Human Ecology, Vol. 33, No. 5, October 2005 (© 2005)
DOI: 10.1007/s10745-005-4745-1

Viking and Medieval Settlement in the Faroes: People, Place and Environment

Símun V. Arge,[1] **Guðrún Sveinbjarnardóttir,**[2] **Kevin J. Edwards,**[3,5] **and Paul C. Buckland**[4]

Apart from the possible, but unproven presence of some Irish hermits, the Norse colonizers of the Faroe Islands arrived in an unsettled landscape around A.D. 800. The archipelago was essentially unwooded and rich in bird and marine life. The area of land suitable for settlement and farming was relatively meagre and concentrated in coastal areas; inland areas were suitable for shielings (summer pasture) and subsequently more extensive grazing (outfield) activities. Reconstruction of the settlement distribution has not been a well-developed aspect of Faroese historical study. Using archaeological and documentary evidence, we are able to present the first comprehensive distribution map of Norse settlement, which emphasizes an overwhelmingly coastal focus of considerable density. Using historical (including place-names), archaeological, and environmental evidence, we examine the nature and organization of the Viking (early Norse) and medieval (later Norse) settlement. Colonization and economic activity in the islands were strongly influenced by topographic and ecological factors. This, along with social organization, was subject to influences which may have derived, at least in part, from experiences in a Norwegian homeland.

KEY WORDS: Faroe islands; Viking; Norse; settlement distribution; agriculture.

[1]Føroya Fornminnissavn, Hoyvík, Pb. 1155, FO-110 Tórshavn, Faroe Islands.
[2]Institute of Archaeology, 31-34 Gordon Square, London WC1H 0PY, UK.
[3]Department of Geography & Environment and Northern Studies Centre, University of Aberdeen, Elphinstone Road, Aberdeen AB24 3UF, UK.
[4]School of Conservation Sciences, Bournemouth University, Fern Barrow, Poole, Dorset BH12 5BB, UK.
[5]To whom correspondence should be addressed; e-mail: kevin.edwards@abdn.ac.uk.

INTRODUCTION

The Faroe Islands are traditionally said to have been settled as part of the Viking (early Norse) expansion to the west after *ca* A.D. 800 (Fig. 1). The literary evidence suggests that settlers largely came from Norway (Arge, 1991), although some seem to have had their origins in the British Isles (Jørgensen *et al*., 2004). Before this, the land was perhaps uninhabited, although there is contested written information from the monk Dicuil, writing around A.D. 825, suggesting that Irish hermits (*papar*) occupied the islands before the Norse settlement (Tierney, 1967; Thorsteinsson, 2005). Gravestones in a graveyard on Skúvoy with crosses inscribed on them have been used as supporting evidence. According to Fisher (2005) it is probable that, whatever the date, this group of stones is an "Irish" link, and they may indicate a Hebridean contribution to the Norse conversion of the islands.

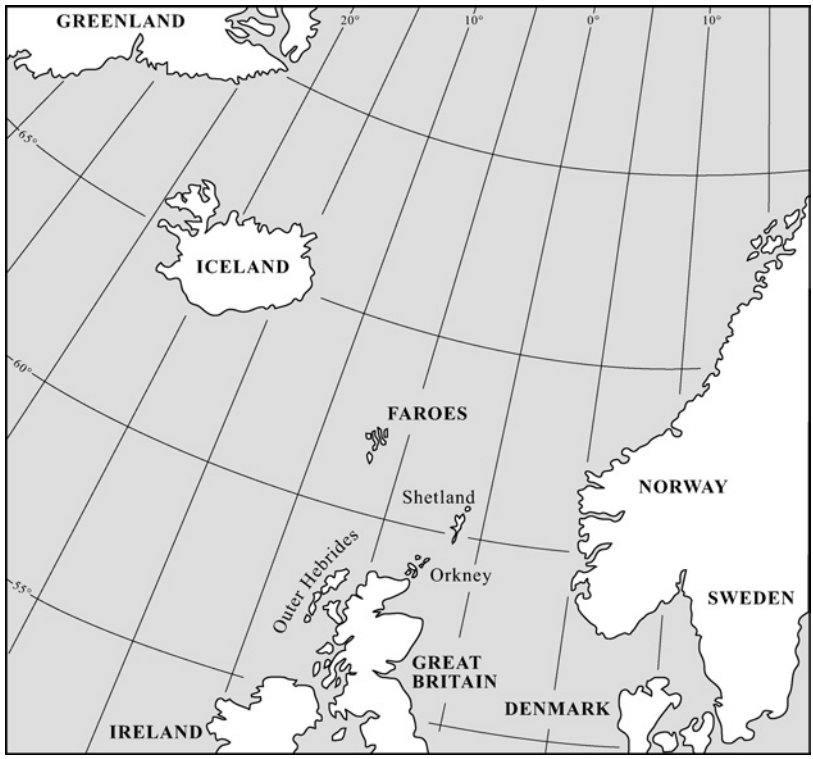

Fig. 1. Location of the Faroe Islands in the North Atlantic region.

The provisional verdict on pre-Norse *papar* must be "not proven." There are also field systems which are claimed to be early, and pollen data have been interpreted as evidence for pre-Norse cereal cultivation (cf. Jóhansen, 1985; Hannon *et al*., 1998; Hannon and Bradshaw, 2000; Edwards *et al.*, 2005). These results have been questioned (Krogh, 1986; Buckland, 1992; Buckland *et al*., 1998), largely because of the problems of securing accurate radiocarbon dating evidence from within highly mobile landscapes which are subject to erosion and recirculation of deposits containing old carbon (cf. Ólafsson, 2005; Sveinbjörnsdóttir *et al.*, 2004, for Iceland), and there is no corroborative archaeological evidence (Arge, 1991).

The reasons for the Viking expansion are uncertain, with population and political pressures and personal enrichment commonly cited (Sawyer, 1997). A prerequisite for the settlement of the North Atlantic islands was, however, advances in boat building and navigation skills that had taken place in the Nordic countries at that time (Christensen, 2000). The decision as to where to settle in the Faroes, unless associated with coercion, presumably relates to the fact, *inter alia*, that the terrestrial and marine resources of the archipelago held sufficient attraction for the newcomers. Irrespective of whether they came directly from Norway or via the British Isles, their farming background matched the possibilities offered by the resources available in the Faroes, both on land and along the coast. This paper considers both the bases of Norse settlement in the Faroes and the nature and development of the settlement. This is especially apposite given the rudimentary impression of Norse settlement conveyed by published accounts and the contrast with new data presented here. For the first time for the Faroes, we present a comprehensive and critical assessment of the Norse settlement based on a suite of indications, including archaeological, historical, and environmental data. The resultant patterns are illuminating for the density of settlement displayed and for the evidence they provide for the use of landscape in a marginal setting.

THE TOPOGRAPHICAL AND ECOLOGICAL SETTING

The Faroe Islands form part of the Tertiary Brito-Icelandic basalt province (Rasmussen, 1982). Its tabular plateau basalts are also to be seen in Northern Ireland, the Inner Hebrides of Scotland, eastern Iceland, and Greenland. The 18 islands which constitute the Faroes, 17 of which have been inhabited, rise steeply from the ocean, and are separated by narrow straits (Fig. 2). The highest point, Slættaratindur on Eysturoy, reaches 882 m above sea level (a.s.l.). Much of the western coastline is delimited by steep cliffs, which are extensively occupied by seabird colonies. The longest

Fig. 2. Map of the Faroe Islands including major places mentioned in the text.

distance from north to south is 118 km, and east to west 79 km, and the islands have an area of approximately 1400 km^2. Grass-, sedge- and heathland communities dominate the unwooded landscape (Fosaa, 2001) and the terrain is rich in sea bird life—especially puffin, guillemot, razor-bill, gulls, oyster-catcher, and fulmar (Sørensen and Bloch, 1990), although the now abundant last is a recent immigrant (Fisher, 1952). The sea provides copious marine resources including pilot whale, seal, cod, haddock, and coalfish, while salmon and trout are available from streams and lakes.

Less than 5% of the land is cultivated today (Brandt, 1996), all of which lies within the infield (*bøur*) areas, and most of which is found immediately inland of bays or strung out along the fjords. Given that the area of infield was greatly expanded during the nineteenth century (Arge, 2005), the area intensively used by the Viking settlers was certainly much less than is apparent from the current infields. The rest of the land is outfield (*hagi*), which provided essential grazing, peat, turf, and other materials (Arge, in press). The limited inland areas were important summer grazing lands for the Norse, and several shielings are indicated by place-names and archaeological remains (Matras, 1953; Mahler, 1991; Matras *et al*., 2004).

OLDER DEPICTIONS OF SETTLEMENT

Into this environment came settlers bringing with them a farming economy which included sheep, goat, cattle, pig, and horse as well as cereal cultivation. Although the landscape was not wooded, willow, juniper and birch schrub (Jóhansen, 1985) must have flanked areas of heath and perhaps extensive lush grassland created by large bird colonies, especially of puffins. The size of the initial human population is unknown, but it is likely to have been small. Degn (1932) suggests that there was total population of about 4000 in 1327–28; as elsewhere in Europe, subsistence crises and disease are likely to have seriously reduced the population; and Mortensen (1954) posits a number of 3180 for about A.D. 1600. As stressed by Brandt and Guttesen (1978), such estimates depend on the assumed size of household and the nature of the sources themselves. As late as 1801 a census gives a figure of only about 5000 people (Gaffin, 1996), while a total of 8000 is noted for 1846 (Guttesen, 1996) (the current figure is about 47,000 [GEsource, 2004]).

Færeyinga saga (The Saga of the Faroese), thought to have been written in Iceland in the early thirteenth century A.D. by someone who probably never visited the Faroes, contains very few place-names, but all of them still exist. They include the names of eight islands, three of which are assumed to have had one settlement each, the names of three further

settlements and Þórshafn, the main *thing*-place (assembly) for all the islands which subsequently became incorporated into the Faroese capital, Tórshavn (*Færeyinga saga*, 1987; Dahl, 1970a). This is obviously likely to be a severe under-representation of the distribution of the initial settlements, and the map produced in 1970 by Sverri Dahl, the Faroese State Antiquary, shows a compendium of saga places, excavated early farms, graves, and occasional finds (Fig. 3), which still only amounted to a little over 20 locations. Dahl (1970a, p. 71) also considered that the shieling names and remains (16 of these were known to him) evident in Figure 6c, "indicate farmsteads of the Viking Age." Although he seemed reluctant to extrapolate much beyond the data in Fig. 3, it is clear that Dahl chose to place most emphasis on the known archaeological sites with a hint at the potential of place-names.

In his assessment of Viking age settlement distribution in Shetland and the Faroes, Small (1969, p. 149) took account of the mapped distribution supplied by Dahl (but not then published). Small specified the requirements of "the model settlement unit," *viz.* (1) access to the sea, with a reasonable place to pull up a boat; (2) a patch of fairly flat, reasonably well drained land suitable for a farmstead and with the potential for some grain cultivation; and (3) extensive grazing areas, as the carrying capacity would be rather low given the poor vegetation. On the basis of his three criteria—and leaving aside the fact that fundamentally they suggest themselves—Small produced a map showing "environmentally suitable" areas for settlement, pointing out the correlation between these and the few known archaeological and saga sites. He recognized the limitations of maps based on inadequate historical and archaeological data, and attempted to compensate by mapping the modern infield areas and declared them to "represent the probable distribution of Norse settlement areas" (Small, 1969, p. 151). His resultant map—or its comparison to a more realistic distribution of settlement—is discussed below.

According to *Færeyinga saga* the islands were settled from Norway, but some settlers who were of Norse origin came from the Hebrides, such as the chieftain Snæúlfr of Sandoy and Hafgrímr, who has a grave mound named after him at Hov on Suðuroy. There is also, in addition to the so-called "ancient fields" (Brandt and Guttesen, 1981) and Dicuil's *ca* A.D. 825 reference to Irish monks in what may have been the Faroes, some philological evidence which suggests Celtic origins. For instance, in *Færeyinga saga,* it is stated that the first person to settle the islands was Grímr Kamban, a name and attribute of Norse and Scottish Gaelic origin respectively (Matras, 1939). One suggestion for the place-name Mykines is that it is derived from the Celtic *muc(c)inis* which means "hog" or "pig island" (Zachariasen, 1988), and on Mykines, the place-name Korkadalur means oats valley (Matras, 1981). Christian Matras also pointed out that

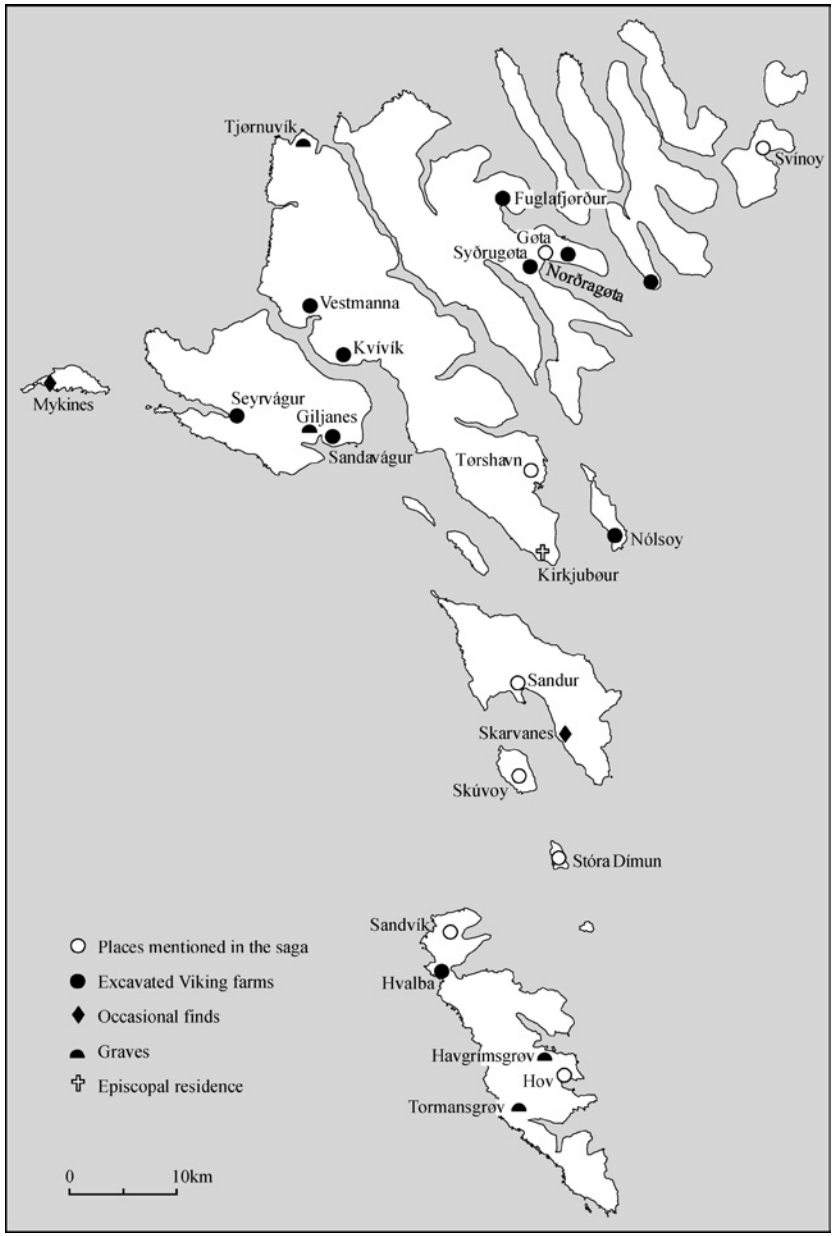

Fig. 3. Location map (after Dahl, 1970a), showing sites of inferred Viking and medieval period age, including those named in the *Færeyinga saga*. Sites un-named by Dahl have been named where known.

the first part of the Streymoy place-names Papurshalsur (in Saksun) and Paparøkur (near Vestmanna) could be *papar* (Irish *pápa*, ON *papi* = priest) names, found commonly in the Western and Northern Isles of Scotland (MacDonald, 2002). These could, however, have been brought with the Norse settlers who came to the Faroes from these areas and therefore have nothing to do with settlers of potential Celtic origin (Arge, 1991; cf. Sveinbjarnardóttir, 1998). What cannot be denied is that the vast majority of place-names are of Norse origin and it is unlikely that a dominantly Norse population would have deferred to the language of a vanquished or vanished community. Dahl (1970a, p. 60) reports that a number of people "certainly came direct from Norway." Based on certain place-names, Matras (1957) has suggested from which districts in Western Norway the settlers came, namely the areas of Sogn, Rogaland, and Agder. Of course, this did, as already mentioned, include Norse people who had lived for many years beyond the shores of Scandinavia in Scotland or Ireland, and who kept the influence of the Norwegian king at arm's length as much as possible—hence their departure from Scandinavia in the first place.

A NEW LOOK AT EARLY SETTLEMENT DISTRIBUTION

If it can be shown that the distribution of settlements, graves, and place-names in Fig. 3 is a severe underestimation of the true pattern of Norse settlement in the Faroes, then an alternative representation must be found. In his studies of early settlement history, Thorsteinsson (1978, 1981) based his research on a combination of written and archaeological sources. He suggested that the oldest preserved land register from 1584, together with information of land ownership, can be used in a retrospective fashion to reflect settlement distribution in the medieval (post-1050) and Viking (*ca* A.D. 800–1050) periods. He concluded that settlement disposition seems to have remained virtually unchanged from the medieval period to the end of the nineteenth century. Recent archaeological research, however, suggests that the picture may be more varied (Arge, 1997a).

By the time that the 1584 land register was compiled the land had been divided into 85 *bygdir* (Fig. 6(a)), but Thorsteinsson (1981) believes this to have happened much earlier. The term *bygd* in Faroese is synonomous with a district, the so-called *markatalsbygd* and based on the traditional land measurement system in which property rights equalled a specific share in the village. The term therefore comprises the whole settlement area, infield and outfield. Colloquially, however, the term *bygd* is used solely for the village. About half of the *bygdir* were divided into several *býlingar* or *fyrndarbýlingar* (settlement areas), many of which had more than one farm. The

farm buildings were placed at a specifically defined area, *heimrust*. Provided that the remains have not been disturbed by later building activities, this is often where a farm-mound has accumulated as a result of constant rebuilding. Usually the *heimrust* was separated from the infield by a stone-built boundary, with a cattle-lane (*geil*) leading through the infield to the outfield (Arge, 1997a, 2005), as in Norway. The archaeological evidence shows that the earliest settlements are located within the infields of present-day villages, often at old church sites. At some of these settlement areas remains have been found which extend back to the Viking period.

Based on this research, a distribution map has been produced (Fig. 4). It shows all known archaeological sites ($n = 123$) of inferred Norse antiquity together with a greater number of settlements, *býlingar*, mentioned in the 1584 land register ($n = 194$), *Hundabrævið* (the Dogletter) from *ca* A.D. 1350, *Skipan um tingfaratoll* (a stipulation on a tax for those eligible to attend parliament) from *ca* 1350–1400, and *Færeyinga saga*. Sites appearing more than once in documents and/or for which archaeological remains are known, are depicted once only and this produces a conservative total of 330 sites. Most of the places mentioned in the written sources are still occupied. It seems reasonable to assume that the distribution in Fig. 4 is a satisfactory approximation to the original spread of Viking and medieval settlement, even if it may have been more extensive.

The vast majority of these places are in coastal and near-coastal locations. Only a few are more than 2 km from the sea and as would be expected, these include several shieling sites. Some of these are located in mountain areas, the highest at 350 m a.s.l. In terms of site aspect, where located on a slope, most are south- or east-facing, but this conforms with the dip of the basaltic strata. There are also a number of sites which face towards the west. Perhaps unsurprisingly, only a small number (in the order of 26 or so) have an aspect which is predominantly northerly, and this includes the well-known site at Tjørnuvík on Streymoy.

Returning to Small's (1969) attempt to map the modern infield areas as representative of the probable distribution of Norse settlement areas—and recognizing that the current infields reflect the nineteenth and twentieth century intake of expanded former infields as a response to political and population pressures—the areas demarcated as "environmentally suitable" by Small can be superimposed upon a map of the presumed Norse archaeological sites (this subset of the places indicated in Fig. 4 was used for the sake of clarity and includes the supposed ancient fields) (Fig. 5). This shows a good agreement which is to be expected considering the marked topographical constraints for settlement in the Faroe Islands. The expanded "modern" infield areas embrace what may have been more limited Norse settlement. Other favored areas, e.g., Slættanes in Vágoy and Sandvík (formerly

Fig. 4. Distribution of inferred Norse settlement based on archaeological and historical evidence (see text for further details).

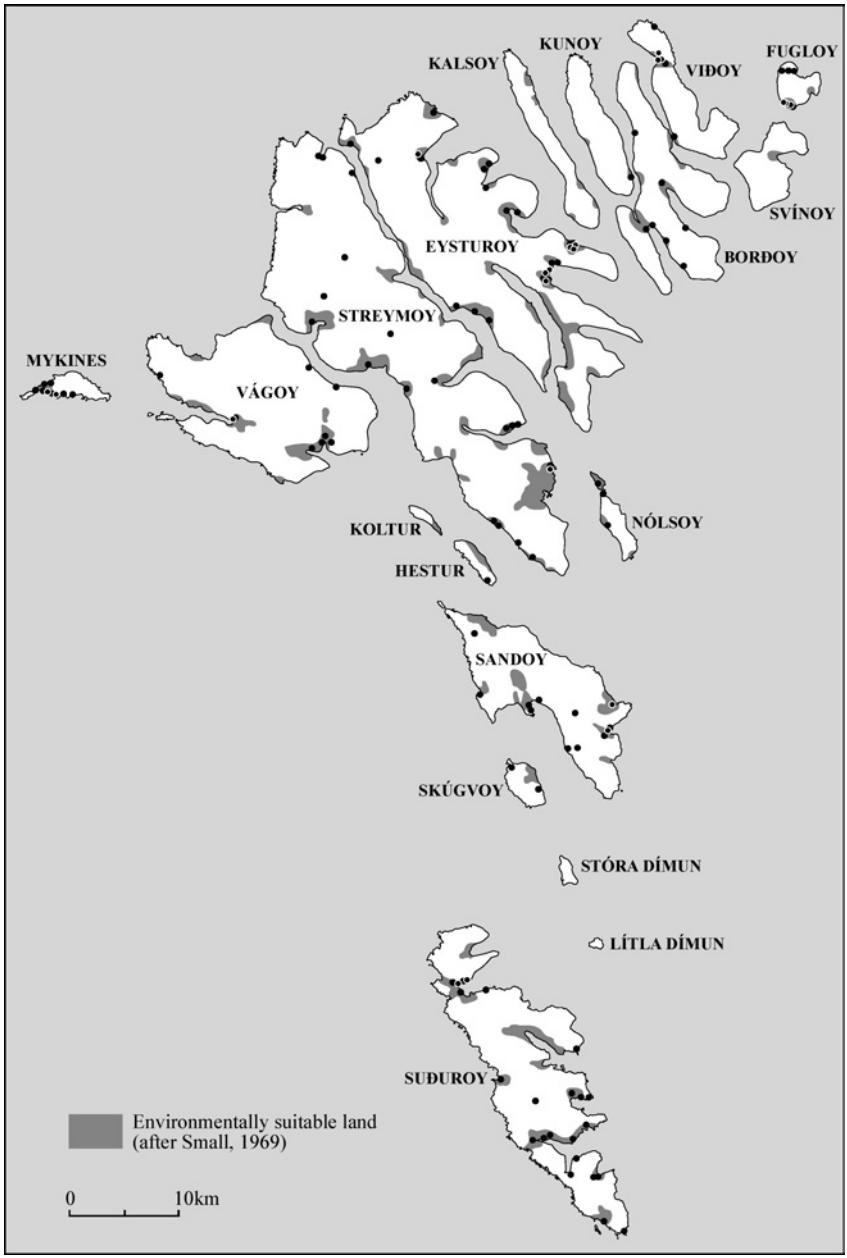

Fig. 5. Areas of environmentally suitable land (after Small, 1969) superimposed upon the distribution of supposed early (e.g., ancient fields) and presumed Norse archaeological sites.

Hvalvík) in Suðuroy, have no known Norse settlement, but these two settlements were created as pioneer centers in the nineteenth century in response to land pressures.

Although, in the choice of settlement sites, there seems to be a distinct correlation between easy access to the sea with its marine resources, seaweed, fish, and whale, and access to lowland suitable for animal husbandry and cereal cultivation, there are exceptions to this. One of these is the settlement at Gásadalur on Vágoy (Fig. 2), mentioned in the 1584 land register and probably of long standing, although perhaps not one of the earliest settlement sites. It lies in an extensive area of vegetated flatland, ideal for cultivation, ending at a 50 m high sea cliff and therefore having no easy access to the sea (Christiansen, 1996). There are other early settlements in similar locations, perhaps representing an expansion of settlement after the initial favored coastal sites had been taken.

Of importance for the development of early settlement distribution seems also to have been access to various other resources, such as seabirds, their eggs, seaweed, and driftwood. Recent zooarchaeological investigations at the site of Junkarinsfløttur in Sandur show that birds were widely exploited at an early stage (Lawson *et al.*, 2005). It is still too soon to say whether this investigation is representative for all the islands. In a largely subsistence economy where a significant proportion of the diet is based upon secondary products from domestic animals (cf. Guttesen, 1999), it is impossible to convert zooarchaeological assemblages to economic bases, just as it is also difficult to recover a full picture from the palaeoecological record. The extent to which the individual *bygdir* were provided with natural geographical conditions, such as bird cliffs and beaches, as well as pastures, must have played a key economic role in the development of the settlements.

THE LOCATION AND ORGANIZATION OF SETTLEMENT

What evidence do we possess for the location and organization of settlement in the Viking Age and medieval Faroes? In addition to the written sources already mentioned, three routes permit further insights into this topic: place-name etymology, archaeology and environmental archaeology.

The Place-Name Evidence

The large majority of Faroese place-names are of Norse origin and many of them are indicative of human activity. Place-names can be dated on

linguistic grounds or with reference to the written sources containing them, but this does not make for a precise date.

Land use and the type of farming practiced is reflected in a number of place-names, such as Akraberg (*akur* = [cereal]field) and Hoyvík (hay bay). Sometimes the element-*hoy* points to steep places where hay was collected in the past, e.g., Hoyhjalli (grass grown terrace), Uppi á Hoyhjalli, and Hoyskor (*skor* = steep terrace). Other elements are *-byrgi*, *-tippi* (animal shelters), *-støða*, *-stíggjur* (place where domestic animals are gathered), *gerði* (addition to the old infield), or *akurgerði* (enclosed area where cereal is grown), and also the place-names Svínoy (*svín* = pig) and Porkeri (*purka* = pig), mentioned in the 1584 land register (Fig. 6(b)).

An important exception to the Norse origin of Faroese place-names is the element *ærgi*, *ergi*, or *argi*, referring to shieling activity and thought to have been adopted into the Norse language from Gaelic in the ninth century (Matras, 1953). There is archaeological evidence to suggest that the shieling system was largely phased out in the eleventh or twelfth century and replaced by the infield-outfield system. Excavations at the shieling site of Argisbrekka on Eysturoy revealed buildings where final occupation could be dated to the eleventh century, marking the end of this system at that extensive site (Mahler, 1991). The ending of the system had certainly taken place by the time that the law amendment *Seyðabrævið* (the Sheep Letter) was issued in 1289, to judge by its contents. The Faroese shieling system seems to be based on the Norwegian one, although influences from Celtic systems have been suggested (Mahler, 1998). A total of 18 place-names include the element *ærgi*, and seven of these sites have been recorded as containing building remains (Mahler, 1991; Matras *et al*., 2004; Arge, in press) (Fig. 6(c)). Only two of these sites have been excavated, Ergidalur on Suðuroy (Dahl, 1970b) and Argisbrekka on Eysturoy (Mahler, 1991).

The significance of the distribution of *ærgi* place-names and the difference between them and those including *sel*, indicating the same kind of activity (as in the *bygd* name Selatrað on Eysturoy), is uncertain. It may simply be an indication of the Celtic-influenced origin of a practice which did not last for very long in its original form, or, as has been suggested (Fellows-Jensen, 1984, pp. 162–165; Mahler, 1991, p. 68), the difference may lie in typological or locational variations, or the legal framework in which the sites were exploited (cf. Sveinbjarnardóttir [1991] for Iceland). There are other place-names that point to related activity in the Faroes, such as Kvívík and Kvíingadalur (*kvíggj* = place where sheep were milked or where domestic animals were gathered), as well as *lambhagi* (lamb grazing), suggesting an area, usually enclosed, where lambs were grazed away from the ewes being milked, and the bygd name Lambi (Fig. 6(d)). On the basis of information in *Seyðabrævið*, it has been suggested that the milking of sheep, an important

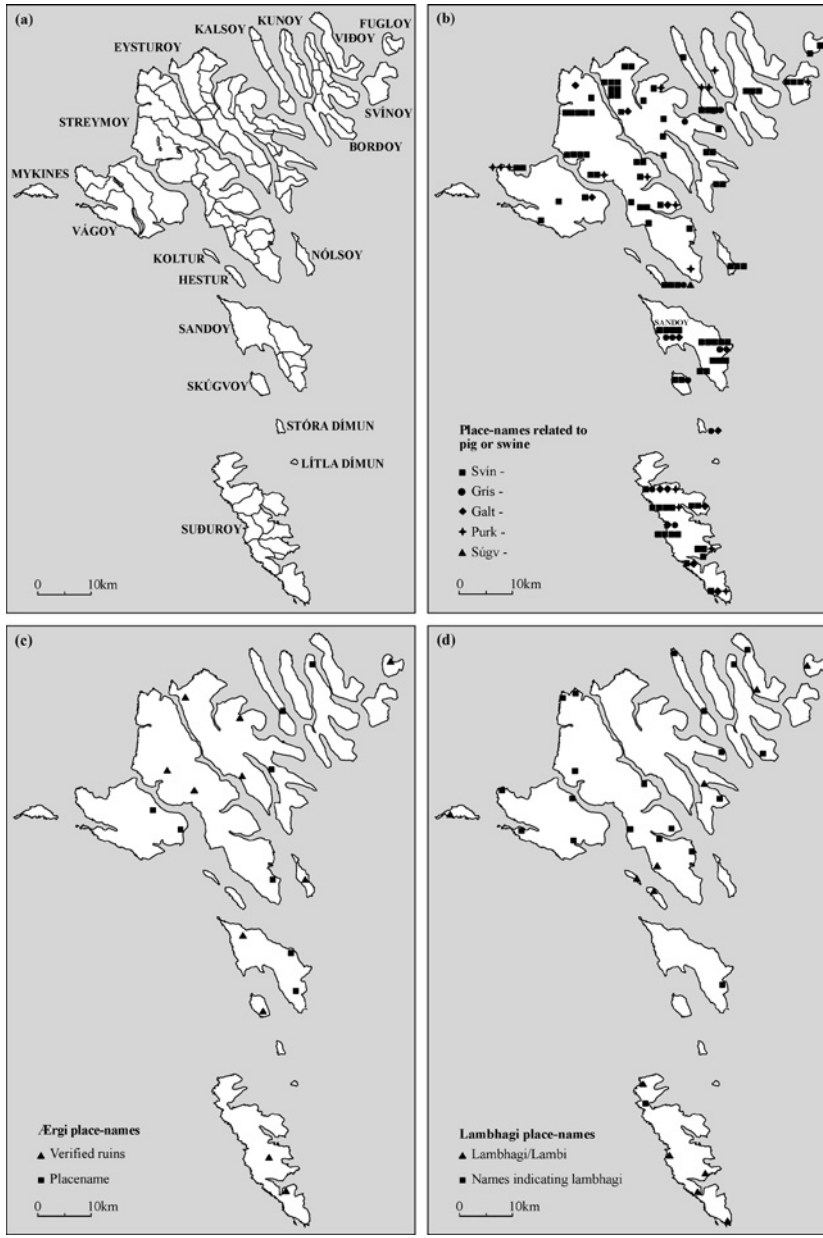

Fig. 6. Distribution maps: (a) areas of *bygdir* at present day; (b) place-names related to possible ancient pig farming; (c) shieling (*ærgi*) place-names and archaeological sites; (d) *lambhagi* place-names (after Thorsteinsson, 1982).

part of shieling practice, had been abandoned by the time of its issue in 1298; these place-names would therefore precede that date (Thorsteinsson, 1982). The abandonment of sheep milk, a not inconsiderable resource, must relate to other changes in land use. These may include the expansion of hayfields to overwinter increased numbers of milk cows and an increased emphasis on fishing. The distribution of these place-names could, therefore, be linked to shieling activities (Fig. 6(c)).

Many of the *bygd* place-names relate to topographical features such as Sandur (sand), Eiði (isthmus), Vágur (bay), Strendur (beaches), Dalur (valley), Vík (bay). Others relate to cultural and economic activities, such as Hov (pagan temple), Hvalba (the *bø* of the whales), or to personal names, as Froðba (the *bø* of a man named Fróði), or to location in relation to others, e.g. Sumba (south *bø*). Still others include elements which indicate settlement, such as *-garður* (farm), *-toftir* (ruins), *-hús* (house), *-skáli* (hall), and *-bøur*.

The element *-bø* (*bøur* in modern Faroese = cultivated land) is found in a great number of place-names, referring to both cultivated land and settlements. Based on the belief that the *bygd* was the original settlement, the *bygd* place-names including the element *-bø* have been thought to refer to settlement, whereas the later *býlingur* place-names including the element *-bø* have been thought to refer to cultivated land (Matras, 1939). On the basis of archaeological evidence, Thorsteinsson (1996) has, however, argued convincingly that the division of the *bygd* into *býling*-farms began in the Viking period. He has demonstrated, on the basis of archaeological remains, that the original settlement in many of the *bygdir* consisted of two, three, or even more farms, which are now known as *býlingar*. Accordingly, he argues that the *bygd* place-names including the element *-bø* refer to areas rather than to individual farms, whereas many of the *býlingur* place-names including the element *-bø* refer to settlements, and indeed often to the original one in the area (e.g., at Sandur on Sandoy—see below).

Archaeological Evidence

Archaeological investigations in the Faroes extend back to the work of Daniel Bruun (1929). The first professional archaeological excavation took place in 1941 (Dahl, 1951), but only a handful of sites dating to the earliest period of settlement have been excavated. Most of these have either been revealed through building activities or exposed as a result of erosion by the sea. By using the limited archaeological evidence combined with the written sources, it has been possible to come up with a picture of the development of the earliest settlement. Three examples arising from continuing excavations are given here.

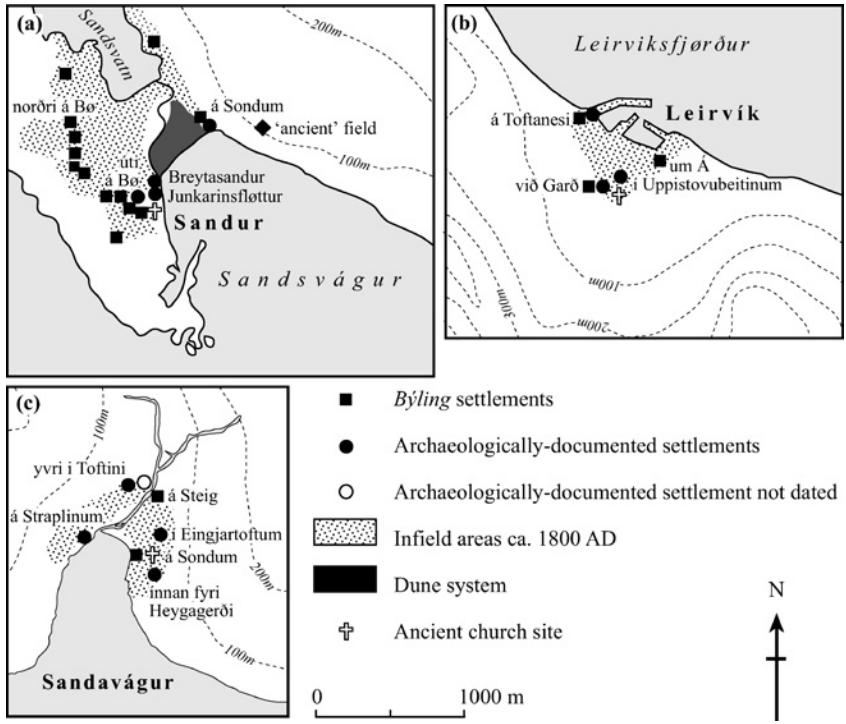

Fig. 7. Map showing settlements and sites in the villages of (a) Sandur, Sandoy, (b) Leirvík, Eysturoy (after Arge, 1997b), and (c) Sandavágur, Vágoy (after Arge, 2005).

At Sandur on Sandoy there seem to have been three original holdings which were later divided up into smaller farms: úti á Bø, norðri á Bø, and á Sondum (Thorsteinsson, 1996) (Fig. 7(a)). Excavations have been carried out within the land of one of these holdings, úti á Bø, the old church site in the village, revealing remains within the present cemetery dating to the tenth–eleventh centuries. These include building remains, cultural layers and eleven apparently pagan burials (Arge and Hartmann, 1992). A kufic coin from one of these burials indicates that they may be tenth century burials (Graham-Campbell, 2005). Also investigated at this holding is the church, including its earliest phase, built next to the settlement remains shortly after the introduction of Christianity in *ca* A.D. 1000 (Krogh, 1975). The archaeological remains suggest that the first church was erected on the original farm. Further investigations have been carried out in the area to the north of the church revealing extensive settlement remains which may belong to the earliest settlement within this holding, with calibrated

radiocarbon age ranges (1 standard deviation) of A.D. 785–875 and A.D. 900–960 (Arge, 2001), and these, along with the dates from Toftanes on Esturoy (Vickers *et al.*, 2005), are currently the earliest settlement dates in the Faroes. Excavations are continuing at the site, and these, in part, are reported elsewhere (McGovern *et al.*, 2004; Woollett *et al.*, 2004; Lawson *et al.*, 2005). The archaeological remains found at Sandur including the only silver coin hoard found in the islands, buried around A.D. 1090, suggest high status and strong links with the outside world. This indicates that the area, one of the largest and wealthiest agricultural areas in the Faroes, has been so from the outset.

At Leirvík on Eysturoy (Fig. 7(b)), Toftanes, one of the three settlements here that are mentioned in the 1584 land register, was excavated in the 1980s (Stummann Hansen, 1991; Vickers *et al.*, 2005). Remains of tenth and eleventh century occupation were found, including artefacts indicating strong links to areas south of the Faroes (Stummann Hansen, 1993). It was also established that the site was abandoned sometime after A.D. 1050, hence perhaps its name (Toftanes = the ness of the ruins). All three settlement sites are shown on a map dated to 1793 as the only settlements in the village at the time. A small-scale excavation at the settlement site við Garð in 2000 revealed that the habitation there can be traced back into the early medieval period. Another site, í Uppistovubeitinum, close to við Garð, but not mentioned in the 1584 land register, has been under investigation since 1988 (Arge, 1997b). It has so far revealed occupation dated to between the late Viking period and the fourteenth century. On the basis of the composite character of the archaeological record, the many imported artefacts and proximity to a church site with a ruin enclosed by an almost circular cemetery wall and believed to have been abandoned before the Reformation in 1540, it has been argued that it may be the site of one of the primary farms in the village. These investigations show the importance of using archaeological information in conjunction with written sources when studying early settlement patterns.

Another good example of this is the settlement at Sandavágur on Vágoy (Fig. 7(c)). Here two settlements, á Steig and á Sondum, are mentioned in the 1584 land register and are assumed to have been occupied since the Viking period. Neither of these has been archaeologically investigated. Four further sites, not mentioned in the land register, have been identified in the infield area through archaeological survey and investigations. One of these, yviri í Toftini, was established early in the medieval period and is probably contemporaneous, or nearly so with the primary farms. The other sites, í Eingjartoftum, innan fyri Heygagerði and á Straplinum, are early medieval, and may have been established as small farms, probably as outposts from the primary farms, but abolished again during the later

medieval period (Arge, 1997a). The situation at Sandavágur is a further illustration of how important archaeological remains are in throwing light on the earliest settlement where the written sources are silent.

Environmental Archaeology

Although stratigraphic and palynological research on peat in the Faroes goes back to the 1920s (Jessen and Rasmussen, 1922; Jessen, 1925), it was only with the work of Jóhannes Jóhansen (1971, 1985) that palynology was applied to the study of human impact in the Faroes. As already mentioned, he was the instigator of the argument that there is pollen evidence for pre-Viking occupation in the Faroes. Whatever the date of the first settlement, it is evident that many plant and invertebrate species found an abundance of habitats around the farms, and species once restricted to bird cliffs and puffinries moved into human-made nutrient-rich environments. These are supplemented by species both deliberately and accidentally introduced by the settlers (Buckland and Dinnin, 1998; Edwards *et al.* and Vickers *et al*., 2005), the former largely represented by their domestic animals. It is only with the recent faunal work on Sandoy (McGovern *et al*., 2004; Lawson *et al*., 2005) that detail of these has begun to emerge. Inevitably a range of insect species associated with the dung of these animals also appears at *landnám*, and it is the early presence of the dung beetle *Aphodius lapponum* which perhaps indicates a Scandinavian rather than Irish origin for at least some of the settlers, in that this dung beetle is more common in northern and upland localities (Buckland and Dinnin, 1998). More work on the biogeography of the introduced fauna and flora may be able to narrow this down further, although many of the introduced plants and animals have inevitably now become cosmopolitan. In Iceland Buckland and Sadler (1991) have argued that the large numbers of *Aphodius lapponum* and absence of a fauna of stored hay at the site of Engihlíð in Berufjörður indicates the use of the site as a shieling rather than a permanent farm. A similar approach could be adopted to the assumed shieling sites in the Faroes, as it is unlikely that fodder was stored sufficiently long on the site for synanthropic insect faunas to become established.

In terms of crops, sieving of samples from excavations has added macrofossils of barley to the record (Lawson *et al.* and Vickers *et al.*, 2005), although it is only with the support of palynological data that its cultivation, rather than importation, can be proven (*idem*). Continuing research into humanly augmented (plaggen) soils (Edwards *et al.,* 2005) is providing valuable information on agricultural practices and is feeding into modeling studies (cf. Addereley and Simpson, 2005).

DISCUSSION

The location of the earliest settlements in the Faroes is without doubt affected by the topography of the islands. The earliest settlers were farmers who, despite their reliance on marine resources, were first and foremost looking for land where they could practice animal husbandry and perhaps grow some cereals. Palynological work has confirmed that barley was cultivated. Land management was required to achieve a sustained yield given the marginal growing conditions. The lowland areas suitable for cultivation are largely along the coasts, mostly in the bays and this is where the original farms were established. Several farms seem to have been operated simultaneously in some of the bay-areas from an early stage, with a primary farm where the church was later established.

Although little is known about the social status of the original settlers, it can be assumed that the settlement process was similar to that in Iceland, but on a smaller scale. According to *Landnámabók* (The Book of Settlements) (*Íslensk fornrit I*), the large *landnám* areas of the initial chieftain settlers in Iceland were soon divided up into smaller farms, a picture which has also emerged through archaeological investigations in the Faroes.

In addition to the bay areas, where the settlements with their infields lie, there is the outfield, which constitutes most of the land and on which the farms relied for their grazing and other resources. This is in many places indicated by place-names associated with different types of land use and by building remains. The outfield area has only been investigated to a limited extent, but it has revealed some habitation remains, including those of shielings, a practice that was replaced by the outfield becoming an area used by the whole community in proportion to the value of each individual home farm (Arge, in press). The stipulation of *Seyðabrevið* in 1298 indicates that the islands were fully settled well before that, since by then it was felt necessary to organize the use of the outfield in a formal way.

A further reflection of the settlers adapting to the topography is the likely economic direction the earliest settlement took. Sheep may have been the main domesticates from early on (Faroe Islands = "sheep islands")—even though it is apparent from the excavations at Sandur that cattle were also initially important. The land lends itself better to sheep grazing, often in steep, inland areas where grazing may be possible all through the winter, than to the collection of winter fodder for cattle which may have required access to more lowland than was generally available. This is in stark contrast to Iceland where cattle was initially the favored domestic animal at the largest farms with most access to lowland areas (Amorosi, 1991). The scarcity of land in the Faroes may also be reflected

in the long-term exploitation of major sea-bird colonies—an extra food resource not requiring land.

A shift in the economy is apparent with the ending of the shieling system in the eleventh or twelfth century, with more emphasis being placed on sheep-rearing and wool production in response to increased trade (Mahler, 1998). The same shift is evident at about the same time in the zooarchaeological material in Iceland (McGovern, pers.com.).

The layout of the individual farms in the Faroes with its infield enclosed by a dyke and a cattle-lane (*geil*) leading from the infield area to the outfield is modeled on the west Norwegian farm (Myhre, 1978; Øye, 2005) and the function was no doubt to save the infield from being trampled by the cattle. Some aspects of settlement conditions in western Norway are similar to those in the Faroes, although the lowland areas are inevitably considerably larger in extent. The Viking period settlements in Norway were scattered along the coasts of the long, narrow and steep-sided fjords, and on the islands many of which have the best farming land. In the higher lying interior there were summer farms, or shielings, like those in the Faroes.

Of key significance is the newly constructed settlement distribution map (Fig. 4). Although it may not be entirely representative of the true pattern of Norse occupation and doubtless includes locations which do not derive from the initial Viking colonization, it does make a powerful statement about the extent of Norse occupation in this unprepossessing area of the North Atlantic Ocean.

ACKNOWLEDGMENTS

The Leverhulme Trust is thanked for financial support. We are grateful to Alison Sandison for the production of the diagrams and to the anonymous referees for their helpful comments.

REFERENCES

Adderley, W. P., and Simpson, I. A. (2005). Early Norse home-field productivity in the Faroe Islands. *Human Ecology* 33: 711–737.

Amorosi, T. (1991). Icelandic archaeofauna. *Acta Archaeologica* 61: 272–284.

Arge, S. V. (1991). The *landnam* in the Faroes. *Arctic Anthropology* 28: 101–120.

Arge, S. V. (1997a). Føroysk búsetningarsøga—tær fornfrøðiligu heimildirnar. In Sigurðardóttir, T., and Snædal, M. (eds.), *Frændafundur* 2. Fyrirlestrar frá føroysk-íslendskari ráðstevnu í Tórshavn 28–29 June 1995. Annales Societarium Færoensis—Supplementum XXIV, Tórshavn, Føroya Fróðskaparfélag, pp. 41–58.

Arge, S. V. (1997b). Í Uppistovubeitinum. Site and settlement. *Fróðskaparrit* 45: 27–44.

Arge, S. V. (2001). Forn búsetning heima á Sandi. *FRØÐI* 2/2001. Føroya Fróðskaparfelag, Tórshavn, pp. 5–13.

Arge, S. V. (2005). Cultural Landscapes and Cultural Environmental issues in the Faroes. In Mortensen, A., and Arge, S. V. (eds.), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001.* Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 22–28.

Arge, S. V. (in press). "UTTANGARS." A characteristic of relics in the Faroe outfield. Proceedings of the Interdisciplinary Conference: "UTMARK" (THE OUTFIELD/WASTELAND)—as industry and ideology in the Iron Age and Midle Ages, September 25–28, 2003, Bergen, Norway.

Arge, S. V., and Hartmann, N. (1992). The burial site of the Kirkjugarð in the village of Sandur, Sandoy. *Fróðskaparrit* 38–39: 5–21.

Brandt, (1996). Sheep-breeding on eastern Sandoy. In Guttesen, R. (ed.), *The Faroe Islands Topographic Atlas,* Det Kongelige danske Geografiske Selskab and Kort and Matrikelstyrelse, Copenhagen, pp. 82–85.

Brandt, J., and Guttesen, R. (1978). Population and climate in the development of the Faroese peasant society. *Det Danske Meteorologiske Institut Klimatologiske Meddelelser* No. 4: 60–67.

Brandt, J., and Guttesen, R. (1981). Changes of the rural landscape on the Faroe Islands in the Middle Ages. In Hansen, V. (ed.), *Collected papers presented at the Permanent European Conference for the Study of the Rural Landscape, Roskilde 1979*, Copenhagen, pp. 17–24.

Bruun, D. (1929). *Fra de Færøske Bygder. Samlede afhandlinger om gammeldags sæd og skik,* København.

Buckland, P. C. (1992). Insects, man and the earliest settlement of the Faroe Islands: A case not proven. *Fróðskaparrit* 38–39: 107–114.

Buckland, P. C., and Dinnin, M. H. (1998). Insect faunas at Landnám: A palaeoentomological study at Tjörnuvík, Streymoy, Faroe Islands. *Fróðskaparrit* 46: 277–286.

Buckland, P. C., Edwards, K. J., Sadler, J. P., and Dinnin, M. H. (1998). Late Holocene insect faunas from Mykines, Faroe Islands, with observations on associated pollen and early settlement records. *Fróðskaparrit* 46: 287–296.

Buckland, P. C., and Sadler, J. P. (1991). Farm or sheiling: An entomological approach. In Sveinbjarnardóttir, G. (ed.), Sheilings in Iceland—An archaeological and historical survey. *Acta Archaeologica* 61: 93–96.

Christensen, A. E. (2000). Ships and navigation. In Fitzhugh, W. W., and Ward, E. I. (eds.), *Vikings. The North Atlantic Saga*, Smithsonian Institution Press, Washington and London, pp. 86–98.

Christiansen, S. (1996). Gásadalur. The old agricultural landscape. In Guttesen, R. (ed.), *The Faroe Islands Topographic Atlas,* Det Kongelige danske Geografiske Selskab and Kort and Matrikelstyrelse, Copenhagen, pp. 74–77.

Dahl, S. (1951). Fornar toftir í Kvívík. *Varðin* 29: 65–96.

Dahl, S. (1970a). The Norse settlement of the Faroe Islands. *Medieval Archaeology* 14: 60–73.

Dahl, S. (1970b). Um ærgistaðir og ærgitoftir. *Fróðskaparrit* 18: 361–368.

Degn, A. (1932). Hvat kann Rómaskatturin i Færogum siga Okkum. *Varðin* 12.

Edwards, K. J., Borthwick, D., Cook, G., Dugmore, A. J., Mairs, K.-A., Church, M. J., Simpson, I. A., and Adderley, W. P. (2005). A hypothesis-based approach to landscape change in Suðuroy, Faroe Islands: *Human Ecology* 33: 621–650.

Færeyinga saga. (1987). Halldórsson, Ó. (ed.). Stofnun Árna Magnússonar á Íslandi, Reykjavík.

Fellows-Jensen, G. (1984). Viking settlement in the Northern and Western Isles—The placename evidence as seen from Denmark and the Danelaw. In Fenton, A., and Pálsson, H. (eds.), *The Northern and Western Isles in the Viking world*, John Donald Publisher Ltd, Edinburgh, pp. 148–168.

Fisher, I. (2005). Cross-currents in North Atlantic Sculpture. In Mortensen, A., and Arge, S. V. (eds.), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001,* Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 160–166.

Fisher, J. (1952). *The Fulmar*, Collins, London.

Fosaa, A. M. (2001). A review of plant communities of the Faroe Islands. *Fróðskaparrit* 48: 41–54.

Gaffin, D. (1996). *In Place: Spatial and Social Order in a Faeroe Islands Community*, Waveland Press, Prospect Heights, Illinois.

GEsource (2004). http://www.gesource.ac.uk/worldguide/html/880_people.html

Graham-Campbell, J. (2005). The Viking-Age Gold and Silver of the North Atlantic Region. In Mortensen, A., and Arge, S. V. (eds.), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001,* Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 125–140.

Guttesen, R. (1996). Historical population geography. In Guttesen, R. (ed.), *The Faeroe Islands Topographic Atlas,* Det Kongelige Danske Geografiske Selskab and Kort and Matrikelstyrelsen, Copenhagen, pp. 16–17.

Guttesen, R. (1999). Commander Loebner's tables and vital necessities in the Faeroe Islands in 1813. *Geografisk Tidsskrift* (Special Issue 1): 75–80.

Hannon, G. E., and Bradshaw, R. H. W. (2000). Impacts and timing of the first human settlement on vegetation of the Faroe Islands. *Quaternary Research* 54: 404–413.

Hannon, G. E., Hermanns-Audardóttir, M., and Wastegård, S. (1998). Human impact at Tjørnuvík in the Faroe Islands. *Fróðskaparrit* 46: 215–228.

Íslensk fornrit I - Íslendingabók, Landnámabók. (1968). Benediktsson, J. (ed.), Hið íslenska fornritafélag, Reykjavík.

Jessen, K. (1925). De faeröske Mosers Stratigrafi. *Det 17. Skand. Naturforskarmötet i Göteborg (1923)*: 185–190.

Jessen, K., and Rasmussen, R. (1922). Et profil gennem en tørvemose paa Faerøerne. *Danmarks geologiske Undersøgelse* 1: 1–13.

Jóhansen, J. (1971). A palaeobotanical study indicating a previking settlement in Tjörnuvík, Faroe Islands. *Fróðskaparrit* 19: 147–157.

Jóhansen, J. (1985). Studies in the vegetational history of the Faroe and Shetland Islands, *Annales Societatis Scientiarum Færoensis.* Supplementum XI, Føroya Fróðskaparfélag, Tórshavn.

Jørgensen, T. H., Buttenschön, H. N., Wang, A. G., Als, T. D., Børglum, A. D., and Ewald, H. (2004). The origin of the isolated population of the Faroe Islands investigated using Y chromosomal markers. *Human Genetics* 115: 19–28.

Krogh, K. J. (1975). Seks kirkjur heima á Sandi. *Mondul* 1972/2: 21–54.

Krogh, K. J. (1986). Um Føroya fyrstu búseting. *Mondul* 12: 3–6.

Lawson, I. T., Church, M. J., McGovern, T. H., Arge, S. V., Woollet, J., Edwards, K. J., Gathorne-Hardy, F. J., Dugmore, A. J., Cook, G., Mairs, K.-A., Thomson, A. M., and Sveinbjarnardóttir, G. (2005). Mutual adjustment of environment and society on Sandoy, Faroe Islands: Palaeoenvironmental and archaeological perspectives. *Human Ecology* 33.

MacDonald, A. (2002). The *papar* and some problems: a brief review. In Crawford, B. E. (ed.), *The Papar in the North Atlantic: Environment and history,* St John's House Papers No. 10, St. Andrews, pp. 13–29.

Mahler, D. L. D. (1991). Argisbrekka. New evidence of shielings in the Faroe Islands. *Acta Archaeologica* 61: 60–72.

Mahler, D. L. (1998). The stratigraphical cultural landscape. In Andersson, H., Ersgård, L., and Svensson, E. (eds.), *Outland use in preindustrial Europe,* Lund Studies in Medieval Archaeology 20, Lund, pp. 51–62.

Matras, A. K., Andreasen, H., and Stummann Hansen, S. (2004). A Viking age shieling in Skarðsvík, Fugloy, Faroe Islands. *Fróðskaparrit* 51: 200–211.

Matras, C. (1939). Færøerne. Stednavnene. *Nordisk Kultur* V: 53–59.

Matras, C. (1953). Gammelfærøsk ærgi. *Namn och Bygd* 44 (1–4): 51–67.
Matras, C. (1957). Rygir, Sygnir og Hørðar í Føroyum. *Varðin* 32: 28–32.
Matras, C. (1981). Korkadalur. *Fróðskaparrit* 28–29: 78–80.
McGovern, T. H., Perdikaris, S., and Amundsen, C. (2004). *A Viking-Age to medieval archaeofauna from Undir Junkarinsfløtti, Sandoy, Faroe Islands: preliminary working paper,* CUNY Northern Science and Education Center, NORSEC Preliminary DRAFT 1.5, CUNY Doctoral Program in Anthropology, Brooklyn College Zooarchaeology Laboratory, Hunter College Bioarchaeology Laboratory, *NORSEC Zooarchaeology Laboratories Report No 17,* June 2004.
Mortensen, A. (1954). Fólkatalið og ognarbýtingin í Føroyum um 1600 við jarðabókini 1584 sum grundarlag. *Fróðskaparrit* 3: 7–59.
Myhre, B. (1978). Agrarian development, settlement history and social organisation in southwest Norway in the Iron Age. In Kristiansen, K., and Paludan-Müller, C. (eds.), *New Directions in Scandinavian Archaeology,* Studies in Scandinavian Prehistory and early History 1, Copenhagen, pp. 224–271.
Ólafsson, G. (2005). New Evidence for the Dating of Iceland's Settlement. A Viking-age discovery in the cave Viðgelmir. In Mortensen, A., and Arge, S. V. (eds), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001,* Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 200–207.
Øye, I. (2005). Farming and farming systems in Norse societies of the North Atlantic. In Mortensen, A., and Arge, S. V. (eds), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001*, Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 359–370.
Rasmussen, J. (1982). The Faeroe Islands: geology. In Rutherford, G. K. (ed.), *The Physical Environment of the Faeroe Islands,* W. Junk, The Hague, pp. 15–34.
Sawyer, P. (1997). The Age of the Vikings, and before. In Sawyer, P. (ed.), *The Illustrated History of the Vikings,* Oxford University Press, Oxford, pp. 1–18.
Small, A. (1969). The distribution of settlement in Shetland and Faroe in Viking times. *Saga-Book of the Viking Society* 17: 145–155.
Sørensen, S., and Bloch, D. (1990). *Fuglar í Norðurhøvum,* Føroya Skúlabókagrunnur, Tórshavn.
Stummann Hansen, S. (1991). Toftanes: A Faroese Viking Age farmstead from the 9th–10th century. *Acta Archaeologica* 61: 44–53.
Stummann Hansen, S. (1993).Viking Age Faroe Islands and their Southern links. In Batey, C. E., Jesch, J., and Morris, C. D. (eds.), *The Viking Age in Caithness, Orkney and the North Atlantic,* Edinburgh University Press, Edinburgh, pp. 473–486.
Sveinbjarnardóttir, G. (1991). Shielings in Iceland—An archaeological and historical survey. *Acta Archaeologica* 61: 73–96.
Sveinbjarnardóttir, G. (1998). The question of papar in Iceland. In Crawford, B.E. (ed.), *The Papar in the North Atlantic: Environment and History*, St John's House Papers No. 10, St Andrews, pp. 97–106.
Sveinbjörnsdóttir, A. E., Heinemeier, J., and Gudmundsson, G. (2004). ^{14}C dating of the settlement of Iceland. *Radiocarbon* 46: 387–394.
Thorsteinsson, A. (1978). Forn búsetning í Føroyum. *Fróðskaparrit* 26: 54–80.
Thorsteinsson, A. (1981). On the development of Faroese settlements. In Bekker-Nielsen, H., Foote, P., and Olsen, O. (eds.), *Proceedings of the Eighth Viking Congress, Århus 24–31 1977,* Odense University Press, Odense, pp. 189–202.
Thorsteinsson, A. (1982). Lambhagar. *Mondul* 3: 13–22.
Thorsteinsson, A. (1996). Færøske bebyggelsesnavne med -bø. Den ellevte nordiske navneforskerkongressen. *NORNA RAPPORTER* 60: 183–196.
Thorsteinsson, A. (2005). "There is another set of small islands." In Mortensen, A., and Arge, S. V. (eds.), *Viking and Norse North Atlantic. Select Papers from the Proceedings of the Fourteenth Viking Congress, Tórshavn, 19–30 July 2001*, Annales Societatis Scientiarum Færoensis. Supplementum XLIV, Tórshavn, pp. 39–42.

Tierney, J. J. (1967). *Dicuilus. Liber de mensura orbis terrae,* Scriptores Latini Hiberniae, Dublin.
Vickers, K., Bending, J., Buckland, P. C., Edwards, K. J., Stummann Hansen, S., and Cook, G. (2005). Toftanes: The palaeoecology of a Faroese *landnám* farm. *Human Ecology* 33: 685–710.
Woollett, J., Arge, S. V., Church, M., and McGovern, T. H. (2004). *Report of archaeological fieldwork at Undir Junkarinsfløtti, Sandoy, 2003*. Landscapes circum-*Landnám* Project. Field Report, February 2004.
Zachariasen, U. (1988). Mykines endnu engang. *Namn och Bygd* 76: 139–147.