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THE EARLY SETTLEMENT OF ICELAND Wishful Thinking or an Archaeological Innovation?

by

VILHJÁLMUR ÖRN VILHJÁLMSSON, ÅRHUS

INTRODUCTION

All through the 20th century, Icelandic as well as foreign scholars have been fascinated by the idea that the dating of the conventional Icelandic colonization (Icel. *landnám*) to the end of the 9th century, actually might be a 12th century rationalization of facts. The conventional dating of the Landnam period, 870/874-930, originates from interpretation of written sources from the 12th century and later, such as *Íslendingabók* (the Book of Icelanders) and *Landnámabók* (the Book of Settlements) (1). The dating of the conventional Landnam is a historical assumption, but in quite good harmony with available archaeological evidence.

A number of scholars have also proposed a settlement in Iceland prior to the conventional Landnam. For instance by Romans, due to the finding of five Roman coins. Three of the coins, which are copper Antonians from AD 270-305 are however found in Viking age contexts where it would be expected, and the fourth is a stray find with no relation to other remains. Other scholars have discussed the possible settlement of alleged Irish hermits (Icel. *papar*) and even a Celtic population. Due to a rather brief and cryptic mentioning of *papar* in

the *Íslendingabók* as possibly being Irishmen, and stories in Irish and British sources which mention the navigation of Irish hermits to some obscure islands of the North, many 19th and 20th century scholars have favoured the idea that *papar* actually were Irish hermits. However, no archaeological material indicating hermits, Celtic or any other settlement prior to the 8th century has yet been found in Iceland. Despite this there has been a great interest in an Irish admixture in the Icelandic population, whether it was an admixture between the alleged Celtic pioneers and Norse latecomers, or merely by intermarriage of people from the British Isles and a majority of Norse settlers in the 9th century.

The interest in the ancestry, whether they were supposed to be enslaved, highborn Celts or even an exceptional breed of Norwegians, is partly the results of a quest for national identity and struggle for independence in Iceland. Scandinavian origins of the first settlers were less favoured by many of the 20th century Icelandic scholars, and the idea of a large percentage of Celts in the early Icelandic population is still a matter of lively debate in Iceland. The ethnogenesis of the first settlers cannot, however, be confirmed by genetic studies of modern Icelanders only (Vilhjálms-son in press).

The conventional Landnam Period has played a crucial role for many disciplines in Iceland. The Landnam and the Freestate (the period until 1264) symbolizes freedom, unity, and welfare in the minds of many Icelanders. It has been a well accepted historical idea that everything prospered in the Free-state era, to reach a decline and even the brink of the precipices after the Icelanders lost their independence to the Norwegian and later to the Danish crown. The Landnam Period is thus one of the cornerstones of Icelandic national identity, but also the cause of many durable dogmas. The conventional date of the Landnam, is also an integrated part of the role which the Landnam has played.

In 1989, a new hypothesis on a Merovingian Period, 7th century settlement of Iceland was promoted by Margrét Hermanns-Auðardóttir in her book *Íslands tidiga bosättning*. The work contains results based on an excavation at the site of Herjólfssdalur on Heimaey, one of the Westman Islands south of Iceland (Fig. 1). The results are new and exciting, but controversial with regards to the accepted trends in Landnam research in Iceland. The main controversy is the redating of the earliest settlement of Iceland to the 7th century AD. Different from other scholars, which have discussed the possibility of an earlier Landnam, Hermanns-Auðardóttir does not explain this Landnam with hermits or Celts, but by a hitherto unknown Norwegian emigration from South and West Norway. This new dating of the Landnam of Iceland is obtained by an interpretation of ^{14}C dating results, which neither can be confirmed by other dating methods nor artifactual material.

This paper deals with the idea of an early Icelandic Landnam, and the data, with which Hermanns-Auðardóttir has created a new and hitherto unknown era of Icelandic as well as Scandinavian history.

THE LANDNAM AND RADIOCARBON DATES

Some 19 dates, or 24% of all ^{14}C dates which have been produced on archaeological material from Iceland present a problem. They can, if used uncritically, be interpreted as an indication of a settlement

prior to the hereto accepted Icelandic Landnam at the end of the 9th century. Some of these dates now form the basis of Hermanns-Auðardóttir's attempt to date the Herjólfssdalur site, and the settlement of Iceland, generally, to the 7th century.

In many archaeological and geological works it has been stated that, according to Dr. Ingrid U. Olsson of the radiocarbon laboratory of Uppsala University, ^{14}C dating results from Iceland could not be taken for granted (Þórarinnsson 1977,35; Ólafsson 1980,66; Jónsson 1982, 196; Teitsson 1984,11). Dr. Olsson, at the laboratory that has produced most of the problematic dates, has not questioned the traditional date for the Icelandic settlement. She has instead been inclined to believe that a particular problem does exist for ^{14}C dating in Iceland, which causes unexpected high ^{14}C ages. A possible effect of inactive CO_2 from the surrounding ocean (the so called island effect) and from volcanic activity, on all living material in Iceland, have been given as the reasons for the high ^{14}C ages obtained in Iceland (Olsson 1983, 393-4). No satisfactory studies of these hypotheses on the particularity of the Icelandic ^{14}C dates have so far been presented (Vilhjálms-son 1991a, 1991b). However the hypotheses have been intensively used, probably due to the solid belief in the correctness of the traditional dating of the Icelandic settlement as well as the method of tephrochronology, that is dating with volcanic ash-layers (Vilhjálms-son 1990). Due to a suspicion of such an influence of secondary inactive CO_2 on ^{14}C in Iceland and in other land masses in the North Atlantic and the Arctic, Olsson has repeatedly expressed her doubts about the high ^{14}C ages of samples from, for instance, the site of Herjólfssdalur. According to Olsson, all Icelandic ^{14}C samples have received ^{14}C ages which are too high, and should thus be corrected, but not only by an ordinary calibration (Olsson in press). According to her hypotheses ^{14}C activity in Iceland and other countries of the North Atlantic is extraordinary low compared to the countries where the trees used for developing ^{14}C calibration curves, grew.

In her thesis, Hermanns-Auðardóttir nevertheless chooses to take the results of the nine ^{14}C dates from Herjólfssdalur for granted and to ignore Olsson's doubts. On the other hand it is important to men-

1. *Landnámabók* and *Íslendingabók* were composed in the first half of the 12th century but only remain in much later and possibly revised transcripts.

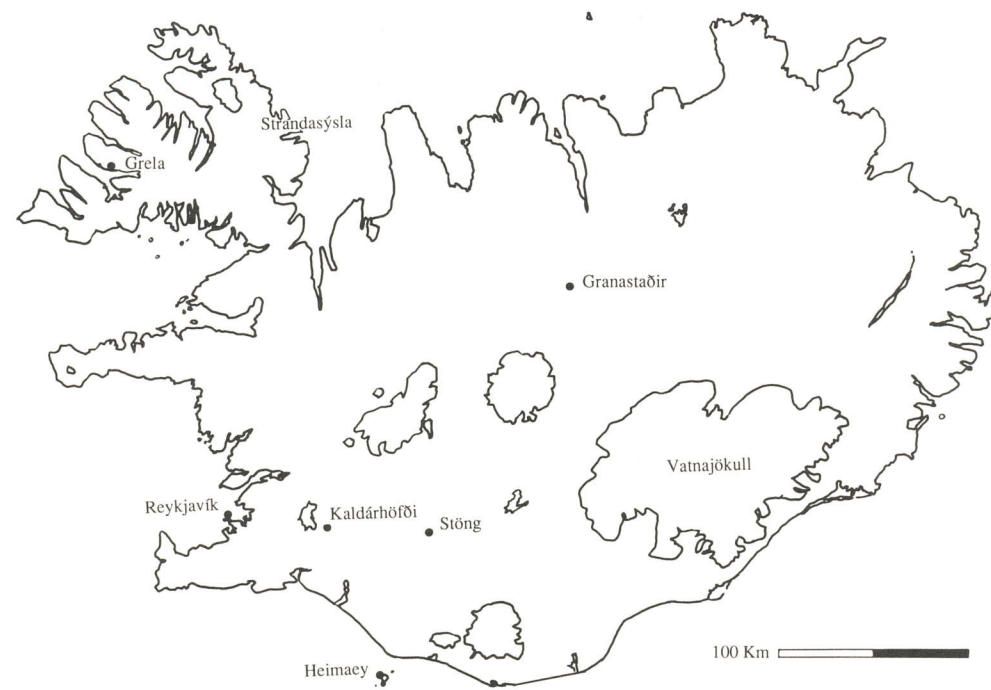


Fig. 1. Map of Iceland showing localities referred to in the text.

tion that two of the samples from Heimaey (U-2531, U-4402) have obtained calibrated ^{14}C dates which definitely are in very good accordance with the traditional date of the Icelandic Landnam. When calibrated with the CIO Calibration Program for radiocarbon dates (1989), according to Stuiver and Pearson (1986), these dates have a probability range at 1σ (1 standard deviation/68% probability) of 896-1034 cal. AD, and at 2σ (2 standard deviations/95% probability) of 798-1164 cal. AD. The mean probability of these two dates lies within the 9th and the early 10th centuries. Two other samples have also received dates which are in a fairly good accordance with the traditional date of the *Landnam Period proper*. These samples are U-2529 (which has not received wood analysis), and U-2662 which receive datings with a probability range at 1σ of 672-853 cal. AD., and at 2σ of 660-886 cal. AD. Another date (U-2532) is far out of range with a calibrated probability range at 2σ of 1288-1440 cal. AD., and cannot be used at all as an indicator of an early Landnam. In fact, there are thus only four out of nine dating results from Herjólfssdalur, which can give a certain indication of a date before the

conventional Landnam. One of the samples (U-2533) have not undergone a wood analysis and could therefore have been driftwood with a considerably high age of their own. There are thus only three dates from Herjólfssdalur which, after calibration and the usual interpretation of radiocarbon dates, can be looked upon as a possible indicator of an earlier Landnam.

Yet another sample (U-4403) from the Herjólfssdalur farm site has been dated at the ^{14}C -laboratory at Uppsala (Olsson in press). This result has been withheld by the Uppsala ^{14}C -laboratory, and is therefore regrettably not published together with the other nine dates from Herjólfssdalur (Vilhjálmsson 1991a, 1991b). The sample in question has received a date of 1070 ± 75 BP, with a probability range at 1σ of 888-1020 cal. AD., and at 2σ of 780-1158 cal. AD. The sample is of larch and is therefore most likely driftwood with a high age of its own, as larch does not grow naturally in Iceland. If the date of the sample U-4403 had been known to the excavator of the Herjólfssdalur site prior to the final publication, it is possible that she would have modified her use of datings. The exist-

ence of U-4403 makes the discrepancy between the dates from Herjólfssdalur greater, and gives less reason to use the ^{14}C dating results as definite proof of a settlement in the seventh century AD.

The documentation for the origin of the samples from Herjólfssdalur is also far from satisfactory. The charcoal samples U-2532 and U-4402 derive from pits in ruins II and VIII. As these samples have received quite low ^{14}C ages, Hermanns-Auðardóttir argues that these cooking pits were dug into the ruins long after the houses were in use (Hermanns-Auðardóttir 1989, 46). Unfortunately she cannot provide any stratigraphical nor "depositional chronological" proof for this assumption. No evidence is provided for the stratigraphy on top of or horizontally around the cooking pits provided the samples for ^{14}C dating (Hermanns-Auðardóttir 1989, 51-52, Fig. 4:43, 4:44). Shall we really believe that people came long after the houses in Herjólfssdalur fell into ruins, and dug deep cooking pits there, when the excavator cannot show us sections or photographs that demonstrate from which level the pits were dug. The stratigraphical evidence in general is also unsatisfactory, bearing in mind that the site is used to promote a revolutionary theory on the Icelandic Landnam. Whole sections are not published, but only few metres long pieces. Although indications of sections are marked on the ground map of the site, it is evident that these are, in many cases, only sections which go down from the walls and occupation layers inside the ruins. The stratigraphy of the topsoils is, however, missing as it was removed without documentation (Hermanns-Auðardóttir 1989, Figs. 4:29, 4:45, 5:1, 5:3, 5:4, 5:6, 5:7, 5:11, 5:12, 5:14, 5:17, 5:18, 5:19) (2).

Hermanns-Auðardóttir uses radiocarbon datings

from other Icelandic sites to support her hypothesis. Calibrated dates from the farm ruin at Grela (Hrafnseyri) in Northwest Iceland (Ólafsson 1980) and Reykjavík (Nordahl 1988) are certainly neither a definite proof or even a solid indication of colonization in Iceland long before the mid 9th century. Out of 31 ^{14}C analyses from Reykjavík, only a few give a possibility for speculation about an early settlement. When ^{14}C dates from Reykjavík are studied more closely it becomes obvious that they are very inconsistent. Samples from the same structures and even the same layers can receive dates which differ up to 200 years or more. In some cases ^{14}C samples from Reykjavík, which are thoroughly stratified, have received lower ^{14}C ages than samples from younger, overlying deposits.

Also on the Faroe Islands ^{14}C dates from pollen-analytical work, with ages older than the conventional, archaeological date for the Faroese Landnam, have been used as an argument for the habitation of Irish hermits, or other people on the islands prior to the Norse settlement (Jóhansen 1985, 58). The ^{14}C samples used for this argument were all peatbog samples, which were not collected in connection with a habitation site or any archaeological investigations (Arge 1989a, 111; 1989b). ^{14}C dated peat, as other soil samples, have a limited value to infer age in archaeological and historical contexts (Mook & Waterbolk 1985; Taylor 1987, 62). There is always the possibility of much movement and mixing of material in peatbogs. Secondary vegetational parts, possibly of different age, can not always be sorted out in soil samples, if only single ^{14}C dates are produced from one section and not a whole series. No matter whether the old ^{14}C ages from the Faroes are caused by the island effect or

2. The documentation in Hermanns-Auðardóttir's thesis, of ^{14}C dates from other archaeological investigations in Iceland, is also far from satisfactory. Table 7:3, which pretends to give a picture of available dates from the Merovingian and Viking Age settlements in Iceland, is lacking in information. Six dates from the excavation in Reykjavík in the 1970's are missing, although they were published with the rest of the dates from Reykjavík (Nordahl 1988, 13-37). The sample U-2768 from Reykjavík does not exist, but a sample U-2678 does (Nordahl 1988, 57). The sample S-5292, is actually St-5292, as it has not been analyzed by the Saskatchewan laboratory (S) but

the laboratory in Stockholm (St). The date of St-5292 is 1095 ± 100 BP., not 1045 ± 100 BP. Sample St-5299 (not S-5299) is resin, not related to Iceland, and has received a BP date of 2045 ± 80 (information provided by Sandor Watsi, Naturhistoriska Riksmuseet, laboratoriet för isotopgeologi, Stockholm). The documentation of archaeological sites in Iceland is also very limited (Hermanns-Auðardóttir, Table 7:1). Some published excavations are missing in the list, and ^{14}C dates from the farm site of Stöng are not mentioned, although available to the author (Hermanns-Auðardóttir 1989, 47, 52-53, 153, 173).

even by a bad selection of samples, there is no archaeological evidence available to suggest an earlier settlement, which they might indicate (Arge 1989a). Despite this, high ^{14}C results obtained on the Faroe Islands are also used in support of the theory of an earlier Landnam in Iceland (Hermanns-Auðardóttir 1989, 151; 1991). On the other hand, Hermanns-Auðardóttir does not mention the discussion and critiques that Jóhansen's results have received (Krogh 1986, 3-6; Arge 1989a; 1989b, Mahler & Malmros 1991).

CALIBRATIONS AND LIMITATIONS OF RADIOCARBON DATING

Calibration curves are the results of high precision radiocarbon dating of tree rings and the calibrations yield possibility ranges of time. If an object receives a calibrated date at 2σ of 626-959 AD. cal. (U-2720 from Reykjavík), there is not necessarily a higher probability for the dated object to be from the 7th century than from the 10th century. In the case of U-2720 the mean probability actually lies within the 9th century, which is the century to which the very conservative Icelandic literary tradition ties the first immigration to Iceland. Probability ranges of calibrated ^{14}C datings (cal. AD and cal. BC) are measured possibilities which do not directly relate to historical dating to AD and BC (Kankainen 1990, 31-32).

The remaining dates from Reykjavík and Herjólfssdalur, which might indicate a settlement prior to the conventional Landnam, despite the present exclusion of some of these, are dated at the same laboratory. These remaining dates cannot successfully be ascribed to effects of CO_2 , from either the ocean or volcanoes. Volcanic source effects can undoubtedly be ruled out as a factor, which disturbs ^{14}C dates of Icelandic material, as volcanic and thermal carbon only affect organic material in a limited area around the source of the carbon (Chatters *et al.* 1969, Libby & Libby 1973, Bruns *et al.* 1980, Saupé *et al.* 1980). Whether the effect of oceanic CO_2 is important for Icelandic ^{14}C datings or not, the influence which the island effect is supposed to have on vegetation (predominately wood) has first

to be explained and proven (Vilhjálmsón 1991a; 1991b). Why the effect can be related to Iceland, Greenland, the Faroe Islands, and Spitzbergen, but not, for instance, to Norway, Ireland, or Newfoundland is also an important question worthy of consideration. More studies and proofs of the possible effects of CO_2 from the ocean has to be presented before it can be used to explain irregular ^{14}C results. In Ireland, for instance, due to its humid climate and insular character, one would expect the island effect to be just as predominate as in Iceland, Spitzbergen, Greenland, and the Faroe Islands. Today, Ireland is in possession of the world's second longest tree-ring chronology. High-precision ^{14}C analyses have now been carried out extensively on samples of the precisely known tree-ring age of Irish oaks (Baillie & Pilcher 1983; Baillie 1985; Pearson *et al.* 1986). The high-precision calibration curves thus obtained in Ireland and elsewhere (Stuiver & Pearson 1986) do not indicate a reservoir effect like the island effect, which has been introduced for Iceland.

The factor of contamination from prehistoric volcanic tephra (ash and pumice) or peat (sods for walls) from wet bogs, which dated material might have been embedded together with, must also be taken into consideration (Vilhjálmsón 1991c). As most Icelandic samples dated in Uppsala have only received plain wood-analyses, which is a determination of species but not determination of own age, it is quite hard to exclude the possibility of an old age (before use) of birch samples from Iceland, which were charred in the Settlement Period. Prior to the time of settlement, trees had not been utilized, and were therefore likely to be old. There was probably also decayed wood and dead forest around, of considerable age, conserved by the relatively cold climate and slow biological decomposition. Dry wood is lighter and easier to transport than newly felled wood. If the first settlers had some kind of practical and economical sense they would have utilized the decayed wood as they utilized and charred driftwood together with local wood on the island of Heimaey (Hermanns-Auðardóttir 1989, 178). If old decayed birch was used as fuel, it is far easier to understand why some ^{14}C samples from Iceland have obtained dates which predate the conventional and archaeological date for the Settlement of Ice-



Fig. 2. Driftwood on the shores of Strandasýsla in Northwest Iceland. With the courtesy of the Photographic Department of the National Museum of Iceland.

land (Vilhjálmsón 1991a). There is also the extraordinary possibility that the charred birch from Herjólfssdalur and Reykjavík, used for ^{14}C dating, is driftwood as suggested by Malmros, and not local wood. If that is the case, all discussion on the island effect or a Merovingian Period settlement can be forgotten or at least critically reviewed. Birch could in fact have drifted to Iceland like it does today. Birchbark of Siberian birch can, for instance, be found in waste amounts on the shores of Strandasýsla in Northwest Iceland. Strandasýsla is the district in Iceland, which receives most driftwood. Driftwood on the beaches of Strandasýsla (Figs. 2-3) mostly originates from the Yenisey river area in Siberia (pers. information Haukur Ragnarsson, Icelandic Forestry Service, Mógilsá). Research on the origins and types of Icelandic driftwood is now in progress (by Ivar Samset, information kindly provided by Haukur Ragnarsson). Furthermore good description of driftwood in earlier times exists in Iceland. Among the wood mentioned is birch (Krisbjánsón 1980, 262).

Whether we like it or not we are also confronted

by the fact that ^{14}C dates are relative results of a laboratory process. Relative, because they are dependent on so many factors which are more well-known now than when the method was originally introduced. Although the method produces absolute results of single measurements, it does not necessarily produce exact and unquestionable results all the time (Mook & Waterbolk 1985, 48-58). Some ^{14}C samples, such as those from Reykjavík and Herjólfssdalur, receive unexpectedly low ^{14}C ages, whereas others might receive too high ^{14}C ages. *It is simply not possible to determine, confirm, or deny the dating of events such as the Landnam, or the beginning of occurrences, unless a series of consistent and well-defined ^{14}C dates are available.*

All in all, it is quite obvious that the use of the radio-carbon method in connection with the promotion of the hypothesis on 7th century settlement in Iceland, is far from satisfactory. The dates from Herjólfssdalur have undergone a calibration with the help of the CIO calibration program. But none of the recent and necessary comments on the interpretation of calibrations of radiocarbon dates have been

quoted. In fact an instruction manual exists for the CIO calibration program (Van der Plicht & Mook 1989, 805-816), which was distributed as a manuscript together with the program prior to publication. If this manual and other literature on calibrations in general had been carefully considered, the critical application and interpretation of the radiocarbon dates from Herjólfssdalur might have been more moderate than was the case. International cooperation between the communities of radiocarbon scientists and archaeologists has in recent years resulted in a standardization of use, presentation and interpretations of radiocarbon dates (Mook & Waterbolk 1985, 57-58; Kankainen 1990). Unfortunately, it is a fact that many archaeologists are still unaware of this.

TEPHROCHRONOLOGY

The method of tephrochronology certainly has many limitations in both structure and applicability, although it has been used as an absolute method for decades. It is a highly uncertain dating method, which totally depends on the correct usage of written sources, which provide the dates for eruptions and tephra layers. The uncritical usage and the limitations of the method were described (Vilhjálmsón 1988; 1990), before Hermanns-Auðardóttir criticized the tephrochronological date of the *Landnam tephra* (VII a + b, Vö, LAL) (Fig. 4). As has been thoroughly shown, the many estimated dates which the *Landnam tephra* has received are highly speculative (Vilhjálmsón 1990), not at least its last attachment to the year of 898 AD (Larsen 1982, 63). But the date of the tephra certainly does not become more convincing when it is redated with the help of the ^{14}C dates from Herjólfssdalur.

No ^{14}C dates have ever thoroughly confirmed tephrochronological dates. This also counts for the *Landnam tephra* layer, although other ^{14}C analyses give results which are closer to the present estimated date of the *Landnam tephra*. In attempts to primarily date the *Landnam tephra* with ^{14}C datings (Hallsdóttir 1987, 23-25; Hermanns-Auðardóttir 1989, 150, Table 7:3), vegetational samples, predominately from bogs, with attachment to the *Landnam tephra* have been sampled. These have all



Fig. 3. A huge, well preserved log of wood, dug out of the ground 200 m from the seashore, at the farm of Finnbogastaðir, Strandasýsla. The log has a high age of its own. It has, for an uncertain amount of years, been in the sea and in the ground. Such wood has undoubtedly been laying around when the first settlers came to Iceland. Photo Torfi Guðbrandsson 1975, with the courtesy of the Photographic Department of the National Museum of Iceland.

provided dates which are slightly higher than the accepted tephra date for the layer (3). In one case, though, a reasonable date (1040 ± 75 BP; 1σ of 890-

3. Hermanns-Auðardóttir wrongly states that a dated sample of peat (Lu-1170), found immediately beneath the *Landnam tephra*, has received the ^{14}C age of 1290 ± 50 (Hermanns-Auðardóttir 1989, 67). Unfortunately she has mixed up two dates. The date in question (Lu-1169) has received the BP date of 1155 ± 50 . The sample of Lu-1170, however, was taken beneath the sample of Lu-1169, which makes it impossible to use the dated sample of Lu-1170 as a proof of a new and earlier date for the *Landnam tephra*. The dates in question were originally published in Hallsdóttir 1987.



Fig. 4. A natural section in the western part of the valley of Þjórsárdalur, showing different tephra layers. The *Landnam tephra* indicated by a white circle, consists of ash from two eruptions, that is a yellowish stripe and a overlaying grayish layer. The profile reveals stability and little erosion at the time of the fall of the *Landnam tephra* on this location. Above the layer erosional particles occur more often, due to, for instance, human activity. After the fall of the H 1 tephra (the white layer indicated by a black dot), which traditionally is dated to 1104 AD, this locality lost its vegetational cover. The greyish top layer consists of bands of the H 1 tephra as well as the prehistoric H 3 tephra and other volcanic products, blown in from other parts of the valley. It should be noted that due to the character of the soil, erosion and other geomorphological aspects, the stratigraphic situation can be very different some few metres away. This, among other things, makes tephrochronology a rather problematic dating method.

1036; 2σ of 812-1166) has been obtained by dating a vegetational sample, which had immediate attachment to the *Landnam tephra* layer in dry humus (Jónsson 1983, 129-30, 137). Although the *Landnam tephra* occurs in Herjólfssdalur, there is no clear documentation on the direct connection between the tephra layer and the ^{14}C dated charcoal. The three ^{14}C dates from Heimaey, which possibly show an early settlement, cannot be seen in a close stratigraphical relation with the *Landnam tephra*, except for the fact that the layer "occurs early in the farm complex". As all sections from Herjólfssdalur are

published as small pieces, it is hard to relate the tephra and the ^{14}C samples. The redating of the *Landnam tephra* to the 7th century is thus a highly relative, secondary dating, very much like the correlation between written sources and tephra, which Hermanns-Auðardóttir and many others have criticized.

As far as the usual tephrochronological date for the devastation of the valley of Þjórsárdalur in South Iceland (dated to 1104 AD, through Hekla-tephrochronology) is concerned, Hermanns-Auðardóttir is not in doubt. This is despite the fact that the tephrochronology of Hekla totally relies on written sources and the literary tradition, and is also characterized by series of circular arguments. The date for the Hekla-1104 tephra is also one of the bases of the estimated date of the *Landnam tephra*. Recent reexcavations at Stöng have with the help of a critical study of the historical tephrochronology of Mount Hekla, as well as artifactual studies, stratigraphical studies, and not least ^{14}C dates, shown that the farm was devastated 100 years later than usually stated (Vilhjálmsón 1989). An undisturbed *Landnam tephra* was detected immediately under habitation layers of a structure from the 11th century, which is dated by artifacts and matching ^{14}C dates. The tephra layer cannot be dated to the 7th century at Stöng, although ^{14}C samples have been gathered in the immediate range of the layer. From the appearance of the *Landnam tephra* at other archaeological sites in Iceland such as Hvítárholt (Magnússon 1973), and Granastaðir (Einarsson 1989), compared with the artifactual material and ^{14}C dates which are available from these sites, there is no obvious reason, archaeological nor geological, to date the *Landnam tephra* earlier than around the year 900 ± 50 -100 AD.

WRITTEN SOURCES AND SOURCE CRITICISM

Many people can surely agree on the crucial role which the literary tradition in Iceland has played in Icelandic history, archaeology and tephrochronology (Vilhjálmsón 1988, 213; Einarsson 1989, 51). Archaeological activity in Iceland has been limited,

but this can hardly be blamed on the firm belief in written sources alone. Hermanns-Auðardóttir correctly criticizes the uncritical literary tradition of the Icelanders and the use of *Landnámabók* and *Íslendingabók*. But on the other hand she uses the works of the Venerable Bede and Dicuil as the revealed truth. This is less understandable, when her historical criticism towards Bede and Dicuil is totally missing. Hermanns-Auðardóttir credits these writers with statements which are not to be found in their works. For instance, we are told that Bede and Dicuil inform us of sea travellers in Iceland, and this is used as a support for the alleged archaeological evidence of a Merovingian Period settlement in Iceland. It is also argued that, according to Bede and Dicuil, there were clearly connections between Iceland and the British Isles at the time they wrote their works. Furthermore, she states that these 8th and 9th century sources underline "that Iceland, under the name of Thule, was inhabited during the Merovingian period, although the sources do not tell of the geographical nor ethnological background of the inhabitants" (Hermanns-Auðardóttir 1989, 153; my translation).

But the fact is that neither Bede nor Dicuil connect Thule to a certain island, and for good reasons not to Iceland (Beda Opera: 1962, 317; 1977, 379; 1980, 590; *Dicuili Liber de mensura orbis terrae* 1967, 74-77). From their indistinct descriptions it is impossible to state that Thule is identical to Iceland. Thule was an island that had been mentioned by many writers since Pytheas of Marseille was supposed to have discovered it in the 4th century BC. Bede and definitely Dicuil had good knowledge of these older descriptions of an island called Thule. Bede does not give much more information about Thule than Roman authors like Pliny, Isidorus, Priscianus, or Solnius do. The linkage of Thule and Iceland is a later assumption, originally put forth in the 11th century by Adam of Bremen (*Magistri Adam Bremensis Gesta Hammaburgensis Ecclesiae Pontificum* 1917, 271-74). Bede actually places the island of Thule "on the other side of Britain, in the most remote countries of the Schythians" (Beda Opera 1962, 317). Furthermore Dicuil (*Dicuili Liber de mensura orbis terrae* 1967, 74-77) says that Thule is uninhabited (*semper desertae*). To say anything about a

settlement in Iceland in the 7th century, with the help of information, which cannot be found in the works of Bede and Dicuil, seems to be a daring enterprise.

Furthermore Hermanns-Auðardóttir (1991) states that the written records of Bede and Dicuil are synchronic. They are definitely not. The information on Thule and its non-existing inhabitants in the works of Bede and Dicuil might be synchronic with the initial version of the works. But, for instance, some thirty years had passed since Dicuil met the clerics who he says visited Thule. The existing sources present second-hand information, which have survived through transcripts, which again are much younger than the original manuscripts. Many additions might have been added to the works in the time which passed from the writing of the originals to the writing of the oldest known transcripts.

Hermanns-Auðardóttir is not sufficiently informed about the conventional dating of the first Icelandic settlement to 870/874 AD either. She states that it is based on secondary sources, principally *Landnámabók*, written in the 13th century. Actually, due to that which can be gathered from both *Íslendingabók* and *Landnámabók*, all scholars agree upon a different interpretation: this date originates from *Íslendingabók*, which was most probably written by Ari Þorgilsson at the beginning of the 12th century (Rafnsson 1990, 157).

Icelandic archaeology should, of course, benefit from a critical treatment of sources like *Landnámabók*, annals and sagas, as well as of legendary writers like Bede and Dicuil, who, from a historical and archeological point of view, are far from being reliable sources.

ORIGINS AND RELIGION

Hermanns-Auðardóttir argues that the alleged Merovingian Period immigrants in Iceland might have been Christians. She also argues that the author of *Íslendingabók* and *Landnámabók* deliberately omitted the information about a Merovingian Period settlement in Iceland. Unfortunately nothing exists, which can support this assumption. No burials or artifactual material have been found in con-

nection with the Herjólfssdalur site nor in the rest of Iceland which can indicate Christianity or a settlement in Iceland prior to 800 AD.

When Christianity is adopted by a society, or by part of it, one of the first elements which eventually can be detected archaeologically in this society is a change in burial customs. The total lack of cremations in Iceland during the late Viking Age does not necessarily mean that the population was under Christian influence. Christian burial rites demand the correct West-East orientation, simple inhumations in enclosed and consecrated cemeteries, and the absence of grave goods. As grave-goods are not absent in Icelandic Viking Age graves, there is no sufficient reason to assign Christianity to the people who rest in these graves. It is of course very problematic to make conclusions on the religious conception of individuals from the finds in furnished graves, but the Viking Age burials in Iceland do not only include finds related to the clothing of the individuals, but also regular grave-goods such as weaving implements, weapons or gaming pieces (Fig. 5). Even the few cases of stray and undated graves without grave-goods found in Iceland, can hardly exclusively be assigned to the Christianity of the buried individuals. One has to be open-minded towards the possibility that burial customs can change due to changes in fashion, independent of ideological changes (Roesdahl 1987, 3; Steinsland 1989, 205). If the alleged Merovingian Period Christian Icelanders were indeed under the influence of the British Church, one would expect the strict execution of the burial customs of that ecclesiastical division to have influenced burial customs in Iceland. Unfortunately, no burials from the Merovingian Period and no inhumations from the 9th and 10th centuries, indicating Christianity, have so far been found in Iceland.

In an attempt to strengthen her theory Margrét Hermanns-Auðardóttir furthermore states that "we have traces of Norwegian settlement in Orkney and Shetlands during the 8th century" and "that settlements in the Orkney, Shetland and Westman Islands and on mainland Iceland were probably due to political and/or economical changes in western Norway" (Hermanns-Auðardóttir 1991). She points out, by quoting Brøgger (1930, 238-239),

that there is artifactual evidence for this. In fact, none of the artifacts in question are found in the Shetlands. The artifacts in question are a spear-head from Skaill in Orkney, found in a grave with otherwise younger artifacts like a 9th century comb, a very fragmentary shield-boss, a sword from a grave on Arran, the Hebrides (Brøgger 1930, 182, Fig. 90; Grieg 1940, 27, 83, Fig. 46), and a sword from a grave at Pierowall, Westray, on the Orkneys (Laing 1975, 1984). The presence of occasional 8th century objects does not at all prove that the burials are to be dated to the 8th century, nor that a massive Norse colonization from south-western Norway had taken place 100 years earlier than usually thought. These few artifact might in fact have been handed down in families (see e.g. Crawford 1987, 121). Older weapons might also preferably have been used as grave-goods rather than brand new ones. The present opinion among archaeologists is that typological dating of artifacts from burials is neither the only, nor the best way of determining the earliest Norse settlement on the Scottish Islands (Morris 1985, 214). Recent excavations on the Orkney Islands have provided ¹⁴C dates from Norse settlements which also could indicate a somewhat earlier *adventus* of the Scandinavians on the islands. The results of these radiocarbon dates, on the other hand, do not match the evidence of the material remains and have such great probability ranges that they can not be used to postulate an exceptionally early Norse arrival (Hunter 1990, 192; Hunter *et. al.* forthcoming). The archaeological evidence from Scotland and the Scottish Islands does not indicate a Norse Merovingian Period Settlement or widespread Christianity among the 9th century Norse settlers.

When the origins of the Icelanders have been discussed, whether this has been in Iceland or elsewhere, Icelanders are, in accordance with and dependent upon the literary tradition, mainly seen as Norwegians from West and mainly Southwest Norway, or as highborn enslaved Celts (Vilhjálmsson in press). But Norway is and was more than only Southwest Norway. Even so, the possibility of a considerable admixture of, for instance, Saamis among North Norwegian settlers has hardly been mentioned by either Icelandic scholars or Norweg-

ians. Some scholars have even been inclined to believe that due to the Southwest Norwegian origin of the Icelanders, it is possible to use information about 9th and 10th century society in 13th century sources from Iceland as an analogy for society in West Norway in the Migration Period (Odner 1973). Hermanns-Auðardóttir does not question the opinion that all the settlers in Iceland – whether they arrived in the 7th century, or in the *Landnam Period proper* – came from south-western Norway. That, if anything, shows that she is just as dependent on the Icelandic literary tradition, as many of her predecessors.

According to the medieval sources most of the settlers in the 9th century derived from south-western Norway. But did they in fact? It has been shown that *Landnámabók* and *Íslendingabók* are very political documents, which were prepared by the elite in 12th century Iceland. At that time the Norwegian king was already striving for influence in Iceland. If the two books are as manipulated as Hermanns-Auðardóttir states, is it not possible that one of the reasons for writing them was to underline that the powerful families were of royal decent from Southwest Norway? Thus saying the Norwegian king was not needed in Iceland.

The political scene in 9th and 10th century Norway, as well as a shortage of land, could just as well have caused a massive emigration from the Trøndelag, Nordland and Troms districts in Norway to Iceland. The total lack of cremations in 9th and 10th century Iceland might in fact indicate that the first detectable settlers in the 9th century, actually did not derive from south-western Norway, but from areas in Norway and Scandinavia where inhumations were more common than in south-western Norway in the late Viking age (Selleveid & Næss 1987), or from the Trøndelag, Nordland and Troms districts to be more exact. But the lack of cremations can theoretically also be caused by the fact that they are harder to detect, and most Icelandic Viking age graves are found by accident, during road constructions and other activities, rather than by regular archaeological excavations. Problem-orientated investigations of possible burial sites is therefore very much needed in Iceland as Hermanns-Auðardóttir points out.

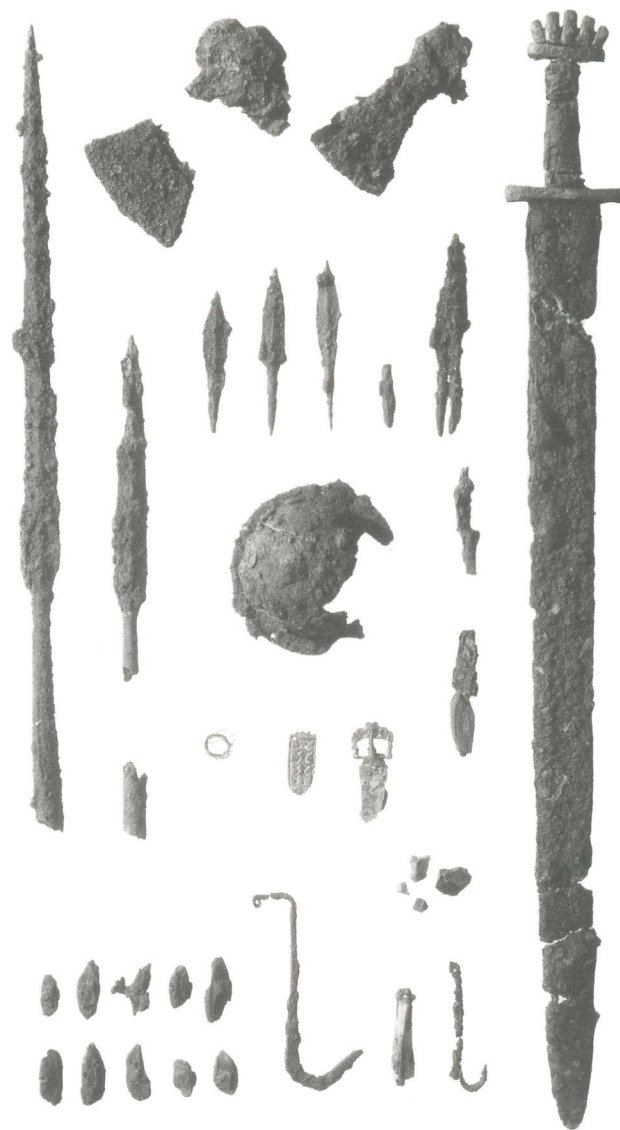


Fig. 5. In Iceland approximately 300 Viking Age burials have been located. Not a single one includes a cremation, indication of Christianity or a 7th-century settlement. A grave, excavated in 1946 near the farm of Kaldárhöfði, South Iceland is exceptional. It is definitely the richest grave in Iceland as far as grave-goods are concerned. Other Icelandic burials usually include fewer gravegoods, and they are poor compared to Norwegian standards. Photo National Museum of Iceland.

Hermanns-Auðardóttir furthermore states that the *papar* might not have been Irish hermits as hitherto has been assumed, but Scandinavians. When

the author of *Íslendingabók* writes that *papar* most likely were Irishmen, due to the Irish books, bells and croziers they left behind, this could, I believe, be the result of the author's or the transcriber's interpretation of the works of Bede and Dicuil. Bede's works were indeed in the 12th century still the medieval equivalent of a modern best seller. Bede's works could be found in larger libraries and were obviously used by Icelandic authors as late as in the 12th and 13th centuries (Lukman 1956, 397). If the Christian writers of *Íslendingabók* had in fact known about a Christian settlement in the 7th century, is it really likely they wanted to conceal that with cryptic writing? If there were religious relations between the alleged Merovingian Period Icelanders and the British Isles, it would have been likely that we found information on the Christianization of Merovingian Period Icelanders in Bede's *Historia Ecclesiastica Gentis Anglorum*, just as we are informed in that work about the missionary activity of the British among the Huns and the Danes (Lukman 1956, 398). But Bede, after all, only mentions an island called Thule, and nothing else.

The British Church and thus the British Crown was, after all and not that we know of, trying to conquer Iceland in the 12th century. The Icelandic Church and the elite, did therefore not have any reason to hide anything on pieces of parchment. Why should the author of *Íslendingabók* in fact hide information about a settlement and religion prior to the 9th century colonization of Iceland? At least, he was not silent about the fact that there were some Christians from Norway, Ireland and the Scottish Islands among the first settlers in Iceland in the 9th and 10th centuries. He was hardly hiding it from the descendants of the 7th century settlers, which according to Hermanns-Auðardóttir (1991) had possibly left for Greenland for "social and/or economic reasons".

CLOSING REMARKS

The idea of the early settlement of Iceland is an interesting one and it should definitely not be ignored. An archaeological date of the first settlement must, however, be found independent of the testimony of the written sources. Unfortunately the ar-

chaeological data from Herjólfssdalur on the island of Heimaey cannot carry a hypothesis on an early Icelandic landnam, and the hypothesis cannot find any definite support in other excavated sites in Iceland or in burials and stray finds. No precise or definite results, which beyond all doubt demonstrate a 7th or a 8th century settlement are presented in Hermanns-Auðardóttir's thesis *Íslands tíðga bosöltning*.

The consequences of changes in society which can allegedly be seen in the southwest of Norway in the Merovingian Period cannot be detected in Iceland. Although great boathouses from the Late Roman and Migration Periods can be found in the south and west of Norway, thus possibly indicating a great naval capacity and political organization (Myhre 1985; see also Hermanns-Auðardóttir 1991), and Norwegian finds can be found in England, indicating cross-sea contacts and migrations around the North Sea (Hines 1984;1986), this does not prove that a Norwegian settlement of Iceland took place at the same time. We do not know of any reasons for a possible emigration to Iceland in the 7th century, although it is theoretically possible that Norwegians, and other people as well, were able to navigate to Iceland at that time. Archaeologically speaking the question concerning the time for this alleged early colonization of Iceland has yet to be answered, and historically speaking the evidence is non existent.

When modern historians or archaeologists interpret written sources from medieval Iceland, they must bear in mind that the authors were most likely not deliberately writing for the attention of future generations of scholars. Neither can we prove that they were trying to manipulate facts so that political situations of a certain period would be perceived in a way, which the writers or their institutions favoured. Those medieval writers were far from being historians, and all allegations towards them for manipulating facts are quite unfair. When the brief mention of *papar* in the 12th century *Íslendingabók* is interpreted as an indication of deliberate or even political disregard of facts, this, in my opinion, says more about the modern scholars lack of criticism than the medieval writers' intentions. Although the *papar* are rarely mentioned in the sources, this does not have to mean that the writers were concealing

their existence. The overall purpose for the writing of certain sources must not be forgotten. Annals were not mainly written to describe volcanic eruptions (Vilhjálmsson 1990); *Íslendingabók* and *Landnámabók* were not merely written to describe *papar* or to conceal information about a 7th century settlement; Bede and Dicuil were only talking about the island of Thule, which nobody can prove is Iceland; Scaldic poems were not deliberately composed to describe Viking ships and Sagas, written in 13th century Iceland, were not written to clarify economic structures in West Norway in the Migration Period. These aspects have all the same been forced out of these sources. In later years, with a little help from social anthropology, it has even

become popular again like in the 19th century, to disregard the possibility that information about society in Icelandic medieval sources might be typical for the period and society in which the sources were written, and not for the 9th century. Such use of the sources would be out the question in archaeology. Icelandic archaeology would certainly benefit from a new tradition, where historical sources can receive their well earned rest, and where archaeological excavation and theory could lead the way. Archaeology is the main discipline which can add to our present knowledge of the Settlement Period of Iceland and using only historical sources to do so, seems somewhat like cooking a soup on old bones.

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Table 1. Radiocarbon dates from excavations in Herjólfsdalur, Reykjavík and Grela. The dates are calibrated with the help of the CIO Calibration Program (1988). *: The dating was withhold by the laboratory until other results from Heimaey had been published.

LAB. NO.	MATERIAL	BP VALUE	CALIBRATIONS		LAB. NO.	MATERIAL	BP VALUE	CALIBRATIONS	
			$\pm 1 \sigma$	$\pm 2 \sigma$				$\pm 1 \sigma$	$\pm 2 \sigma$
			68% PROB.	95% PROB.				68% PROB.	95% PROB.
		cal. AD	cal. AD				cal. AD	cal. AD	
HERJÓLFSDALUR, HEIMAÆY:					“oldest smithy”				
U-2529	not analyzed	1260 ± 60	672-850	660-886	U-2671	charred birch	1150 ± 55	812-961	724-1000
U-2531	charred birch	1060 ± 65	896-1020	798-1156	U-2672	charred birch	1345 ± 60	632-768	560-856
U-2532	charred birch	550 ± 60	1310-1428	1288-1440	U-2678	birch	1210 ± 260/–250		
U-2533	not analyzed	1240 ± 60	686-855	660-934	U-2682	birch	1090 ± 80	862-1022	718-1156
U-2660	charred birch	1390 ± 60	596-678	548-768	U-2719	birch	1360 ± 60	614-758	560-782
U-2661	charred birch	1340 ± 60	642-766	596-854	U-2721	charred birch	1050 ± 85	884-1150	784-1166
U-2662	charred birch	1240 ± 50	688-853	674-886					
U-2663	charred birch	1300 ± 60	664-772	644-872	“longhouse”				
U-4402	charred birch	1035 ± 65	896-1034	876-1164	U-2676	charred birch	1260 ± 55	672-848	666-882
U-4403*	larch	1070 ± 75	888-1020	780-1158	U-2679	charred birch	1080 ± 60	896-1004	798-1032
TJARNARGATA 4, REYKJAVÍK:					U-2681	charred birch	1255 ± 65	674-852	652-932
U-2082	wood chips, larch	1140 ± 70	810-974	712-1016	U-2744	charred birch	1245 ± 60	682-854	658-894
U-2167	birch	1190 ± 90	716-951	668-992	U-2745	charred birch	1275 ± 60	666-792	656-880
					U-2746	charred birch	1090 ± 65	890-1004	782-1030
AÐALSTRÆTI 14, REYKJAVÍK:					U-2747	charred birch	1245 ± 80	680-858	654-958
U-4030	charred birch	305 ± 100	1450-1670	1420-1880	U-2748	charred birch	1250 ± 65	678-854	654-936
U-2530	charred birch	1330 ± 80	630-780	562-884					
AÐALSTRÆTI 18, REYKJAVÍK:					“gully”				
U-2592	charred birch	1140 ± 90	802-976	690-1018	U-2739	charred birch	1310 ± 70	652-778	616-880
U-2593	charred birch	960 ± 90	988-1170	896-1249					
U-2617	charred birch	1280 ± 120	650-880	550-1000	“slabhouse”				
U-2618	charred birch	685 ± 110	1245-1400	1050-1440	U-2677	birch	1250 ± 100	670-870	630-980
SUÐURGATA 3-5, REYKJAVÍK:									
“bottom layer”					“young smithy”				
U-2534	charred birch	970 ± 75	1004-1160	896-1225	U-2535	charred birch	810 ± 70	1164-1273	1038-1281
		1000 ± 75	965-1160	888-1210	U-2740	charred birch	1280 ± 65	662-794	650-886
U-2680	birch chips	1375 ± 70	598-758	536-852	U-2742	charred birch	1150 ± 60	810-963	718-1006
U-2720	birch	1270 ± 90	664-856	626-959					
U-2741	charred birch	1330 ± 40	654-758	646-772	“granary”				
U-2743	birch	1140 ± 65	814-974	718-1014	U-2674	“corn” and other seeds	1060 ± 55	898-1018	822-1152
(to be continued)					GRELA, HRAFNSEYRI:				
					U-2899	charred birch	1070 ± 60	896-1012	794-1038
					U-2900	charred birch	1130 ± 60	822-890	776-1014

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