

# English summaries/Danske resumeer

## An investigation of the Norse land use and resource exploitation in the Western Settlement in Greenland

*By Karen Marie Bojsen Christensen*

This investigation focuses on the land use and resource potential of a selection of smaller farms in the central part of the Norse Western Settlement (c. 1000-1350 A.D.). Of special interest are the pasture resources, as access to pasture, and in particular to hay harvest areas, was vital for the maintenance of the animal stock during the long Greenlandic winter.

Quantity and quality of the vegetational resources around the farms were examined. It appeared that percentagewise grass area decreased compared to floor area of the outhouses on the farms. One explanation might be that sites with limited grass area in the immediate vicinity compensated for this, either by having more sheep or goats requiring less grass, and which more often are sheltered in detached outhouses, or by having more outhouse space for storage of hay harvested further away from the sites.

The vegetational resource categories around the farms generally turned out not to correlate with height above sealevel. However, it is possible to observe a decrease in mean biomass if the sites are divided into topographically homogenous and bounded areas up through the valleys. This may be explained as a function of a chronological and/or socially determined settlement expansion from "good" areas by the coast towards still more marginal areas along the coast and up the valleys.

The feeding value and carrying capacity of the vegetational resources are still being analysed. Yet, tentatively the well documented farm, V 35, was used as an example to examine, if the estimated animal stock size was reasonably congruent with the number of animals possible to shelter within the actual documented floor area of byres at the farm ruins. The two independent ways of calculating the size of the animal stock agreed well with each other.

Also, an estimation of the size of the household at the V 35 farm was attempted. The result of 6 people was considered to be on the conservative side and thus an absolute minimum household size.

The exploitation of the higher elevations was outlined. For climatic and vegetational reasons one would doubt the presence of saetre farms in the Western Settlement. At least it is impossible to find them at the same altitudes as in the Eastern Settlement. Yet, farms considered to be permanent and lying at lower elevations might turn out to be seasonal farms of the saetre type.

The upland survey resulted in the discovery of caribou hunting systems, which presumably have been used as part of a communal driving hunting strategy. The dating of the systems is difficult (Inuit or Norse?), but the generally close association with Norse farms might indicate a Norse origin.

Finally, aspects of the exchange system of resources and services at both the economic and social level between the large and small farms were discussed.

## En sammenligning af den grønlandske Østerbygd og Vesterbygd

*Af Thomas H. McGovern*

Undersøgelser (både nye og gamle) af de tidligere norrøne bosættelser i Grønland gør det muligt at opstille foreløbige modeller over koloniens organisation og karakter. Denne artikel opsummerer kort de biogeografiske og klimatiske forskelle mellem Vesterbygden og Østerbygden. Dernæst præsenteres vidnesbyrd om forskelle i bebyggelsens omfang, de enkelte gårdsanlægs størrelse, erhvervsøkonomiens organisation og deltagelsen i Nordrøstur-jagten.

Disse data antyder, at bønderne i begge bygder stort set fulgte ens livsmønstre, men at de mindre og generelt knapt så imponerende gårde i Vesterbygden synes at have været mere afhængige af jagt på

rensdyr og sæl, og har holdt flere får og geder (især geder) på mindre begunstige græsgange og sandsynligvis har været stærkere involveret i Norðrsetur-jagten.

Selvom disse forskelle synes at være små, indikerer de, at Vesterbygden må have været betydelig mere sårbar overfor den senere middelalderlige klimændring, nedgangen i den transatlantiske kontakt og den øgede kontakt med Inuit. Vesterbygdens tidligere ophør synes ikke at være et tilfælde, men resultatet af et sammenfald af kræfter, der fik stærkere indflydelse på den mindste, mest arktiske og i sidste instans mere marginale del af den norrøne koloni.

## Ektoparasitter fra får fra Stóraborg, Island og deres tolkning. Pis, parasitter og pøbel i et paleoøkologisk perspektiv

*Af P. C. Buckland og D. W. Perry*

Den mulighed for en forbedret tolkning af udgravninger, som fossile insekter kan give, er sjældent blevet udnyttet i fuld udstrækning.

I denne artikel diskuteres de store forekomster af ektoparasitter (udvendige snyltedyrr) fra får i en rende under gulvet i et senmiddelalderligt hus på Stóraborg på Sydisland. En tolkning som affald fra uldvask i opvarmet urin bliver diskuteret på baggrund af fund af store nedgravede tønder i ruiner af andre gårde, i særdeleshed på den klassiske gårdsruin Stöng i Þjórsárdalur, som blev udgravet af Aage Roussel i 1939.

## Icelandic Viking age graves and excavated farm sites. Facts or fiction.

*By Bjarni Einarsson*

The traditional theory on the settlement of Iceland claims that the first colonist settled in Iceland in the year 874 and that the settlement period ended in the year 930 when Althing was founded. This theory and other theories on the early settlement of Iceland are based on the Sagas/Landnama (Book of Settlements) and other written and literary sources. These sources give a picture of the settlement as a fairly homogeneous process and therefore the Icelandic

Viking Age has been considered a homogeneous phenomenon. The most applied dating method in Iceland today is the tephrochronological method. The problem with this method is that the tephra layers are dated on the basis of written sources. By exclusively relying on the Sagas/Landnamabok and the tephrochronological dating method and since one depends on the other, we end up with a circular proof which obviously does not lead anywhere. The C-14 method has been rejected since it overestimates the age (because of the volcanic activity and the island effect); however, there are many indications that the method is applicable in Iceland which would imply that the settlement period stretches farther back in time. Therefore it is of uttermost importance to clarify the possibilities of the C-14 method in Iceland. In this essay I have compared the corology of the Viking Age graves (fig. 1) with the location of excavated farm sites dated before 1104 (fig. 2). The result is that the farm sites are mainly located in one of the regions where the graves occur. I have suggested the possibility that the corology of the graves is not determined by external (random) factors (erosion, ground exploitation and that therefore the graves have been found only in the regions shown in fig 1 but reflects the original distribution of the graves. Other grave-types might dominate the other regions, types which we have not yet observed. A systematical surveying of Viking age graves has never been carried through in Iceland and a systematical surveying of archaeological sites in general is now for the first time taking place and on an extremely low scale. Our knowledge of the Viking age graves is thus based on data accumulated from three regions in Iceland and is therefore only relevant for those. I have advanced the hypothesis that Iceland was settled by many independent groups of people from various places in the North-Atlantic region during different periods of time. The culture, economy and organization they brought with them from their homelands was adapted to a certain kind of ecology and when they arrived in Iceland they searched for environment that most closely resembled their homelands.

## Stóraborg, an introduction

*By Mjöll Snæsdóttir*

The article presents an excavation that has been going on since 1978 in the south of Iceland, for a short season every summer and with a

small team of diggers. The site is a farm mound that is in danger of being totally eroded by the sea and two nearby rivers. The name of the farm is Stóraborg. The site now under excavation was abandoned about 1840, and the farm was moved and rebuilt farther from the sea. The erosion of the old farm site probably started about the turn of the century, but it was not until the middle of the century that it became evident that a farm mound was being destroyed. Late in the year of 1969 the action of the sea uncovered a churchyard, and a few years later the foundations of a small church. The first time a church at this farm is mentioned is in an inventory, that has been dated 1332. It may also be referred to in an older (ca 1200) source, but this is not certain. It did exist until about the year 1700.

What remained of the churchyard was excavated during the summer of 1978. In the middle of the churchyard there was an area without graves where the church had been, ca  $8 \times 5$  metres. The churchyard itself was almost rectangular, it had been enlarged once and had been about  $19 \times 11$  metres before, and about  $19 \times 16$  metres after that. The walls were of turf, the northern wall partly had an inner face of stone. About 60 graves were located but originally there had been several more, probably over 130. The bones were badly preserved and were not recovered. Instead the graves were measured, drawn and photographed. The churchyard had obviously been used for a considerable length of time, there were instances of several burials each beneath another. The area where the churchyard was situated had been used for other purposes earlier, the excavation uncovered remains of a small outhouse and a cooking-pit.

In the summer of 1979 the excavation of the farm mound itself began. The upper part of the mound consists of the remains of farm buildings, that were made of stone, turf and earth. The preservation conditions are good and many finds have been unearthed until now, textile fragments, wooden artefacts of various kinds, leather objects, e.g. shoes, besides objects of metal and stone. A short runic inscription was found but has not been deciphered as yet.

It is not certain when the site was first occupied but remains of what may be the first farm were seen several years ago when one of the nearby rivers changed its course for a while.

When the excavation of the Stóraborg farm mound began it was uncertain whether it would be possible to finish the work before the sea destroyed the site. It now seems that with some luck the archaeologists shall beat the Atlantic to it...

## Problems in the interpretation of building remains in Austurdalur, Skagafjörður Northern Iceland

*By Guðrún Sveinbjarnardóttir*

This article discusses problems of interpreting building remains without excavation, brought to light by a study done in a valley in northern Iceland, traditionally thought to contain a number of abandoned farm-sites. The study applied a range of interdisciplinary methods, including an examination of written records, an archaeological survey, and a systematic trenching into ruins and through enclosure banks, in order to examine cultural deposits and apply tephrochronology for dating purposes. The latter technique successfully disproved abandonment dates found in written records and based upon popular tradition. More generally, the study demonstrated the value of applying interdisciplinary methods when examining building remains over a large area without the benefit of excavation.

However, problems arose in the analysis of written records. Distinguishing between farms and shielings by studying remains on the ground proved particularly difficult as well, since both were occupied by humans from time to time. Known shieling-sites vary considerably in lay-out, and cultural deposits in both types of sites are of a similar nature. More research is called for, in particular the excavation of shieling-sites in Iceland, of which none has so far been done, as well as more palaeoecological work which has proved hopeful as a tool for interpretation.

## Stöng and the end of the Þjórsárdalur-settlement

*By Vilhjálmur Örn Vilhjálmsson*

New archaeological excavations at the farm-site at Stöng in the valley of Þjórsárdalur in 1983-86 have shown, that most likely the valley was depopulated at the beginning of the 13th century, or more than 100 years later than its presumed volcanic destruction was dated by tephrochronology.

Some factors which indicate this new date are artifacts, found at Stöng and other ruins in Þjórsárdalur. Among these is a characteristic comb type, a variation of the hog-backed comb, which dates from the later half of the 12th century into the first half of the 13th. Also a ceramic sherd of English origin, with an olive green glaze found at Stöng. The fabric and the glaze of the sherd do strongly indicate, that it is a so-called Grimston-ware from kilns in East Anglia, England. The sherd can be dated to the beginning of the 13th century at the earliest.

Other features, like more than one phase of the farmhouse-structure, a dwelling-house built on turf, which contains tephra-layers like H 1, a layer from a possible eruption of the volcano Hekla in AD 1104, also indicate an inhabitation later than 1104.

One of the main arguments for the reliability of the tephrochronological dating of the settlement of Þjórsárdalur was the temporarily known presence of just one phase and one dwelling-house at Stöng, the one which was partly excavated in 1939. In fact there are two phases, an older ruin was found directly underlying the one which was excavated in 1939.

People at Stöng even built houses after the possible eruption of 1104 and tried to oppose the effects of the H 1 pumice near the farmhouse by filling it into a pit, which they had dug.

Radiocarbon dates made on local charred birch as well as birch-bark and bones of sheep and cattle do also indicate a later date for the depopulation than 1104.

The causes of the decline and depopulation of Þjórsárdalur were probably many, and factors like heavy erosion, which clearly can be seen, combined with climatic changes to the worse, as well as continuous eruptions of Hekla, as mentioned by annals in 1158, 1206 and 1222, all made life rather hard and forced the inhabitants from the valley some time at the beginning of the 13th century. Absolutely no indications of an abrupt destruction, followed by death or sudden flight of people from the valley can be detected.

The causes of the incorrect dating of the termination of the Þjórsárdalur settlement can be ascribed to a rather old-fashioned excavation method in 1939, as well as to an uncritical use of written sources and oral tradition, when the tephrochronology for Hekla-eruptions was developed.

## On the Faroese landnam

*By Símun V. Arge*

Since the beginning of the 19th century the conception of the first settlement of the Faroe islands has been, that Irish monks settled on the islands around 700 AD and that they were expelled by Norse settlers around 825 AD. This view was based on written sources and place name studies as well as on Faroese folklore and settlement remains. Recent pollen-analytical studies have suggested that it is possible to date the first settlement as early as the beginning of the 7th century.

The traditional conception of the faroese landnam has mainly been based on two written sources: The *Færeyinga saga* (the saga of the Faroese) and on another much older source, written by the Irish monk Dicuil. Using the sources critically the author expresses the opinion that the *Færeyinga saga*, which cannot be checked against other source material, cannot be used as a reliable source on the first settlement of the Faroe islands. A closer study of the activity and settlement remains that are connected with the alleged Irish settlement, like stones with cross engravings (fig. 1) and some field patterns (fig. 2), does clearly show, that such an unambiguous interpretation of the origin of the settlement is untenable. The writings of Dicuil cannot be used as a historical source to shed light on the Faroese landnam until some archaeological evidence of an early Irish settlement has been found.

The very few Celtic place names must be considered as names given to the localities in question by Norse settlers.

This paper makes strong reservations about the C<sup>14</sup> dates of the oldest settlement horizons revealed by pollen-analytical studies.

The conclusion concerning the alleged Irish settlement is, that there is still no proof of an early pre-Norse settlement on the Faroe islands to be based on the available sources.

To be able to establish when the Norse settlement took place and to examine the possibility of a more exact date, the archaeological evidence must be studied more closely. 15 farms sites on chosen localities and finds from one burial site have been examined. Because of the uniformity and the lack of analysis of the Faroese artifact material, the importance of imported goods found in dated archaeological contexts must be stressed. Traditional archaeological finds do only allow rather broad dates.

An analysis of C<sup>14</sup> dates from archaeological investigations on the

Faroe Islands shows, that these datings and the archaeological date agree relatively well, although the C<sup>14</sup> dates do in some cases seem to be slightly older.

Fig. 6 shows the results of an attempt to date more exactly some chosen objects. The dates are somewhat later than the argued time of the landnam. The question arises whether the material discussed in the present study is really representative of the settlement period. Furthermore, the importance of subsidence and erosion along the steep shores to the preservation of the oldest farm sites and the overall picture of the earliest settlement is to be questioned.

There is good reason to presume, that the artifact material must not be conceived as representative of the settlement period and thereby contribute to a late settlement date compared to early Norse settlements in the surrounding countries.

## Toftanes – a Faroese Viking Age settlement from the 9th-10th century

*By Steffen Stummann Hansen*

Being the representative of Føroya Fornminnisavni the author has since 1982 been in charge of the excavation of a Viking Age farmstead at the site of Toftanes on the island of Eysturoy. During the excavation four buildings have been uncovered. At least some of the buildings seem to have been rebuilt. Structure I is an approx. 13 m long and 4 m wide outhouse, structure II an approx. 20 m long and 4-5 m wide dwelling house with a long-fire, structure XI an extension of structure II with a floor space of approx. 12 m<sup>2</sup>, while structure XII is an approx. 5 m long and 3 m wide outhouse preliminarily interpreted as a "fire-house".

A rather large number of finds from Toftanes is recorded. The material includes some 600 items of soapstone, glass beads, whetstones (schist), quernstones and a lot of well preserved wooden items, of which especially a gameboard is interesting. Furthermore, three bronze items must be mentioned. One is a circular Borre-style brooch, the other two are ringheaded pins of the polyheadral-headed type. Preliminary investigations of the faunal material indicates that sheep was dominant while cow and pig are less represented.

The artefacts from Toftanes can easily be fitted into an aceramic horizon in the North Atlantic. This aceramic horizon of the Viking

Age has previously been documented at sites in the Shetlands and the Orkneys. The archaeological dating of Toftanes is supported by the until now three C<sup>14</sup> datings saying 840±65 AD, 830±65 AD and 800±50 AD (calibrated 900-975 AD, 895-940 AD and 890 AD).

## Argisbrekka: New evidence of saeter system on the Faroe Islands

*By Ditlev L. Dall Mahler*

The present article presents the preliminary results of excavations undertaken at Argisbrekka, Eysturoy, The Faroe Islands in 1985-86. A final season is planned for 1987. The 1985/86 excavations revealed the remains of at least 16 house sites, 15 of which can be dated to the Viking Age/Early Middle Ages.

The house sites group themselves into two main settlement areas; a western area containing the remains of at least 9 buildings and an eastern area containing the remains of 6 buildings. The buildings vary in size from 2 × 3 m to 8 × 3,5 m. Several of the large buildings were equipped with a longfire and contained the remains of benches and platforms. In one of the houses traces of stalls were found. Of particular interest is the fact, that most of the buildings were erected with walls of turf, and that several of them were joined together into pairs by a common long-wall. Houses with walls of turf alone were previously unknown on the Faroe Island.

The stratigraphic circumstances indicate that we have here the remains of units composed of a dwelling house with one to two outhouses each. Presumably, these units existed individually, succeeding one another throughout Argisbrekka's period of occupation, which is tentatively dated to begin some time in the mid 10th century, ending one hundred years later in the mid 11th century or shortly thereafter. Besides the remains of house sites, traces of a field system were uncovered.

Argisbrekka is interpreted as a "sæter" (shieling) site with a probable head farm in the close-by village of Eiði. Former State Antiquary Sverri Dahl's work on the problem of possible "sæter" sites on the Faroe Islands is discussed, as well as the Viking Age shieling economy in general in Norse influenced areas. A Celtic influence can be detected in the place name "ærgiir" (= sæter) absorbed into the Norse language in the 9th century presumably along with a certain

specialized form of "sæter" or "ærgir" system (Faroese "ærgir" place names are shown on fig. 16).

Investigations in Greenland are of special interest in that they indicate that Norse farming included the use of "sæter/ærgir" sites in the Faroe Islands is to be presumed.

If this is so, the "sæter/ærgir" system must have been discontinued by the 12/13th century as there is no mention of such a system in any written records connected to the islands. It is supposed that the lack of land available for expansion caused the disappearance of "shieling" in the Early Middle Ages as an integrated economic factor in favour of another agricultural system offering an individually broader exploitation of the available outfield resources.

## Farm mounds in North Norway. Examples of North Atlantic Tells

*By Reidar Bertelsen*

The farm mounds of North Norway are accumulations of cultural deposits that originate from single holding farms with up to two thousand years of continuous settlement. They came slowly into the focus of professional archaeologists, having been recognized by amateurs since late 19th century.

The opinion on the origins of the farm mounds differs. The author argues that a broad spectrum economy (cattle, sealhunting and fishing) is the most likely explanation for the settlement continuity on one point. The key factor of the accumulation is probably the architecture (turf houses). The deposits do, however, also have midden material, manure and wind drift material as important factors.

The potential for collecting data on the past society is immense. Until now the emphasis has been on the construction of the household economy based on osteological material and artefacts. The size of the farm mounds has been found to correlate to a production aggregate where stock raising is the major factor.

Analysis of the stratigraphy has given a detailed understanding of the accumulation process as the outcome of both deposition, distortion and mixture. Investigations on social structures are in the beginning.

## Livet på det middelalderlige Shetland i arkæologisk perspektiv

*Af Gerald F. Bigelow*

Shetlandsøerne, de nordligste af de Britiske øer, blev koloniseret på et tidligt stadium i vikingernes ekspansion. Arkæologisk, historisk og økologisk forskning lader formode, at den shetlandske norrøne befolkning i perioden ca. 800-1100 havde en økonomi, der hovedsagelig var baseret på dyrkning af byg samt fåre- og kvægavl. Marin føde blev også udnyttet, men der er intet, der tyder på, at den spillede en fremtrædende rolle i den tidlig-middelalderlige økonomi.

Arkæologiske udgravninger af senere gårdsanlæg har imidlertid vist, at der skete betydelige ændringer i den shetlandske levevis i 11. og 12. århundrede.

Nye byggeskikke blev indført, og der skete et skift i den materielle kultur på grund af en markant forøgelse af fiskeriteknologien, indførelse af pottemageri samt en stærk udvidet import af varer fra England og det kontinentale Europa.

Forfatteren argumenterer for, at disse forandringer i den materielle kultur muligvis afspejler omfattende økonomiske ændringer som følge af indførelse af verdslig og kirkelig beskatning i 11. og 12. århundrede. Det har vist sig, at den største økonomiske forandring på det tidspunkt var en intensivering af dybhavsfiskeriet med det formål at fange fisk både til hjemligt forbrug og til kommerciel udnyttelse.

## Klæbersten på Shetland i norrøn tid

*Af Simon Buttler*

Selvom klæbersten blev brugt på Shetland i forhistorisk tid, opnåede den først virkelig betydning som råmateriale efter den norrøne kolonisation. Stenen blev derefter brugt til kar, vævevægte, lamper, tenvægte og andre genstandstyper. Genstandstyperne og de anvendte fremstillingsmetoder var stort set ens på Shetland og Norge; men der var forskelle, især i »the Late Norse Period« (ca. 1100 til 1500). Der synes også at have været forskelle i organiseringen af brydningen i de to områder, idet de norske brud producerede en større mængde varer af høj kvalitet til handel og eksport.

## Birsay Bay på Orkneyøerne. Menneskets udnyttelse af naturens og landbrugets ressourcer

*Af Christopher D. Morris og D. James Rackham*

Denne artikel behandler vidnesbyrd om menneskets udnyttelse af forskellige ressourcer omkring Bay of Birsay på Orkneyøerne. Geologiske ressourcer, træer, landbrug, fuglevildt, fiskeri, sæler og hvaler, tang og andre ressourcer ved kysten bliver undersøgt på baggrund af områdets topografi og geologi.

Birsay Bay har været genstand for bosættelser fra den tidlige forhistorie, men fik speciel betydning i den pictiske tid samt i vikingetiden. Her var Orkney-jarlens sæde, og stedet mistede først sin betydning, da centret for politisk og kirkelig magt blev flyttet til Kirkwall i det 12. århundrede.

De seneste års udgravninger på lokaliteter omkring hele Bay of Birsay er begyndt at afsløre, i hvor høj grad disse ressourcer blev udnyttet i Birsays storhedstid.

Selvom det ikke er emnet for denne artikel, kan det nævnes, at mere moderne udgravningsmetoder og analyser af økologisk materiale i stigende grad er blevet anvendt i Birsay Bay-projektet.

Når alt materiale er blevet analyseret, vil der uden tvivl ske ændringer og videreudvikling af det her fremlagte foreløbige resultat,

men for øjeblikket er dette, hvad vi ved om de ressourcemæssige og økonomiske aspekter for bosættelsen i det vigtigste nordvestlige hjørne af øen Mainland i vikingetid og tidlig middelalder.

## Nye undersøgelser i Freswick Links, Caithness, Nordskotland

*Af Colleen E. Batey*

Denne artikel giver et resumé af det arbejde, som har fundet sted i Freswick Links på Caithness i Skotland. Arbejdet bygger til dels på undersøgelser udført af A. O. Curle og V. G. Childe i 1930'erne og begyndelsen af 1940'erne og foretages nu af universitetet i Durham med økonomisk støtte fra The Scottish Development Department (Ancient Monuments).

De foreløbige oplysninger er baseret på det store miljø- og ressourceanalyseprogram, som er under bearbejdning med henblik på den endelige publikation.

Det ser ud til, at et omfattende fiskeri har haft overordentlig stor betydning for den norrøne bosættelse på denne lokalitet.

Freswick Links er indtil nu den eneste lokalitet fra den norsksdominerede periode på det skotske fastland, som er blevet udgravet.