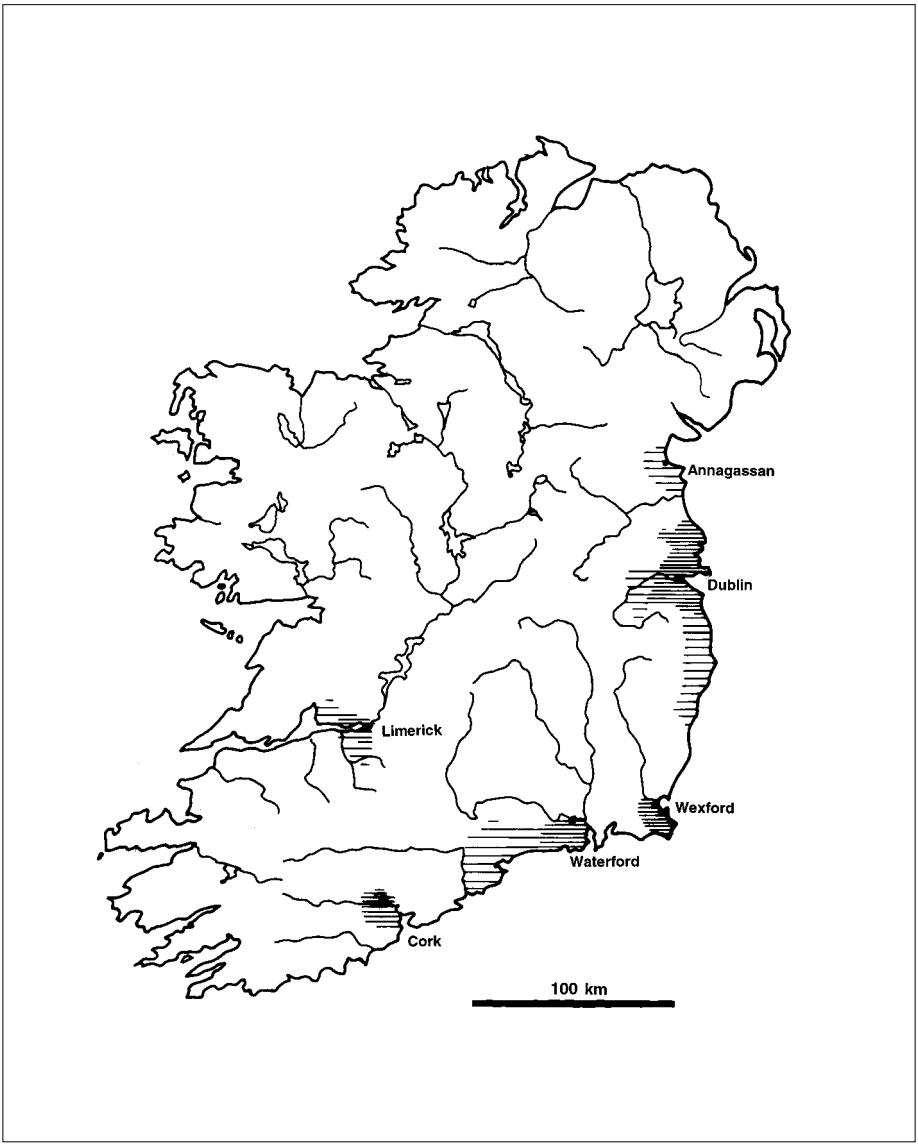

Fig. 5.4. Major Scandinavian settlements in Ireland, with possible territories shaded. Heavy shading indicates areas normally under Norse control, light shading indicates more intermittent control. (after Bradley 1988a)

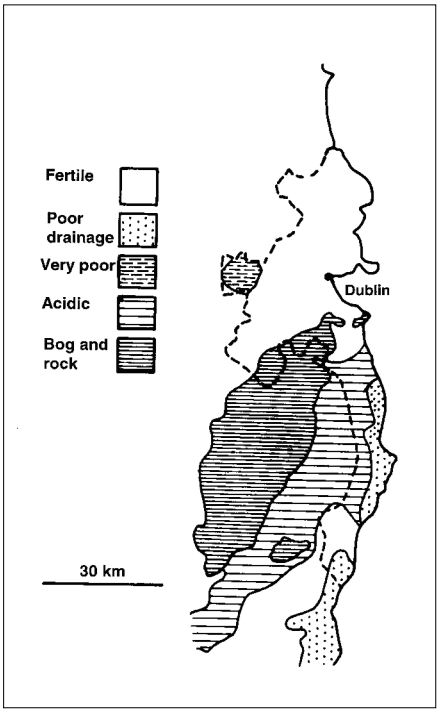

Fig. 5.5. Major land use types around Dublin. The dashed line indicates areas under Hiberno-Norse overlordship, 1150. (after Smyth 1982)

distributional studies have emphasized the importance of cattle husbandry (Stout 1997). It is possible, however, that if the area under Norse settlement and control was as large as Bradley suggests, the Dublin assemblage reflects poorer standards within the Norse settlers of the Dyflinarskiri rather than a change in the native stock quality. This has a significant implication for the nature and extent of interaction between the Norse and Irish, and the degree to which they were economically interdependent with regard to staple subsistence products. It will be difficult to elaborate on the various alternatives for some time, as it is unusual to find rural sites with large and closely dated assemblages of faunal material (from the experience of numerous ring-fort excavations to date, see Mytum 1992, 202–03). It will also be important to include monastic assemblages in any comparisons, as they may throw light on native provisioning of larger indigenous settlements.

Although Dublin had many forms of contact with the indigenous Irish hinterland, it also maintained close contacts with England and beyond. This can be seen through ceramic and other artefactual imports, and through political decisions known from the historic record. From the late tenth century the Vikings throughout Ireland were officially converted to Christianity, yet they chose to link their churches to the Anglo-Saxon rather than the indigenous Irish network (Smyth 1979, 311). Contacts across the Irish Sea could be complex. Cynan ap Iago fled to Dublin from Gwynedd in north Wales when he lost his principality. He married the daughter of a Norse prince and their son, Gruffydd ap Cynan, was fostered in the Irish manner near Swords within the Dyflinarskiri. Eventually Gruffydd regained control of Gwynedd, but only after spending much time in Dublin and the Isle of Man (becoming much attracted to indigenous Irish culture, including the Irish bagpipe) (Curtis 1990). Here, cultural choices were based only partly on ethnicity, but also on social status and political expediency. Welsh, Norse, Irish, and Manx all can be seen to play a part, all within a small part of the central Irish Sea.

Another example of the limited form of contact between Irish and Norse can be seen in the study of ironwork. Walsh (1998) notes that a number of tenth- and

eleventh-century swords from the Dublin settlement are of Anglo-Saxon type—either imports or local copies. The Irish styles were not being incorporated. Moreover, typological and metallographic studies of a range of iron items have shown that where shapes were copied by the indigenous Irish, techniques were not transferred to them (Hall 1991; Scott 1990, 146–49). Clearly the ways in which interaction occurred between different communities varied according to status and occupation as well as ethnicity. The difference between form and content also has potential significance with regard to meanings behind styles and motifs used in art produced in other materials. It is noteworthy that few Norse words became incorporated into the Irish language, and most of those were related to shipping (Greene 1976; Fellows-Jensen 2001).

Other Centres: Although Dublin remained the pre-eminent urban centre, it is possible to recognize the emergence of other small Norse trading centres along the southern and western coast of Ireland from the late tenth century (Wallace 1992b). Evidence so far has come mainly from Waterford (Hurley 1992; Hurley and Scully 1997) and Wexford (Bourke 1990; 1995), but there is sufficient evidence in the fragmentary remains from Cork and Limerick to suggest that similar patterns of development occurred there. These centres were all smaller than Dublin, with smaller hinterlands, whether under Norse or Irish control. Nevertheless, they did provide foci for international trade and ensured a level of contact which covered most of Ireland. A few place-names give hints regarding the possible extent of the settlement around Waterford, as they have around Dublin (Fellows-Jensen 2001), though their dating is imprecise.

Conclusions

The scale and nature of interaction between the Vikings and Irish has traditionally been underestimated. Material culture and documentary sources are all now being re-examined to identify more positive contacts, though as yet both the theoretical and methodological structures within which such research could proceed have not been clearly formulated. The archaeological evidence is now substantial, mainly the structures, finds, and environmental evidence recovered from urban excavations. However, the study of silver hoards and the gradual increase in knowledge of rural settlement gives the data a greater geographical and cultural spread.

The Norse became integrated within some aspects of cultural, political, and economic life in Ireland. Initially only raiding was recorded, but rapidly the Norse developed contacts with indigenous Irish kings. Mixed political fortunes did not prevent the development of strong and resilient economic relationships, which must have been underpinned by social relationships. With the establishment of permanent trading centres at Dublin and elsewhere around the coast, the Norse impact became firmly established.

It is important, however, that the degree of integration not be overstated. Both the indigenous Irish and the Vikings also had their own independent relationships with England, the Northern and Western Isles, the continent, and the Mediterranean. Many aspects of Irish and Viking culture remained distinct for centuries. The limited transfer of Norse loan words and superior iron technology to the Irish suggests limits on contact, and inhibitions regarding interaction. Within Ireland, probably better than in any other area of Viking settlement, there is an existing body of data from many different sources already available. Much more could be obtained though further fieldwork and the study of artefacts and documents. Indigenous Irish and Norse identities, the nature of interaction, and any resultant cultural change will clearly be major themes for future research.[1]

[1] I am grateful for the positive support received from John Bradley on reading the text, though he may not agree with all that is stated here. I also wish to thank the editor for enabling me to incorporate some recent evidence in the final version of the chapter.

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Creating a Past: A Historiography of the Settlement of Iceland

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Since the origin of written records it has happened only rarely that completely new societies have been established. Towards the end of the first millennium AD Earth's last substantial land masses were colonized by humans. In the southern hemisphere, New Zealand was colonized by Melanesian seafarers (Clark 1977, 495–509) whereas in the North Atlantic Norse navigators discovered the Faroes, Iceland, and later Greenland and North America. The Norse expansion into the North Atlantic resulted in the formation of new societies in the Faroes, Iceland, and Greenland. The Greenlandic colony became extinct in the later Middle Ages, superseded by a more successful Inuit culture, but in the Faroes and Iceland Norse societies survived to become nation states with separate and distinct national identities in the twentieth century.[1] The sudden appearance of these societies in the North Atlantic sometime in the ninth and tenth centuries has fascinated scholars for a long time. They have considered the extent to which the shape of these societies was the result of the translation of economic, social, and cultural patterns from the lands of origin and the extent to which they were the result of adaptation to new environments and the birth of completely new ideas. The modern citizens of these societies are equally intrigued by the abrupt beginnings of their nations' past, so unlike the experience of the neighbouring states, asking whether they are simply the descendants of irritated Norwegians or in some way unique. Having a relatively

[1] Iceland had its own parliament from 1845, constitution from 1874, home rule from 1904, and independence from 1918 whereas the much smaller Faroese society got home rule in 1948 and has initiated the process of proclaiming independence from Denmark.

recent and sudden origin has without doubt shaped the national identities of both the Faroese and Icelanders, affecting their self-perception and confidence in dealings with other nations. This chapter examines the historiography of the *landnám*, the term used for the initial discovery, occupation, and settlement of the North Atlantic islands. It is not a survey of the colonization of Iceland. Instead we argue that such an overview is not yet possible. It is first necessary to unravel the history of scholarship regarding the *landnám* phenomenon, understanding how different generations have constructed this seminal event in the nation's history. An understanding of this process is the key to the historical and archaeological problem of how these islands were first occupied by humans.

A remarkable literary culture arose in Iceland in the twelfth and thirteenth centuries producing a wide variety of religious, fictional, and historical works, in prose as well as in poetic form. The most famous, and the most influential in terms of modern culture, are the so-called 'Sagas of Icelanders'. These are a fairly homogeneous body of stories dealing with the early history of Iceland, set mainly in the period 850 to 1050 with a concentration on events in the late tenth century and the first years of the eleventh. They are generally believed to have been committed to vellum in the thirteenth and early fourteenth centuries, recent scholarship favouring later rather than earlier dates. Although most of these stories deal with events in Iceland and the exploits of Icelanders abroad, two of them describe the colonization of Greenland and the discovery of America (IF IV; see also Arneborg and Wallace this volume), and one story is dedicated to the early history of the Faroes, *Færeyinga Saga* (FS).[2] In addition to the Sagas of Icelanders, two works of a different genre describe the early period. *Íslendingabók* or the *Book of Icelanders*, written by the priest Ari Þorgilsson in 1122–33, is a succinct account of the major events in the history of the Icelanders from the *landnám*, dated to 870, to the beginning of the twelfth century. *Landnámabók*, the *Book of Settlements*, is a later and much larger work describing in geographical order the settlement of every part of Iceland, listing names of primary settlers, and adding an uneven amount of information on genealogies and historical events or folklore.

The first part of this chapter will discuss the evidence for the *landnám* preserved in these three sources: the *Book of Icelanders*, the *Book of Settlements*, and the Sagas of Icelanders. Together they make up the state of knowledge on the subject in Iceland's great age of learning and literature in the twelfth to fourteenth centuries. They have also formed the basis for much scholarly discussion of the *landnám* since revival of interest in the subject during the nineteenth century. The second part will discuss the views of nineteenth- and twentieth-century scholars, in particular Icelandic antiquarians and archaeologists, as it is through their works that the generation of historical information can best be appreciated. We will argue that there has been a mechanical rather than critical process of accumulating information regarding the

[2] This saga, along with *Orkneyinga Saga* (IF XXXIV), is usually considered to belong to the group known as the King's Sagas.

landnám from Ari's pioneering work in the early 1100s to the present, and that the resulting body of data has only tenuous links with actual events of the ninth and tenth centuries.

It is not a new idea to reject the historicity of medieval Icelandic sources. The 'book-prose' school has stressed the literary nature of the Sagas of Icelanders, seeing them as the creative efforts of individual artists rather than the result of centuries of oral tradition (cf. Foote 1965; Meulengracht Sørensen 1977; Byock 1988; 2001). However, it must also be accepted that this material is not entirely without basis in earlier tradition. Individual names, anecdotes, and events may well have been brought unaltered through generations of storytellers, representing genuine data of a sort. The problem lies in the fact that it would be next to impossible to differentiate historical information (e.g. a primary settler called Þórðr really existed) from spurious or distorted evidence (e.g. Þórðr did not exist, but some of the deeds attributed to him were real events carried out by another person). Historical evidence of this type is of little use in scholarly enquiry as it cannot be identified with any certainty. Traditional stories may have been plentiful in the twelfth and thirteenth centuries and used as raw material in saga composition. Nevertheless, the overall view of the *landnám* and Icelandic society in these early sources was clearly a scholarly construct. We argue that this representation of the past, initiated by Ari and elaborated to baroque proportions by the subsequent two centuries of scholarship, had very little to do with any 'genuine' traditions about the *landnám* that may have existed at that time. Instead, it was probably generated by the social and cultural needs of the Icelandic intelligentsia in the High Middle Ages. To nineteenth-century scholars the very sophistication of these sources was treated as a hallmark of historicity. Although blind faith in the accuracy of the high medieval accounts has long since been abandoned, they still continue to inspire current scholarship, influencing both its research agenda and research results.

The influence of the medieval sources has severely limited new research into the settlement of Iceland. Most archaeological work has been carried out either to confirm and illustrate the literary accounts,[3] or to explicitly refute them (e.g. Hermanns-Auðardóttir 1989). In either case the medieval literature lies at its core, preventing the development of meaningful new discourses or research designs which could add to our understanding of the settlement period. Alternatively, the medieval literature has been considered a malign influence to be ignored altogether (e.g. Einarsson 1994a; 1994b). This approach is also problematic as it fails to recognize the implicit influence still wielded by the sources. In order to escape this cycle it is necessary to reanalyse the high medieval evidence, to understand its make-up, and to recognize its influence on subsequent generations of scholarship.

[3] This is very clear in the work of nineteenth-century antiquarians (see Friðriksson 1994), but also in later works (e.g. Þórðarson 1931; Stenberger 1943a; Magnússon 1973; Ólafsson 1980).

The Pioneer

In *Íslendingabók* Ari Þorgilsson (1067–1148) sketched an outline of Icelandic history from the settlement to his own lifetime, with a particular emphasis on constitutional and ecclesiastical developments. His bias was clearly towards making the most of the part of the Haukdælir family in the Christianization of Iceland. The Haukdælir were Ari's patrons and had established the older and larger episcopal see at Skálholt. Ari's second principal aim seems to have been to create a chronology for Icelandic history. He did this by estimating dates for a settlement period, the end of which was marked by the establishment of judicial order. Thereafter, the passing of time was measured by the terms of office of the law-speakers, probably based on a classical model. Subsequent scholarship has been unable to refute Ari's arguments. Insofar as he provided detail his chronology is still followed. Some independent confirmation is available from near-contemporary non-Icelandic sources, but Ari is the only authority for most details in *Íslendingabók*. As there are no internal flaws in the source and its terseness seems to imply caution, we are obliged (or doomed) to accept it. However, *Íslendingabók* actually contains very limited information with which to interpret the development of Icelandic society. Much of the *apparent* value of *Íslendingabók* lies in the weight of information that subsequent medieval scholars built on the slim foundation of Ari's work. The evidence regarding settlement contained in *Íslendingabók* itself can be summarized as follows:

- Iceland was colonized from Norway, starting in AD 870.
- Ingólfr was the first settler and he settled in Reykjavík on his second voyage.
- The country was covered in wood when the first settlers arrived.
- Irish hermits were already in Iceland but they left at the arrival of the Norsemen.
- There was a great exodus from Norway to Iceland until King Harald instituted a poll tax on those who left.
- One primary settler settled in each quarter. Each was the ancestor of a major family and of one of the native bishops that had served the country by Ari's lifetime, and one of them was also Ari's ancestor.
- The country was settled in sixty years.
- At the end of the settlement period, in 930, a special law code was enacted for Iceland, and a general assembly, the Alþing, was established at Þingvöllur.

For the archaeologist there is little here to hold on to. Only three archaeologically verifiable observations can be gleaned from this summary: 1) an initial date for the settlement process; 2) that the settlement process was a fairly rapid one (inside sixty years); and 3) that the settlement had a serious and permanent effect on the environment. These observations have all been verified by archaeological research. Undeniable traces of human occupation have not been discovered below the so-called *landnám* tephra-horizon from 871±2, whereas archaeological deposits are found directly on top of it in a high number of locations, the high number indicating the

rapid settlement of the country (Vésteinsson 1998). Pollen analysis has shown a drastic reduction of birch pollen and a corresponding increase in grass pollen in a matter of decades around AD 900 (Hallsdóttir 1987). It is also conceivable that archaeology might throw light on the establishment of judicial structures at a particular junction in the settlement process, but this has not yet been attempted.

The verifiable features of *Íslendingabók* are useful insofar as they preclude a number of scenarios. They do not, however, constitute a history or a meaningful description of how Icelandic society came to be. This lacuna was no doubt felt by Ari's successors, who were to paint a much more vivid picture of the settlement period.

The Consolidators

As far as can be seen Ari had no immediate successors in the study of the early history of Iceland. In the twelfth century, scholars in Iceland and Norway seem to have concentrated on religious works and the histories of Norse kings. These efforts did touch on the general context of the settlement of Iceland and the expansion of the Norse into the Atlantic, but did not add much detail to Ari's skeletal account. It was not until the first half of the thirteenth century that literary works began to appear that took pre-Christian Iceland as their subject matter. These are the Sagas of Icelanders and the collection of historical lore called *Landnámabók*, the *Book of Settlements*.

The sagas are notoriously difficult to date, but most scholars would agree that their writing peaked in the second half of the thirteenth century and lasted well into the fourteenth. More is known about *Landnámabók.* It survives in two complete versions, *Sturlubók* by Sturla Þórðarson (d. 1289) and *Hauksbók* by Haukr Erlendsson (d. 1334). Haukr's version, believed to be written in the first decade of the fourteenth century (Karlsson 1964), follows that of Sturla closely but also used a much older—now lost—version, *Styrmisbók*, compiled by Styrmir Kárason (d. 1245). A fragment of a third version, *Melabók*, survives and this was also compiled in the first years of the fourteenth century. It has been argued convincingly that this version is almost a direct copy of *Styrmisbók* (Jóhannesson 1943). By comparing the three versions it is therefore possible to get an idea of the *Landnámabók* compiled by Styrmir in the first half of the thirteenth century. In his version Haukr indicates that *Styrmisbók* was not the earliest *Landnámabók* because the first to write on the settlement of Iceland were Ari the Learned and Kolskeggr the Wise (IF I, 395). Haukr does not refer to their work as a book, like *Styrmisbók* and *Sturlubók* which he had access to, and it seems that Ari and Kolskeggr's version did not exist as a separate work in Haukr's time. It is reasonable to assume that Styrmir referred to Ari and Kolskeggr's work, possibly in much the same manner as his contemporary Snorri Sturluson (d. 1241) did in his prologue to *Heimskringla* (where he invoked the authority of Ari's *Íslendingabók,* which could hardly be a major source for a history of the Norwegian kings (IF XXVI, 5–7)). Nevertheless, most scholars believe Ari wrote something

more on the settlement than appears in the extant *Íslendingabók* and it seems beyond doubt that his elder contemporary, Kolskeggr Ásbjarnarson, was the author of the settlement descriptions for the eastern seaboard. These are distinct within the collection, similarly structured, and characterized by an almost complete lack of meaningful information. Their formula is: 'N settled X fjord and the N/X family is descended from him' where neither the settler nor his descendants are known from other sources. This is quite a contrast to the rest of the work, which is characterized by much anecdotal information regarding both events and lineages.

It seems then that in the first half of the twelfth century some information regarding the settlement was assembled, possibly only in the lean form of Kolskeggr's formulaic list, but that a complete work in roughly the shape we now know it was only produced towards the middle of the thirteenth century. Subsequently, there is remarkable agreement between the accounts of individual settlements in *Landnámabók* and the Sagas of Icelanders.

Not all the Sagas of Icelanders include information on the settlement period. Of the twenty-four sagas and *þættir* (sing. *þáttr*, shorter pieces) that do, however, only three have versions that diverge significantly from *Landnámabók*. These are *Kjalnesinga Saga*, *Hrafnkels Saga*, and *Svarfdæla Saga*. The settlement stories in *Kjalnesinga Saga* and *Hrafnkels Saga* are related to the corresponding passages in *Landnámabók*, but the settlement story in *Svarfdæla Saga* is substantially different from *Landnámabók*'s account regarding the area in question. The account itself is lost, but from the fragments of the saga that do survive it is clear that its author had related the settlement story of Svarfaðardalur quite differently from *Landnámabók.* All other sagas seem to base their settlement accounts on *Landnámabók* (in *Flóamanna Saga* there is even a direct quotation), although some of them then add additional details (e.g. *Þorskfirðinga Saga*). In a few cases it is possible that a saga account is earlier than that of the extant *Landnámabók* versions (e.g. *Egils Saga* and *Eyrbyggja Saga*). In these cases, however, it is also possible that the saga versions are reworkings of an earlier *Landnámabók* text included in later versions of *Landnámabók* because they contained more information than the original accounts. This case could be argued quite convincingly for *Egils Saga*, which is believed by many to be one of the earliest Sagas of Icelanders, possibly written by Styrmir's contemporary Snorri Sturluson.

For the present purposes, however, it suffices to note that at some point before most of the Sagas of Icelanders were written, a concentrated effort was made to record information on all the settlements in Iceland. The Sagas of Icelanders—with the possible exception of *Svarfdæla Saga*[4]—do not contain any independent evidence about these events. They simply paraphrase and rework the same material, further spinning the same yarn. This is an important conclusion. It suggests a remarkable consistency in the information available to the saga authors regarding the origins of their communities. In fact it suggests that there was little or no variability in

[4] Jónas Kristjánsson considers *Svarfdæla Saga* to be a much later work than *Landnámabók* (IF IX, lxvi–lxxiv).

thirteenth-century traditions regarding the settlement of Iceland.[5] If this had been a society obsessed with a remembered past one would expect a variety of contradictory traditions or at least different emphases on events. Instead, we are presented with a coherent picture from a single work, *Landnámabók*, which was then taken up by subsequent writers.

Deconstructing Landnámabók

The *Landnámabók* compiled by Styrmir Kárason in the first half of the thirteenth century was, like its preserved successors, arranged in geographical order. It started in the far south, on the border between the eastern and southern quarters, and listed some 360 primary settlements clockwise around the country.[6] Nearly all of the habitable land in Iceland is accounted for. Usually one chapter considers each settlement or land-claim, but the information provided varies considerably. The basic formula is 'N settled X area' where X is a current district term or a geographically coherent area and where N is often a single name. Most of the chapters have more information which can be grouped as follows:

- the ancestry and/or origin of the settler;
- the descendants of the settler, most often only one to three generations but in some cases the lineages extend down to the twelfth or even thirteenth centuries;
- the settler's farmstead;
- the boundaries of the settlement area;
- familial connections between the settler and other settlers;
- later settlement and settlers within the original land-claim; and
- anecdotes and summaries of sagas involving the settler or some of his kin.

The emphasis is clearly on genealogical and geographical information. In fact an immense amount of lore about tenth-century family ties is preserved in *Landnámabók*. Although it is impossible to verify to what extent this lore reflects actual relationships, it is internally consistent with a high degree of cross-referencing.

A clue to the rationale behind the work is contained in its basic layout. The compiler has set out to explain how all the habitable areas were claimed. However, he

[5] We are not concerned here with the differences in detail between the different versions of *Landnámabók* or the accounts of the sagas, suggestive of political and societal conditions affecting information on individual settlements (see B. Guðmundsson 1938, 5–22; Rafnsson 1974).

[6] The more commonly quoted number of settlers—430—is misleading in this context because many of these are secondary, i.e. settlers who bought or received lands from settlers who had already claimed the land in question. The number of geographically definable land-claims in *Sturlubók* and *Hauksbók* is 401.

clearly ran into trouble in areas where traditions existed regarding the original settlement. There are a few gaps in *Landnámabók*, a small number of areas that are simply left out.[7] Some of these omissions may be oversights resulting from misunderstandings of the boundaries of settlements or from incomplete knowledge of local geography.[8] In addition to these there are a number of cases where a region is accounted for by a settler who subsequently left for another place. Thus in Arnarfjörður in the northwest both Örn, who is supposed to have given his name to the fjord, and Ketill ilbreiðr, who claimed the southern shore of the fjord, called Ketildalir,[9] left the region to claim lands elsewhere. Örn is supposed to have sold the northern part of the fjord but Ketill's part was simply vacant after his departure. In the far east a similar arrangement is found in Loðmundarfjörður. Loðmundr gamli claimed the land in the fjord and lived there for three years, but then he heard that his high-seat pillars had washed ashore in the south so he transferred his settlement across half the country leaving Loðmundarfjörður vacant (IF I, 302–06).

These cases suggest that the principal aim of the compiler was not to provide the landowners of his own day with illustrious ancestors to strengthen their claims to the land (cf. Rafnsson 1974). Stories of this kind would have been of little value to thirteenth-century landowners in Loðmundarfjörður or Ketildalir. It seems more likely that the compilation was the product of a need to provide the Icelandic landscape with a history (Vésteinsson 1994). In many cases this motive was compatible with recording the origin myths of powerful families, but it also resulted in the invention of history based on little or no traditional material. In the cases of Ketildalir and Loðmundarfjörður, settlers from other areas were 'borrowed' to fill the gaps—linking the personages to the areas through the place-names.

An extreme case of this process is Ólafr belgr, who is supposed to have been chased out of Ólafsvík first, then Belgsdalur until he finally settled in Ólafsdalur (IF I, 112–13, 159). It seems that the compiler was concerned to make the greatest possible match between his different sources, that is, settlement traditions, place-names, the landscape itself, and genealogical lore. In some places there were many traditions and origin myths, probably reflecting the power structure of the compiler's present as much as events that had actually taken place centuries before. In others there were no such traditions or the compiler did not have access to them. In those

[7] In Norðurárdalur and Hraunhreppur in Mýrasýsla (both however within the giant land-claim of Skallagrimr); in Jökulfirðir in Ísafjarðarsýsla; in Svartárdalur, Refasveit, Málmey, Hegranes, and between Deildará and Unadalsá in Skagafjörður; Grímsey and Flatey off the north coast in Kaldakinn in Suður Þingeyjarsýsla; in Hólsfjöll and Möðrudalur in the north-eastern interior; in Langanes in Norður Þingeyjarsýsla; in a part of Holt in Rangárvallasýsla; and around one side of Þingvallavatn in Árnessýsla.

[8] Examples of incomplete geographical information are in Ólafsfjörður and Jökuldalur where settlement farms are located outside the land-claim of the settler in question (IF I, 246, 247, 294).

[9] Although this place-name is not mentioned in the extant texts (IF I, 176).

cases the compiler seems to have felt that he could not leave blanks. Instead, people had to be invented, normally based on the place-names, or borrowed from elsewhere, where a settler of area A had a name or nickname which could be connected with the name of area B. The solution is then to have the settler of area A stop by in area B before reaching A.

As mentioned above, the basic formula of a settlement clause in *Landnámabók* is 'N settled X area' but in most cases more information is also added. In regions with rich settlement traditions the crucial additional elements were respectable ancestry for the settler (he or she was often related to foreign kings or heroes), family ties to famous Icelanders of the early period and a list of descendants, and a clear definition of the boundaries of the land-claim and the farmstead established by the settler. Settlement stories which do not contain these elements must be treated as possible inventions by the compiler. Most suspicious are those examples where the settler has the same name as the area: 'Kolli Hróaldsson settled Kollafjörðr [. . .]' or 'Sveinungr settled Sveinungsvík, and Kolli settled Kollavík and each lived at the place which bears their name since' (IF I, 286–87). There are not many of these very basic stories, hardly more than 10% of the whole. In many additional cases, however, an argument could be made that a personage spirited from a place-name has been given other attributes: family, farmstead, and even deeds. The most basic settlement stories also tend to be associated with small and isolated fjord settlements, which had small populations and were far removed from concentrations of power in the period of compilation.

The processes behind the creation of *Landnámabók* should not be confused with literature. Although inventiveness was certainly involved, the addition of flesh to the bones of place-names and genealogies was a scholarly undertaking requiring systematic deduction following analysis and comparison of the available data. This was not, however, a critical process and every connection made had the potential to generate more 'historical' information. An example is provided by the above mentioned Kolli Hróaldsson. Sturla had nothing more to say than that he sold parts of his land-claim to many men. Haukr, in his later version of *Landnámabók*, matched this Kolli with the much better known Dala-Kollr and had him leave his claim in Kollafjörður to become the personage made famous in *Laxdæla Saga* and *Njáls Saga* (IF I, 168–69; IF V, 7–14). The development of settlement lore from Ari and Kolskeggr's time in the early twelfth century to the compilation of *Sturlubók* and *Hauksbók* either side of 1300 followed this pattern. What started as little or no information was elaborated by successive generations of scholars.

Another example of this process is provided by the giant land-claims included in both *Sturlubók* and *Hauksbók* (fig. 6.1). Both versions attribute extremely large land-claims to several famous settlers, among them Ingólfr himself and all the settlers mentioned by Ari. In some cases, as with Skinna-Bjorn Skútaðar-Skeggjason in Miðfjörður, early settlers may have been attributed enormous land-claims to account for areas where no settlement traditions existed. In others, however, it was clearly a case of establishing seniority and reinforcing claims to political dominance in the

Settler's name	Region	No. of households in 1847	No. of secondary settlements within claim
Helgi magri	Eyjafjörður	593	17
Ingólfr	Kjalarnesþing	582	16
Ketill hængr	Rangárvellir	504	21
Skallagrímr	Borgarfjörður	379	38
Auðr	Dalir	166	8
Steinunn	Rosmhvalanes	148	1
Hrollaugr	Suðursveit	106	5
Skinna-Bjorn	Miðfjörður	100	0
Ketilbjorn	Biskupstungur	96	2
Þorsteinn	Svarfaðardalur	89	0
Sleitu-Bjorn	Eastside of Skagafjörður	70	1
Dýri	Dýrafjörður	64	4

Fig. 6.1. The twelve largest giant land-claims according to *Landnámabók*

compiler's present. This idea enters the compilation process rather late, as can be seen in two of the most extravagant cases. Both *Sturlubók* and *Hauksbók* state that Helgi magri claimed the whole of Eyjafjörður (IF I, 251–52), a region which later constituted one of the thirteen spring-assembly areas of Iceland. A closer reading of the following text reveals, however, that Helgi is not said to have been involved in most of the specific land-claims within his giant land-claim. In both versions Helgi directed the settlement of the valleys at the head of the fjord, which he portioned out his sons and daughters. This area equals the modern districts of Hrafnagilshreppur, Saurbæjarhreppur, and Öngulsstaðahreppur. He was also said to have pointed others to the areas directly north of his core-claim, on both sides of the fjord, in Kræklingahlíð and Svalbarðsströnd to Höfðaverfi. It seems then that in an earlier version Helgi was given a very large land-claim, including some 185 households in later times, which he split among his children. In addition, he is said to have advised others to settle areas which later accommodated some one hundred households. This is a very large land-claim, but less than half the size of the claim Sturla and Haukr attribute to Helgi. A similar situation is found in Borgarfjörður where Skallagrímr is said to have claimed the whole Hvítá river basin (IF I, 71; see also IF II, 73), an area with some 380 households in later times. If only settlements occupied on Skallagrímr's orders or advice are considered, his claim appears much smaller. The land distributed directly by Skallagrímr had some seventy-three households in later times, but he also sold an area of twenty-two households and allowed a claim of an area of five households. He also advised two settlers to claim land on the other side of Hvítá, covering an area which supported thirty-five households in later times. Like Helgi's core-claim, Skallagrímr's was quite large (totalling 135 households), but only a third of the giant land-claim attributed to him in *Sturlubók.* These examples

suggest that the later compilers tended to exaggerate the already large claims of settlers in politically important regions. This could be a result of the consolidation of power which was taking place in the twelfth and thirteenth centuries, with large regions like Eyjafjörður and Borgarfjörður slowly coming under the control of single chieftains. It is notable that the most extreme cases of giant land-claims in *Landnámabók*, Eyjafjörður and Borgarfjörður, were both areas where power was consolidated relatively late, or in the first half of the thirteenth century. Perhaps the political need to view these regions as single units led the later compilers to envision an original unity which was being restored. The story of Skallagrímr's giant land-claim in Borgarfjörður is only preserved in *Sturlubók* as a page is missing from *Hauksbók* at this point. Sturla clearly follows *Egils Saga* which has an almost identical passage about Skallagrímr's claim. If Snorri Sturluson (the leading chieftain and nearly uncontested ruler of Borgarfjörður) was the author of *Egils Saga*, as many scholars now believe (IB II, 87–93), it is easy to see that it was in his interest to suggest original unity of the region.

The creation of new information by *Landnámabók's* compilers and subsequent saga authors clearly pervades many elements of the medieval Icelandic sources. There remains much scope for more specific research. In this chapter we will limit ourselves to a consideration of two further aspects of the settlement stories: the settlement farm and the boundaries of the land-claims. Both superficially appear relevant to study of the settlement period itself.

The Settlement Farm

In 304 out of 401 land-claims mentioned in *Landnámabók* the farmsteads were named,[10] suggesting that this element was a significant ingredient in a settlement story. Claims lacking a named farmstead are spread all over the country but exhibit definite peaks on the eastern seaboard where Kolskeggr dictated the stories and in the north-west. In both cases this lacuna supports the general observation that the compiler had little information regarding these more isolated and politically insignificant parts of the country. It could even imply that what little was said was largely scholarly invention.

Of the 304 claims where a settlement farmstead was mentioned, 136 were farms which later became local centres. More than half of these, or seventy-three, had parish churches associated with them by the thirteenth century, and the other sixty-three all had their own estate churches or chapels. Thus they were middle-sized to large farms. Some were also seats of important chieftains. Given that there were

[10] The total number of settlement farms mentioned is slightly higher because in some claims more than one farmstead is named.

some 330 parish churches in Iceland in the thirteenth century,[11] however, the proportion mentioned in *Landnámabók* seems rather low. This discrepancy makes little sense if the source was intended to protect and strengthen ownership patterns in the compiler's present. Many of the important centres of the thirteenth century did not merit a mention. Another explanation is called for.

It is likely that some places had settlement stories associated with them before the compilation of *Landnámabók* began. If the compilers had access to this material, including the origin myths of powerful families, it was incorporated into the text.[12] It is surprising, however, that the seats of the powerful are under-represented. The compilers looked elsewhere for the settlement farms in the bulk of the land-claims. They seem to have relied on three principal methods. Firstly, a matching place-name could be used, elevating an extant farm into a settlement farmstead if it happened to have the same name as the primary settler. Secondly (and possibly more likely), a settler could be invented from a farm-name, even if the farm in question was of minor importance or deserted. These methods probably account for many of the small or middle-sized establishments given the status of settlement farm by *Landnámabók*; sixty-two of one hundred ten small or middle-sized 'settlement' farms have the same names as the putative settler. It was also common to associate the sons of a settler with important farmsteads within the land-claim, especially if their names could be matched with those of the farms.[13]

The third method employed by the compilers is potentially of more interest to modern students of the settlement. Settlement farmsteads listed in *Landnámabók* were often situated next to a later major farm. In these cases the settlement farmstead was either a cottage or a deserted site within the boundaries of a thirteenth-century

[11] 220 in the southern diocese of Skálholt according to a list from around 1200 (DI XII, 3–15) and some 110 in the northern diocese of Hólar (ninety-eight are listed in an incomplete register from 1318, see DI II, 425–87).

[12] For places like Garðar in Akranes, Borg in Mýrar, Öndverðareyri in Snæfellsnes, Hvammur in Dalir, Eyri in Arnarfjörður, Vatnsfjörður by Ísafjarðardjúp, Flugumýri in Skagafjörður, Saurbær and Þverá in Eyjafjörður, Garður in Kelduhverfi, Hof in Vopnafjörður, Hofteigur in Jökuldalur, Rauðilækur in Ingólfshöfðahverfi (now Öræfi), Kirkjubær in Síða, Holt in Eyjafjöll, Skarð in Rangárvellir, Gaulverjabær in Flói, Haukadalur in Biskupstungur, and Mosfell in Grímsnes.

[13] For example, Rauðr in Rauðsgil whose sons were Úlfr in Úlfstaðir and Auðr in Auðstaðir (IF I, 76); the sons of Baugr who settled Fljótshlíð were Gunnar in Gunnarsholt and Eyvindr in Eyvindarmúla (IF I, 352). Or Hámundr heljarskinn who is given Espihóll syðri as a settlement farm, a small farm in later times, whereas his sons are supposed to have established the farms at Espihóll nyrðri, Grund, and Möðrufell (IF I, 264), all important estates with churches. Grund in particular was a nationally significant centre in high and late medieval times.

estate[14] or a farm which had fallen under the shadow of a neighbouring estate.[15] The idea that the earliest settlement sites were not necessarily those which later became important centres is interesting. It has an inherent logic given the likelihood that mistakes were made and that environmental and social conditions must have changed. Choices of settlement sites must have been reconsidered accordingly. This possibility may be born out by the high number of early archaeological sites which were abandoned within a century or two of the initial settlement. Herjólfsdalur, Hvítárholt, Ísleifsstaðir, Grelutóttir, Granastaðir, and Hofstaðir are all tenth- to eleventh-century sites which were abandoned after two or three generations (Bruun and Jónsson 1909; Stenberger 1943a; Magnússon 1973; Ólafsson 1980; Hermanns-Auðardóttir 1989; Einarsson 1994a; 1994b). In the case of Grelutóttir and Hofstaðir, the relocation may have been inside the same home-field or at least over a very short distance. In the other cases, however, it seems that the abandonment of the site was associated with a major reorganization in the management of resources.

It may be that similar stories preserved in *Landnámabók* have a kernel of truth in them, but this would be impossible to prove. A more cautious approach may be to assume that the compilers had access to traditions of this kind and/or followed the same logic we have. In any case, the idea of relocation became one of the methods used to identify settlement farms.

The Land-claims

Landnámabók lists the land-claims in geographical order, exhibiting a good overall perception of Iceland's geography with local topography often being expounded in detail. The boundaries between land-claims are in the majority of cases clearly defined, and although there is room for doubt in many cases (Matthíasson 1982), the area belonging to each land-claim can be defined with reasonable accuracy. This detail allows us to study the types of boundaries employed, the quantity of land contained within each land-claim, and the quality of this land. All three variables illuminate the mechanical process by which the compilers of *Landnámabók* reconstructed the settlement of Iceland.

[14] For example, Grímsgil by Húsafell in Borgarfjörður, Geirmundarstaðir by Skarð in Skarðsströnd, Sótastaðir by Breiðabólstaður in Vesturhóp, Hof by Hólar in Hjaltadalur, Hanatún by Glæsibær in Eyjafjörður, Fiskilækur by Kaupangur in Eyjafjörður. In many cases the location of the deserted farm is unknown making this sort of connection difficult.

[15] For example, Ferstikla by Saurbær in Hvalfjarðarströnd, Breiðabólsstaður by Reykholt in Borgarfjörður, Glerá by Lögmannshlíð in Eyjafjörður, Öxará by Ljósavatn in Ljósavatnsskarð, Kóreksstaðir by Hjaltastaður in Hjaltastaðaþinghá, Arnaldsstaðir by Þingmúli in Skriðdalur, Fagridalur by Höfðabrekka in Mýrdalur, Eystri Skógar by Skógar in Eyjafjallasveit, Ytri Vellir by Vellir in Land, Höfði by Skálholt in Biskupstungur, Skúlastaðir by Garðar in Álptanes.

In the majority of cases the borders between land-claims were clear and distinct geographical features—rivers were most frequent with mountains and uninhabitable uplands also common. Alternatively, the name of an area was provided, but in these cases its geographical limits were also clear. The compilers aimed for accuracy in their descriptions of the limits of land-claims and preferred distinct geographical barriers to the more culturally defined property and district boundaries of their own day. Apart from those parts of the island where the topography decisively dictates boundaries between communities, it is rare that the boundaries of land-claims in *Landnámabók* coincide with community boundaries—those of *hreppr* (district), *sókn* (parish), or *sveit* (area, countryside). If the primary aim of the compilers had been to justify the control of land, one would expect the work to follow medieval land divisions. Instead, the most decisive geographical features were selected as boundaries, even when they split up the communities of their own day. It is common to find rivers that run through communities or neighbourhoods, unifying features of thirteenth-century settlements, as boundaries between land-claims in *Landnámabók.*

Regarding the size of land-claims, superficial consideration of land area may suggest that they were very unequal in size, even when the giant land-claims discussed above are excluded.[16] If the claims are measured based on the number of farms they include, however, they are fairly even in size. The range corresponds well with the sizes of later parishes and districts (*hreppar*) (fig. 6.2). In the fourteenth century, more than 90% of the parishes had one to twenty farms and 70% of the *hreppar* had between eleven and thirty farms. The land-claims had a size range closer to the parishes with 65% of the claims including one to fifteen farms and 93% of the claims having fewer than thirty-five farms. A small number of claims is then spread over the thirty-five to one hundred ten farm range. Only the giant land-claims are any larger, and they are all split up into smaller secondary claims.

The close match between land-claim sizes and parish and *hreppar* sizes may suggest that the compilers were influenced by an idea of a 'normal' size for a land-claim, based on subdivisions of land in their own time, rather than a rich mixture of local traditions which would be expected to show a greater variety. Again this suggests that *Landnámabók* is in its basic composition, and much of its detail, a construct shaped more by scholarly methodology than oral tradition.

It was argued above that the idea of giant land-claims was developed later than the basic approach of *Landnámabók*, or at least that there was a tendency among the later compilers to enlarge the claims in important regions. At the other end of the spectrum there are also anomalies in claims of parish or *hreppr* size. Very small land-claims were attributed to marginal areas, mainly in the uplands of Borgarfjörður, but also in parts of the south (Þórsmörk in particular) and the east (Jökuldalur). The majority of the fertile flatlands alongside Hvítá in Borgarfjörður were divided into land-claims of respectable size, ten to thirty farms in each, but the pattern changes

[16] Maps showing the division of Iceland into land-claims have been published at the back of IF I, and in Matthíasson (1982).

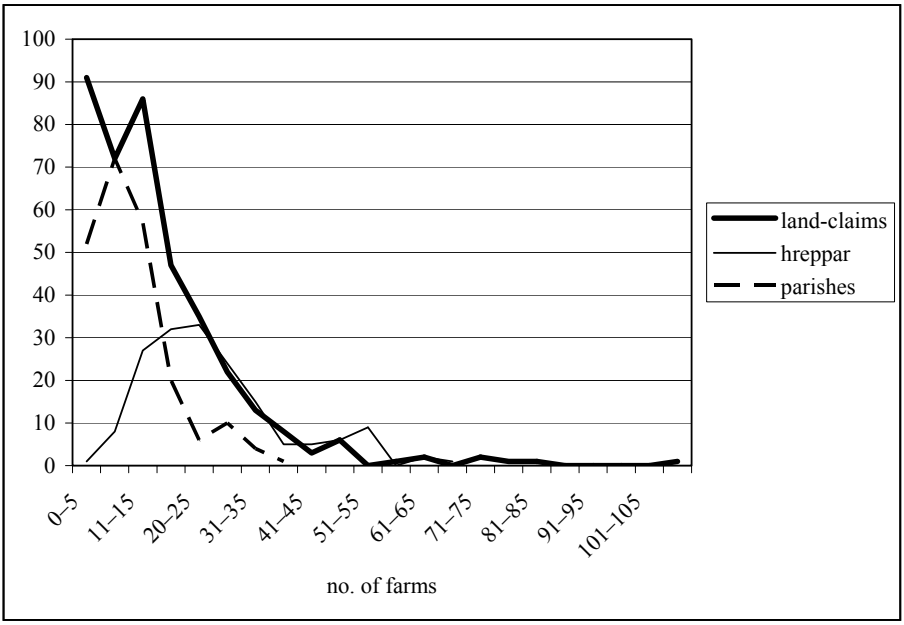

Fig. 6.2. Number of farms in the *hreppar* (districts) and parishes of medieval Iceland compared to the number of farms in the land-claims according to *Landnámabók*

when it comes to the upper part of Reykholtsdalur, the modern district of Hálsasveit. In this area of low fertility and small farms *Landnámabók* suddenly recorded a high number of land-claims, many of them no larger than a single modern farm. Here the settlers' names were almost always the same as their farms'. This pattern was continued on the northern side of Hvítá, in Hvítársíða, parts of Þverárhlíð and in all of Norðurárdalur. Some of these land-claims were placed in areas uninhabited in late medieval times. It is doubtful that they were inhabited when *Sturlubók* or *Hauksbók* were written. The same pattern applies to a smaller number of land-claims along the upper reaches of Markarfljót in the south, areas which have not been inhabited since the twelfth century (Sveinbjarnardóttir 1992).

These passages probably reflect thirteenth-century knowledge that some uninhabited marginal lands had been settled in the first one or two centuries after *landnám*, a fact confirmed by archaeological research (Sveinbjarnardóttir 1992; Rafnsson 1990). However, they also suggest that marginal lands in these areas that were still inhabited differed from the rest of the country. A partial explanation may be that these areas lend themselves to easy geographical division and the compilers of *Landnámabók* had a clear tendency to employ natural features as land-claim boundaries. However, this could also be said of many similar valley environments which were

not subdivided. Another explanation may be that regions like Hálsasveit and Norðurárdalur were being resettled in the thirteenth century when *Landnámabók* was being compiled, resulting in a richer flowering of *landnám* traditions than in areas of more mature settlement. Attempts had clearly been made to settle the marginal zone between the lowlands and highlands in the tenth and eleventh centuries, but these settlements were subsequently abandoned and large swathes of such lands probably remained uninhabited well into the High Middle Ages. They seem to have retained their forests longer than most lowland regions and probably became valuable as a source of charcoal, iron, and summer pasture for lowland estates.[17]

Landnám *Studies in the Twelfth and Thirteenth Centuries*

Thus far we have observed several characteristics of *Landnámabók* which suggest that it was not a haphazard collection of orally transmitted traditions. It was largely a scholarly construct, a systematic undertaking of a single person or group who gathered evidence and created a description of the settlement of Iceland. Although local traditions were clearly employed, they were forced into a pre-determined mould—a model of how the settlement of Iceland happened. This model was ultimately based on Ari's work, but several important ideas were added in the century between his work and that of Styrmir in the first half of the thirteenth century. Each new idea, such as 'a typical land-claim was the size of an average parish', excluded a number of possibilities but also generated new ideas, which in turn excluded further possibilities and created yet more ideas. Although Ari did not provide much information, it was vital insofar as it shaped the course of subsequent *landnám* studies. Ari's successors used his basic model and added to it, creating a largely mechanical process where tradition was invented in the absence of much or any new evidence about the past. Once the process was begun, medieval scholars were probably unable to recognize or make use of 'genuine' data which did not fit the cumulative model. The same has been true for modern scholars as we will see in the following section.

The Archaeology of Landnám

From the outset of Icelandic historiography in post-medieval times, *Landnámabók* occupied a central position as the main source for the dawn of Icelandic history and the origin of the settlers. In his pioneering historical works, Arngrímur Jónsson the Learned (1568–1648) reintroduced the wealth of medieval Icelandic literature to the outer world of learning (Benediktsson 1950–57). His method of summarizing *Landnámabók*

[17] See Smith (1995) for evidence of early iron working in Hálsasveit.

lore into an account of the settlement became a standard approach for centuries, culminating in Bogi Melsteð´s (1903–30) massive work on early Icelandic history.

Not only did *Landnámabók* thus become an established historical authority, but it was also, despite its lack of literary quality, amongst the earliest non-religious works to be printed in Iceland, namely in Skálholt in 1688 (*Sagan Landnama)*. This publication made *Landnámabók* accessible to a wider readership and it became a tool for further research. At the same time, medieval Icelandic manuscripts were being furiously collected and brought to foreign museums. As a result Icelandic sources began to contribute to the classic studies of the Scandinavian age of Enlightenment. A second edition and Latin translation, published in 1774 (*Islands Landnamabok)*, secured *Landnámabók*'s place as one of the major works of north European medieval history.

In Iceland, however, there was little critical examination or questioning of *Landnámabók* until the nineteenth century. In the beginning of that century a growing interest in ancient monuments suggested that new or additional evidence could be found relating to the settlement period. The first survey of antiquities, conducted by parish priests and sheriffs all over the country in 1817–23 (Rafnsson 1983), included a small number of reports on alleged settlement sites, in many cases with direct citations to the 1688 edition of *Landnámabók*.

In 1829 and 1830 a new edition of *Landnámabók* appeared along with many of the Sagas of Icelanders (*Íslendínga sögur*). The sagas were also being edited and translated into various languages, coinciding with the first stirrings of nationalism in Iceland. The growing sense of a separate national identity was to a large degree expressed in an increasing interest in the nation's past.

The early crusaders of Icelandic archaeology, Sigurður Guðmundsson (1833–74, the founder of the National Museum in 1863) and his namesake Sigurður Vigfússon (1828–92, his successor and founder of the Antiquarian Society in 1879), shaped *landnám* archaeology through their extensive research, the former as the first curator of the Antiquities collection, and the latter as the first professional worker in the field, sent into every corner of Iceland by the Society. Although Guðmundsson's work was limited to artefacts and Vigfússon's contribution was field survey, they both attempted to fill the gaps of *landnám* history. Thus Sigurður Guðmundsson (1868, 72–73) asserted, for example, that a dog's tooth, found during construction work in a heathen burial at the Gautlönd farm near Mývatn in north-east Iceland, must be the remains of the dog Flóki, known from *Reykdæla Saga* as the loyal hound of the settler Gaut.

Using much the same approach, Sigurður Vigfússon was the first to attempt to locate and excavate settlement sites. He started a research tradition that was at its height in 1880–1930 and is still practised in Icelandic archaeology. The quest for *landnám* relics was limited to a few recurrent categories: the settler's burial, settler's temple, settler's ship-shed, settler's farm remains, and finally, the limits and topography of land-claims.

It is clear that finding any remains from the *ninth* century is not a straightforward task. The Icelandic landscape has gone through enormous geological changes and it has also been settled for the intervening thousand years. Early sites that have not eroded away on the coast or in the inland deserts, or been buried by lava or sand, have been exposed to continuous human activity, reuse, and rebuilding. In most cases, one would expect that a settler's farm would be buried at the bottom of the typical Icelandic *bæjarhóll*—farm mound. This, however, did not discourage the antiquarians and early archaeologists from searching for traces of the *landnám* in the field, and during the period of 1880–1930 a great number of settlement remains were discovered. Sigurður Vigfússon claimed to have found several burial mounds of individual settlers, some of which had no datable objects or features, whereas others are clearly pre-Christian inhumations (Vigfússon 1882a; 1882b; 1893).

Vigfússon's successor, Brynjúlfur Jónsson (1838–1914), made a novel and courageous attempt to examine settlement remains in marginal areas and ingeniously filled in some of the gaps left by the compilers of *Landnámabók* (Jónsson 1885; 1893; 1894; 1896).

The work of Vigfússon and Jónsson on settlers' burials and abandoned settlements was further embedded into Icelandic archaeology as ingredients of *landnám* history by the first State Antiquarian, Matthías Þórðarson (1872–1959). Not only did he include the alleged *landnám* sites in the register of protected sites and monuments, drawn up around 1930, but he also carried out a number of excavations of supposed settler's farm sites in the 1920s (Þórðarson 1909; 1926; 1932; 1963).

It is fair to say that the substantial research carried out by the first two generations of Icelandic archaeologists was only intended to confirm the literary accounts. These scholars were not interested in testing the accounts, nor were they interested in unearthing evidence that could not be related to *Landnámabók* or the sagas. To them the medieval sources provided the basic framework and description of Iceland's settlement, which only needed to be confirmed—to persuade the sceptics—and to be fine-tuned. Icelandic archaeology took a new turn when Þórðarson's successor at the museum, Kristján Eldjárn (1916–82), carried out a systematic study of pre-Christian burials, refusing to identify individuals by name or alluding in any way to the medieval literature. His book, *Kuml og haugfé*, is still the principal work of Viking archaeology in Iceland (Eldjárn 1956). Eldjárn was the first to make use of archaeological evidence to date the beginning of settlement and the conversion to Christianity, and to establish the origins of the settlers. His conclusions did not, however, change the established history of the settlement period, and it is clear that Eldjárn (1966) himself doubted the ability of archaeology to describe settlement society independently of the written sources.

Following Eldjárn´s example, most Icelandic archaeologists have avoided working in the light of the medieval *landnám* literature. In reality this has meant that many have avoided the issue altogether, focusing rather on the study of farm buildings of all periods, excavating farm remains, and describing the farm house and its development. This has helped to enlighten some aspects of Icelandic culture-history.

Even though there have been several excavations of settlement sites in the last decades they have not contributed to a better understanding of settlement society, the excavators either choosing not to interpret their findings at all or to argue for different dates for the initiation of the *landnám* (e.g. Hermanns-Auðardóttir 1989). It is very rare that archaeologists have attempted to put their findings into a wider context, and they have not been able to convert them into a new understanding of historical processes. The fact that a systematic archaeological survey of sites has not been carried out in Iceland has accentuated the effect of the isolation in which most Icelandic archaeologists tend to work, making it difficult to test any results against a wider background.

We argue that this continuing lack of meaningful debate is due to the overbearing presence of the medieval literature and the weight attached to it by centuries of scholarship. Icelandic archaeologists are normally not trained to be critical of written evidence and have thus chosen either to ignore it (finding niches where they can safely discuss matters not mentioned in the literature) or to continue under the traditional influence of the literary accounts. As a result, considerable efforts have been made to excavate early sites, but these findings have not been used to create an archaeological discourse which might contribute a fresh look at settlement society. The lack of an informed archaeological agenda often produces ironic results, particularly when the public and politicians put pressure on the archaeological establishment. In recent years the National Museum of Iceland, responding to such pressures, has attempted to locate the allegedly 'first' local assembly, established near Reykjavík by the first settler's son, Þorsteinn Ingólfsson, according to *Landnámabók* (Ólafsson 1987). Also, the Museum attempted to excavate the 'first' church, that of Örlygur Hrappsson at Esjuberg, mentioned in *Landnámabók*, but found only a natural pile of rubble (Magnússon 1983; IF I, 54–55; IF XIV, 5, 43–44). More recently, the Museum conducted an excavation at Eiríksstaðir, west Iceland, where Eiríkr rauði (Erik the Red) is said to have farmed. The explicit aim of this project was to reveal the birthplace of his son, the explorer Leifr heppni (Leif the Lucky), so that a reconstruction of the farmstead could be built (Friðriksson 1998).

Epilogue: Rethinking the Landnám

From this brief survey we have seen the extent to which Icelandic archaeology has been devoid of serious attempts to write an independent prehistory of the island. The general tendency has been to assume that the Viking period in Iceland has been adequately described in the medieval literature. The fact is that we know almost nothing about Viking Age Iceland. We have tried to argue here that the medieval literature regarding the settlement period was a scholarly construct with little or no actual bearing on the history of the ninth and tenth centuries. Archaeological scholarship of the nineteenth and twentieth centuries elaborated the high medieval

lore or, at best, attempted to ignore it. Neither approach has been productive, and both have contributed to a remarkable inertia in archaeological debate in Iceland.

Although it has not been possible to explain the colonization of Iceland in this chapter, perhaps we have demonstrated why this cannot yet be done. By deconstructing the medieval literature we hope to have contributed to a clearing of the deck, allowing for fresh ideas and insights into this exciting period in North Atlantic history. However, a decision to put the literature aside (taking it for what it is, elaborate and often insightful works of scholarship based on very slim foundations) must be accompanied by a new vision. It is not enough to state that we know nothing, we must also be able to point to a way out of this ignorance. It is, we feel, a simple task. It is necessary to abandon chasing the lore and to start excavations intended to answer basic questions. There is an economic system to be described, processes and patterns of settlement to be unravelled. We need to start to address fundamental aspects of ancient Icelandic culture. We need to gather basic archaeological evidence for fuel, food, land, livestock, workforce, exchange. The ingredients are there, all we need is to dare to start using them as independent evidence for Iceland's Viking Archaeology.

ABBREVIATIONS

DI II	*Diplomatarium Islandicum*, vol. II, Kaupmannahöfn: S.L. Møllers, 1893
DI XII	*Diplomatarium Islandicum*, vol. XII, Reykjavík: Hið íslenzka bókmenntafélag, 1933–39
FS	*Færeyinga Saga*, ed. by Ó. Halldórsson, Rit, 30, Reykjavík: Stofnun Árna Magnússonar á Íslandi, 1987
IB II	*Íslensk bókmenntasaga*, vol. II, ed. by B. Guðmundsson, Reykjavík: Mál og Menning, 1993
IF I	Íslenzk Fornrit I = *Íslendingabók, Landnámabók*, ed. by J. Benediktsson, Reykjavík: Hið Íslenzka Fornritafélag, 1968
IF II	Íslenzk Fornrit II = *Egils Saga Skalla-Grímssonar*, ed. by S. Nordal, Reykjavík: Hið Íslenzka Fornritafélag, 1933
IF IV	Íslenzk Fornrit IV = *Eyrbyggja saga með Brands þáttr orva – Eiríks saga rauða – Groenlendinga saga – Groenlendinga þáttr*, ed. by E.Ó. Sveinsson and M. Þórðarson, Reykjavík: Hið Íslenzka Fornritafélag, 1935
IF V	Íslenzk Fornrit V = *Laxdoela saga – Halldórs þættir Snorrasonar – Stúfs þáttr*, ed. E.Ó. Sveinsson, Reykjavík: Hið Íslenzka Fornritafélag, 1934
IF IX	Íslenzk Fornrit IX = *Eyfirdinga soegur – Víga-Glúms saga – Oegmundar Þáttr Dytts Þorvalds Þáttr – Tasalda Svarfdaela saga – Þorleifs Þáttr Jarlsskálds Valla-Ljóts saga – Sneglu-Halla Þáttr – Þorgríms Þáttr Hallasonar*, ed. by J. Kristjánsson, Reykjavík: Hið Íslenzka Fornritafélag, 1956
IF XIV	Íslenzk Fornrit XIV = *Kjalnesinga saga – Jökuls þáttr Búasonar – Víglundar saga – Króka-Refs saga – Þórðar saga Hreðu – Finnboga saga – Gunnars saga Keldugnúpsfífls*, ed. by J. Halldórsson, Reykjavík: Hið Íslenzka Fornritafélag, 1959
IF XXVI	Íslenzk Fornrit XXVI = *Heimskringla*, ed. by B. Adaldbjarnarson, Reykjavík: Hið Islenzka Fornritafélag, 1941
IF XXXIV	Íslenzk Fornrit XXXIV = *Orkneyinga Saga*, ed. by F. Guðmundsson, Reykjavík: Hið Islenzka Fornritafélag, 1965
Islands Landnamabok	*Islands landnámabók hoc est liber originum Islandiae*, ed. by H. Finnsson, Havniae: Peter Frederick Suhm, 1774
Íslendínga sögur	*Íslendínga sögur: Eptir gömlum handritum útgefnar af tilhlutun hins konúngliga norræna fornfræða fèlags*, Kaupmannahöfn: Hið konunglega norræna fornfræða félag, 1829–30
Sagan Landnama	*Sagan Landnama vm fyrstu bygging Islands af Nordmønnum*, Skalhollte: H. Kruse, 1688

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Norse Greenland: Reflections on Settlement and Depopulation

JETTE ARNEBORG

Landnám *in Greenland*

The Icelandic scholar Ari fróði Þorgilsson included the story of the colonization of Greenland in his *Íslendingabók* of around AD 1122–32 (Sigfusson 1962; Friðriksson and Vésteinsson this volume).[1] Erik the Red and a group of Icelanders colonized new land in the west fifteen winters before Iceland adopted Christianity, that is around AD 985. Whereas Erik and his family were essentially forced to leave (Erik had been exiled), their followers were attracted by his praises for the uninhabited and newly discovered land. Erik settled in Erik's Fjord at Brattahlid in the Eastern Settlement and the others took land in the fjords nearby or went farther north to the Western Settlement (fig. 7.1).

Approximately five hundred years later, the descendants of Erik the Red and the other colonists had deserted both the Western and Eastern Settlements for reasons not yet fully understood. According to the *Greenland Description,*[2] the Western Settlement was deserted already sometime in the middle of the fourteenth century,

[1] The original text is lost; the main copy is from 1651 (Sigfusson 1962).

[2] The *Greenland Description* is ascribed to the Norwegian priest Ívarr Bárðarson who went to Greenland after 1342. The account has survived in an early-sixteenth-century copy, which has been translated into Danish from the original Norwegian text through German and English editions. The account consists of at least four different texts, and most probably only the part with the topographical description of the Eastern Settlement derives from the original of Ívarr Bárðarson.

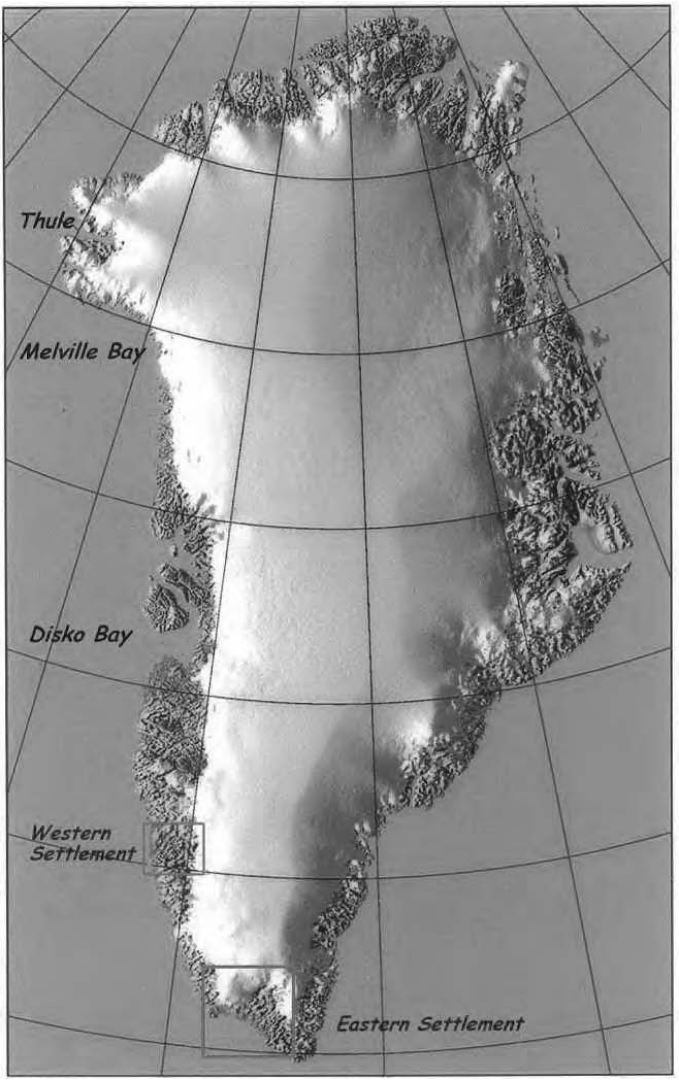

Fig. 7.1. Greenland. The Icelandic colonists settled on the west coast in the northern boreal birch forest zone—well inside the southern fjords of the Eastern Settlement, and in the dry, low arctic dwarf-scrub heaths of the Western Settlement. The Eastern Settlement is (more or less) identical with today's Greenlandic municipalities of Nanortalik, Qaqortoq and Narsaq in the very south and the northern part of Ivittuut and Paamiut municipalities. The Western Settlement is identical with today's Nuuk municipality. Archaeological indications of Norse hunters have been observed as far north as the Thule region.

traditionally around 1360. The last direct record of life in the Eastern Settlement was an account in Iceland of a wedding in the Hvalseyfjord church in 1408 (GHM III, 145), and the archaeological record suggests that life was going on in the settlement until at least the middle of the fifteenth century (Arneborg 1996). This chapter is partly a consideration of the colony's abandonment, about which much has been written over the succeeding generations—from papal correspondence of the late fifteenth century (e.g. Rey 1984) to current interdisciplinary scholarship (e.g. Lynnerup 1998; McGovern 2000). However, it is also a brief study of the half millennium of successful Scandinavian settlement in this North Atlantic colony and of the evidence for contact with indigenous peoples. It considers the settlers, their settlements and economy, their local and long-range trade networks, and their possible relationships with Dorset and Thule groups.

The Settlers

Greenland's Icelandic settlers were farmers and their social structure was probably based on their relationship to land. According to *Grágás*,[3] Icelandic society was divided into four classes or groups: freeborn landowners (*bœndr*), freeborn tenants (*leiglendingr*), slaves (masculine *þrælar*, feminine *Ambattir*), and freedmen (freed slaves—*leysingjar*) (cf. Hastrup 1985, 109). The landowners were economically dominant, but this group was not homogeneous. There were wealthy landowners and poor landowners. Freeborn tenants rented land from the landowners, as did cottagers who were also obliged to work for them. Slaves played an important economic role in the early period of settlement in Iceland, but had disappeared in the eleventh and twelfth centuries as the number of tenants and cottagers increased (Thorsteinsson 1985, 36). In the absence of written evidence regarding social organization in Greenland we may cautiously suggest that the settlers would have transferred this Icelandic system to their new homeland.

Both *Landnámabók* (see Friðriksson and Vésteinsson this volume) and the *Greenland Description* mention the names of some farms. Although historians warn against it (e.g. Langer Andersen 1982), several of these settlements have been identified on the ground. Surviving church ruins are an important indicator. The location of the bishop's see, Garðar, is certain (Nørlund and Roussell 1930) and, if not definite, the identifications of farms with churches (e.g. Herjolfsnes, Brattahlid, Hvalsey, Sandnes, and Anavik) have become conventions.

It is assumed that the church farms mentioned in the historical record were elite sites. However, the elite farms of Norse Greenland can also be characterized

[3] The Icelandic body of law, surviving in *Codex regius* and *Staðarhólsbók*, both from the thirteenth century. The law can be traced back to at least the beginning of the twelfth century (Lárusson 1981, 411)

archaeologically. They exhibit some or all of the following characteristics: the predominance of cattle in relation to other domesticates (principally sheep and goats) (McGovern 1985a, 90), scattered houses (in contrast with centralized farms built as interconnected houses) (Andreasen 1981, 183), an assembly hall (in the Eastern Settlement only) (Berglund 1982), and a close physical connection between the farm and a church (Arneborg 1991, 149). Of the named farms mentioned above, we do yet not have representative animal bone collections from Igaliku (Norse Garðar), Ikigaat (Norse Herjolfsnes), Qaqortoq (Norse Hvalsey), and Ujarassuit (Norse Anavik). Nevertheless, they are consistent with the remainder of this flexible definition.

The archaeological definition of an elite farm is generally accepted, but it is presently more difficult to categorize farms of other status. As in Iceland, we may presuppose some interdependence between elite farms and smaller settlements, but we cannot yet attempt the social classification of these farms using the archaeological record. According to *Landnámabók*, eleven named Icelanders took land in the Eastern Settlement, while a group of unnamed men continued to the Western Settlement. This source may have emerged from wishes to demonstrate land ownership at the time it was written (Meulengracht Sørensen 1977, 28; but see also Friðriksson and Vésteinsson this volume). If so, it may be reasonable to suggest that at least eleven families were claiming rights to substantial areas of land in the Eastern Settlement in the thirteenth century. This contrasts with a total of about five hundred farm ruins which have been recorded in the settlement. Many of these must have been of lower social status, an interpretation enhanced by the precarious environmental setting of some farms along the fjords (see below). The population of the entire colony has been estimated as being between about two thousand and six thousand at the peak. Lynnerup (1998, 118) has recently argued for a population of about two thousand.

Settlement and Economy

The Norse settlement pattern reflects a dependence on animal husbandry. According to McGovern (1985a), livestock were kept primarily for secondary products such as milk, cheese, butter, and (in the case of sheep) wool. The resulting need for pastures limited settlement to the relatively warm inner parts of the big fjord systems in south-west Greenland. The largest settlement concentration was in the boreal zone around the most southern fjords (the Eastern Settlement, fig. 7.2). A smaller concentration lay in the fjords behind what is Nuuk today (the Western Settlement, fig. 7.3). The farms were scattered singly in the landscape, but not all of them offered the same potential for livestock, especially in the low arctic Western Settlement. The large alluvial plains (covered with copses and grasses) at the heads of the fjords were more attractive than the dwarf-shrub heath in the inland and the small patches of herp-slope along the fjords. Some of these last mentioned sites were obviously not suitable for farming on a large scale.

Fig. 7.2. The Eastern Settlement (each point marks a farm). The climate in the Eastern Settlement allowed the colonists to settle close to the outer coast. The distance from the outer coast to the icecap is approximately 100–125 km.

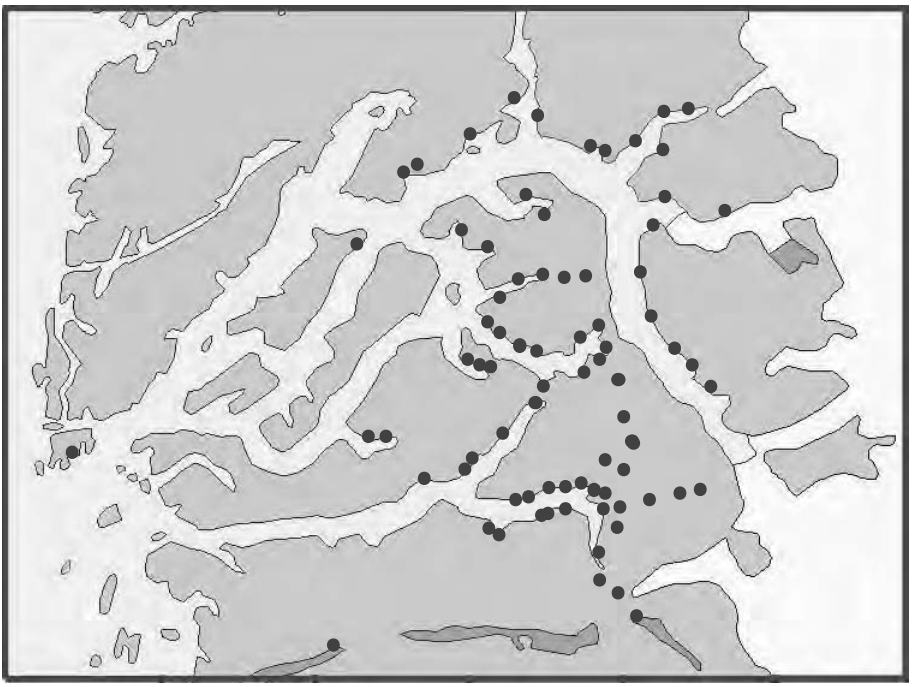

Fig. 7.3. The Western Settlement. Only the low Arctic interior was settled. The point on the coast represents a single stone house, presumably a seal hunting station. The distance from the outer coast to the icecap is approximately 100 km.

In the past, the exploitation of these different ecological zones has been interpreted in terms of settlement evolution. The best land at the heads of fjords was assumed to have been settled first, with the less favourable land taken into use as the population increased (e.g. Roussell 1941). More recently, however, new archaeological evidence and the use of radiocarbon dating have made it clear that even the less attractive sites—in the eyes of a Norse farmer—were settled during the earliest *landnám* (Andreasen 1981; Albrethsen 1982). Moreover, new excavations at the 'Farm Beneath the Sand' in the Western Settlement support the idea of an inland occupation from the very beginning of settlement (Andreasen and Arneborg 1992, 31; Arneborg and Gulløv 1998). As noted above, it may thus be appropriate to view this pattern in social rather than chronological terms.

Although the settlement pattern on the whole signals an animal herding community, subsistence in the Norse settlements also depended heavily on hunting, especially of seal. This practice was probably most important at the more humble sites. Zooarchaeological research has emphasized this aspect of Norse Greenlandic economy (see McGovern 1985a; 2000). Out of fourteen analysed farms—six from the Eastern

Settlement[4] and eight from the Western Settlement[5]—McGovern noted that only two animal bone collections had a predominance of domesticates.[6] Both were from the rich Vatnahverfi area in the Eastern Settlement. Caribou and seals dominated all of the other assemblages, regardless of whether they came from the coast of the inner fjords or the interior. Seals dominate the wild fauna. The migrating harp seal (*Phoca groenlandica*) was by far the most abundant, followed by the stationary common or harbour seal (*Phoca vitulina*) in the Western Settlement and the migrating hooded seal (*Cystophora cristata*) in the Eastern Settlement. The bearded seal (*Erignathus barbatus*) and the smaller ringed seal (*Phoca hispida*) are scarce in the collections. With the exception of the ringed seal, which was seldom exploited, these species are all found on the outer coast. Despite the fact that permanent settlement was only associated with the interior, the whole area from the head of the fjords to the outer coast must thus have been essential to the Norse subsistence economy.

Unfortunately, most of the older bone assemblages were collected without stratigraphic information and dating is nearly impossible. However, the early excavations seem to have concentrated on the uppermost deposits of the settlements explored. As a rule of thumb, we may therefore assume that most of the animal bones belong to the latest phase of occupation at each site, but the artefact collections do indicate some mixing of older and younger material.

Stratigraphic information is available for the E17a ruin group in today's Narsaq (in the Eastern Settlement). One of the excavated houses (ruin 4 out of ten known ruins at the site) belongs to the eleventh century—the early settlement period (Vebæk 1993, 73). Here seals dominated rather than domesticates (McGovern 1985a, 110–11; McGovern and others 1993, 59), and the same was the case at the Western Settlement farm of W48 at Niaquusat (McGovern 1985a, 116). This pattern may even be evident at the large Eastern Settlement farm of E149 at Narsarsuaq. According to the excavator, C.L. Vebæk (1991), most of the animal bones analysed by McGovern (in Vebæk 1991, 72) were found in house 2, room IV, which belonged to the oldest (eleventh-century) phase of the farm (Vebæk 1991, 72). In this case, however, younger phases of the building were superimposed on room IV (Vebæk 1991, 53), and we cannot rule out the mixture of younger material with any certainty. It is also possible that there was a special concentration of seal bones at that specific place.

[4] Ruin group E17a Narsaq (Vebæk 1993). Ruin group E29a Brattahlið, Qassiarsuk (Nørlund and Stenberger 1934). Ruin group E71 north, Vatnahverfi (Vebæk 1992). Ruin group E71 south, Vatnahverfi (Vebæk 1992). Ruin group E149 Narsarsuaq (Vebæk 1991). Ruin group E167 Vatnahverfi (Vebæk 1992).

[5] Ruin group W35 Tummeralik (see McGovern 1985a). Ruin group W48 Niaquusat (see McGovern 1985a). Ruin group W51 Sandnes, Kilaarsarfik (Roussell 1936). Ruin group W52a Austmannadal (Roussell 1941). Ruin group W53c Austmannadal (Roussell 1941). Ruin group W53d Austmannadal (Roussell 1941). Ruin group W54 Nipaatsoq (see McGovern 1985a). Ruin group W59 Eqaluit (Møhl 1982).

[6] Ruin group E71 south.

Nevertheless, $\delta^{13}C$ analyses of human skeletons from six churchyards dating from *landnám* to depopulation indicate that the Norse settlers utilized marine resources from the very beginning. The isotope study also shows that the marine share of the diet increased through time. Skeletons from the eleventh-century churchyard of Thjodhild's Church at Brattahlid in the Eastern Settlement produced estimates of marine dietary protein of 25–40%. Conversely, later samples from Sandnes and Herjolfsnes reached 80% marine protein (Arneborg and others 1999).

The Norse Greenlandic economy was clearly mixed from the settlement's origin. However, the isotope data also indicate a shift from a predominantly terrestrial to a predominantly marine diet. There may be several reasons for this change. A correlation with deteriorating climatic conditions is tempting (Arneborg and others 1999, 165–66; McGovern 2000), but not unequivocal. Changing religious practices may also be part of the explanation. Christianity prescribed fast, and in certain periods only marine food was allowed. Erosion and vegetation change caused by Norse land use may be another factor. Damage to the Norse outfields seems to have set in shortly after *landnám* in the Eastern Settlement (Jacobsen and Jacobsen 1986; Fredskild 1992, 20). In the Western Settlement the situation was apparently different—at least in the close vicinity of the Farm Beneath the Sand. Here there is no geoarchaeological evidence for erosion indicative of non-sustainable farming practices (Schweger 1998, 17).

Regional Resources and Trade

The elite farms of Norse Greenland were the centres of their regions. The zooarchaeological evidence discussed above shows how local resources accrued to their large storehouses. The position and power of the large farmers were based on these resources, but also on the control of imported goods (Arneborg 1998; Arneborg 2000). Greenland could not supply the Norse with all of their culturally defined needs. From the initial *landnám*, the settlers had to import European products; they were dependent on interaction with the parent communities in Scandinavia (Arneborg 1993b). According to the *King's Mirror* (*Konungs skuggsjá*), a Norwegian textbook in moral and good manners from the middle of the thirteenth century (Holtsmark 1982), the Greenlanders imported iron and timber from Europe and exported sheep and cattle products, seal skins, rope made of walrus hide, and walrus tusks (GHM III 326–27; see Arneborg 2000). The same Greenlandic commodities were mentioned in a letter of 1282 from Pope Martin IV to the archbishop of Nidaros (DN I s.63). The importance of walrus ivory in particular is confirmed by finds from Norse settlement sites in Greenland—particularly fragments of maxillae produced by tusk extraction and the smaller post canine teeth kept for local use (McGovern 1985b, 299–300). Polar bear furs and narwhal tusks may have constituted more exotic exports. In 1338 the bishop of Bergen presented Aegudius Correnbitter—citizen of Bruges—with the fur of a polar bear (DN X s.33) that most probably came from Greenland.

Cattle, sheep, goats, and seals were purely local resources, whereas walrus, narwhal, and polar bear were caught on hunting expeditions to the north. According to the *Grænlands Annál* from around 1623 (but transcribed from lost parts of *Hauksbók* of early-fourteenth-century date), 'the Greenlanders always need to run to the *óbygðum* on the northern coast or point to get timber and for the hunt' (GHM III, 243). The so-called *Norðrsetur* or northern hunting grounds were vital to the Norse economy (Arneborg 1998). The many Norse finds in early Thule culture houses and middens in Thule and Ellesmere Island—and the few early Thule finds in Eastern Settlement farms—may be evidence for Norse activity as far north as the Smith Sound region in the first half of the thirteenth century (Vebæk 1943, 89; Arneborg 1993a; Schledermann and McCullough this volume). Fibres from musk ox pelts found at the Farm Beneath the Sand also point to the region north of Melville Bay (Rogers 1998, 72). Finds of whetstones from the Disko Bay area in an eleventh-century hall at the same site support the idea of Norse travels to the north from the earliest days of settlement (Secher 1998).

The Norse Greenlanders also explored resources to the west. The settlement of L'Anse aux Meadows at the northern tip of Newfoundland belonged to an initial phase of expansion around AD 1000 (Wallace 2000; this volume). However, a notice in an Icelandic yearbook from 1347 suggests that the Greenlanders still travelled to the American mainland in the fourteenth century (GHM III, 14). Fibres from bison and brown bear fur recovered in a fourteenth-century weaving room at the Farm Beneath the Sand may provide further support for this theory (Rogers 1998, 72).

The Greenlandic elite probably organized these travels to the north and west, at least this is what we are told in *Grænlands Annál* (see Arneborg 1998). Likewise, we may assume that in the early medieval period wealthy farmers took part in trade with Scandinavia—as did their Icelandic contemporaries (Magerøy 1993, 3). In *Historia de Profectione Danorum in Hierosolyman*[7] Greenlanders and Icelanders are mentioned among the foreigners trading in Bergen before 1200 (Magerøy 1993, 34). Later, perhaps because of a lack of seagoing ships or restrictions imposed on them by the Norwegian kings (see below), the Greenlandic farmers lost control over this trade and became dependent on foreign merchants.

Norse Greenland and Europe

The Norwegian kings considered Norse Greenland and the other North Atlantic communities Crown interests. In principle, the king was head of the Christian church in Norway (Steinsland 1995, 14), and the Church and the monarchy seem to have pursued a common policy towards the North Atlantic communities (cf. Arneborg 1991). There was royal support when the archbishop of Lund appointed the first

[7] A chronicle about a Norwegian-Danish expedition to Jerusalem. The original is lost, but is thought to have been written before 1202 (Skånland 1968).

bishop of Greenland about 1124, and all those who held the post up to 1378 (when the last bishop to reside in Greenland died) were Norwegian (see Arneborg 1991 and references therein). An obvious matter of dispute between Norwegian royal and ecclesiastical authorities and the Greenlanders was thus the organization of the Greenlandic church. It is thought to have been a decentralized system of privately owned churches similar to the Icelandic pattern of that time (see Arneborg 2000). If so, the farmer who owned the land on which the church lay was entitled to its income. This system was an important source of income for Icelandic farmers, and the same must have been true in Greenland. However, the system was unacceptable for the centralized Roman church and Norwegian pressure on Icelandic church owners increased in the course of the thirteenth century. In 1297 they were forced to accept a settlement whereby property was transferred to the church (Thorsteinsson 1985, 98). What happened in Greenland we can only guess, but Norwegian ecclesiastical authorities did not send a new bishop to Greenland when Alf died in 1378. The situation may thus have been quite different.

The Roman church was influential in the middle decades of the thirteenth century, when it seems to have played an important role in the formal incorporation of Norse Greenland under the Norwegian Crown. According to *Hákonar saga Hákonarsonar*,[8] Bishop Olaf was sent in 1247 to persuade the Greenlanders to submit to royal authority. Fourteen years later—in 1261—travellers who came from Greenland to Norway told that the Greenlanders had decided to pay taxes and penalties to the king (GHM II, 774, 778). If a formal agreement was actually made, however, it has not been handed down. The contemporary Icelandic agreement (from 1262) insisted on regular crossings between Iceland and Norway (Thorsteinsson 1985, 94), and the Greenlanders may have demanded the same conditions. Their motive for affiliation with the Crown may have been either a lack of seagoing ships or restrictions inflicted on them by the kings. Trade with Europe was vital to the Greenlanders, for both subsistence and the maintenance of the social system.

Beyond this implied agreement, any attempts by the Norwegian kings to establish themselves in Greenland do not seem to have been very successful (cf. Arneborg 1997b, 196). The *Greenland Description* assigns only two farms to the Crown, and royal coins were never accepted as means of payment in the settlements. Nevertheless, Norwegian kings did monopolize the Greenland trade from the middle of the thirteenth century (Magerøy 1993, 98; cf. Arneborg 2000). This development may have had important long-term implications. When European demand for walrus ivory, Greenland's most important trade item, plummeted during the fourteenth century (Roesdahl 1998, 11–12), royal incentive to maintain voyages to the colony may also have declined. Moreover, when plague hit Norway in 1349 Norwegian traffic in the North Atlantic more or less ended. It seems to have ceased completely by the beginning of the fifteenth century (Magerøy 1993, 109, 228).

[8] The history of the Norwegian king Hákon Hákonarson (AD 1204–63) written by the Icelander Sturla Þórðarson (d. 1284) and considered reliable as a historical source (Helle 1961).

Culture Contacts: Norse-Inuit

The Norse settlers raised their farms in uninhabited land, but finds of stone tools and fragments of boats reminded them that they were not the first to have set foot there. The finds showed—according to *Íslendingabók* from around 1122–32 (Sigfusson 1962)—that the *Skrællingar* of Vinland had passed by (GHM I, 170). Probably around the end of the same century, *Skrællingar* were described in *Historia Norvegiae*[9] (Salvesen 1969; Holtsmark 1981) as small men who did not know about iron. Instead they used walrus tusks as missiles and sharp stones as knives. When they were harmlessly wounded they did not bleed, but when they were mortally wounded, the bleeding would not end. According to this source Norse hunters met the *Skrællingar* north of the settlements, presumably still in Greenland. However, *Íslendingabók* is thought to be one of *Historia Norvegiae*'s main sources (Ellehøj 1965), and in Ari's extant works *Skrællingar* are connected to Vinland, not to Greenland. *Historia Norvegiae* may thus echo the Vinland stories, and the meetings between the Norse and *Skrællingar* referred to may have taken place on the American continent (cf. Arneborg 1993a, 27; Wallace this volume). If not, we may conclude that Norse hunters met indigenous peoples they called *Skrællingar*—who had access to walrus tusks—somewhere north of the Western Settlement sometime before the last decades of the twelfth century. We then have to ask who the Greenland *Skrællingar* were. Given the chronology they are unlikely to have been the Thule people who are thought to have crossed to Greenland from Canada around AD 1200 (Schledermann 2000) and to have reached Disko Bay around AD 1250 (Gulløv 1997). Perhaps they were Late Dorset, as suggested by a piece of a European bronze vessel found in a late-thirteenth-century Dorset house at Qeqertaaraq, in Hatherton Bay, Thule (Gulløv and others 1997, 19; but see also Schledermann and McCullough this volume). Conversely, perhaps they were Thule culture Inuit of the 'parallel tradition' who, according to H.C. Gulløv (1997, 445, 448), arrived in Greenland early—before Thule of the Ruin Island phase.

Regardless of the specific culture involved, Disko Bay has been noted as the most likely place for the first meetings between Norse hunters and indigenous peoples in Greenland (e.g. Meldgaard 1995, 203; Gulløv 2000). Whetstones from the hall at the Farm Beneath the Sand (see above) suggest that the Norse travelled to this region in the early period of settlement, but archaeological evidence for contact between the two groups in the Disko Bay area is still not convincing. Norse artefacts found in Inuit contexts (approximately 170 pieces) all date to a later period and probably result from treasure hunting in deserted Norse farms (Arneborg 1993a, 26–28; Gulløv 2000, 325).

[9] A source from the turn of the twelfth century handed down in a copy dating to *c*. 1500 (Santini 1993).

We next hear about *Skrællingar* in the Nordic written sources in an account of the Greenlandic priest Haldor, a transcript of now lost parts of *Hauksbók* from the fourteenth century (GHM III, 243). It tells of Norse hunters who travelled to the far north in search of *Skrællingar* around 1266. The account does not say why, but the hunters were evidently searching for something known so trade or barter could have been the motive (McGhee 1984, 21; Arneborg 1997a).

People of the Thule culture arrived in the Western Settlement in the fourteenth century, but it is still the subject of some controversy whether they arrived before or after it was abandoned by the Norse. On the basis of radiocarbon dates from the earliest Thule settlement in Kangeq, on the outer coast of the Western Settlement, H.C. Gulløv (1997) argues in favour of Thule presence in the Western Settlement from about 1300—while the Norse were still living on their farms. A comment on the *Skrællingar* in the *Greenland Description* may support Gulløv´s interpretation: 'now the *Skrællingar* got possession of the entire Western Settlement'.[10] However, the archaeological record does not yet give convincing support to the idea. Thule culture artefacts in the Norse farms could have resulted from either contact between the two peoples—in or outside the settlement—or Thule visits to the settlements after depopulation (Arneborg 1993a, 31).

The *Greenland Description* has traditionally been used to date the depopulation of the Western Settlement to *c*. 1360, based on the timing of Ívarr Bárðarson's supposed journey to the settlement (cf. Gad 1967, 173). However, given the results of a growing number of radiocarbon dates from Western Settlement excavations, it now makes sense to challenge this chronology (fig. 7.4).[11] A date close to 1400 may be equally likely based on the archaeological evidence, but one could then object to Ívarr´s apparent lack of interest in the land holdings of the Western Settlement

[10] '*nu haffuer Skrellinge all Vesterbygden ud*' (GHM III, 259).

[11] Jan Heinemeier, AMS dating Laboratory, institute of Physics and Astronomy, Aarhus University, comments on the radiocarbon dates included in fig. 7.4: All calculated ^{14}C ages have been corrected for fraction so as to refer the result to be equivalent with the standard $\delta^{13}C$ value of -25‰ (wood). Reported $\delta^{13}C$ of the AAR-dates have been measured by Dr. Árný Sveinbjörnsdóttir, Science Institute of the University of Iceland, in connection with Århus-Reykjavik AMS ^{14}C dating collaboration. Dates of marine samples have to be corrected for reservoir effect to be comparable to contemporaneous terrestrial material. The ocean reservoir age (approx. 400 years depending on location) is subtracted from the conventional ^{14}C age to obtain the reservoir corrected age given in the second ^{14}C age column. The reservoir corrected ^{14}C ages of marine samples is calibrated following the procedure described below. Calibrated ages in calendar years have been obtained from the calibration tables in Stuiver and others (1998) by means of the 1998 version (4.0) of the Seattle CALIB programme (Stuiver and Reimer 1993*)* using the ten-year terrestrial calibration curve. The intercept of the measured ^{14}C age with the calibration curve is given in the first line (as a time interval if more than one intercept). The intercept method has been used to calculate the calibrated age interval (second line) corresponding to ±1 standard deviation in the conventional ^{14}C age.

Lab-#	Sample Type	Collection Site	^{14}C Age (BP)	Reservoir Corrected ^{14}C Age (BP)	Calibrated Age ±1 STDV.	δ^{13}C (‰) VPDB
AAR-1144	Bone (human)	Kilaarsarfik Sandnes, ruin group W51	865 ± 40	560 ± 40 (re. Age 0.682)	AD 1408 AD 1390–1428	-15.2
AAR-1635	Twigs, local	The Farm Beneath the Sand, ruin group 64V2-III-555	565 ± 55		AD 1400 AD 1310–1420	-25.8
AAR-5401	Bone collagen, horse	The Farm Beneath the Sand	536 ± 30		AD 1410 AD 1334–1425	-21.2
AAR-6101	Bone collagen, caribou	Nipaatsoq, ruin group W54	395 ± 30		AD 1475 AD 1445–1605	-16.39
K-5821	Turf	The Farm Beneath the Sand	360 ± 55		AD 1490–1610 AD 1450–1640	-25.2
K-5822	Turf	The Farm Beneath the Sand	415 ± 55		AD 1450 AD 1440–1610	-28.8
K-5907	Plant, *Salix*	The Farm Beneath the Sand	475 ± 50		AD 1440 AD 1410–1450	-24.8
K-6631	Bone (sheep/goat)	The Farm Beneath the Sand	520 ± 45		AD 1415 AD 1335–1435	-19.4

Fig. 7.4. Late period radiocarbon dates from the Western Settlement. The three mentioned farms (Sandnes at Kilaarsarfik at the head of the Ameralik Fjord and the two inland farms at Nipaatsoq and the Farm beneath the Sand) are situated in the southern part of the settlement. The dates are not unambiguous, but invite reflection regarding the chronology of abandonment based on the *Greenland Description*. Sample AAR-1144 is from the churchyard at Sandnes. AAR-1635, AAR-5401, and K-6631 are from inside The Farm beneath the Sand. At the same site, K-5907 is interpreted as building material from a roof and K-5821 and K-5822 were both formed immediately on top of the cultural layer. AAR-6101 is from inside the Nipaatsoq farm. There is some indication of post-abandonment Thule presence at Nipaatsoq and the Farm beneath the Sand, however, so we cannot exclude the possibility that the caribou bone was left by a visiting hunting party (see footnote 11).

(assuming that the historical date of his journey is correct). If depopulation of the Western Settlement was close to 1400, a period of direct contact, competition, and/or hostility here between Norsemen and Thule culture Inuit is conceivable.

The possibility of simultaneous Norse and Thule settlement in the Eastern Settlement is also a matter of discussion. An early Thule culture, bear-headed drag-line handle of walrus tusk and an ice pick of whale bone from Norse farms in Vatnahverfi (Vebæk 1943, 89–90) are more likely to be evidence of Norse travel north of Melville Bay. A side prong of a bone or tooth bird dart of Inuit style from the Eastern Settlement farm E34 may be explained in the same way. It was found in the middle of the Norse midden, which suggests direct contact of some kind. At the time of writing the archaeological finds from E34 have not yet been analysed,[12] but the closest parallels to the side prong can presently be found at the Thule Uummannaq site (Holtved 1944a, 120). Here a similar side prong was recovered in a cloverleaf-shaped house of the fourteenth to sixteenth centuries (Holtved 1944b, 39, 178). Cloverleaf-shaped houses have also been recorded in the Eastern Settlement (Mathiassen and Holtved 1936), but these buildings contained very few diagnostic artefacts and radiocarbon dates are not yet available. New research planned by the recently established Centre for Greenland Research at the Danish National Museum may soon shed new light on relations between the Thule and the Norse in the Eastern Settlement.

Towards an Explanation of Depopulation?

As the depopulation of the Western Settlement seems to be synchronous with Greenlandic ice core evidence for particularly low temperatures in the middle of the fourteenth century, climate studies have played a major role in recent discussions of the fate of the Norse Greenlanders (e.g. Buckland and others 1996). Norse adaptation to the changing Greenlandic climate ultimately failed. It has been argued that this society did not survive primarily because climatic factors upset the delicate equilibrium between environmental variables and Norse subsistence practices and because a conservative ideological system forced upon the Greenlanders by the Roman church prevented effective response to this change. The failure to adopt Thule culture hunting practices has been noted as especially crucial (e.g. McGovern 1980; Urbanczyk 1998; McGovern 2000). It is clear that the concepts of the European world did influence Norse Greenland (see above). However, it remains to be demonstrated that medieval Roman Catholic beliefs were rigidly established and enforced in the colony. Given that no bishop resided in Greenland after 1378 the church-owning farmers of Greenland seem only to have accepted the suzerainty of the Roman Catholic system to a limited degree.

[12] The excavations at E34 took place in 1997 and 1998 under the direction of Georg Nyegaard, Qaqortoq Museum.

If climate change and thus non-sustainable farming practices were the main reasons for imbalance in Norse Greenlandic society, the animal bone collections and the stable isotope data referred to above suggest that the resources necessary to re-establish an equilibrium were available—at least from a subsistence point of view. If farming could not sustain the population, marine resources may have been the answer to the problem. Obviously, however, a complete shift to fishing and seal hunting did not happen, either because cultural borders could not be passed or because the process was overtaken by other developments.

Ecological and environmental explanations for the depopulation of Norse Greenland have tended to concentrate discussion on internal factors which may, however, only be part of the explanation. We have to look upon the course of events in Norse Greenland in a much wider context. From the very first day in Greenland, the Norse settlers had to import first and foremost iron. Iron sickles, for instance, were an absolute prerequisite for cutting hay, which is fundamental to an economy based on cattle herding. Norse Greenlandic society is typically interpreted as a chiefdom with a group of large farmers in control. As part of their power base, the land-owing elite may have allocated the use of land and farms to tenants and cottagers in return for labour and goods. However, production from the land probably contributed less to their economic power than surplus production based on hunted products, primarily walrus tusks, exclusively for the European market. Consequently, control over both hunting trips to the north and long distance exchange were vital to the elite farmers and the social structure in its entirety. Failing exchange with Europe certainly would have affected both them and the society as a whole. As we have seen, contacts with Europe did fail in the later Middle Ages because of socio-economic changes in Norway and/or changing market conditions in Europe which affected the demand for walrus ivory, Greenland's most important trade item (Roesdahl 1988; Arneborg 2000).

Several contributing factors resulted in the final depopulation of the Norse settlements. Life in the colony was affected by both what happened in Greenland itself and what happened abroad in Scandinavia and Europe. Internal and external factors have to be taken into consideration. The settlers did not cross borders into another world of Thule hunting practices. They incorporated their new land into the already known world, and the depopulation in the late medieval period has to be looked upon in that perspective also.[13]

[13] Restricted by a weak chronology, this discussion has primarily concentrated on the very last period of settlement. A growing number of radiocarbon dates and the excavations at the Farm Beneath the Sand (e.g. Arneborg and Gulløv 1998, 6–95) may change this in the future. They will form the basis of diachronic studies not only of subsistence patterns, but also social, political, and cultural structures in order to examine how life was in Norse Greenland from *landnám* to depopulation and to examine how people and environment interacted over time.

ABBREVIATIONS

DN I *Diplomatarium Norvegicum Oldbreve til Kundskab om Norges indre og ydre Forhold, Sprog, Slægter, Sæder, Lovgivning og rettergang I Middelalderen*, vol. I, ed. by C.C.A. Lange and C.R. Unger, Kristiania (Oslo): P.T. Malling, 1847

DN X *Diplomatarium Norvegicum Oldbreve til Kundskab om Norges indre og ydre Forhold, Sprog, Slægter, Sæder, Lovgivning og rettergang I Middelalderen*, vol. X, ed. by C.R. Unger and H.J. Huitfeldt, Kristiania (Oslo): P.T. Malling, 1847

GHM *Grønlands Historiske Mindesmærker*, vols I–III, ed. by C.C. Rafn and F. Magnusson, Copenhagen: Brünnich, 1838–45

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Inuit-Norse Contact in the Smith Sound Region

P. SCHLEDERMANN AND K.M. McCULLOUGH

Introduction

Between 1935 and 1937, the Danish archaeologist Erik Holtved began a series of archaeological excavations in the Thule District of northern Greenland (Holtved 1944). On Ruin Island (fig. 8.1), near the coast of Inglefield Land, Holtved excavated seven winter house ruins. The family dwellings were constructed with separate cooking rooms containing one or more elevated fire hearths, a distinctive trait of pioneering Thule culture dwellings. The site also included a communal dwelling (*qagsse* or *karigi*). Among the finds from the Ruin Island dwellings were a number of Norse artefacts (Holtved 1944, I, pl. 44). Holtved considered the Norse finds to be in situ and placed the occupation of the site sometime in the thirteenth century AD.

In 1946 Holtved returned to the Thule District where he excavated a large number of winter house ruins at the Nûgdlît site just north of Granville Fjord (fig. 8.1) and continued investigations of Comer's midden at Umánaq in North Star Bay (Holtved 1954). Most of the Nûgdlît houses and artefacts indicated a close relationship to the Ruin Island finds. Holtved considered the Nûgdlît and Ruin Island sites to have been more or less contemporaneous, dating to the late thirteenth or early fourteenth century. One of the differences he noted was the apparent lack of Norse artefacts at Nûgdlît (Holtved 1954, 99).

Radiocarbon dates derived subsequently for materials from the house ruins of the two sites convinced later investigators that the initial Inuit occupation had occurred between AD 900 and 1000 (Meldgaard 1977, 35). It was assumed that the Norse artefacts on Ruin Island had somehow been deposited in the dwellings several hundred years later. The assumption that Thule culture Inuit groups first arrived in the Canadian

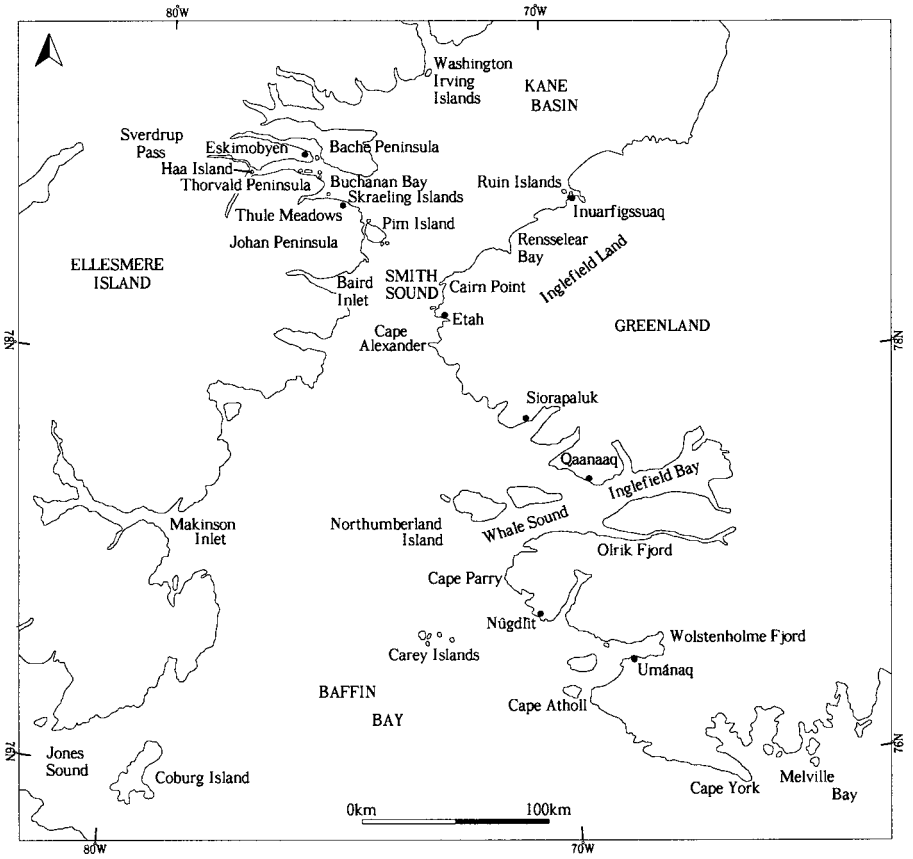

Fig. 8.1. Map of the Smith Sound/Kane Basin region showing the location of sites mentioned in the text

Arctic and Greenland around the middle of the tenth century has until recently remained fairly entrenched in scientific and popular writings about Arctic prehistory.

In 1977, Schledermann initiated a long-term archaeological research program on the central east coast of Ellesmere Island. Between 1977 and 1995, excavation and radiocarbon dating of early Thule culture house ruins, particularly on Skraeling Island, provided solid evidence in support of a pioneering thirteenth-century appearance of Thule culture Inuit in the High Arctic and North Greenland—nearly two centuries following the Norse *landnám* (McCullough 1989, Table 6; Schledermann and McCullough 1980; Schledermann 1978; 1979; 1980; 1981; 1993). The recognition of a later presence of the Thule culture in the Smith Sound region has provided a more reasonable explanation for the timing of the first appearance of the Inuit in the Disko Bay area of West Greenland around AD 1250. A growing acceptance of the

Skraeling Island data (Morrison 1989) also negates the need to explain why it should have taken Inuit families more than two hundred years before they ventured south of Melville Bay (Schledermann 1996).

Prior to the excavation of house ruins on Skraeling Island, Thule culture sites in the Canadian Arctic had produced a few widely distributed items of Norse origin including a piece of smelted iron from the west coast of Hudson Bay (McCartney and Mack 1973), a piece of smelted iron and a portion of a cast bronze bowl from Devon Island (McGhee 1976, 19), three pieces of smelted copper and a bronze pendant from Bathurst Island (McGhee 1981, 50), two pieces of smelted copper from Cornwallis Island (Franklin and others 1981, 16), a bronze balance arm from the central west coast of Ellesmere Island (Sutherland 1987), a wooden figurine from the south coast of Baffin Island (Sabo and Sabo 1978), and a smelted piece of copper from a Late Dorset site in the Richmond Gulf area (Harp 1975). These items are generally believed to have reached their destinations through trade between Inuit groups and not as a result of direct contact between Norsemen and Inuit (McGhee 1984, 20). More recently, several investigators (Appelt and Gulløv 1999; Gulløv 2000; Sutherland 2000) have suggested that considerable interaction took place between Norsemen and Late Dorset people both in Greenland and on Baffin Island. The extent and effect of such interactions must await more data than are currently available.

That Norsemen encountered Inuit hunters in Greenland has not been a point of serious debate. However, the degree and the cultural effect of such encounters has intrigued investigators over the centuries. Did the appearance of Thule culture Inuit on the west coast of Greenland result in changes in the material, social, and spiritual nature of Norse society and vice versa? Although most discussions of this nature have rested principally on scarce documentary evidence and Inuit legends (Kleivan 1982), archaeological data has occasionally been presented as evidence of such encounters. Based on the results of his excavations near Upernavik, Therkel Mathiassen (1931) proposed an Inugsuk phase of the Thule culture, supposedly reflecting a blending of Norse and Inuit material traits. A thorough and critical examination of the archaeological evidence from Mathiassen's work and other sites in West Greenland, purportedly indicating Norse-Inuit contact, has been carried out by Jette Arneborg (1993), who concluded that archaeological data alone do not provide convincing evidence of direct contact between the two peoples.

In this chapter we consider the types of Norse artefacts found in Thule culture sites on the central east coast of Ellesmere Island and in North Greenland and assess the nature of possible Inuit-Norse contact in the Far North.

Norse Artefacts from Ruin Island Phase Sites

Ellesmere Island Sites

Skraeling Island: The second largest concentration of Norse finds in North America has come from Skraeling Island (fig. 8.1). Only the L'Anse aux Meadows site in northern Newfoundland (Wallace 2000; this volume) has yielded a greater volume of Norse pieces, primarily ship rivets, iron pieces, and wood fragments.

The Skraeling Island Thule site has yielded thirty formed artefacts, plus sixty-two copper and iron pieces, most of which may very well be of Norse origin (table 8.1). The identifiably Norse specimens include pieces of woollen cloth, ship rivets, knife and spear blades, a possible axe blade, an iron spike and wedges, a carpenter's plane, and chain mail (fig. 8.2). Ten of the Norse finds plus eight unanalysed iron and copper pieces were found on the floor of the large *karigi*, House 4. The other twenty formed Norse artefacts were scattered among ten of the remaining twenty-two house ruins on the site. A wooden face carving from House 21 (fig. 8.3), although not a Norse artefact, has been included because the facial features are very likely those of a Norseman as portrayed by an Inuit carver.

All of the winter dwellings on the Skraeling Island site are of the classic 'Ruin Island' type, with a distinct kitchen offshoot entered through a short tunnel connected to the main room immediately adjacent to the main entrance tunnel. Only one other large Thule culture site in the Bache region was as culturally uniform—the unexcavated Thule Meadows site on the Johan Peninsula coast (fig. 8.1). Although unexcavated, the characteristic configuration of all eight house ruins on that site indicates that they belong to the Ruin Island phase occupation episode. The only other site in the Smith Sound region as culturally homogeneous is Holtved's Ruin Island site, which contained seven winter house ruins.

Sverdrup Site: On the northwest side of Skraeling Island, the Sverdrup site consists of a variety of Thule winter house styles, including several from the Ruin Island phase. One of these, House 6, yielded a Norse 'draughts-man', a small, circular disk of whale bone, with nine concentric circles of varying depth and width carved on one face (fig. 8.2k). The disk is 42.6 mm in diameter and contains a centre hole, in which was set a square-cut wooden peg (McCullough 1989, 235). The peg was likely an Inuit addition.

Eskimobyen: Two Ruin Island type house ruins and a *karigi* on the multi-component Eskimobyen site on the northeast coast of Knud Peninsula (fig. 8.1) yielded two formed Norse artefacts; the square end of a ship rivet and a tapered iron awl set in a pear-shaped bone handle (table 8.1).

Table 8.1. Ruin Island phase Norse artefacts from the Smith Sound region

Site	House No.	Artifact Description	Cat. No.	Remarks
ELLESMERE ISLAND SITES				
Skraeling Island Site	House 1	Point made on ship rivet end	SfFk-4-1190	Schledermann 1980, fig. 5; McCullough 1989, pl. 4d
	House 2	Iron spear point	SfFk-4-1184	Fig. 8.2e
		Chain mail link	SfFk-4-1189	Schledermann 1980, fig. 2c
	House 4	Iron blade in musk ox horn handle	SfFk-4-193	Schledermann 1980, fig. 6b
		Iron blade in wooden handle	SfFk-4-439	Schledermann 1980, fig. 6a
		Ship rivet; square end only	SfFk-4-1191	Schledermann 1980, fig. 4c
		Iron wedge	SfFk-4-2812	Fig. 8.2i
		Iron wedge	SfFk-4-2813	Fig. 8.2j
		Iron "nail"	SfFk-4-2814	
		Ship rivet minus square end	SfFk-4-2816	
		Complete ship rivet	SfFk-4-2817	Fig. 8.2d
		Iron wedge	SfFk-4-2818	McCullough 1989, pl. 68k
		Iron spike	SfFk-4-2819	McCullough 1989, pl. 68l
		Unanalysed Pieces:		
		Iron	SfFk-4-1182	Schledermann 1980, fig. 7a
		Iron	SfFk-4-1183	
		Iron	SfFk-4-2795	
		Iron	SfFk-4-2815	
		Iron	SfFk-4-3069	
		Iron	SfFk-4-3070	
		Copper	SfFk-4-400	
		Copper piece inset in wood	SfFk-4-440	Schledermann 1980, fig. 8a; McCullough 1989, fig. 68p

Table 8.1 *cont'd*

Site	House No.	Artifact Description	Cat. No.	Remarks
Skraeling Island Site	House 5	Knife blade	SfFk-4-1218	Fig. 8.2h
cont'd	House 6	Complete ship rivet	SfFk-4-1	Fig. 8.2b
		Chain mail lump	SfFk-4-2	Fig. 8.2a
		(Possible) axe blade	SfFk-4-4	Fig. 8.2f
		Unanalysed Piece:		
		Copper	SfFk-4-1219	McCullough 1989, pl. 68n
	House 7	Unanalysed Pieces:		
		Copper	SfFk-4-3	Schledermann 1980, fig. 8b; McCullough 1989, pl. 68o
		Iron	SfFk-4-3453	
	House 8	Iron wedge	SfFk-4-2263	McCullough 1989, pl. 68i
		Unanalysed Pieces:		
		2 iron pieces	SfFk-4-3387	
	House 9	Iron spike	SfFk-4-1220	Fig. 8.2l
	House 10	Chain mail link	SfFk-4-719	Schledermann 1980, fig. 2b
		Ship rivet; square end only	SfFk-4-1181	Schledermann 1980, fig. 4b
	House 11	Complete ship rivet	SfFk-4-1221	
		Complete ship rivet	SfFk-4-1222	Fig. 8.2c
		Point made on ship rivet end	SfFk-4-1225	McCullough 1989, pl. 4c
		Perforated iron knife blade	SfFk-4-1227	Fig. 8.2g
		Unanalysed Pieces:		
		Iron	SfFk-4-1223	
		Iron	SfFk-4-1224	
		Iron	SfFk-4-1226	

	House 15	Large piece of woolen cloth	SfFk-4-886	Schledermann 1980, fig. 9
		Small piece of woolen cloth	SfFk-4-1234	Fig. 8.2m
		Woodworker's plane	SfFk-4-3502	Fig. 8.2n
		Unanalysed Piece:		
		Iron blade	SfFk-4-3540	McCullough 1989, pl. 68j
	House 21	Copper endblade	SfFk-4-1216	McCullough 1989, pl. 4b
		Wooden face carving	SfFk-4-1482	Fig. 8.3
		Unanalysed Pieces:		
		9 iron pieces	SfFk-4-1212	
		Iron	SfFk-4-1214	
		4 iron pieces	SfFk-4-1215	
		6 iron pieces	SfFk-4-1217	
		Iron	SfFk-4-1233	
		3 iron pieces	SfFk-4-3629	
	House 22	Unanalysed Pieces:		
		10 iron pieces	SfFk-4-631	
		4 iron pieces	SfFk-4-3515	
		2 iron pieces	SfFk-4-3516	
	House 23	Unanalysed Pieces:		
		2 iron pieces	SfFk-4-1228	
		Iron	SfFk-4-1229	
		Iron	SfFk-4-1230	
		Iron	SfFk-4-1231	
Sverdrup Site	House 6	Bone draughts-man	SfFk-5-300	Fig. 8.2k
Eskimobyen Site	House 14	Iron-tipped bone awl	SgFm-4-2239	
	House 25	Unanalysed Piece:		
		Copper	SgFm-4-933	McCullough 1989, pl. 68m

Table 8.1 *cont'd*

Site	House No.	Artifact Description	Cat. No.	Remarks
Eskimobyen Site *cont'd*	House 26	Ship rivet; square end only	SgFm-4-931	
		Unanalysed Piece: Iron	SgFm-4-932	
GREENLAND SITES				
Ruin Island Site	House 3	Copper piece	L 3: 2432	Holtved 1944, I, 303
	House 4	Chain mail lump	L 3: 2474	Holtved 1944, I, pl. 44.7
		Comb	L 3: 2504	Holtved 1944, I, pl. 44.11
	House 5	Bone draughts-man	L 3: 2530	Holtved 1944, I, pl. 44.12
	House 6	Iron spear point	L 3: 2613	Holtved 1944, I, pl. 44.8
		Woolen cloth piece(s)	L 3: 2591	Holtved 1944, I, fig. 110
Nûgdlît Site	House 23	Iron knife	L 3: 12572	Buchwald and Mosdal 1985, 4
	House 24B	Iron blade	L 3: 12673	Buchwald and Mosdal 1985, 4
Umánaq (Thule) Site	House 16	Spoon case	L 3: 4479	Holtved 1944, I, pl. 44.13
		Iron nail?	L 3: 4202	Holtved 1944, I, pl. 23.16
	House 19	Copper piece	L 3: 4726	Holtved 1944, I, 304
Igdluminerssuit (Kap Seddon)		4 chain mail links		Grønnow 1981, fig. 6
		Ship rivet		Grønnow 1981, fig. 6

Fig. 8.2. Norse artefacts found in Ruin Island phase winter houses on the east coast of Ellesmere Island: a) chain mail; b–d) iron ship rivets; e) iron knife blade; f) iron axe blade; g–h) iron knife blades; i–j) iron wedges; k) bone draughts-man; l) iron spike; m) Norse woollen cloth; n) wood carpenter's plane (McCullough 1989, pl. 73)

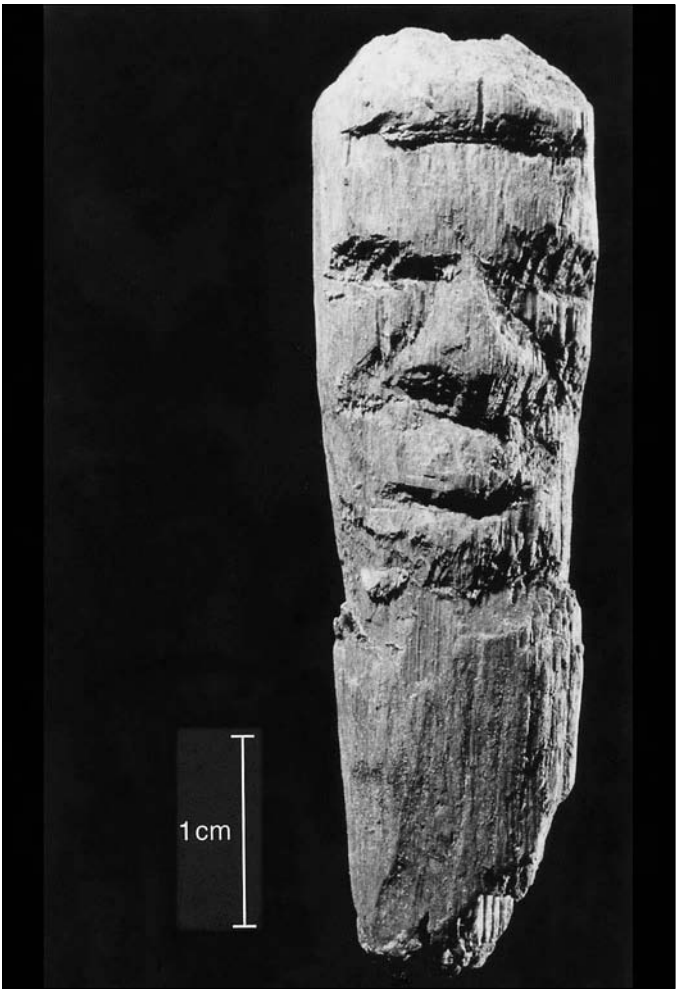

Fig. 8.3. Wooden carving of a possible Norse face found in House 21, Skraeling Island site

North Greenland Sites

Ruin Island: The Ruin Island site yielded six Norse artefacts (Holtved 1944, I, pl. 44), distributed in four houses, one of which, House 6, was a *karigi*. Aside from the comb in House 4, the Ruin Island finds (woven cloth, draughts-man, lump of chain mail, iron spear point, and smelted copper piece) are matched by finds from the Skraeling Island and Sverdrup sites. The radiocarbon dates of the Ruin Island woven cloth (AD 1163–1435: K-1489, 680+100 BP calibrated at two sigma) and the Skraeling

Island cloth (AD 1243–1394: GSC-3038, 700+50 BP calibrated at two sigma) are within acceptable range.[1] In physical appearance and size, the chain mail rings from the two sites leave little doubt that the rusted lumps of chain mail and individual rings came from the same source. The individual rings from both sites measure between 11 and 12 mm in outer diameter and between 6 and 7 mm in inner diameter.

Nûgdlît: From his 1946 excavations of the Nûgdlît site, Holtved (1954, 73, 95) recovered seven knife or ulu blades of iron and twenty-three small, corroded pieces of iron, which he judged to be meteoritic in origin. Subsequent analyses of twenty-eight iron pieces from the site found that two were of wrought iron and most likely Norse in origin (Buchwald and Mosdal 1985, table 2). House 23 yielded a knife blade, measuring 81 × 17 × 3 mm, that does not appear to have been cold-hammered. Buchwald and Mosdal (1985, 28) suggest that the blade was forged elsewhere and used by the Inuit without alteration. The second piece is a corroded 'stump' (25 × 22 × 3 mm) of what might have been a harpoon blade, as it has a hole for securing the blade to a shaft (Buchwald and Mosdal 1985, 28). The remaining iron pieces were of meteoritic origin, which attests to the importance of this material resource and its relative abundance, as was also the case on Skraeling Island.

Umánaq: On the Umánaq site, Holtved defined at least twenty-eight house ruins, two of which, Houses 16 and 19, he assigned to the Ruin Island phase on the basis of their similarity in house style and artefact inventory to the seven ruins on Ruin Island. House 16, a *karigi*, similar in shape and arrangement to Ruin Island House 6, yielded a spoon-shaped, wooden box of Norse origin (Holtved 1944, I, pl. 44.13) and an iron 'nail' (Holtved 1944, I, pl. 23.16). Analysis of a single copper piece from House 19 showed that it was smelted copper, presumably of Norse origin. In our opinion a closer study of House 21 West suggests that it also was associated with the Ruin Island phase, thereby adding a chess piece, an iron axe blade, a baleen shave blade, and a copper piece to the Ruin Island phase Norse artefact inventory.

Kap Seddon: At the south-western end of North Greenland, in the southern part of Melville Bay, five Norse artefacts were discovered in winter house ruins on the Igdluminerssuit site at Kap Seddon, thought to date to the earliest Thule culture period (Grønnow 1981, fig. 8.6). The finds consist of four chain mail links and one ship rivet. The Norse items seem to fit the assemblages from Skraeling and Ruin Island very well.

[1] All calibrations follow Stuiver and others (1998).

Norse Artefacts from Post–Ruin Island Phase Sites

Ellesmere Island Sites

In the Bache Peninsula region, ten post–Ruin Island phase house ruins on three Thule culture winter sites yielded artefacts of Norse origin (Table 8.2).

Sverdrup Site: A single piece of copper was recovered in each of Houses 1 and 20. The specimen from House 20 was not analysed. Both dwellings were too amorphous in shape and contained too few diagnostic artefacts to assess their chronological position. An iron endblade was located in House 7, which together with House 8 appeared to represent contemporary occupation. Both dwellings were relatively large twin-platform structures with built-up sleeping platforms and flagged stone floors. Both houses had kitchen alcoves with raised fire hearths, extending from a front corner of the dwelling. However, unlike the Ruin Island phase dwellings, the kitchens were not separated from the main room by a short tunnel. For this reason, we suggest that these houses represent an occupation related to, but slightly later than, the initial Ruin Island phase.

Eskimobyen: House ruins post-dating the Ruin Island phase on the Eskimobyen site yielded four formed Norse artefacts and seven unanalysed metal pieces; six of iron and one of copper. Two wooden barrel bottom sections, each decorated with a series of incised concentric circles, were found in the outer tunnel area of House 1. The crudely joined pieces appear to be from two different barrels. House 1 also yielded an unanalysed piece of copper. A piece of planed oak, possibly part of a storage box, was located in House 3, dated to AD 1255–1631 (GX-6073, 560+120 BP calibrated at two sigma). A ship rivet section was located in a kitchen with raised hearths, constructed as an anteroom at the lower end of the entrance tunnel to House 7. The artefact content of House 7 included an unanalysed piece of iron and enough diagnostic artefact attributes to suggest a post–Ruin Island phase occupation somewhere between AD 1400 and 1500. House 20 was one of a group of very deteriorated house ruins in the vicinity of a Ruin Island phase *karigi* (House 14). House 20 produced five small pieces of unanalysed iron.

Haa Island: The Haa Island Thule culture site is unique in the Bache Peninsula region for its inner fjord location, far from the winter ice edge or *sina*. Of the twenty-five obvious winter house ruins, sixteen are of the large two- and three-platform dwelling type, representing a late period of Thule occupation possibly somewhere between AD 1650 and 1700 (Schledermann 1996; Schledermann and McCullough [n.d.]). An earlier Thule occupation of the site was represented by five single-platform houses, one of which, House 24, dated to AD 1304–1446 (GSC-3408, 530+50 BP calibrated at two sigma), yielded an iron endblade of Norse origin and an unanalysed piece of iron. House 11 yielded an unanalysed piece of copper. Excavation of House 10, which by its location and state of preservation was probably one of the last winter houses occupied on the site, produced a 27 mm tall

ivory figurine, which may be an Inuit depiction of a Norseman or a somewhat unusual Thule culture figurine.

North Greenland Sites

Inuarfigssuaq: This site is located on the Inglefield Land coast on the east side of Marshall Bay, and was still being used by the Inuit during the 1920s and 1930s (Holtved 1944, I, 8). The more than thirty house ruins on the site exhibit a great diversity of forms from simple, pear-shaped structures (e.g. House 19) to triple-platform houses (e.g. House 3). Holtved (1944, II, 39) recognized that the site had been used during different periods of the Thule culture occupation of Inglefield Land, but assumed that all were earlier than the occupation of Ruin Island. Since none of the house ruins, in style or content, can be clearly related to the Ruin Island phase, we have categorized the site as belonging to a 'non–Ruin Island phase' and suggest that it was occupied at various stages of the later Thule culture period.

Five houses on the site yielded artefacts of Norse origin (table 8.2), including a bone chess piece from House 3, the leg of a bronze cooking pot from House 13, and a barrel bottom section with incised concentric rings from House 30. Analysis of a piece of iron from House 4 and an iron rod from House 6 (Holtved 1944, II, pl. 24.16) showed that the pieces were of wrought iron, presumably of Norse origin. Of three pieces of copper located in three different house ruins, one lump found in House 8 was not analysed and may be industrial copper, although Holtved noted that the lump was similar to pieces found in Houses 3 and 5, which metallographic analysis showed to be native copper.

Umánaq: Six non–Ruin Island phase house ruins on this site yielded Norse finds, including a wooden sieve, a chess piece made of walrus ivory, pieces of smelted copper, and blades made of wrought iron (table 8.2). As mentioned earlier, of the six houses, we consider House 21 West to be a possible Ruin Island phase dwelling because of its clearly defined separate kitchen offshoot. However, Holtved judged the house to be slightly later in time than the Ruin Island structures. He did note that the distributional analysis of finds showed that 'the resemblance [of the Ruin Island houses] to 21.W–E especially is great' (Holtved 1944, II, 38). House 21 East may also have been occupied during the Ruin Island phase but, like House 21 West, had clearly been rebuilt and reused on several occasions, making it difficult to assess its chronological position within the Thule culture continuum. Three sides of a decorated Norse wooden box were recovered from the middle layers of Comer's midden, located near the Umánaq site.

Table. 8.2. Norse finds in later Thule culture houses in the Smith Sound region

Site	House No.	Artifact Description	Cat. No.	Remarks
ELLESMERE ISLAND SITES				
Sverdrup Site	House 1	Copper piece	SfFk-5-8	Schledermann and McCullough [n.d.], pl. 49l
	House 7	Iron endblade	SfFk-5-77	Schledermann and McCullough [n.d.], pl. 2k
	House 20	Unanalysed Piece: Copper	SfFk-5-471	Schledermann and others 1991, 32
Eskimobyen Site	House 1	Wooden barrel bottom section	SgFm-4-194	Schledermann 1980, fig. 10a
		Wooden barrel bottom section	SgFm-5-195	Schledermann 1980, fig. 10a
		Unanalysed Piece: Copper piece	SgFm-4-3	Schledermann 1980, fig. 10b
	House 3	Oak box side	SgFm-4-351	Schledermann 1980, fig. 10c
	House 7	Ship rivet section	SgFm-4-1679	Schledermann and McCullough [n.d.], pl. 56b
		Unanalysed Piece: Iron	SgFm-4-1370	Schledermann and McCullough [n.d.], pl. 49n
	House 20	Unanalysed Pieces: Iron	SgFm-4-188	
		Iron	SgFm-4-419	Schledermann and McCullough [n.d.], pl. 49m
		Iron	SgFm-4-470	
		Iron	SgFm-4-1193	Schledermann and McCullough [n.d.], pl. 49o
		Iron	SgFm-4-1440	

Haa Island Thule Site	House 10	Ivory figurine	SgFq-1-101	Schledermann 1980, fig. 11
	House 11	Unanalysed Piece: Copper	SgFq-1-276	Schledermann and McCullough [n.d.], pl. 49j
	House 24	Iron endblade	SgFq-1-106	Schledermann and McCullough [n.d.], pl. 2j
		Unanalysed Piece: Iron	SgFq-1-334	
GREENLAND SITES				
Inuarfigssuaq Site	House 3	Chess piece	L 3: 610	Holtved 1944, I, pl. 44.9
	House 4	Iron	L 3: 773	Holtved 1944, I, 304
	House 6	Iron rod	L 3: 970	Holtved 1944, I, 304
	House 13	Bronze cooking pot leg	L 3: 1466	Holtved 1944, I, pl. 44.4
	House 30	Barrel bottom section	L 3: 1975	Holtved 1944, I, pl. 44.6
Umánaq Site	House 8	iron harpoon blade	L 3: 3604	Holtved 1944, I, pl. 4.13; Buchwald and Mosdal 1985, table 2
	House 10	Wooden sieve	L 3: 3728	Holtved 1944, I, pl. 44.5
	House 21 East	Iron	L 3: 5435	Holtved 1944, I, 304
	House 21 West	Chessman	L 3: 5707	Holtved 1944, I, pl. 44.10
		Iron axe blade	L 3: 5780	Holtved 1944, I, 305
		Iron blade for baleen shave	L 3: 5192	Holtved 1944, I, pl. 21.19
		Copper piece	L 3: 5773	Holtved 1944, I, 304
	House 21 Midden	Copper piece	L 3: 6323	Holtved 1944, I, 304
	House 25	Copper piece	L 3: 8327	Holtved 1944, I, 304
Comer's Midden	Co. A	Wooden box side	L 3: 11266	Holtved 1944, I, pl. 44.1
		Wooden box side	L 3: 11267	Holtved 1944, I, pl. 44.2
		Wooden box side	L 3: 11022	Holtved 1944, I, pl. 44.3

Discussion

For contact to be expressed in the archaeological record, material elements must first of all survive the passage of time. Items must pass from one group to another either through trade or simply as curiosities. Useful innovations, like boat types and hunting weapons and practices, could also be copied. In terms of trade, the economic significance of particular items would have to have been recognized by both Inuit and Norsemen. Who had what to offer?

The Norse population of Greenland lived in a stratified society consisting of lowly farm hands, cottagers, and tenants whose lives were to a large extent controlled by powerful chieftains and Church officials (Ingstad 1966; McGovern 1980; 1981; Berglund 1982; Keller 1991; McGovern 2000). The social and economic structure rested upon payment of tithe and taxes to landowners, the Church, and the Norwegian Crown, powers that also controlled the accumulation of valuable trade goods in order to sustain essential commerce between Greenland and Europe (Gad 1971; Arneborg this volume).

The most valuable Norse trade commodities included walrus and narwhal ivory, walrus hides for rope, the occasional falcon and bear cub, and more domestic goods such as woven wool. One of the principal sea mammal hunting areas was *Norðrsetur*, generally identified as the Disko Bay region on the central west Greenland coast (see Arneborg this volume). To satisfy the economic necessity of European trade, *Norðrsetur* hunters expanded their search for new hunting areas farther and farther north along the west coast of Greenland. The appearance of Inuit hunters in *Norðrsetur* undoubtedly caused competition for sea mammal resources, but may also have provided an opportunity for trade.

One can imagine that *Norðrsetur* hunters would have been impressed by the Inuit people's superb adaptation to an arctic way of life. Given their own struggles to maintain wooden boats, the Norsemen must have been struck by the utility of the large skin-covered umiaks and sleek kayaks, yet they did not copy them. Similarly they failed to imitate Inuit sea mammal hunting technologies, particularly harpoon hunting equipment used both summer and winter. The Norsemen in this context appear to have been conservative, little inclined to learn from people they pejoratively called '*Skrælingar*' (weaklings).

Even if Inuit hunting technologies failed to attract attention, obtaining information about new hunting areas and trading for ivory must have been high on the Norse agenda. What would the Inuit have been looking for in return for ivory tusks? Two things come to mind: iron and wood, items of great value, not only to themselves but also to the Norsemen. In fact one might wonder who had the greater need for these items. The Norse Greenlanders appear to have been almost completely dependent on imported iron (Buchwald and Mosdal 1985, 25). The Thule culture Inuit on the other hand made good use of meteoritic iron locally available near Cape York and, to a lesser extent, telluric iron from the Disko Bay area. Wrought iron was undoubtedly of a better quality, but might have been less easily shaped through cold hammering

whereas thin pieces of meteoritic iron were easily fitted into knife handles and harpoon heads. The Norsemen must have been intrigued by the meteoritic iron blades and may have bartered for them as well. It is interesting that an arrowhead made of Cape York meteoritic iron came to light during excavations of a large Norse inland farm, Nipaitsoq, in the Western Settlement (Andreasen 1982, 186, fig. 13). The artefact inventory from that farm also included ship rivets and several small iron rings, thought to have been part of chain mail. Excavation of a nearby farm complex, the Farm Beneath the Sand (Arneborg and Berglund 1993; Rogers 1998; Arneborg this volume), has yielded possible strands of musk ox hair (Berglund 2000). The presence of meteoritic iron and possibly musk ox hair on these inland farms argues for some kind of link to the Far North. The trail of chain mail armour from the Western Settlement to Kap Seddon to Ruin Island and to Skraeling Island likewise suggests a more than fortuitous connection between these two Western Settlement farms and the High Arctic. Had the people on these farms taken part in an exploration voyage to the High Arctic?

Aside from iron, wood was a much sought after commodity by the Inuit, but that was equally true for the Norsemen, who needed wood for house construction, ship building, and maintenance. By the thirteenth and fourteenth centuries increasing masses of pack ice (*storis*) were drifting southward along the east coast of Greenland in the summer (Fredskild 1982), undoubtedly reducing the amount of driftwood being deposited on the shores, particularly in the Eastern Settlement. The Inuit, at least in the Far North, had access to wood drifting south from the Polar Basin through the Robeson and Kennedy Channels to Kane Basin and Smith Sound. Perhaps the Norse were not inclined to offer wood as an item of trade.

Contact between different peoples need not leave many traces in the archaeological record. For example, most Arctic prehistorians believe that the Palaeo-Eskimo Dorset people were in contact with the Thule culture Inuit. Yet the archaeological record has yielded little, if any, solid evidence of such meetings and possible coexistence. We believe that Dorset people introduced meteoritic iron to pioneering Thule Inuit families somewhere along their migration route to Greenland, but this has yet to be proven. The meteoritic iron pieces, like the Dorset carvings and harpoon heads found in Thule culture dwellings, could have been picked up on abandoned Dorset sites encountered along the way.

We know that the Norse and the Inuit coexisted in Greenland for at least two centuries. We can suggest that contact between the two peoples was most likely related to hunting and possibly trading activities, particularly in *Norðrsetur*. Encounters between Norsemen and Inuit in the inner fjord areas, where the Norse farms were concentrated, were probably far less frequent, at least initially. By the fourteenth century, more and more farms were being abandoned in the Western Settlement (Berglund 2000; McGovern 2000). Inquisitive Inuit hunters undoubtedly removed what they could find of value on the abandoned farm sites during their fall caribou hunting excursions in the inner fjord areas (Andreasen 1982, 187). In the fifteenth

century, the Inuit could also freely search abandoned farms in the Eastern Settlement region to the south (Arneborg 1996).

Recent research has suggested the possibility of Dorset-Norse contacts in the Far North. Appelt and others (1998) reported the location of a bronze vessel shard in a sod-walled, sub-rectangular Late Dorset dwelling (House 4) on the Qeqertaaraq site in Inglefield Land. This find has led to considerable speculation concerning Norse-Dorset interaction in Greenland (Gulløv 2000). However, the discovery of two Thule culture artefacts in close proximity to the Norse metal fragment leaves open the possibility that all three elements are intrusive in the Late Dorset dwelling. The bronze shard also brings to mind the leg of a bronze vessel from the Inuarfigssuaq Thule site in Inglefield Land and the bronze vessel fragment from Port Refuge Thule site on Devon Island (McGhee 1984, 17).

On Baffin Island a nearly ten-foot length of yarn, presumably of Norse origin, has been identified from an assemblage of artefacts from the large Thule and Dorset site at Nunguvik (Mary-Rousselière 1976) on northern Baffin Island (Sutherland 2000). Additional artefacts, supposedly of Norse origin, have been identified in collections from several Dorset sites on Baffin Island (Patricia Sutherland pers. comm.). Selected radiocarbon dates from the Qeqertaaraq excavation and on materials from Nunguvik have been accepted by the respective investigators as representing a very late Dorset occupation and direct contact with Norsemen.

Our excavations between 1978 and 1995 of more than 300 $1m^2$ units of Late Dorset dwellings, communal structures, middens, and hearths on the central east coast of Ellesmere Island has not uncovered a single Norse or Thule culture artefact in a Dorset context. To be sure, all of the Late Dorset sites and middens investigated between Cape Faraday and Franklin Pierce Bay were chosen in part because of their relative isolation from other occupational episodes, thus minimizing the risk of intrusive elements originating particularly from Thule culture sites. Although the prospect of extensive and late contact between Dorset people and Norsemen in North Greenland and the Canadian Arctic is very intriguing, additional, solid evidence must be found in support of such a hypothesis.

Summary

The identifiable Norse finds located in Ruin Island phase winter dwellings on the central east coast of Ellesmere Island and in North Greenland can be viewed as supporting at least three culture contact scenarios: 1) direct contact—possibly trade related, between pioneering Inuit groups and exploring Norsemen; 2) indirect contact—the presence of both pioneering Inuit and exploring Norsemen in the Far North not involving face-to-face contact, the Norse artefacts being obtained by Inuit from one or more abandoned Norse camps or possibly a shipwreck; 3) no Norse presence in the Far North—all the Norse artefacts were derived from trade between Inuit groups living south and north of Melville Bay.

Of these scenarios we strongly favour the first two, both involving an actual Norse presence in the Far North. The Norse finds from Ruin Island and Skraeling Island appear to be the result of a single contact event, direct or indirect. Matching items from the two sites include pieces of woven cloth, chain mail, draughts-men, spear points, and industrial copper. But was there direct contact?

Of the Norse items found on Skraeling Island and not on Ruin Island, the unaltered ship rivets, the charred piece of oak, the wooden part of a carpenter's plane, and a small wooden face carving may be the most important in support of a direct contact scenario (fig. 8.2b–d, n; fig. 8.3). Although the ship rivets might have survived intact as trade items, one suspects that they would have been mostly reworked if a long trade route was involved. The fact that some of the rivets are complete also suggests that they were removed from joined sections of ship's planks; a small section of one plank was burnt in the open hearth of House 6 where the lump of chain mail, a possible axe blade fragment, and a complete boat rivet were found. The charred piece of oak, dated to AD 1160–1440 (GX-6090, 675+110 BP calibrated at two sigma), is similar in time to the Norse cloth date from Ruin Island and close to the radiocarbon-dated oak member (AD 1043–1413: 730+100 BP calibrated at two sigma) of the ancient umiak frame discovered by Eigil Knuth in Pearyland (Knuth 1984, 141).

The Inuit on Skraeling Island may have salvaged the ship rivets from sections of a ship's hull washed ashore after a shipwreck in the ice. The relatively small number of rivets in the Norse artefact assemblage may also reflect limited Norse access to iron rivets and a greater reliance on wooden pegs and cords of baleen for fastening ship's planking as mentioned by Nansen (1911, 305) and Nörlund (1967, 68).

Like the woven woollen cloth pieces, the carpenter's plane (fig. 8.2n) was found discarded on the floor of House 15. Again it is unlikely that the bladeless wooden plane had been brought any great distance as a trade item.

The small, wooden facial carving with non-Inuit features (fig. 8.3) suggests that the Inuit artist from House 21 on Skraeling Island executed his carving based on an encounter with Norsemen. The dwelling also yielded a smelted copper endblade.

The sheer number and utilitarian nature of the Norse objects, such as iron wedges, spear and knife blades, the carpenter's plane, and numerous pieces of wrought iron and non-native copper, strongly suggest that the Inuit occupants of the Skraeling Island winter site encountered Norse explorers or at least the remains of their presence somewhere along the central east coast of Ellesmere Island.

The discovery of so many Norse finds in the Smith Sound/Kane Basin region, particularly on the Ellesmere Island side, casts a favourable light on the idea that two ancient cairns, discovered by Nares in 1875 on Washington Irving Island, were constructed by Norsemen, conceivably marking their farthest north (McCullough and Schledermann 1999). Although our search in 1995 for concrete evidence of a Norse presence on the island was not successful (McCullough and Schledermann 1996), the evidence may well be there. Three Norsemen on Kingigtorssuak Island thought it worthwhile to leave three cairns and a rune stone behind (Stoklund 1982).

A similar initiative would most likely have been taken by a group of Norsemen who had managed to bring their vessel into Kane Basin more than 1750 km north of the Western Settlement (Schledermann 2000).

Norse artefacts associated with post–Ruin Island phase occupations of Ellesmere Island and North Greenland (table 8.2) are distributed widely both in time and space, ranging between approximately AD 1350 and 1700—from the beginning of the abandonment of the Western Settlement to a couple of decades prior to the arrival of the missionary Hans Egede on Haabets Island near present day Nuuk. We believe that the appearance of Norse artefacts in post–Ruin Island dwellings and middens in the Far North resulted from south to north exchanges between Inuit groups. Initially the artefacts may have been obtained by the Inuit directly from Norse parties. Eventually they came from abandoned Norse farms, first in the Western Settlement and later in the Eastern Settlement.

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L'Anse aux Meadows and Vinland: An Abandoned Experiment

BIRGITTA LINDEROTH WALLACE

Introduction

The Vinland migration represents the ultimate stage of Viking expansion, an expansion that stretched from mainland Scandinavia to new worlds where no Europeans previously had set foot.[1] However, it was a settlement that left little trace except in literature. Lasting only a few years, it was an experiment quickly abandoned.

L'Anse aux Meadows, the Norse site in northern Newfoundland, was part of this ultimate Viking expansion. In this chapter I will argue 1) that the Viking westward expansion followed migratory patterns observed elsewhere, 2) that L'Anse aux Meadows was the *Straumfjörðr,* 'Fjord of Currents' of the *Vinland Sagas*, 3) that it was the base camp from which other localities, including the lands in and around the Gulf of St Lawrence, were explored, and 4) that the Vinland experiment never led to settlement but was abandoned as unprofitable after a few years.

David Anthony, in a 1990 article, complained that archaeologists generally deal with migration in a cavalier way because they have failed to understand the *structure* of migratory patterns (Anthony 1990). Anthony suggests that migration encompasses components that are applicable in all large movements of people. He emphasizes that migration is a *process*, not an *event*.

[1] The various claims for an Irish or 'Alban' presence in North America before 1500 (e.g. Babcock 1913, 28–29; Pohl 1961, 36–44; Mowat 1965, 33–37, 53–55, 392–94; 1998) are spurious (see also Sollbach 1987).

Migration across an ecological or cultural boundary requires planning. Migrants are not likely to move into areas about which there is no information. Migrants tend to be people who have migrated previously. Migration therefore increases the probability that further migration will occur. Farmers, who depend on focal subsistence patterns, are more likely to migrate long distances than broad-spectrum hunter-gatherers.

According to Anthony, the first stage in migration is a period of discovery, involving advance 'scouts':

- The scouts are relatively few in number and form a *work force*. They tend to be single men, adults but young, who migrate to the new areas as mercenaries, merchants, craftsmen, and hired hands. These 'scouts' come for a limited period of time, then return home.
- The settling takes place in a leap-frog pattern resulting in 'island' communities separated by vast expanses of unsettled territories.
- The migrants proceed along well-defined routes to specific locations.
- The migrants come from limited points of origin, and information about the new area filters back to their home communities. Studies have shown that the first 10% of migrants into an area can be used to predict the ethnic and geographical origin of subsequent migration.

The second stage of migration is the actual *migration stream* in which whole families arrive and establish permanent and sustainable households.

Anthony's rule that farmers are more likely to migrate than hunter-gatherers certainly applies to the Norse migration into Iceland and Greenland. The same is true for his rule that previous migration increases the probability of further migration as many of the Icelandic settlers were people who only a generation or so earlier had emigrated to the British Isles. In both Iceland and Greenland the migration was preceded by a certain amount of exploration. In Iceland this was probably more extensive than indicated in the written documents as can be gleaned from terse statements from sources such as *Landnámabók*: 'The land looked to them more promising south than north' (*Landnámabók*, 161). For such a statement to be made, both the northern and southern areas must have been visited. As for Greenland the *Greenlanders' Saga* states that Erik the Red used his three years of exile to explore the area.

Anthony's 'scout' stage complements what Tom McGovern (1981, 293) has called the initial 'tramp stage' of the Greenland settlement, when new resources and avenues of sustenance are being explored and tried. It lasts only a decade or two, after which efforts narrow and the most favourable options become the norm. It is significant—and predictable—that the Vinland voyages took place in this 'scout' stage.

The posts established in Vinland were indeed 'island' settlements, points reached by sea from Greenland and separated by vast expanses of land. The *Greenlanders' Saga* names one specific post, *Leifsbúðir*, which I hereafter will call Leif's Camp. *Eirik's Saga* describes two settlements, *Straumfjörðr*, 'Fjord of Currents', and *Hóp*, the 'Tidal Lagoon' site.

Historicity of the Sagas

In Vinland research it has often been the accepted rule to use the sagas as blow-by-blow travel guides (fig. 9.1). This is in sharp contrast to Icelandic historiography. Since the 1950s Scandinavian scholars have realized that Icelandic literary sources such as the 'Sagas of Icelanders' (including the *Vinland Sagas*)—and even more respectable 'historical' works like the *Landnámabók* and *Íslendingabók*—should not be read as objective accounts (e.g. Jóhannesson 1962; Rafnsson 1974; Hastrup 1985; Vésteinsson 1998; Friðriksson and Vésteinsson this volume). It is therefore essential to compare explicitly the 'historical' and archaeological evidence.

The *Vinland Sagas* consist primarily of two sources, the *Greenlanders' Saga* and *Eirik's Saga*. *Eirik's Saga* furthermore exists in two versions, the *Skálholtsbók* and *Hauksbók*. The two are almost identical except for minor details (for a comparison of the two see Jansson 1945). Although obviously building on the same original material, the *Greenlanders' Saga* and *Eirik's Saga* differ substantially.

The *Greenlanders' Saga* describes how unknown lands south-west of Greenland were first accidentally discovered by Bjarni Herjolfsson and later systematically explored by Leif Eriksson, who took possession of the new areas and named them Helluland, Markland, and Vinland, establishing his base, Leif's Camp, in the latter location. Throughout the *Greenlanders' Saga*, Leif Eriksson remains the dominant figure. Even after he assumes the chieftainship over Greenland from his father Erik and no longer participates in the Vinland expeditions, Leif retains firm control of his Vinland base, letting family members harvest its resources but not assume ownership.

In *Eirik's Saga*, Leif Eriksson is mentioned only in passing as the original accidental discoverer, and the entire glory of the exploration of the new lands is given to the Icelandic trader Thorfinn Karlsefni. Ólafur Halldórsson (1986; 2001) has convincingly argued that a major purpose of *Eirik's Saga* was to boost the lineage of Bishop Björn Gílsson, one of Karlsefni's descendants, at a time when his canonization was sought. This objective was achieved by combining the four individual expeditions described in the *Greenlanders' Saga* into one large expedition, the heroes of which were Karlsefni and his wife Gudrid. The only other expedition mentioned in *Eirik's Saga* is that of Leif's brother, Thorsten, which in neither version reached its goal but had to return to Greenland after being storm-tossed on the Atlantic an entire summer. The changes are most evident in the *Hauksbók* version of *Eirik's Saga*, not surprisingly, since Haukr was a direct descendant of Karlsefni and Gudrid. The collation of the other individual expeditions into one is at times sloppily done, however. Thus in a famous episode where Gudrid scares off attacking *Skrælingar* by baring her breasts and slapping them with the blade of a sword, she is called Freydis.[2] In another instance *Hauksbók* has changed the name Freydis (as found in *Skálholtsbók*) to Gudrid in the passage stating that Freydis and Bjarni had stayed all summer at Fjord of Currents while the others were in the Tidal Lagoon area.

[2] For an in-depth discussion of the meaning of this episode, being borrowed from a Greek prototype, see Wolf (1996).

	Source	Leif	Thorvald	Thorsten and Gudrid	Karlsefni and Gudrid	Freydis and the Icelandic traders Helgi and Finnbogi
Size	**GS**	35	30	25	60 men, 5 women	65 men, 5 women
	ES	—	—	**Thorsten only** 20	160 men, 5 women	—
Number of ships	**GS**	1, purchased from Bjarni	1, borrowed from Leif	1, owned by Leif	1, owned by Karlsefni	2, one owned by Helgi and Finnbogi, the other probably borrowed from Leif
	ES	1, owned by Leif	—	1, owned by Thorbjörn, Gudrid's father	3, owned by Karlsefni, Bjarni and Thorhall, and Gudrid's father	—
Date of voyage	**GS**	1002 or later (inferred date)	1004 or 1005 (inferred date)	1007 or 1008* (inferred date)	1010 or 1011 (inferred date)	c. 1014 (inferred date)
	ES	1000	—	*c*. one year after Karlsefni's marriage to Gudrid	—	—
Length of stay	**GS**	1 year	2 years	Abortive attempt; storm-tossed until end of October	2 years	1 year
	ES	Short accidental landfall	—	Abortive attempt; storm-tossed until Fall	3+ years	—

* On the basis of genealogical records, Ólafur Halldórsson (1978, 377) has suggested that Gudrid was not born until *c*. 995. If this is true, at least Gudrid and Karlsefni's Vinland voyages could not have taken place until about two decades later.

Fig. 9.1. Characteristics of the Vinland expeditions based on the *Greenlanders' Saga* (GS) and *Eirik's Saga* (ES)

A characteristic of all the versions of the *Vinland Sagas* is that events, places, and persons have been collated, collapsed, and stylized. This is a common pattern in oral traditions:

> folk history sometimes collapses time and space—negates and dissolves the existence of individuals, well remembers others, particularly those associated with [. . .] heroes. (Yentsch 1988, 7)

Moreover, the *Vinland Sagas* do not always describe events in chronological order. After the fight with the *Skrælingar* in which Gudrid/Freydis bared her breasts, for example:

> Karlsefni and his men made ready to leave setting their hearts on their own country, and sailed north along the coast and found five Skraelings in fur doublets [on the way to Greenland] [. . .] and now Karlsefni and his followers returned to Straumsfjord. (ES, 229)

Obviously, Karlsefni and his crew returned, first to *Straumfjörðr*, *then* from there to Greenland.

We are also told that later, on the way to Greenland, Karlsefni and his men captured two *Skræling* children in Markland and that they taught these children the Norse language and baptized them. *Then* the saga goes on to describe how the Norse reached Greenland. Obviously the acquisition of the Norse language and religion took place in Greenland, not on the way there.

Time frames are vague, including the date given for Leif's voyage. In the *Greenlanders' Saga* the only specification is that it happened after Bjarni Herjolfsson had spent a year in Norway with Earl Eirik Hakonarson after the death of Olaf Tryggvason in the Battle of Svolðr, which took place in the summer of 1000. Bjarni returned to Greenland the next summer, that is in 1001. The date is of consequence for Leif's departure, because he acquired Bjarni's ship and hired a crew only *after* Bjarni's arrival in Greenland, but we do not know if Leif set off for Vinland that very summer or the following year. Nor is it a given that the subsequent expeditions took place the year after the return of another.

Eirik's Saga is even less specific. In it, Leif's accidental discovery presumably took place before or in the same summer as the death of Olaf Tryggvason, the year 1000. His brother Thorvald's voyage occurred after Leif's return, but no indication is given if it was the following summer or a couple of years later. Presumably, Thorsten's abortive voyage was made the summer following the return of Thorvald's crew, as its purpose was to retrieve Thorvald's body. Karlsefni's voyage did not take place until after Thorsten had also died (giving Karlsefni the opportunity to marry Thorsten's widow, Gudrid, in the summer after he arrived in Greenland). We do not know what year that was. The only time indicated for Karlsefni's departure for Vinland was 'next summer'. The only thing certain is that all seafaring took place during the summer, as it would have been the only time when it was safe to navigate on these northerly waters.

All the localities visited have been collapsed into a simple few. From this it follows that there is probably no one locality named in the sagas that possesses all the features ascribed to it. This means that any attempt to identify the geographic location of Leif's Camp via the features mentioned in the *Greenlanders' Saga* is fruitless. It contains, for instance, elements of both the Tidal Lagoon site and Fjord of Currents of *Eirik's Saga*.

Although the expeditions north and south from Fjord of Currents ostensibly were to look for Vinland, it is clear that what was meant was looking for the *products* of Vinland and that the sagas considered Fjord of Currents to be *in* Vinland. This comes through in *Hauksbók*: as the Norse were leaving Fjord of Currents, 'when they sailed from Vinland they got a south wind and reached Markland' (ES, 230).

Despite the sketchiness and generalities of the *Vinland Sagas*, we can extract the following points of possible historicity:

- There was a short period of discovery, represented by the initial, accidental discovery and preliminary visits to establish sailing routes and locations worth exploring. This phase is barely hinted at in the sagas.
- There was a systematic exploration for resources. Potential assets inventoried for possible future utilization included salmon, halibut and whale, caribou or moose, fur, eggs, lumber (including burl wood), and grapes. Three resources were immediately targeted for shipment to Greenland: lumber, furs, and grapes.
- All exploration was by ship and boat.
- Profit was the incentive for the voyages.
- All of the expeditions were expected to return to Greenland. There was no actual migration from Greenland, even if it was considered as a definite future possibility.
- Settlement was a base camp or gateway for the exploitation of Vinland resources. The base camp served as a transhipment point for resources collected in several locations and then taken to Greenland.
- The gateway was a year-round base from which exploration parties were sent out during the summer months in different directions, returning to the base for the winter. A small contingent stayed at the base year-round.
- The occupants of the gateway did not consist of families but labour crews or 'scouts': young men of prime working age, with a few women.
- The gateway, the Fjord of Currents of *Eirik's Saga*, was a year-round base where everybody gathered in the winter. The Tidal Lagoon site was a summer camp in the south.
- In the *Greenlanders' Saga*, the northern and southern locations have been contracted into one, *Leifsbúðir*, 'Leif's Camp' where the southern elements dominate but where the function is that of Fjord of Currents.
- Conflict with indigenous people was a factor in the Norse abandonment of Vinland.

These points will be elaborated on below.

Description of the Vinland Settlements

Fjord of Currents was named, as one might expect, after the conditions of its location. It was also an area of tall grass and offshore islands which was rich in seabirds (eiders, according to *Hauksbók*). *Eirik's Saga* reports that the expedition had 'an abundance of everything they had need of' there (ES, 229). The winter was so mild that the cattle could graze outside. In spite of this, their first winter proved hard, as they had brought no winter provisions and spent all summer and fall exploring rather than laying up winter supplies. In the spring, however, they could collect eggs, row out to catch fish, and pursue all kinds of game. The Tidal Lagoon site was so named after the shallow tidal lagoon protecting a river estuary. This was the area with the most varied and valuable resources. Here were forests and grapevines on the high ground, self-sown wheat on low ground, and brooks teaming with fish. However, this was also the area where there were already plenty of people, the *Skrælingar*. Of the resources available, lumber and grapes were especially noted. The entire area was named after the grapes*, Vínland*, which means 'Wineland'.[3] The significance of finding grapes has commonly been overlooked. They would not have been a simple curiosity to the Norse. In Norse society, wine was an exotic luxury of great value and the type of product a chieftain would use in the feasts which were essential mechanisms for negotiating social relationships and maintaining power (Byock 2001, 67). Normally all wine had to be imported. The potential for an unlimited source of domestic wine would have rivalled the finding of gold.

Social Organization of the Vinland Settlements

The occupants of Fjord of Currents/Leif's Camp and the exploration parties had the typical composition of Anthony's 'scout' groups. The settlement consisted primarily

[3] Helge Ingstad (1986, 307–13) revived an old notion suggested by the Swedish philologist Sven Söderberg (1910) and later by the Finnish geographer Väinö Tanner (1942) that *Vínland* with long 'i' was really Vinland with a short 'i' which would change its meaning to Pasture Land. However, Söderberg's suggestion was immediately rejected by his colleagues specializing in Old Norse (Jónsson 1912) and by every Norse philologist since (Sven B.F. Jansson, Erik Moltke, Einar Haugen, pers. comm.; Magnusson and Pálsson 1965, 58, n. 1; Wahlgren 1986, 141; Holm 1997; Crozier 1998). Recent arguments by Stefánsson (1997) and Lönnroth (1996) in support of the meaning 'pasture' are flawed. The contention that the word *vin* is common in the Shetlands is for instance incorrect (Fellows-Jensen 1984, 154; 1993, 501–02). Furthermore, 'Pasture Land' would not be *Vinland* but *Vinjaland* or *Vinjarland* (Holm 1997). The name Vinland as derived from the presence there of wild grapes is also noted by Adam of Bremen in *c*. 1075 (AB). Adam, who refers to the Danish king Svein Estridsson as his source, wrote in Latin where the words for wine and pasture have no similarity. The finding of grapes is an essential element in the sagas, pastures are not. At this stage in their history, only a few years after the migration to Greenland, the Norse had more potential pastures at home than they could use.

of males in their best working age, men 'chosen for their height and strength' according to the *Greenlanders' Saga* (GS, 197). Only a few women were part of the expedition, some of whom were married to crew members. The settlement was highly stratified:

- At the top was a commander of high rank, a member of the elite. Initially the commander was Leif Eriksson. Later leaders were members of the same family.
- Occasionally, the wife of the leader accompanied her husband, Freydis and Gudrid being examples.
- Professional traders and their crews participated for a share in the profit (Snorri Thorbrandsson, Thorhall Gamlason, Helgi, Finnbogi, Thorvard).
- Members of the leader's personal staff brought specific skills such as experience of travelling in wild and unexplored territories (Thorhall the Hunter).
- The expeditions included slaves (Tyrkir the German, Haki and Hekla).

Size and Date of the Settlement

The size and date of the various expeditions described in the *Vinland Sagas* are shown in fig. 9.1. The only other time when an expedition destined for Vinland is mentioned in documents is in 1121[4] when the *Icelandic Annals* mention that Greenland's bishop Erik Gnupsson went to 'leita Vínlands' (IA 1121). In this case *leita* can mean either 'search for' or 'visit' so we do not know how current the contemporary knowledge of Vinland was. Traffic to Markland seems to have continued even if we hear of it only in 1347 when a small ship with seventeen or eighteen men had been there, perhaps to fetch timber, and was driven off course to north-western Iceland on the trip back to Greenland (IA 1347). Markland, of course, was considerably closer to Greenland than Vinland.

Function of the Vinland Settlement

The function of the Vinland settlement was resource exploitation. In the *Greenlanders' Saga* Karlsefni was said to have brought all sorts of livestock 'for it was their intention to colonize the country if they could manage it' (GS, 200). In most instances, however, the purpose of the expeditions was clearly stated to be a search for resources such as lumber and other things that could give riches and fame, with no attempt at permanent settlement. In all instances, the *return to Greenland* was taken as a given. The main settlement was the Fjord of Currents camp, the base in

[4] On the Vinland Map the date 1118 is indicated for this voyage (Skelton and others 1965, 140). However, the Vinland Map is most likely a modern production (e.g. Seaver 1998; see also McGhee this volume).

northern Vinland from which expeditions went out in the summer in all directions, and it was the camp to which they returned in the fall to spend the winter. One winter was hard because they had failed to make adequate provisions and the hunt failed, but the winters were so mild that the livestock could fend for itself out of doors on an off-shore island. On one of the northern excursions, Leif Eriksson's brother Thorvald was killed by an arrow shot by an indigenous inhabitant. The most noteworthy expeditions, however, were to southern Vinland where the landscape, weather, and resources were more inviting. It was in this area that wild grapes were encountered. Temporary camps such as the Tidal Lagoon site/Leif's Camp were established here to harvest some of the resources, such as lumber, including burlwood,[5] and grapes. It was also in these southern areas that the Norse met large groups of indigenous people. After initial friendly contacts, hostilities broke out, which left the Norse feeling threatened. In the fall they returned to the northern base, Fjord of Currents, with their lumber and grapes, spending the winter there before returning to Greenland the following summer. Thus Fjord of Currents was also a transhipping station for goods collected in Vinland but destined for Greenland.

Contact with Indigenous People

The contacts between the Norse and indigenous people, termed *Skrælingar* by the Norse, form some of the most dramatic events in the sagas. The Norse encountered *Skrælingar* on their expeditions both north and south. The largest populations were in the south. The two people viewed each other with curiosity and distrust. The Norse noted with disdain the physical differences between themselves and the indigenous inhabitants of the land, and one may assume that the latter found the physical features of the Norse equally peculiar. In the south, the encounter occurred while indigenous people were on a seasonal trading expedition along the shore in canoes. Initially friendly, the indigenous people began to trade with the Norse. Later the trade deteriorated into deadly conflict. In the north, contacts were hostile from the start.[6]

Length of the Settlement

The Vinland voyages and the base camp lasted only a short period of time, a decade perhaps, never evolving beyond the 'scout' stage. Each expedition lasted only one or a few years. In the *Greenlanders' Saga* the longest sessions in Vinland were those of

[5] *Mausir* or *másr* in Old Norse. The idea that *másr* means maple (Magnússon and Pálsson 1965, 71, 86) or white birch (Fernald 1910, 30–32) is a modern one. *Másr* means simply 'burlwood', a meaning it has retained in modern Scandinavian languages.

[6] See Wallace (2000) for a more facetted view of the Norse-*Skræling* contacts.

Thorvald's and Karlsefni's expeditions, which stayed for two years, arriving and departing in the summer. In *Eirik's Saga*, the length of Karlsefni's stay is somewhat nebulous, but it lasted at least three years, also arriving and departing in the summer.

Reason for Abandonment of the Vinland Settlements

The return to Greenland was the ultimate goal of each expedition in all versions of the Sagas. *Eirik's Saga* adds a reason for giving up on the Vinland expeditions altogether:

> It now seemed plain to Karlsefni and his men that though the quality of the land was admirable, there would always be fear and strife dogging them on account of those who already inhabited it. So they made ready to leave. (ES, 229)

It is not difficult to see why the Norse feared for their safety. Even at their largest, their groups were vastly outnumbered by the indigenous people. Estimates of the size of the pre-contact indigenous population in the Maritimes vary, but the Mi'kmaq alone may have numbered up to 35,000 (Dickason 1992, 111).

L'Anse aux Meadows

The above outlines the main aspects of the Vinland settlement as described by *Eirik's Saga* and the *Greenlanders' Saga*. Below it will be compared to the only Norse settlement found in North America, L'Anse aux Meadows. Like the camp described in the sagas, L'Anse aux Meadows dates from around the year 1000 and served as a base for further exploration and a gateway for exploitation of resources.

Description

L'Anse aux Meadows is located on the northernmost tip of Newfoundland's Great Northern Peninsula, in one of its windiest, most exposed spots (fig. 9.2). The site lies on the eastern shore of Epaves Bay, a shallow bay separated by a long flat cape from the deeper Medee Bay, 1 km to the north where the modern village of L'Anse aux Meadows is located. To the south, the site is bordered by a 50 m high rocky ridge, composed of a sandstone *melange* (Gimbarzevsky 1977). The site faces west to the Labrador coast (figs 9.2–9.3).[7]

Pollen analyses have shown that the vegetation would not have differed much from that of the present (Mott 1975; Henningsmoen 1977; McAndrews and Davis

[7] Note that on the site maps published by Helge and Anne Stine Ingstad, west, not north, is at the top of the maps.

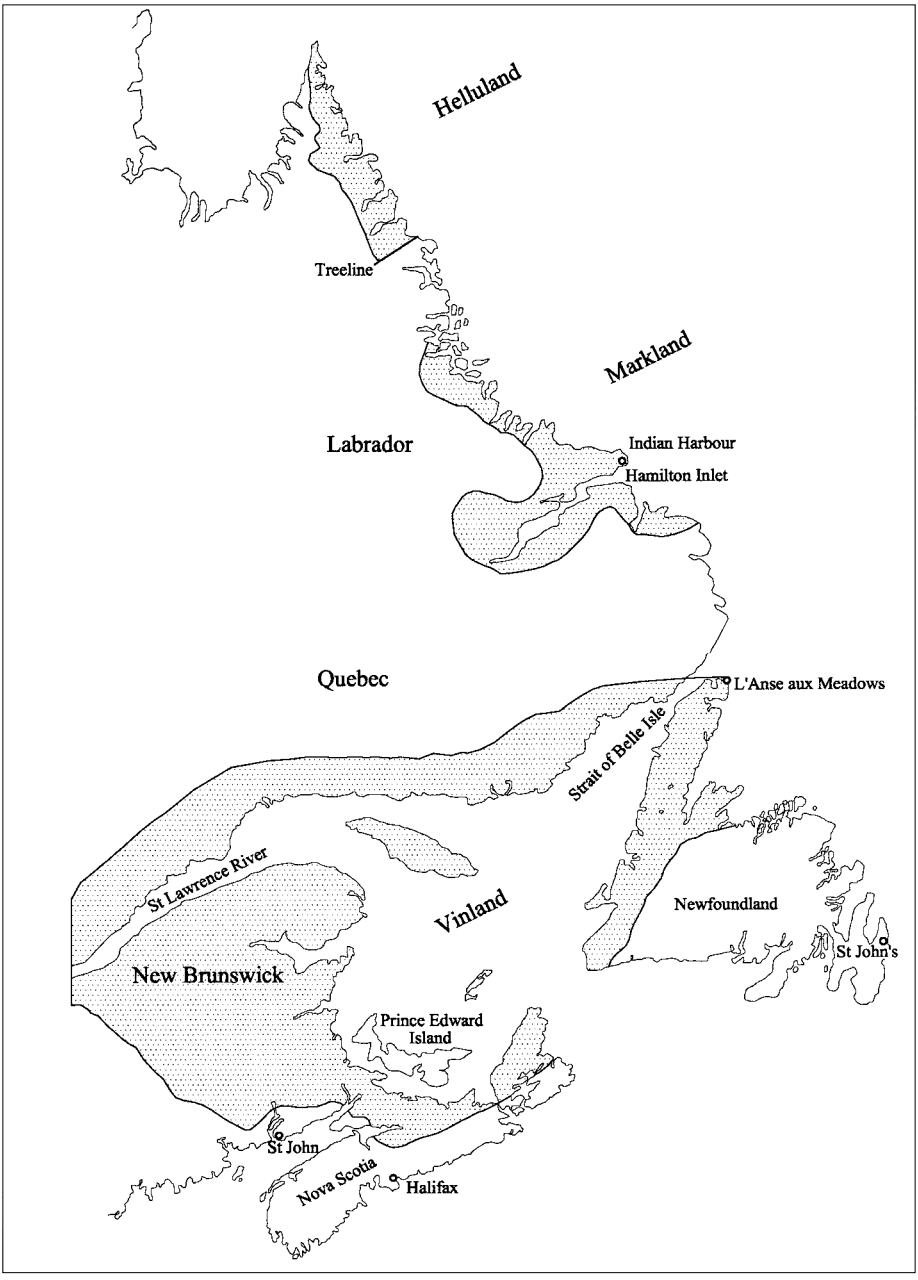

Fig. 9.2. Location of L'Anse aux Meadows, Helluland, Markland, and Vinland (T. Simpson after B. Gallant and B. Wallace)

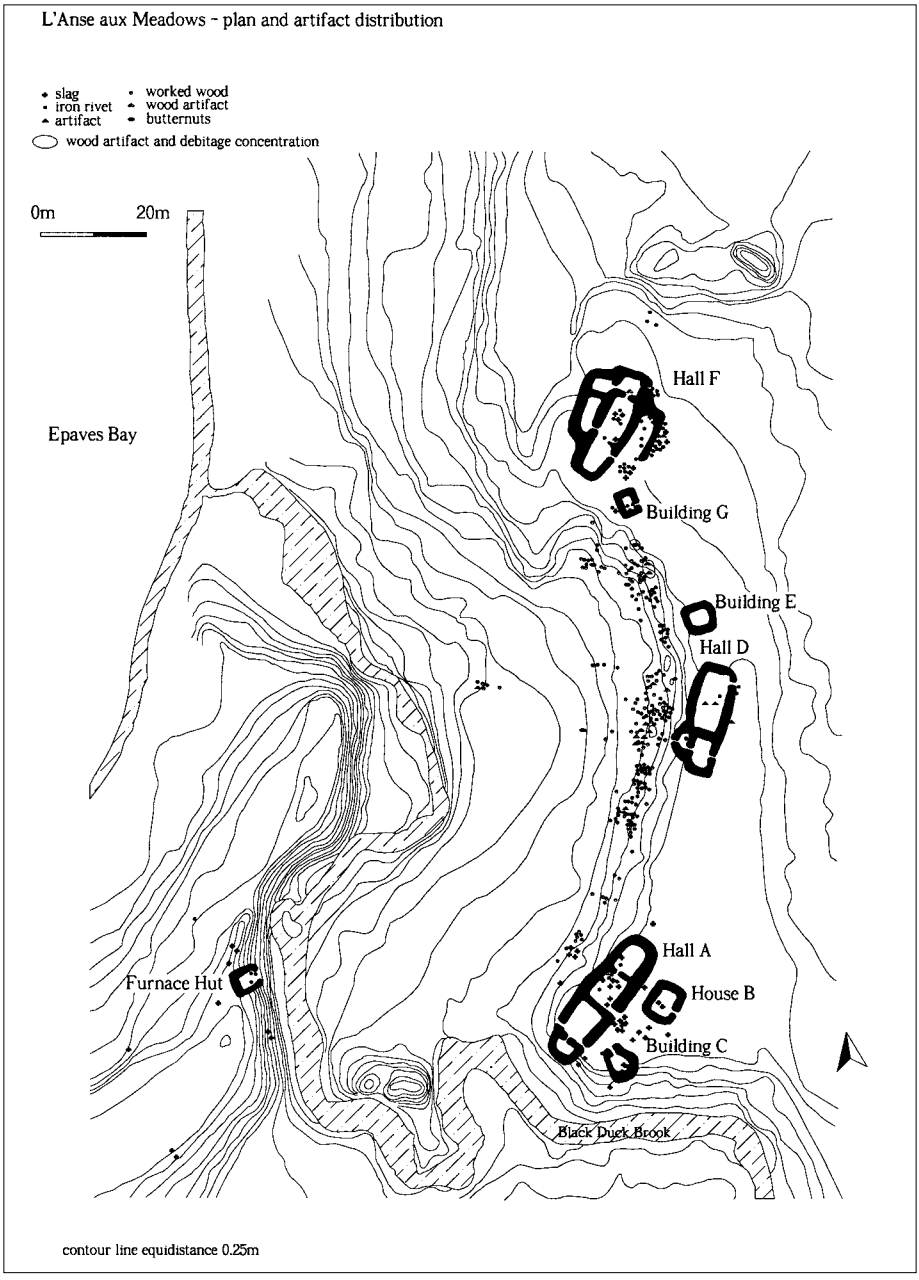

Fig. 9.3. Plan of the L'Anse aux Meadows site (T. Simpson after B. Gallant and B. Wallace, courtesy of Parks Canada)

1978; Davis and others 1988). The overall vegetation is heath land, with grasses such as lyme grass, *Elymus mollis*, and sedges and clusters of stunted balsam fir, willows, and alders. No trees grow on the site now, but there were scattered trees once, and the dense Newfoundland fir forests came closer to it. Today, the forest line is at least 15 km away, but this is a recent phenomenon, caused by intensive cutting for firewood and building material over the past 150 years.

Today the climate is subarctic, although it has been classified as near-arctic (Hare 1952) or 'cold microthermal' (Macpherson and Macpherson 1981, 98). In the past century, the area has usually had a considerable snow cover between December and June, but in 1998, when temperatures were marginally higher, there was no snow at all, and in 1999 and 2000 there was very little snow. During the warming peak in the period 900 to 1200 the site would probably have been snow free (Ogilvie and others 2001, 181).

The Norse features consist of three building complexes and a bloomery. Each building complex comprises a large hall and a small hut. One complex also includes a small house. The buildings have been given the letter designations A to J. Buildings A, D, and F are halls, building B a small house, C, E, and G are sunken huts, and J a bloomery.[8] Situated on a narrow former beach terrace about 100 m inland from the shore, the three complexes are spaced at even distances from each other (figs 9.3–9.4). All the buildings were of sod over a timber frame in usual west-Norse style (figs 9.5–9.6). All had heavy roofs, also of sod, supported by interior posts. The presence of the roofs indicates that the buildings were year-round dwellings, meant to withstand winter, not the temporary 'booth' structures found on seasonally occupied sites.[9]

The terrace on which the buildings are located is the only dry ground between two bogs. To the east of it, on the inland side, is a raised palsa bog. To the west, on its seaward side, is a funnel shaped fen consisting mostly of wet sedge peat. Forming a semi-circle, the terrace is cut by a small brook winding its way to the sea from a small lake about 1 km inland. The southernmost complex borders the brook. The bloomery is located on the other side of the brook, away from the rest of the buildings. It consists of a simple iron smelting furnace located within a small, subterranean hut dug into the terrace and a pit-formed charcoal kiln a few metres south-east of it.

The function of the individual rooms in the halls is relatively clear. Hall A, with its four rooms end-to-end, has one small and one large *skáli*. These rooms were for socializing, sleeping, and eating, characterized by a central longfire and sleeping platforms along the walls. A third room served as a smithy as shown by the presence of smithy slag inside and immediately outside. In the room was also a large, bowl-shaped pit which was probably used for forging and the remains of the charcoal bin. A fourth room had a sunken fireplace close to a wall but little else except traces of a

[8] Building H was originally through to be a separate structure but was later discovered to be part of hall D (A.S. Ingstad 1977, 45).

[9] Such booths consisted of walls only—the roofs, being temporary, used tent or sail cloth.

Fig. 9.4. L'Anse aux Meadows. Aerial view facing south-west taken during the 1975 excavations. The Norse buildings remain as earthwork outlines in the lower left corner. (photo: B. Schönbäck, courtesy of Parks Canada)

light, circular container or enclosure in the middle of the floor, near the door to the smithy. Its exact function cannot be determined. The presence of the fireplace indicates that it may have been for accommodation although it lacked the traditional sleeping platforms along both walls. This in turn may show that the room had an additional purpose, perhaps storage, since it lacks floor deposits. The only artefact found in the room was an iron boat nail near the door to the smithy.

Hall D consisted of a large *skáli*, a small carpentry workshop, and a large storage room.

Hall F was the largest and most complex of the halls. It contained six rooms and an attached shed. Three rooms were end-to-end and formed the centre of the building. The rooms were a small, private *skáli* next to a large communal *skáli*, which in turn abutted a large *stófa* (sitting room). Three rooms, also end-to-end, were attached on the seaside to the central complex. Farthest to the north was a small *eldhús* (kitchen) the most prominent feature of which was a stone oven. Next to it was a large storage room. Another large room, probably also for storage, was in turn next to it. This room was not recognized during the original excavations, but remains of its sod walls were observed later and can also be distinguished in pre-excavation air photos. On the landside of the building was a lean-to shed. The presence of many boat nails, their shanks cut and their roves split, plus remains of a wood structure indicate that the shed had been used for boat repair.

Fig. 9.5. The A-B-C complex as recreated in a model of how the site might have appeared at the time of its use. This complex consists of a large hall, a small house, and a small hut. (model: D. Coldwell; photo: T. Lackey, courtesy of Parks Canada)

Both halls D and F each had a sunken hut nearby. The huts contained a fireplace but little else. In west-Norse settings huts such as these were generally workshops, frequently used for weaving. That may not have been the case at L'Anse aux Meadows. The hut by hall F was close to the shed where boats were repaired but had no clear indication of function.[10] The presence of a fireplace by one of the side walls shows that it may have been used as accommodation. The only finds were several boat nails, probably from old boat timbers burnt in the fireplace. The hut near hall D had a small stone oven in a corner, a fireplace by the wall, and a group of nineteen stones in one corner (A.S. Ingstad 1977, 65). The fist-sized stones may have been loom weights or, perhaps more likely, net sinkers. Outside the hut were birch bark rolls and a birch bark container which may have been wrappers for stones used as net sinkers. Perhaps this was the purpose of the stones in the hut. A cod vertebra was found in the fireplace in the *skáli* in hall D, so fishing may have been practised and the gear stored in the hut. The presence of heating arrangements indicates, however, that the hut was not simply for storage but that people spent time there.

[10] The original conclusion that it had been a sauna (A.S. Ingstad 1977, 218–20) no longer stands.

Fig. 9.6. The remains of hall F, facing south
(photo: R. Ferguson, courtesy of Parks Canada)

A notable fact is what type of building is *not* on the site. In spite of diligent search and test excavations, no structures of any kind for domestic animals, no byres, no stables or animal pens have been found. Some animals must have been brought for provisions, but if so, they would have been slaughtered in the fall or, as stated in the sagas, they could have grazed out of doors in the mild temperatures of the eleventh century. However, no domestic food bones have been recovered either. The meat consumed seems to have been primarily seal and whale.[11]

Artefactual Evidence

The artefacts found on the site can be grouped into three categories:

- Small personal items lost and never retrieved or broken and perhaps intentionally discarded. In this category are a bronze pin, a glass bead, a small fragment of a

[11] A small shoulder bone originally identified as that of a pig (A.S. Ingstad 1977, 163, 263, 265, 266) has since been found to be that of a seal (A.S. Ingstad 1977, 267; Rick 1977; Spiess 1990).

gilded bronze ring, a spindle whorl, a needle hone, and a broken bone needle (figs 9.7–9.8).
- Items of little value intentionally left behind. The only such item was a stone that served either as the base for a door pivot or as an oil lamp.
- Debitage associated with building construction and boat repair. Included in this category are chopped logs, planks of various kinds, rope stumps, broken wood items, iron boat nails, and material associated with iron manufacture.

The debitage consisted of four types of waste, all complementing each other: iron smelting, smithing, carpentry, and boat repair:

- Slag from the *smelting of iron* in and around a direct-reduction bloomery. This is where iron was manufactured from bog ore collected on the site. The operation was a one-time effort with a total production of about 3 kg. The iron was used to make boat nails.
- Smithy slag from the forging of the boat nails in and around a smithy in the southern complex.
- Carpentry debris forming a large deposit outside a carpentry shop in the hall in the middle complex. Several of the pieces are associated with boat repair.

Fig. 9.7. Ringed bronze pin found in hall A. The type is common in the Norse settlements in Ireland, Britain, and Iceland. It dates from the late tenth or early eleventh century. (photo: G. Vandervloogt, courtesy of Parks Canada)

Fig. 9.8. A spindle whorl of soapstone, a fragment of bone needle, and a needle hone of quartzite suggest the presence of women. (photo: D. Crawford, courtesy of Parks Canada)

- Iron nails associated with the largest complex, mostly in a shed attached to the hall. The nails are discarded boat nails. This is where rusted nails were removed and replaced with new ones. On Norse sites, discarded iron nails in any quantities *always* signal boat repair (Rolfsen 1974; Lundström 1981).

Size of the L'Anse aux Meadows Settlement

It is possible to estimate the maximum number of sleeping spaces available in the L'Anse aux Meadows halls based on their size and the assumption that the benches were used for this purpose. The 'settlement' could probably have accommodated approximately seventy-seven to ninety-two people. Another two to three people could be accommodated in the small house B, and another five to six in the small huts, for a total of eighty-four to one hundred one individuals. The grouping of the buildings into three complexes makes one suspect that we are dealing with at least three ship crews. This is a substantial settlement.

Social Organization

The different types of accommodation represented by the L'Anse aux Meadows buildings may indicate some social differentiation within the settlement. The large halls A and F are the type used only by the elite and their entourage. Both were considerably larger than 'Erik's hall' in Iceland.[12] Within these two halls there is further differentiation. Each has a small private *skáli*, the kind used by the manor owner for himself and his immediate family. Of the two halls, hall F is the largest and most complex. It also has greater cultural deposits than the other two. Consequently this would have been the hall of the leader.[13] Hall D is smaller and less pretentious than the other two. It lacks the private *skáli*, so the living arrangements would have been more communal.

The large communal sleeping/eating/socializing rooms, the three *skálar*[14] in the halls, indicate the presence of large retinues, about twenty-five to thirty per complex. As the occupants of the site would have arrived and departed via ships, it is probable that these retinues would have been composed of ship crews. As we have seen from the *Vinland Sagas* and also from other documentary sources, such ship crews were paid via shares in the profits derived from the voyages and participated as work crews in the collection and preparation of the various resources sought.

Both of the largest halls contain a large *stófa*-like room. In the sagas, such rooms are usually women's working and sitting rooms. There is no clear indication at L'Anse aux Meadows that this was their function, but artefacts suggest that women were indeed present on the site. The spindle whorl and the small, bar-like needle hone without suspension hole are textile tools usually associated with women. The bone needle could have been for single-needle-knitting, *nålbindning* (Danielsson 1973, 46). On the other hand, L'Anse aux Meadows lacks common household objects, most notably items such as shards from broken household vessels, and knives. This is probably the result of a short occupancy (see below), where few objects got broken or lost, but probably also is an indication of the lack of normal household conditions. With no or few domestic animals to care for, it is likely that women were a minority on the site. This supposition is supported by the fact that the majority of the artefacts are those associated with iron working, carpentry, and boat repair, all of which are suggestive of *male* activities based on medieval Scandinavian traditions (cf. Jochens 1995). Children are rarely seen through the archaeological record, but one item at L'Anse aux Meadows could feasibly be a toy. It is a small

[12] The hall believed to have been that of Erik the Red at Haukadal in Iceland was excavated by Guðmundur Ólafsson in 1998 (Ólafsson 1998) and 1999.

[13] Analyses of jasper fire strikers from the three complexes indicated that the fire strikers from hall F were primarily of Greenland jasper while those from the other two were Icelandic (Smith 2000). This could support the proposition that hall F was the home of the leader, as ownership of the Vinland bases lay in the hands of the family of Leif Eriksson.

[14] *Skálar* is the nominative plural form of *skáli*.

piece of wood shaped like a blunt arrow. It is more likely, however, to be a bird arrow, meant to stun the bird without damaging its skin.

Social stratification is further discernable in the rest of the buildings. The small house B is the kind used on elite farms by subordinate labour. The two small sunken huts, E and G, could be interpreted in a similar way.

The small hut C differs from the other huts in that it is round and not subterranean. It, too, had a fireplace showing it was meant for habitation. One may speculate that it was intended for slaves or others on the lowest end of the social scale.

Among the artefacts, the small clear glass bead and the small fragment of gilded bronze also show something about the class of their former owners. Although neither are necessarily high status symbols, they do imply a certain amount of material wealth.

Date of the L'Anse aux Meadows Settlement

The Norse occupation at L'Anse aux Meadows dates to the last years of the tenth century or the early years of the eleventh century. The dating is based on architectural styles, artefacts, and radiocarbon dates. The halls are of a distinctly *Icelandic* style, developed over the tenth century and distinct from their counterparts in Norway and the British Isles. This is also the style of the *initial* Greenland settlement. Dating criteria include the number and position of rooms in each building, interior walls of sod, lack of stone foundations, curving side walls and straight end walls with, in one case, entrances in the middle of the side walls, the existence of fireplaces by the walls, and the presence of sunken huts. All these traits point to a date no earlier than the late tenth century and no later than the twelfth century (Wallace 1991, 178–79). All the buildings were occupied at the same time and were not simply replacements for each other. This is shown by their even spacing and further reinforced by the artefact distribution where one artefact group complements the other.

The artefact dates are relatively broad within the Viking Age. Only the ringed bronze pin has a narrower range. It has its most widespread use in the mid-tenth century but lasts into the early eleventh century (Fanning 1994, 25–32). Of the 141 radiocarbon dates obtained for L'Anse aux Meadows, about fifty pertain to the Norse phase. Twigs from the Norse deposits in the bog offer the best opportunity for accurate dating because they were fresh, within ten years of age, at the time they were cut. There are seven such dates. Their mean shows with a 95% confidence level that the site was occupied some time between 990 and 1030 (Lindsay 1987).[15]

[15] The L'Anse aux Meadows series should show why some eighth-century radiocarbon dates from early settlements in Iceland do *not* indicate that settlement took place in the eighth century as argued by Theodórsson (1998). As in Newfoundland, the forests, hitherto untouched by humans, were at least a couple of centuries old when settlement began. Even short-lived species such as birch can attain an age of three centuries or more if left undisturbed (Bråvander and others 1980, 32; see also Wallace 1991, 180–82).

Function of the L'Anse aux Meadows Settlement

The L'Anse aux Meadows settlement was intended for year-round occupation as shown in the building construction. All the structures were regular buildings with permanent roofs, not the booths with temporary tent roofs found on seasonally used sites. The function of gateway is immediately signalled by the location of the site, which is in one of the most exposed spots in northern Newfoundland, in spite of the presence of sheltered coves nearby, especially on the east coast of the peninsula. This is a highly unusual situation. Permanent, year-round Norse farms were in sheltered locations wherever there was a choice.

A functional analysis of the individual buildings on the site can demonstrate only three activities or purposes: the greatest proportion of the floor space, 57%, was devoted to accommodation. Workshop activities occupied 25%, and storage 17%.[16] The latter is unusually large and conforms more to the large 'bulking centre' (McGovern 1985) at Herjolfsnes in Greenland than what was usual for even a large farm. The lack of facilities for domestic animals shows that the L'Anse aux Meadows settlement did not include livestock beyond a few animals for short-term provisions.[17] Like the situation on many Icelandic farms, there was a small bloomery for the manufacture of iron. Unlike the situation in Iceland, however, the bloomery was only a stone's throw from the living accommodations. This was likely because the necessary materials for iron production, bog ore and plenty of wood, were available right there. In Iceland, the bloomeries were generally located away from the farms as these materials were rarely accessible in the areas best suited for pastures (Smith 1995, 327–28).[18] The combination of three large halls next to each other, each with its dependant building or buildings but without barns or byres or animal enclosures of any kind, is an anomaly, not known from any other west-Norse site,[19] where farms were located as far as 1–6 km from each other (Bojsen-Christensen 1991, 159). The artefacts also indicate that the complexes in L'Anse aux Meadows were not part of a regular homestead but were interrelated through the specialized activities in each.

[16] These figures vary slightly from those published in 1991 (Wallace 1991). This is because of the discovery of the additional storage room in hall F. The huts have been counted as workshop space but the possibility exists that they were chiefly for accommodations.

[17] The lack of arrangements for storage of dairy products is also in accordance with the absence of domestic animals.

[18] The L'Anse aux Meadows bloomery is similar to that of Grelutóttir where it was also close to the main buildings (Ólafsson 1980).

[19] Orri Vésteinsson (1998) has discovered that the earliest sites in Iceland may have contained two halls next to each other. He has suggested that for the first few years of settlement, two families may have joined forces in establishing themselves in their new surroundings. However, in those cases the halls are also surrounded by structures for livestock.

Although villages or towns never developed in Greenland or Iceland,[20] another characteristic of west-Norse settlements was that a singular farm or estate could not function in isolation. By the time self-sufficient farms were established in Iceland and Greenland, a whole *network* of settlement was required. Without livestock a lone outpost like that of L'Anse aux Meadows could not sustain itself for an extended period of time.[21] In its isolation, L'Anse aux Meadows has certain features in common with *Norðrsetur*, the northern shielings or hunting grounds of Norse Greenland. However, the similarities stop there. The northern shielings were hunting and processing centres for walrus tusks and seal oil, and were occupied only for a short period of time in the summer. The high storage capacity at L'Anse aux Meadows is an indication that the site was a place where goods were collected. As will be seen below, resources were brought to L'Anse aux Meadows from distant areas, indicating that the site served as a transhipment station or gateway. A gateway (Burghardt 1971) is a community at the edge of a hinterland serving as the collection point and transhipment station for goods from various parts of this hinterland back to the core area.

In conclusion, the living quarters of the L'Anse aux Meadows settlement have some of the characteristics of a west-Norse farm, but their location on the outer coast and the combination of the various buildings are entirely different. The use of L'Anse aux Meadows as a gateway is supported by the fact that the people who were there ventured considerable distances to the south. This is demonstrated by the occurrence of butternuts within the Norse middens. Butternuts, *Juglans cinerea*, are also called white walnuts, a North American variety of the walnut. Butternuts have never grown in Newfoundland. Their northern boundary was in the St Lawrence Valley and north-eastern New Brunswick, along the Miramichi and other New Brunswick rivers issuing into the Gulf (Hosie 1979, 134). A small burl of carved butternut wood was also found in the Norse middens (fig. 9.9). This shows that the Norse had visited areas at least as far south as the St Lawrence river or north-eastern New Brunswick.[22] It is of some interest that the butternut wood was a burl, burls being the *másr* of the sagas.

The most interesting aspect of the presence of butternuts is that the nuts grow in the same areas as wild grapes, in this case *Vitis riparia*, riverbank grapes. Other larger grapes were recorded in 1535 by Cartier on Isle d'Orleans just east of Quebec, where they were in such an abundance that he named it 'Bacchus' Island (Cook 1993, 52). Grapes were also noted in that vicinity by Lescarbot (1928 [1609], 18, 297) in 1606.

[20] Towns eventually developed in both countries during Danish rule.

[21] The areas around the settlement have been searched extensively for additional Norse sites, but none have been located.

[22] The presence outside hall D of what may be a fire striker of jasper from Notre Dame Bay in Newfoundland (Smith 2000) could indicate that at least portions of the northern coast of Newfoundland were also explored. However, it has not yet been ruled out that this piece could be an indigenous artefact.

Fig. 9.9. Small burl of butternut wood found in the Norse debitage outside the D-E complex. The cut has been made with a metal knife. (photo: B. Wallace, courtesy of Parks Canada)

In 1749 the Finnish traveller Peter Kalm (1972, 453–54) recorded that grapes growing near St Paul east of Quebec were the larger and sweeter fox and frost grape, *Vitis labrusca* and *Vitis valpina* (species which now only grow in New England), and that butternuts grew in this vicinity as well. Whoever picked the butternuts found at L'Anse aux Meadows could hardly have avoided seeing grapevines.[23] Thus L'Anse aux Meadows furnishes indirect but very real evidence that the name Vinland was based on one of the region's main resources.[24]

[23] Suggestions that grapes are also native to Nova Scotia's east coast and Fundy shores (Larsson 1992, 311–13; Bergþórsson 1997, 185–89) are based on early French flawed accounts by Samuel Champlain and Nicolas Denys, who confuse the situation in Nova Scotia with that of New Brunswick. Lescarbot notes in 1609 their presence in New Brunswick while he emphasizes their absence in Nova Scotia (Lescarbot 1928, 297). The grapes present in Nova Scotia in the 1630s had been introduced by the French (see Roland and Smith 1969, 507), and the *Vitis riparia* now present near Bridgewater, Nova Scotia, are a recent introduction (Zinck 1998, I, 576).

[24] The suggestion that *vinber*, 'wine berries,' of the sagas would have been another berry, cranberries (Fernald 1910, 20), is unlikely. The Scandinavians had their own words for cranberries, *mýraber* or *trónuber*. Although cranberries do not grow in Iceland and Greenland, the Norse knew them well as they are among the most common berries of Norway and Sweden.

Walnuts and wine were exotic commodities, reserved for the elite, and status symbols with which the elite reinforced their rank and influence. In Europe walnuts do not grow north of Denmark, grapes not north of the Rhine Valley, but both walnuts and wine were among the luxury goods obtained by chieftains in the rest of Scandinavia, including Norse Greenland (Elsner [n.d.], 69).

Length of the Occupation

The Norse occupation at L'Anse aux Meadows was short. This is shown by a number of factors:

- The cultural floor deposits are meagre, both in terms of organic accumulations and the scarcity of broken and lost artefacts.
- The middens are extremely small compared to sites in Iceland and Greenland. As in Iceland and Greenland, the garbage accumulations lie immediately outside the doors, but instead of measuring 1 m or more in depth and 100 m or so in length (McGovern and Bigelow 1977), the largest one is only between 20 cm and 25 cm deep and has a surface of only 2 by 3 m.
- The buildings show no sign of having been rebuilt, a common feature of Icelandic and Greenlandic sites, where buildings usually had to be rebuilt after twenty to fifty years (Nilsson 1943, 293) and sooner yet if occupation was intermittent (Guðmundur Ólafsson pers. comm.).
- In spite of extensive surveys of the site, no cemetery or burial ground has been encountered. A lengthy settlement would definitely have had its own burial ground, pagan or Christian.

Contact with Indigenous People

During the time of the Norse at L'Anse aux Meadows, there were no indigenous people at the site. This is in spite of the fact that indigenous people had used the area intermittently for five thousand years before the Norse and continued to do so after them. Before the Norse were Maritime Archaic (*c*. 4000 BC), Groswater Dorset (*c*. 1000–400 BC), Middle Dorset (*c*. AD 400–700), and a late prehistoric Indian occupation characterized by large and well-made lanceolate bifaces, hut tent floors, and large cooking pits. The date of this occupation is the ninth century. It was not until a century or two had passed after the departure of the Norse that another group appeared. This group was probably ancestral to the Beothuk and related to the Little Passage and/or Point Revenge complexes (Tuck 1982; Fitzhugh 1972, 127), with brief occupancy episodes over the twelfth to the fifteenth centuries. Most of the indigenous sites are located at the water's edge on the southern shore of Epaves Bay. They appear to be brief, seasonal settlements.

The lack of a resident indigenous population in the early eleventh century at L'Anse aux Meadows may have been one of its attractions for the Norse. In the south, along the southern shores of the Gulf of St Lawrence where they collected the butternuts, the *Vinland Sagas* suggest they were threatened by proto-Mi'kmaq people (see Wright 1987). On northward excursions, to Labrador, there may have been encounters with the ancestors of the Beothuk/Naskapi/Montagnais (Innu), and the Late Dorset may also have been an unwelcome presence.

Reason for Abandonment

The reason for abandonment of L'Anse aux Meadows is impossible to establish from archaeological evidence alone, but it was orderly and well planned. Most of the tools and household items used on the site left with their owners. The only objects left behind were small personal things lost or broken and discarded objects and other debitage.

L'Anse aux Meadows and Vinland

L'Anse aux Meadows is not Vinland, but it is *in* Vinland as described by *Eirik's Saga* and the *Greenlanders' Saga*. If one attempts to reconstruct Fjord of Currents in terms of size, layout, social organization, location, and function, one would come up with something like L'Anse aux Meadows. There is little doubt that L'Anse aux Meadows represents the physical reality of Fjord of Currents, the year-round main base in Vinland. The efforts that went into its construction, about 1500 cubic metres of sod and the felling and dressing of eighty-six trees for posts and timbers in the three large halls alone, aside from the framework of the roofs, doors, and furnishings, make it virtually certain that this is not an anonymous site *not* mentioned in the sagas.

L'Anse aux Meadows/Fjord of Currents marks the northern entrance to Vinland and is the gateway to the riches of Vinland. Its location is ideal for a base camp. It is easy to find from all directions. Although greater shelter is available east of Quirpoon and Cape Bauld, its location *west* of these points shows that Norse interests lay primarily to the west, via the Strait of Belle Isle into the Gulf of St Lawrence, rather than down the east coast of Newfoundland. The preference for the Gulf is understandable. In an easterly direction the resources are the same as those around L'Anse aux Meadows: the same softwood forests, interspersed with bogs and rocks and occasional meadows all the way around Newfoundland and south along the Atlantic side of Nova Scotia. From L'Anse aux Meadows, one would have to travel another *c*. 1350 nautical miles (*c*. 2500 km) in this direction to get to grapes.

To the west the distance to grapes was only about half as far, only *c*. 700 nautical miles (*c*. 1300 km). The Gulf forms an inland sea. The Gulf is the natural doorway into North America from Greenland. By following the coast from L'Anse aux

Meadows one can circumnavigate this sea, beginning and ending in L'Anse aux Meadows. In the southern half of the Gulf a new ecological zone begins, marked by hardwood forests, warmer waters, and more varied resources. The suffix 'land' defines inhabited areas surrounded and separated by large uninhabited regions, usually forested and without fixed boundaries (Andrén 1991, 262). It is argued here that Vinland was a large tract of land consisting of the coastal areas around the Gulf of St Lawrence and its islands (fig. 9.2).

The Gulf area also had several other features commented on in the sagas as characteristic of the summer camp, such as salmon, halibut, hardwood forests, large groups of indigenous populations travelling in canoes, and tidal lagoons. *Hóp* means tidal lagoon by a river estuary protected by sandbars. The river estuaries along the entire coastline of eastern New Brunswick are characterized precisely by such tidal lagoons. They are sufficiently unique that a National Park, the Kouchibouguac National Park, was established here. In pre-industrial times, grapes grew wild in the inner regions of the Miramichi River, and until recently, more salmon spawned in the Miramichi then in any other river in Atlantic Canada. Recent research (Carlson 1996) has shown that during the medieval warm period affecting the eleventh century, there was no salmon south of New Brunswick. Furthermore, the indigenous people observed by the Norse at *Hóp* travelled in skin canoes. The indigenous people in this area, the ancestors of the Mi'kmaq, used canoes of moose skin (Whitehead 1991, 20). Canoes were otherwise rarely used south of central Maine (Salwen 1978, 164) and not at all south of Massachusetts Bay (Snow 1978, 68). There should be little doubt that the Norse summer camp at the Tidal Lagoon site, *Hóp*, was in this particular area.

A gateway settlement was a necessity for the exploitation of the Vinland resources. The navigation season must have been short, even during the 'medieval warm period'. Ships could not leave Greenland until about midsummer and must be back by September. The voyage to Newfoundland would have taken on average two weeks, with another three to four days to the southern part of Vinland where the resources were. A winter base camp would have extended the season considerably.

In a society such as that of Norse Greenland, the power of chieftains depended in large measure on wealth and an ostentatious display of status goods, exotic items brought in from abroad. Thus the *control* of trade and imports was essential. The establishment of gateways was always authorized by a chieftain or king who exerted full control (Hirth 1978). This king or chieftain did not reside in the gateway but ruled it from the core area by agents. At the time of the Vinland voyages when L'Anse aux Meadows was established, Erik the Red was the paramount chief of Greenland. As such, it was he who had to authorize the Vinland voyages and the establishment of L'Anse aux Meadows. His son Leif originally served as his father's deputy. After Erik's death and Leif's succession as chief, Leif no longer participated in the Vinland voyages. Yet the sagas are clear that he maintained *ownership* of Leif's Camp and Vinland. His siblings and his in-law Karlsefni were trusted as deputies, but Leif only *lent* the camp to them. With ownership of Leif's Camp came control of Vinland and its resources, and these Leif presumably wished to keep for himself.

The occupation of Vinland and L'Anse aux Meadows was short, a few years at the most, never evolving beyond the 'scout stage' of migration or the 'tramp phase' of resource exploitation. The reasons are clear:

- The resources in and around L'Anse aux Meadows/Fjord of Currents were not attractive. With the exception of forests, they were the same as those in Greenland. The forests were softwoods and could be had from Labrador or Markland, closer to Greenland.
- The *desirable* resources, hardwood, grapes, and nuts were so far away that they were not worth the labour and time required. The distance to L'Anse aux Meadows is about 1350 nautical miles (*c*. 2500 km). From there to the southern part of the Gulf it is another 700 nautical miles (*c*. 1300 km). The total is more than from Greenland to Norway. At the high latitude of the Norse settlements, Norway is only 1700 nautical miles (*c*. 3200 km) away. We know that it was a struggle to keep even this traffic going.
- Vinland had little of interest compared to Europe. In addition to lumber, nuts, and wine, Greenlanders needed luxury items, various metals, spices, flour, as well as personal, religious, and political contacts.
- The desirable parts of Vinland were inhabited by large indigenous populations. The Norse were outnumbered and, unlike later Europeans, had only minimally superior arms.
- There was no population pressure in Greenland. Unlike the situation in Iceland, the population remained small throughout its existence, only a few thousand, possibly as little as two thousand, as recently suggested by Lynnerup (1998, 116–77).
- Recent research suggests that the initial settlement in Greenland comprised no more than about four hundred to five hundred people (Lynnerup 1998, 115). It took about one-tenth of the entire population to run L'Anse aux Meadows and exploit the Vinland resources. Although some of the labour crew might have been Icelandic, the drain was hardly acceptable for a still-marginal, new settlement, especially as the Vinland crews consisted of people of prime working age. According to Lynnerup (1998, 118), an isolated settlement of less than about five hundred people is simply not viable. It is obvious that at least in the eleventh century, the Greenlanders would not have been able to operate more than one such gateway at a time. For this reason it is also virtually certain that L'Anse aux Meadows was the only substantial year-round Norse base in the New World.

The Vinland migration and the L'Anse aux Meadows settlement were logical consequences of an initial stage of migration. It did not take long for the migrants to find out that the resources available did not warrant the extreme efforts it took to collect them. Vinland offered no advantage. Wine and lumber could be shipped in from Europe with less labour, and contacts with Europe had to be maintained anyway to obtain goods that could not be found in Vinland. Thus Vinland and L'Anse aux Meadows became one of the most short-lived migrational episodes in Norse history.

ABBREVIATIONS

AB Adam of Bremen (*c*. 1075), 'Descriptio insularum Aquilonis', in *Beskrivelse af Øerne i Norsen*, trans. by A. Lund, Lund: Wormianum, 1978

ES *Eirik's Saga*, trans. by G. Jones, *The Norse Atlantic Saga*, 2nd edn, Oxford: Oxford University Press, 1986

GS *Greenlanders' Saga*, trans. by G. Jones, *The Norse Atlantic Saga*, 2nd edn, Oxford: Oxford University Press, 1986

IA *Islandske Annaler indtil 1578*, ed. by G. Storm, Christiania (Oslo): Grøndahl, 1888

Landnámabók
Landnámabók, trans. by G. Jones, *The Norse Atlantic Saga*, 2nd edn, Oxford: University Press, 1986

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Epilogue: Was There Continuity from Norse to Post-Medieval Explorations of the New World?

ROBERT McGHEE

Historical judgement is based on development of a consensus regarding the degree of reliability which can be accorded documents and other evidence which survive from the past. The documents which relate to early European ventures in the north-western Atlantic are sparse and scattered, but can be assembled to relate a story of over four centuries of Norse occupation of Greenland and occasional exploration of more westerly regions, beginning around AD 1000. Another set of documents which have found a general level of acceptance report the post-medieval resumption of European exploration into the north-western Atlantic in the years around AD 1500. Between these events there is not historical silence, but vague murmurs and whispers which are difficult to interpret, and that have proven impossible to assemble into a coherent historical pattern which has achieved general consensus.

The final documentary glimpse of Norse Greenland arises from accounts of an Icelandic ship beset by storms and fog during a 1406 voyage from Norway, and which was accidentally driven to Greenland (Seaver 1996, 151–58). The crew lived among the farmers of the Eastern Settlement for four years, and one of them was married in the stone church at Hvalsey. When they sailed for Norway in 1410, the news which they brought caused no apparent concern for the Norse Greenlanders, and it would seem that they told of a society which was functioning normally. Yet European archives have revealed no further accounts of the Norse colonies, and later visitors to Greenland were to report a land occupied by Inuit rather than Europeans.

Accepted documentary information on the north-western Atlantic finally reappears in a flurry of accounts dating from late 1497, beginning with an 11 August entry in the Daybook of England's Treasurer of the Chamber: 'Item to hym that founde the new Isle: £10' (Quinn 1979, 95–99). These accounts relate to the 1497

voyage of the Venetian explorer who sailed for England under the name John Cabot, and whose 'new Isle' soon acquired the name Newfoundland. The fishers, whalers, traders, and explorers who followed in Cabot's wake left a trail of documentary evidence which extends continuously from 1497 to the present.

A period of eighty-seven years lies between the last news of the medieval Norse colonies in Greenland and the voyage of John Cabot which was shortly followed by other European expeditions to the coasts of Newfoundland, Labrador, and Greenland. Is this gap in our historical knowledge the result of an actual break in European occupation and knowledge of the north-western Atlantic? Or alternately, is it simply an artefact of chance, related to the haphazard preservation of knowledge relating to continued European use of the area? The following paper summarizes the evidence which is usually adduced to support the suspicion that the Norse colonies survived for a significant period after 1410, that European exploration of the north-western Atlantic may have begun considerably earlier than 1497, and that there may be a consequential relationship between these two events.

Norse Greenland in the Fifteenth Century

Evidence for the continued existence of fifteenth-century Norse settlement in Greenland is based primarily on archaeological finds. The most persuasive of these finds has generally been considered to be grave clothing recovered from the frozen cemetery at Herjolfsnes in the Eastern Settlement (Nørlund 1924). Much of this clothing was cut and sewn in styles which were common during the 1300s; however a few items, although made from local wool, resemble clothing styles which appeared in Europe only during the fifteenth century and even during the latter half of that century. Most prominent among these articles are a tall cylindrical 'Burgundian' cap resembling those which appear in Flemish portraits of the later fifteenth century, and a man's elegant buttoned gown in a style which was popular in fifteenth-century England. These items have given rise to considerable speculation that the Norse colonies not only survived into the late fifteenth century, but that contact with Europe continued at a level sufficient to introduce contemporaneous clothing styles to this small settlement on the far margins of the European world.

The relevance of the Herjolfsnes grave-clothes to the question of survival of the Norse colonies has recently been reinvestigated by Arneborg (1996), who has subjected the five most often cited items of clothing to radiocarbon dating. Both the 'Burgundian' cap and the man's gown dated to the fourteenth century, suggesting that they were based on styles different from those represented in later European paintings. Three other articles (two woollen hoods, one with a long 'liripipe' tail, and a V-necked woman's dress with gathered waist) produced fifteenth-century dates with a tendency weighted towards the first half of that century. Arneborg concludes that the clothing recovered from Herjolfsnes cemetery cannot support an argument for survival of the colonies past the middle of the fifteenth century.

A few other archaeological finds from Greenland have long been adduced as evidence of fifteenth-century contact between the Norse settlers and European visitors. Among these are a few small ingots of iron, shards of bronze vessels, and a shard of Rhenish stoneware excavated in 1948–51 from a farm (E167) in the interior Eastern Settlement district of Vatnahverfi. The finding of an unburied human skull in the passageway of the farm suggested to the excavators that this dwelling related to the final phase of Norse occupation of the area and probably dated to the fifteenth or even sixteenth century (Vebæk 1992, 68, 108). Once again, however, a radiocarbon date suggesting that the unburied Norseman probably died during the latter half of the thirteenth century detracts from this interpretation (Vebæk 1992, 108). No later radiocarbon determinations were obtained from the site, and the age of the materials of European provenance cannot be determined.

The same situation holds for items of European origin recovered from other Norse archaeological sites in the Eastern Settlement, including occasional fragments of Rhenish stoneware and cast bronze pots. However, the fact that some of these materials appear more likely to have originated in England rather than Scandinavia suggests that they may have reached Greenland at a time when English trade began to dominate the northern sea routes. Such items include a jet crucifix and associated artefacts recovered during the nineteenth century from the eroding graveyard at Herjolfsnes (Seaver 1996, 235) and a small pewter crucifix from Hvalsey (Berglund 1986, 124). English ships began to fish for cod in Icelandic waters during the first decade of the fifteenth century, and the fishery was soon supplemented with trade and coastal piracy. Despite repeated diplomatic agreements between Denmark and England designed to limit the extent of English involvement in the north, the English presence in Iceland grew so quickly that by 1426 English bishops began to be appointed to Icelandic sees (Seaver 1996, 182). With over one hundred English ships plying the waters around Iceland in some years, fifteenth-century voyages to Greenland would seem likely to have occurred. In Gwyn Jones's (1986, 104) words,

> [. . .] we may conclude that an occasional ship was storm-driven to Greenland of whose fate we hear nothing, and that resolute and high-handed English skippers in the 15th century sailed into Greenland waters for fish and sea-beasts, for honest trade where it offered, and for plunder where it lay to hand.

This hypothetical pattern of voyages may have begun relatively early in the fifteenth century, but there is no evidence to suggest how long it may have continued, or what effects it had on the history of the Norse colonies.

English pirates have been implicated as a possible alternative to aboriginal Inuit in the role of the villains mentioned in a somewhat questionable 1448 letter written by Pope Nicholas V, stating that the Norse Greenlanders '[. . .] have been without a bishop for thirty years after the attack by the heathens, on which occasion most of the churches were destroyed and the inhabitants have been taken prisoners' (Gad 1971, 157). Support for this view is provided by an Inuit tradition recorded by Neils

Egede in 1769 telling of ship-borne raids resulting in massacres and the burning of Norse farms (Gad 1971, 158). No archaeological evidence of such destruction has been found at any Norse sites in Greenland. It seems wise to question the papal letter of 1448, either as the forgery which it has often been suggested to be, or as a document based on insufficient information to be of any historical value. Similarly, the three-century-old Inuit tradition may have been coloured by Neils Egede's interest in the Norse, combined with memories of subsequent and well-documented attacks by Dutch whalers on the Inuit settlements of Greenland.

A few other vague and very late historical references relate to this question. These report the activities of Didrik Pining, a Hanseatic skipper and sometime pirate who also served as the Danish governor of Iceland for some years after 1478, and whose job included the control of English depredations in Icelandic waters. Samuel Purchas's 1625 compilation of exploration accounts simply notes that Pining and his companion Pothorst 'have inhabited Island certayne yeeres, and sometimes have gone to Sea, and have had their trade in Groneland' (Jones 1986, 104). An earlier, but more confusing account is found in a 1551 letter written by the burgomaster of Kiel, who states that Pining and Pothorst built a 'great sea mark' at Hvitsark (usually identified with a location on the barren south-eastern coast of Greenland) 'on account of the Greenland pirates, who with many small ships without keels fall in large numbers upon other ships' (Jones 1986, 104). Olaus Magnus, in 1555, states that the Pining voyage occurred in 1494, represents the 'great sea mark' as a gigantic mariner's compass on an island off the east coast of Greenland, and includes an illustration of a European fighting with a 'pygmy' in Greenland (Morison 1971, 91). A small mythology has accumulated regarding this voyage, which its proponents have expanded into an extensive exploration of the north-western Atlantic in the company of the Portuguese Joao Vaz Corte Real and other European travellers, possibly including Christopher Columbus; the entire fiction has been eloquently demolished by Morison (1971, 89–94, 109). The possible function of Pining's 'great sea mark' has never been satisfactorily explained, but the account suggests that Pining could have visited Greenland at some time during the late fifteenth century, where he may have encountered Inuit in kayaks. There is no hint in the Pining reports to suggest meetings with Norse Greenlanders during such a voyage.

The final historical reference to Norse Greenland is attributed to Jon Grønlænder, an Icelander who is said to have visited Greenland about 1540. He met no inhabitants, but described abandoned buildings similar to those of Iceland, and on the beach the unburied corpse of a man carrying a worn-out iron knife, dressed in a mixture of woollen and sealskin clothing (Gad 1971, 164). The poignant quality of this account of 'the last Norseman' has bestowed on it a currency greater than it probably deserves. The story is known only from an Icelandic annal written in 1623, some eighty years after Jon's visit to Greenland supposedly occurred. In the absence of other evidence indicating survival of the colonies into the early sixteenth century, this isolated report should probably be accounted only the reliability of multigenerational hearsay evidence (Arneborg 1996, 80).

In sum, neither archaeological evidence nor historical accounts provide more than hints suggesting that the Greenlandic Norse colonies survived beyond the earlier decades of the fifteenth century. It is not the purpose of this article to speculate on the cause of Norse disappearance from Greenland. Plausible speculations have included a deteriorating climate, environmental degradation, the growth of Inuit populations in south-western Greenland, a decrease in the economic value of Greenlandic products, famine and disease, or most probably a combination of these factors (Arneborg this volume). One apparent result of the processes acting on the Norse Greenlanders was an increasing emphasis on marine resources in their diet during the final centuries of the colonies' existence, as evidenced in changes through time in the ratios of carbon isotopes in bones excavated from Greenlandic cemeteries (Arneborg and others 1999).

The nature of the disappearance of the colonies has been illuminated by two recent studies which suggest that no dramatic incident or event occurred in fifteenth-century Greenland to bring an end to Norse occupation. Lynnerup's (1996; 2000) recent analysis of burials in Greenland graveyards has resulted in a significant reduction of previous estimates for the size of the Greenlandic Norse population. Earlier estimates, based on the numbers of farmsteads known to archaeology and assumptions regarding the duration of occupation represented by the ruins of individual farms, suggested a maximum population of five thousand or more people. Lynnerup's revised estimate suggests a maximum population of less than 2500, only 75% of whom lived in the Eastern Settlement which survived into the fifteenth century. A population of this size could have dispersed through low-level emigration over the two hundred years between the thirteenth and mid-fifteenth centuries, its rate of decline perhaps augmented by famine and disease. In Lynnerup's view such an emigration, first from Greenland's Western Settlement to the Eastern Settlement, and then to Iceland where land became available as a result of the plague and smallpox epidemics which swept that island during the early fifteenth century, could have occurred without leaving notice in the historical record.

The most intriguing evidence which has recently been proposed in attempting to understand the final period of the Norse colonies relates to the four voyages to Greenland which are recorded from the late fourteenth and early fifteenth centuries. From the itineraries of these voyages, Seaver (1996, 147–58) plausibly argues that they are more likely to have been planned trading ventures, disguised as accidental drift voyages in order to circumvent the royal monopoly on trade with Greenland. Furthermore, she demonstrates that the people involved in the latter two ventures were linked by kinship, that they were related to the most powerful families in northern Iceland, and that these same families took the lead in early-fifteenth-century involvement with English fishing and trading in Iceland. This demonstration leads to the development of an argument suggesting an increasing involvement of fifteenth-century Greenlanders with the English fishing industry, and the eventual incorporation of the Norse population into that industry. Plausible as Seaver's arguments are, the assessment of this hypothesis must be based on archaeological or historical evidence

which, as noted above, has yet to provide indications of a significant English or other European presence in Greenland during the fifteenth century.

Fifteenth-Century European Knowledge of the New World

Knowledge of Norse Greenland and of the portions of north-eastern North America visited by the Norse survived in Iceland, where it served as the basis for maps such as those of Sigurder Stefansson and Hans Poulson Resen (Skelton and others 1995, pls XVII, XIX; McNaughton 2000). The extent to which this knowledge prevailed among the fifteenth-century population of Iceland is not known, however, nor is it possible to estimate the likelihood of such knowledge being passed on to European visitors to Icelandic shores, or by Icelanders travelling abroad.

The fifteenth century saw the development of ships with transatlantic capabilities by several European nations. This, combined with the paucity of historical records from the period, has encouraged speculation regarding whether late-fifteenth-century 'discoverers' such as Columbus, Cabot, and Corte Real followed routes which had already been pioneered by European sailors who are unknown to and uncelebrated by history. The evidence on which this speculation is based centres on a few maps and text references dating from the period prior to the voyages of 'official' discovery. This material also provides the most likely evidence regarding fifteenth-century European knowledge of the New World prior to the explorations of the 1490s.

The most controversial of these documents is the 'Vinland Map' in the collections of Yale University Library (Skelton and others 1995). Purchased in the 1950s from an obscure European source, the map is purported to have been created in southern Germany or Switzerland, probably in association with the Council of Basle which took place between 1431 and 1449. The map seems to have been drawn to illustrate a text describing the thirteenth-century Carpini mission to the Mongols, and its representation of the Old World is consistent with that known from other European maps of the time. It also followed the custom of the period in scattering the mid-Atlantic with islands, including several non-existent isles which had become standard on European maps: Saint Brendan's Island, the Isle of Brasil, and an unnamed elongate configuration which usually passed under the name of either Antilia or the Isle of Seven Cities. The Vinland Map, however, departs from other known charts in placing two large features in the north-western Atlantic. Named 'Gronelada' and 'Vinlanda Insula', the form and positions of these configurations, as well as the accompanying legend, make it clear that the islands denote Greenland and the north-eastern coasts of North America, as known from Norse exploration.

Summaries of the controversy regarding the authenticity of the Vinland Map have been recently published by Painter (1995) and Washburn (1995). Having been almost universally discredited during the 1970s, largely on the basis of physical analysis which suggested the presence of modern materials in the ink, the map has since been rehabilitated to a degree by a more sophisticated analysis which characterizes it as a

typical medieval document (Cahill and Kusko 1995). Seaver (1997; 1998; see also McNaughton 2000) presents an interesting analysis of style and of potential political motives suggesting a twentieth-century forgery. However, given the weight of evidence regarding physical authentication of the document, and the fact that several decades of attempts at discrediting the map on the basis of either provenance or textual analysis have not been convincing, it seems sensible to still consider the Vinland Map as a *potential* record of mid-fifteenth-century knowledge of the north-western Atlantic.

If accepted as genuine, the significance of the Vinland Map is easily overstated. It adds little to what is known of Icelandic knowledge at the time, based on sagas and other records of medieval Norse exploration. Indeed, the map seems most likely to have been derived from such textual sources, rather than from an Icelandic cartographic tradition (Skelton 1995, 215–18). The primary significance of the map lies in its potential demonstration that Icelandic knowledge had penetrated the church courts of central Europe as early as the mid-fifteenth century, at a time when remnants of the Greenlandic Norse colonies probably continued to exist, and that such knowledge may have been available to Europeans contemplating transatlantic explorations. The significance of this knowledge is suggested by the appearance on southern European maps of the early sixteenth century (such as the 1502 Cantino chart and the roughly contemporaneous Canerio map; La Ronciere and du Jourdin 1984, maps 25–26) of a configuration resembling 'Vinlanda Insula', now identified with the recent Newfoundland discoveries of Cabot, Fernandes, and Corte Real.

The Vinland Map is not the only pre-Cabot document suggesting European knowledge of the north-western Atlantic. Dating from about 1480, the Catalan map in Milan's Biblioteca Ambrosiani (S.P.II.5; Skelton and others 1995, pl. XII) depicts an Atlantic ocean sprinkled with the usual islands, but with two prominent isles located in a new configuration far to the west and forming almost an equilateral triangle with Ireland and Iceland. The two forms resemble a huge exclamation mark: to the south is a circular island labelled 'Illa de brazil', familiar in its form from other maps but moved much further west than its usual location off the west coast of Ireland (and in fact a second Isle of Brazil is placed much closer to Ireland). Brazil is nestled beneath a larger rectangular island which has the familiar outline of Antilia or the Isle of Seven Cities, usually found off the western coast of Africa. Besides being displaced to a new location, Antilia also bears a new name, *Illa verde* (Green Island). This name may be an echo of Norse Greenland, and it also foreshadows the name *Terra Verde* (Green Land) given to the country discovered by Gaspar Corte Real in 1500, and generally identified as Newfoundland.

Although the Vinland Map of approximately 1440 and the Milan chart of approximately 1480 may both hint at European knowledge of land located somewhere to the west of Iceland, the two maps are obviously not derived from a single cartographic tradition. While the earlier may utilize Norse textual accounts, the more recent document is based on the innovative placement of conventional 'mythical' islands to locations where they might represent the lands known to the Norse. In the famous

1497 letter written by the English merchant John Day to Christopher Columbus, reporting on the discoveries of the previous summer (Quinn 1979, 98), the land found by Cabot is identified with both Brazil (located at the latitude of Dursey Head in Ireland, approximately 51°30′) and the Isle of Seven Cities (located north of the latitude of the Gironde, approximately 45°30′). The Day letter also states (Quinn 1979, 99) that Cabot's land 'was found and discovered in the past by the men from Bristol who found Brasil, as your Lordship knows. It was called the Island of Brasil and it is assumed and believed to be the mainland that the men from Bristol found'. References to English voyages in search of Brazil appear as early as 1480 (Quinn 1979, 91–92), when the English chronicler William Worcestre (1969, 309) advises that 'he who wishes to sail to the island of Brazil' must set his course from the Blasket Islands on the west coast of Ireland. If this reference refers to latitude sailing, the Isle of Brazil would be expected to be found at approximate latitude 52° N, roughly where it was placed by John Day, and at approximately the latitude of the northern tip of the island of Newfoundland.

Although the Milan chart and references to Brazil suggest that John Cabot and those who followed in his wake may have set out to visit land already known to exist in the approximate location of Newfoundland, it is unclear what role Norse or Icelandic accounts played in the accumulation of this knowledge. The Portuguese search for western Atlantic islands, which continued throughout the latter half of the fifteenth century, may have been stimulated simply by the expectation of finding additional lands as rich as the sequentially discovered Madeira, Canary, Cape Verde, and Azores archipelagos. Although claims of Portuguese discoveries in the western Atlantic prior to the voyages of Columbus and Cabot have not been successfully demonstrated, the late-fifteenth-century placement of 'Brazil' and 'Antilia' in a Newfoundland location on European maps may have been influenced by such discoveries. However, the *Illa verde* terminology on the Milan chart suggests that, even if the placement of this island were based on a random or undirected discovery, the name derives from knowledge of an older Greenland in the western Atlantic.

It is somewhat more likely that English discoveries in the west may have made use of Icelandic knowledge gained during fifteenth-century fishing and trading voyages into Icelandic waters. Quinn (1992) and Seaver (1996, 207–14) associate Columbus's alleged visit to Iceland with this English endeavour and summarize the evidence in favour of such an event. These scholars consider the Paris map of 1490–92 (La Ronciere and du Jourdin 1984, map 21), which shows a unique Isle of Seven Cities configuration at a Newfoundland location, to be evidence of information which Columbus could have gained in Iceland, and which would also have been available to pre-Cabotean British sailors voyaging from the port of Bristol.

In sum, occasional textual and cartographic clues encourage a reasonable judgement that European sailors of the mid- to late fifteenth century knew that land existed in the north-western Atlantic, somewhere to the west of Iceland and Ireland. The evidence, however, provides no more than hints regarding the extent of that knowledge, nor of the degree to which it was founded in the Norse Greenlandic experience.

Conclusions

The evidence summarized in this paper would seem to support the following set of tentative conclusions:

- The disappearance of Norse settlement in Greenland may best be interpreted as the final act in a gradual process which had begun with the fourteenth-century disappearance of the Western Settlement. No evidence has been adduced to support suggestions that the Greenlandic colonies survived past the middle of the fifteenth century.
- During the final decades of their existence, it is likely that occasional unrecorded contacts occurred between the remnants of the Norse Greenlandic population and voyagers from Iceland, Norway, England, and the Hanseatic cities. The available evidence is insufficient to indicate the possible effects of such contacts on the Greenlandic Norse, and sporadic European voyages to Greenland probably continued to occur after the disappearance of Norse settlement.
- Knowledge of Greenland and the portions of north-eastern North America explored by the Norse survived in fifteenth-century Iceland and were probably current in some fifteenth-century European circles with interests in the geography of the Atlantic Ocean. There is little indication to suggest, however, that this knowledge went beyond general descriptions and sailing directions to vaguely known lands in the west.
- Nevertheless, this knowledge may have been a significant encouragement to the European explorations of the western Atlantic which are recorded from the final decade of the fifteenth century, as well as to unrecorded voyages which may have occurred during preceding decades.

In sum, the question which forms the title to this paper cannot yet be answered with certainty. Current evidence suggests that the Norse colonies in Greenland had probably disappeared at least two generations before the resumption of recorded European voyages to Greenland around the year 1500. On the other hand, it seems highly unlikely that a generation passed without one or more European ships making unrecorded visits to Greenlandic or north-eastern North American waters, or that knowledge of the western lands settled by the Norse passed entirely from the seafaring lore of fifteenth-century Europe.

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