



# **NORSE GREENLAND: VIKING PEASANTS IN THE ARCTIC**

Arnved Nedkvitne



# Norse Greenland: Viking Peasants in the Arctic

How could a community of 2000–3000 Viking peasants survive in Arctic Greenland for 430 years (ca. 985–1415), and why did they finally disappear? European agriculture in an Arctic environment encountered serious ecological challenges. The Norse peasants faced these challenges by adapting agricultural practices they had learned from the Atlantic and North Sea coast of Norway.

Norse Greenland was the stepping stone for the Europeans who first discovered America and settled briefly in Newfoundland ca. AD 1000. The community had a global significance which surpassed its modest size.

In the last decades scholars have been nearly unanimous in emphasising that long-term climatic and environmental changes created a situation where Norse agriculture was no longer sustainable and the community was ruined. A secondary hypothesis has focused on ethnic confrontations between Norse peasants and Inuit hunters. In the last decades ethnic violence has been on the rise in Eastern Europe, the Middle East and parts of Africa. In some cases it has degenerated into ethnic cleansing. This has strengthened the interest in ethnic violence in past societies. Challenging traditional hypotheses is a source of progress in all science. The present book does this on the basis of relevant written and archaeological material respecting the methodology of both sciences.

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# Preface

The contemporary debate on climate change has increased the interest in the Arctic region, including the Viking peasants who settled in Greenland in AD 985, increased their number to 2000–3000, and disappeared mysteriously four to five centuries later. In Eastern Europe, the Middle East and Africa there have been ethnic conflicts in recent decades of a type which most people thought belonged to the past. This has made the ethnic tensions between Norse and Inuit relevant for contemporary issues. Was it climate change or ethnic conflict which destroyed the Norse community on Greenland?

The last monograph on Norse Greenland was published in 1982 by the Danish archaeologist Knud Krogh. In the following 35 years research has made great progress. The overwhelming majority of Greenland scholars are today archaeologists educated at universities, a few are anthropologists and historians. Representatives from natural sciences like physics and medicine are engaged in specific tasks. The university tradition has made presentations less descriptive and more focused on analysing problems. This development has made interdisciplinary cooperation more important and fruitful.

Around 1980 the Danish dominance in Greenland scholarship was still overwhelming. Today scholars from many countries participate, most prominent among the new nationalities are the Americans. Norwegian and Icelandic historians are particularly well qualified to write monographs since they are trained to analyse similar societies, and can read sagas, Icelandic Annals and other written sources in the original language. The scholarly progress in the last decades reinforces the need for a new synthesis of Norse Greenland history.

The National Museums in Copenhagen and later in Nuuk have accumulated resources on Norse Greenland in the form of knowledge, artefacts, written reports and literature for nearly two centuries. The most prominent representative of this tradition is today museum curator Jette Arneborg in Copenhagen who in the last 25 years has been the centre of an international research network. Through her I have been given access to numerous excavation and registration reports on paper, others are accessible online. Particularly useful has been the Nationalmuseum's "Nordboarkiv". Historians mainly get access to archaeological sources through articles and books and their bibliographies and footnotes. But supplementary information obtained through written material and conversations is of great value for scholars without excavation experience.

Enhedssekretær Else Rasmussen at the Medieval Department was very helpful with practical problems during my two stays at the Nationalmuseum in Copenhagen.

Souschef Georg Nyegaard at the National Museum in Nuuk gave me the same kind of help during my stay in Nuuk in 2014. I copied reports, theses and articles which were available at the museum and archive. A sincere thank you to him and the staff of the museum!

Arnved Nedkvitne,  
Oslo, June 2018



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# Introduction

Greenland is geologically and geographically a part of North America, but politically it is today a part of Denmark. The historical reason for this Scandinavian link was Norse immigrants who settled in Greenland in AD 985 and lived there until at least 1410, i.e. for more than 425 years. This community numbered at its peak 2000–3000<sup>1</sup> and brought with them social practices and ideas from their land of origin, which ultimately was the North Sea and Atlantic coast of Norway. Its members were the first Europeans to set foot on American soil, which they called Vinland, and they linked the two continents through their shipping. But the Norse disappeared for some unknown reason, and America had to be rediscovered by Columbus.

## 1 The problem

How could a community of 2000–3000 Viking peasants survive for more than four centuries in Arctic Greenland, and why did they finally disappear? These two questions are equally exciting and challenging. They have been discussed for centuries in Scandinavian historiography and were put in a global context by the American physiologist Jared Diamond in his book *Collapse* from 2005. The disappearance of the Norsemen ca. AD 1415 is one of the great mysteries in world history.

The question which has attracted the greatest interest among scholars and laymen is the second one, the demise of Norse Greenland. In the last decades scholars have been nearly unanimous in emphasising that long-term climatic and environmental changes created a situation where Norse agriculture was no longer sustainable. A secondary hypothesis has focused on ethnic confrontations between Norse peasants and Inuit hunters. Grand social hypotheses like these are often called “models”. Scholars mainly formulate them on the basis of the available empirical material, but the models are also influenced by social conditions in the author’s society. Sources about Norse Greenland are scarce, which has made the “models” more influenced by the author’s own society than is usually the case. I have called these alternative models “ecological” and “ethnic”.

Scholarly analyses of the subject started in the 19th century. That was before Nordic archaeology had become a social science with scientific methods of its own taught at universities. The relevant sources were at that time the written ones.



## 2 Introduction

Several of them mention and describe violent confrontations between Norse and Inuit. It comes as no surprise that the common opinion in the 19th century was that the Norse had been the victims of violence.<sup>2</sup>

From ca. 1920 large archaeological excavations took place. The nature of the archaeological sources makes it unlikely that they will provide any evidence of violent confrontations. In the 1970s came the “Green Wave” in politics and social sciences, and the interest in ecological problems increased. In the last decades sophisticated scientific methods have given more detailed information about Norse Greenland agriculture and food consumption. Hypotheses about ethnic conflicts based on written sources were now marginalised, but not abandoned.

But other contemporary developments have prepared the ground for hypotheses in a different direction. Ethnic violence has been on the rise in Eastern Europe, the Middle East and parts of Africa. It has occasionally degenerated into ethnic cleansing and genocide. This has strengthened the interest in ethnic violence in past societies. The time has come for a critical examination of the generally accepted ecological hypotheses.

## 2 Earlier research

The last reliable information about the Norse Greenlanders is dated 1410, and three centuries later research in the history of this lost society started.

### *Rediscovery and mapping of the Norse ruins (1721–1920)*

The Norse lived in two settlements, in the sources called the Western (in the fjords near Nuuk) and the Eastern (in the fjords near Qaqortoq). Around 1600 this localisation had been forgotten, and the commonly held idea was that the Western Settlement was on the west coast and the Eastern Settlement on the east coast of Greenland. Cartographers thought the two settlements were connected by a sound or strait cutting through the inland ice.<sup>3</sup>

In July 1721 the Norwegian missionary Hans Egede founded a colony near what today is Nuuk. At that time Norway was part of Denmark. It was one of Egede’s tasks, given to him by his employers in Bergen and Copenhagen, to find out where the Norse had lived and whether the Norse community still existed. Egede was told in 1722 by the Eskimos that there were ruins where Europeans had lived in the fjords east of Egede’s colony.<sup>4</sup> In the summer of 1723 he received orders from Copenhagen to explore the coast.<sup>5</sup> He at that time assumed that by sailing southwards on the west coast he would find the strait which would lead him to the east coast.<sup>6</sup>

He started his journey on 9 August 1723.<sup>7</sup> On 19 August 1723 they reached what we today know was the ruins of the Eastern Settlement east of Qaqortoq,<sup>8</sup> and carried on southwards until he came close to today’s Nanortalik on 25 August 1723.<sup>9</sup> He had a great deal of confidence in the local Eskimos and writes that he could get no information from them “about this strait which should be the entrance

to the Eastern Settlement, even if I diligently asked and searched for such information.” Egede wanted his journey to continue around Cape Farewell and up the east coast in the Eskimos’ small boats, but they strongly warned him against it, because they had to get back home before winter made such travel impossible.<sup>10</sup> This was no empty pretext; their homeward journey was problematic. They returned to the colony on 14 September 1723. Egede’s conclusion was that the “strait leading to the Eastern Settlement . . . drawn on maps does not exist.”<sup>11</sup>

Authorities in Copenhagen accepted Egede’s judgement but did not abandon their hopes of finding the missing Norsemen. In 1728 a ship from Copenhagen brought 11 horses which were to be used in crossing the Greenland glacier from Nuuk to the East coast, probably as pack horses. Egede wrote in his diary, “this can in practice not be done”. All 11 horses died the following winter. The commanding officer from Copenhagen travelled to the inland glacier to evaluate if it would be possible to cross the ice, and his conclusion was that it was not. “Just as the Eskimos had told him beforehand”, Egede wrote in his diary. It gave more reliable results and was cheaper to ask the Eskimos and trust their answers.<sup>12</sup>

The Norse ruins on the west coast became better known, and in 1794 Henrik Peter von Eggers claimed correctly that the Norsemen’s Eastern Settlement was the ruins in the fjords east of Qaqortoq.<sup>13</sup> In the following decades this opinion won increasing support.<sup>14</sup> Only the south-west coast of Greenland had a topography which would have permitted a Norse settlement of cattle farmers.

In 1380 Norway with its North Atlantic dependencies Greenland, Iceland, Faroes, Shetland and Orkney entered a personal union with Denmark. In 1814 the great powers transferred Norway to Sweden but let Greenland, Iceland and Faroes remain in Danish hands. Danish authorities feared that Norway could reclaim Greenland. A countermeasure was to give Danish scholars the responsibility for researching and writing the history of Greenland.

During 1838–1845, the Danish state edited *Grønlands historiske mindesmærker* (= GHM, *Remnants from Greenland’s history*) in three volumes of 2500 pages. All known written sources of Norse Greenland’s history were printed with Danish translations. Skills in Old Norse were no longer necessary to read the sources, and permissions for archaeological excavations in Greenland had to be obtained from Danish authorities. Norway’s first university was founded in 1811, and in 1838 research in Norwegian history was still in its infancy, and there was no room for research on medieval Greenland.

The editors of GHM stated in their introduction that medieval Greenland was “an Icelandic colony”.<sup>15</sup> The marginalisation of Norway and the focus on Iceland remained part of Danish research on Norse Greenland as long as Iceland was part of the Danish kingdom up to 1944, and even longer.

In the first decades after GHM had appeared in 1845, Danish politicians and historians had their eyes more fixed on Schleswig-Holstein, which was transferred to Prussia after a war in 1864. After 1880 research on Norse Greenland was resumed, and the first priority was to map the Norse ruins and identify them with farms mentioned in the written sources.

#### 4 Introduction

The first systematic attempt was made by “first lieutenant in the navy” Gustav Holm in 1880.<sup>16</sup> He visited 40 “ruin groups” consisting of 300 ruins. His method was to find a stone wall and follow it, making a drawing of the wall. He also collected artefacts he found in the ruins,<sup>17</sup> and made a long list of artefacts which he found at 14 different “ruin groups”. He considered this a good result “in consideration of the short time we could spend on it”.<sup>18</sup>

In 1895 “first lieutenant” Daniel Bruun resumed this work.<sup>19</sup> He drew maps showing where ruins could be found and introduced a numbering system which is still in use. He worked one summer season with ca. 20 workers and covered a large number of ruins.<sup>20</sup> Seen with modern eyes, his and Holm’s methods were archaeological vandalism.<sup>21</sup>

Hermann Schirmer was a Norwegian architect with special competence in medieval Norwegian churches. He was the first to argue in 1886 that Gardar cathedral was the church ruin at Igaliku, number E47 in Bruun’s system.<sup>22</sup> The Icelandic philologist Finnur Jonsson in 1899 registered all extant place names from medieval Greenland and compared them to maps of ruins then available.<sup>23</sup> His conclusions are still authoritative.

Ca. 1900 maps were drawn with Norse ruins inserted and the most important farms named in the written sources identified. The pattern was not significantly changed by later research.

#### *The stone ruins are described and categorised 1921–ca. 1970*

In the period after 1645 Denmark was reduced from a first-rate to a second-rate power in Northern Europe. It lost its provinces in southern Sweden during 1645–1658, which today have 1.7 million inhabitants; in 1814 it lost Norway which today has some 5 million inhabitants; in 1864 it lost Schleswig-Holstein with a population today of 2.8 million; and in 1944 it lost Iceland which today has 0.32 million inhabitants. Today’s Denmark has 5.6 million inhabitants, so if they had kept their lost provinces they would have had a total population of some 15.4 million today. This is part of the background to their Greenland policy during 1921–1981.

In 1921 Denmark declared that the whole of Greenland and its territorial waters was to be governed by Denmark. The Danish declaration on Greenland was not accepted in Norway, and in 1931 the Norwegian government declared uninhabited parts of Eastern Greenland to be Norwegian territory. It appointed a local governor (*sysselmann*), whose name was Helge Ingstad. At the international court in the Hague in 1933, Danish sovereignty was confirmed, and the Norwegian government accepted the verdict.<sup>24</sup>

Nationalmuseet in Copenhagen was founded in 1807 but did not regard Greenland as its responsibility. In 1921 Nationalmuseet was given responsibility for the Norse ruins.<sup>25</sup> Until 1941 Poul Nørlund<sup>26</sup> and Aage Roussell<sup>27</sup> conducted and published several large excavations on behalf of Nationalmuseet, and Christian Vebæk excavated several smaller sites.<sup>28</sup> Nørlund and Vebæk were historians by education, Roussell an architect.

The main focus of their work was the stone ruins. They showed little interest in the Norse peasants' adaptation to the Greenland environment and how they produced their food. Without previous methodological analysis they claimed that the northernmost Western Settlement had been ruined by the Inuit as described in the written sources, while the Eastern Settlement fell victim to a deterioration in the climate.<sup>29</sup>

The political situation in the 1920s and 1930s made it politically desirable to have publicity about the excavations, and the simplest way of doing this was to excavate the sites best known from the written sources: Brattahlid, Gardar, Herjolvsnes, Hvalsey and Sandnes. The Danish archaeologists were inexperienced in Norse archaeology and without archaeological schooling. Despite this they started with the two most important and interesting sites, the bishop's see at Gardar and Eirik Raudi's farm at Brattahlid. As could be expected, "much damage was done to these unique sites for rather scanty archaeological return".<sup>30</sup> Simple methods were used; they found a stone wall or its foundations and followed it, and the aim was to establish the extent of the building and its rooms. They removed soil inside the ruins searching for objects and exposing the floor.<sup>31</sup>

Roussell wrote his PhD on the architecture of churches and farmhouses and the function of houses and rooms. He excavated Sandnes, the most interesting site in the Western Settlement and all five farms in the interesting Austmannadal, which were more or less destroyed as future excavation sites in the process.<sup>32</sup> Roussell's ambition was to create a typology of Norse farm houses, but "most modern workers do not feel that [Roussell's] three generalised farm types provide any very useful markers for archaeological phasing of the settlements".<sup>33</sup> Today the monographs on Brattahlid, Gardar, Herjolvsnes and Sandnes are mainly used as sources for factual information. Their catalogues of objects are well organised.

Excavations inside buildings were not done stratigraphically, as would have been done today. Later archaeologists lack information on layers and phases in rooms and buildings, which would have made it possible to create a chronology.<sup>34</sup> Nationalmuseum archaeologists can today present regrettably few theories about changes based on archaeological material. They often write about change, but this is mostly based on written sources.

Archaeologists employed by Nationalmuseet had as their main task to register and protect ruins, and for that purpose their methods were adequate. Later archaeologists have wanted to use the written presentations of their excavations as sources for research, and from that perspective their work has been criticised. The excavators only took notes and made drawings which they needed for their own publications. They did not see it as their task to create material which could be useful for future generations.<sup>35</sup> Excavated material was to a limited degree brought back to Nationalmuseet in Copenhagen. From Gardar very little of the original documentation from the 1926 excavation exists today.<sup>36</sup> Roussell excavated Hvalsey in 1935, but he never wrote a monograph on it; he published only what he needed to verify his hypotheses on house types in his PhD from 1941.<sup>37</sup> The Nationalmuseum archaeologist Knud Krogh in 1974 and 1975 made several smaller excavations which are not documented anywhere.<sup>38</sup>

## 6 Introduction

The lack of preserved empirical material and documentation often makes it impossible to check the conclusions of the excavators, and in all scientific work such control should always be possible. Archaeologists who today want to raise new and different problems cannot do this because the excavator only left material which was relevant to problems which interested him.<sup>39</sup> Skaaning Høegsberg wrote his master thesis about Gardar and complained that Nørlund's monograph had to be his main source. Later archaeologists know which material Nørlund chose to use in his monograph, but not what he left out. They often have no alternative but to accept Nørlund's conclusions.<sup>40</sup>

Nationalmuseet in this period did its best to keep foreign archaeologists out of Greenland. In 1925, an American group applied to Nationalmuseet for permission to carry out excavations in Greenland. The application was rejected with the explanation that "our Norwegian friends" might apply for a similar permission.<sup>41</sup> Nationalmuseum archaeologists sought parallels in Iceland which up to 1944 was Danish, or stressed Norse Greenland's differentness, instead of discussing obvious Norwegian parallels.<sup>42</sup>

The result of these self-imposed limitations was that "Norse Greenland archaeology came to be a field open only to a handful of people. This allowed the research tradition to fall hopelessly behind the development in Scandinavian archaeology".<sup>43</sup> Archaeological stratigraphy was known and practised in most other Danish digs from the 1930s. "While the radiocarbon revolution swept over world archaeology . . . the archaeology of Norse Greenland remained in theoretical and methodological backwaters".<sup>44</sup>

The large excavations organised by Nørlund and Roussell in the 1930s were made public in comprehensive editions, which are still used by scholars seeking empirical material. This tradition fell into decline in the following years. Christian Vebæk who was then the leading Norse Greenland archaeologist at Nationalmuseet, published results from Vatnahverfi excavations in a monograph in 1943,<sup>45</sup> and in the following 25 years he excavated a large number of Norse sites, but only published his results in conference papers and popular journals. Unpublished notes were organised into short monographs immediately before his death in 1994 with the help of his colleagues.<sup>46</sup> One gets the impression that money was readily available for excavations in Greenland, but that it was more important to demonstrate activity rather than to produce scientific knowledge.

Baltzer Heide (Århus University) is less critical of the early Nationalmuseum archaeologists than Skaaning Høegsberg (Århus University) and McGovern (CUNY):

People may think what they want about the state-controlled archaeology which was to a certain extent practiced on Greenland through the Nationalmuseum in the 20th century. But it was one of the reasons why not only many excavations were organised, but even more important, we have many published excavations.<sup>47</sup>

When politicians want something done, they will grant money. But money alone cannot create scientific quality.

In this period the “find the stone wall and follow it” method was also common in Norway. What made the situation in Greenland particularly grave was that all the most valuable sites were attacked at once.

Archaeology was a latecomer among the subjects taught at universities. To my knowledge none of those who participated in excavations in Greenland before 1960 held degrees in archaeology. The criticism referred to in this section comes with the advantage of hindsight, formulated by scholars with a better education and who have benefitted from the academic freedom of research at universities.

### *The university tradition enters Norse Greenland archaeology from the 1970s*

The first to break the Nationalmuseum’s monopoly in Greenland research was Helge Ingstad with his book *Landet under leidarstjernen* from 1959.<sup>48</sup> He showed that the environment which the Norse left in western and northern Norway resembled the conditions which they met in Greenland. Ingstad had grown up in western Norway and could “read” the landscape with the eyes of a Norwegian coastal peasant.<sup>49</sup> He held a university degree in law, but not in archaeology or history.

Ingstad’s next book *I vesterveg til Vinland* (1965) presented a world sensation. He and his wife Anne Stine Ingstad found in 1959 a Norse site from ca. AD 1000 at the northern tip of Newfoundland. He had used the Icelandic *Saga of Eirik the Red* and *The Greenlanders’ saga* as sailing guides from Norse Greenland to the region which the sagas named “Vinland”. Historians have always used sagas about Norwegian kings and Icelandic chieftains living after ca. 1130 as historical sources. But literary scholars around 1960 claimed that sagas about Icelanders who had lived before ca. 1050 (*Islendingasögur*) could be read as fiction only. Ingstad showed that even these sagas could be used as historical sources after having been submitted to source criticism.<sup>50</sup>

Helge Ingstad managed to convince Canadian authorities that an international team of archaeologists led by his wife Anne Stine Ingstad were the right ones to organise the excavations.<sup>51</sup> She was *magister* in Nordic Archaeology from the University of Oslo<sup>52</sup> and belonged to the first generation who was educated in Nordic archaeology at a university. In 1977 she published a monograph on the excavations in Newfoundland, which was accepted as a doctoral thesis at the University of Oslo.<sup>53</sup>

The new university archaeologists had as standard practice that when excavating important sites, part of the site should be left untouched. They knew that archaeological methods improved rapidly and it was therefore important to make it possible for future archaeologists to practice new methods. Anne Stine Ingstad followed this practice. When she returned to the site in 1975, she learnt that the Newfoundland representatives of the Canadian Directorate of Cultural Heritage (Parks Canada) had excavated the remaining parts. They had used the same methods and arrived at the same conclusions as Ingstad.<sup>54</sup>



Thereafter, Nationalmuseet in Copenhagen became more open to cooperating with universities in America and Norway on Greenland. Professor Thomas McGovern of the City University of New York was invited to participate in the “Inuit-Norse Project” 1976–1977.<sup>55</sup> His influence did much to bring Norse Greenland archaeology to the fore with international debate in the 1980s and 1990s.<sup>56</sup> According to McGovern, the Norse peasants brought with them to Greenland some rigid ideas of how the natural environment should be exploited, but their practices were in the long run not sustainable.<sup>57</sup> He has been the main advocate for an “ecological crisis” on Norse Greenland. McGovern’s special field is the analysis of animal bones. He is not schooled in social analyses, and he has a problematic relationship with written sources, partly because his knowledge of Scandinavian languages is limited.<sup>58</sup>

The Norwegian archaeologist Christian Keller was invited to participate in a Nordic project during 1974–1977, which was led by the Nationalmuseum archaeologist Knud Krogh and concerned settlement and vegetation in the Qorlortup valley behind Brattahlid.<sup>59</sup> In Norway there has been comprehensive research on *saeters* and Keller made the methods available to Greenland Norse archaeology.<sup>60</sup> In his PhD from Oslo he described the function and chronology of different church types on a safer empirical basis than had been done so far.<sup>61</sup>

### *Natural sciences in Norse Greenland scholarship from the 1970s*

A major trend in archaeology in recent decades has been the proliferation of new methods borrowed from the natural sciences. The scientist who developed the radiocarbon (<sup>14</sup>C) method for dating received the Nobel Prize in 1960, and in the following period it became a standard tool for archaeologists.<sup>62</sup> It was used to date Greenlandic archaeological finds in the first part of the 1990s at the GUS excavations. As far as I can see, this was the first time it had been used.<sup>63</sup>

Bent Fredskild initiated a series of studies of variations in vegetation and climate, analysing pollen in lakes and bogs.<sup>64</sup> Drilling out samples from the inland ice made it possible to measure changing temperatures. Layers at the bottom of the fjords were analysed to verify hypotheses about temperatures, ocean currents, winds and the vegetation along the shores.<sup>65</sup>

Analyses of <sup>13</sup>C isotopes in excavated human bones can measure what percentage of a human’s protein consumption had been from “marine food”, which on Norse Greenland was fish, seal, walrus and whales. The first analysis was contained in Niels Lynnerup’s PhD in medicine from 1995, published in 1998.<sup>66</sup>

The basic method in all science is to formulate two or more hypotheses and then analyse which of them are best supported by the available empirical material. The proliferation of new methods and results from many sciences make it problematic to practise this ideal. Nobody understands or can compare the sources of error in all these analyses. Often the archaeologist who knows the total material best, will ask natural scientists to produce empirical material which is relevant to the hypothesis that interests the archaeologist the most, in our case often a deteriorating climate. This will concentrate the debate on ecological problems.

Contributions from the natural sciences have made our picture of Norse Greenland richer in detail. Falsifying old and new hypotheses has become more demanding. But the new methods have not changed the previous basic understanding of Norse society.

### *The present dominance of the ecological model*

Since the 1970s interest in Norse Greenland has been greatly inspired by the contemporary political debate on climate change. Scholars have connected history and politics by claiming that Norse Greenland and other North Atlantic communities had serious ecological problems after ca. 1250 due to falling temperatures and an exploitation of resources which was not sustainable. Similar developments are today taking place globally. Lessons can be learnt from medieval Greenland on how to meet similar crises in the future on a global level. Funding has therefore been readily available for advocates of the “ecological model” who make such claims.

The Leverhulme Trust has been particularly generous with funding for such projects, and scholars at the City University of New York are important beneficiaries.<sup>67</sup> The central person has been Professor McGovern. His research on the North Atlantic islands seems to be largely funded by the Leverhulme Trust, and he argues indirectly in his scholarly publications for more funding: “Thanks to major support from the Leverhulme trust and NSF”; and “Thanks to sustained funding support and sustained international collaboration we are now in a position to better identify common patterns and local variability in a surprisingly flexible and adaptable set of Norse Atlantic island economies”.<sup>68</sup> McGovern’s 35 years of cooperation with Scandinavian scholars has made him change opinion on central points, but for that he should thank them and not the Leverhulme Trust!

In an article from 2007 McGovern and two co-authors presented a large number of hypotheses for how Norse Greenland theoretically may have developed from beginning to end. But they do not even try to verify the hypotheses. The article from 2007 ends with vague, unverified hypotheses where climate is the first element mentioned.<sup>69</sup>

In an even later article from 2011 McGovern claimed that a long-term fall in temperatures created significant problems for “domestic mammal herding, caribou hunting and the hunt for non-migratory seals”.<sup>70</sup> The natural scientist Jarred Diamond in his book *Collapse* (1977) gave the most extreme version of the “environmental crisis hypothesis”. He is inspired by McGovern, who in the mentioned article from 2011 wrote that “Diamond’s account now appears not so much wrong as overdue simple”. In 2007 and 2011 McGovern still adhered to the ecological crisis theory.

In 2012 six leading archaeologists from Scotland, America, Denmark, Iceland and Norway claimed that Norse Greenlanders in the warm period AD 985–1200 developed practices in food production which enabled them to adapt to the Greenland environment.<sup>71</sup> From the end of the 13th century, temperatures fell and the climatic variations became more dramatic. The Norse tried to compensate by



eating more seal. These claims are presented as unverified hypotheses about what probably “would have” happened “if” the deterioration were sufficiently serious. “Although the end of the Western Settlement is not completely understood, a likely proximate cause was isolation combined with late winter subsistence failure, plausibly connected to climate change”.<sup>72</sup> Relations to the Inuit are mentioned in a short paragraph as “sporadic conflict with the maritime adapted Thule Inuit”.<sup>73</sup> The article ends in the traditional way by claiming that:

Surviving climate change is a current cultural, economic, and technological challenge and one that the Norse Greenlanders met for nearly 500 years . . . Norse Greenland may serve to broaden the perspectives and knowledge base of modern planners seeking sustainable futures in a contemporary world affected by rapid climate change and the historical conjunctures of economic stress and culture conflict.

The last contribution to the debate is Christian Koch Madsen’s PhD thesis from 2014. It is basically a quantitative analysis of ruins and he claims that the number of farmsteads in the Eastern Settlement started to shrink after 1250 because of lower temperatures and “the effect of the deterioration of the vegetation surrounding their farmsteads”.<sup>74</sup> But this does not explain a “complete collapse”. For this he suggests hypotheses which he does not try to verify.<sup>75</sup> Conflict with the Inuit is not one of them.

The present book was finished and sent to relevant academic publishers in June 2016. They passed it on to external readers for evaluation. Electronic manuscripts are easy to share. I found it necessary to make the date when I sent my electronic manuscript to the publishers my date of completion, and I have not included in my discussions works published after that date.<sup>76</sup> None of the Norse Greenland archaeologists had at that time expressed doubts about the “ecological” hypothesis as the main key to understanding the demise of Norse Greenland.

A counter-hypothesis to the ecological model is that the Norse successfully adapted to the Greenland environment and changing climate, and that the final ruin was due to ethnic conflicts. The two hypotheses have never been confronted on the basis of available empirical material. This will be done for the first time in Chapters 5 and 6 of this book.

### **3 My contribution**

Norse Greenland archaeology has in the last century produced valuable results on Norse architecture and housing. The main task of the Nationalmuseum is to register and protect the ruins; this priority is therefore natural. I have not included a chapter on housing; the main challenges in Norse Greenland scholarship lie elsewhere. Today Norse Greenland scholarship has stagnated because the archaeologists are unable to break out of the barriers created by the “ecological model”. Historical scholarship has methods which can further progress the research tradition.

*The Norwegian background* has so far been neglected. But Norse Greenlanders received their main overseas impulses from the Norwegian Atlantic and North Sea coasts, in some cases via Iceland. The immigrants carried this know-how with them, and it largely determined how they organised their society in Greenland. Knowledge about the Norwegian background promises to deepen our understanding.

*Written sources* provide knowledge which is not available through archaeology, on chronology, administration, jurisdiction, armed conflicts, religious practices, shipping and relations with the Inuit. Archaeologists use written sources but in a descriptive and superficial manner. A close reading combining several types of sources using modern saga criticism and other methods available to schooled historians, promise to generate new results.

*Confronting hypotheses* is the basic method in all scientific work. The archaeologists have not made systematic efforts to practise it because the “ecological model” has been used exclusively to the detriment of alternative hypotheses. The ecological model has in practice been used as a “premise” and not as an “hypothesis”. Alternative hypotheses are sometimes mentioned, only to be rejected without methodological discussions. Accepted methodology demands that a hypothesis is accepted as verified if it is better supported by the empirical material than the counter-hypothesis. New empirical material or better scientific methods can change the outcome of the verification process.

*Sociological methods* seek to understand the different fields of activity in a society in context: agriculture, household work, trade, political power, church organisation, religious mentalities and secular culture. Sociological methods are particularly important in analyses of pre-state societies where there is no state which creates ties between these different social fields.

The present book is an overdue revision of the current understanding of Norse Greenland, and I look forward to a discussion of its conclusions with established archaeologists.

## Notes

- 1 Population figures will be discussed in Chapter 1, pp. 32–35.
- 2 Bruun 1918 (b), p. 132.
- 3 The earliest cartographic work where this strait is shown is from 1592 (*Danish Arctic Expeditions 1605 to 1620*, volume I, p. 156).
- 4 Egede/Bobé, p. 33, date 24 October 1722.
- 5 Egede/Bobé, p. 92.
- 6 Egede/Bobé, p. 95, date 15 August 1723.
- 7 Egede/Bobé, p. 93.
- 8 Egede/Bobé, pp. 96–97.
- 9 Lund Jensen 2014, p. 40 says he turned when he came to Sermersoq.
- 10 Egede/Bobé, pp. 97–98.
- 11 Egede/Bobé, p. 103.
- 12 Egede/Bobé, pp. 210, 222, 225 and 226.
- 13 Eggers 1794, p. 295; Holm 1883, p. 122; Steenstrup 1886, pp. 32–33.
- 14 Holm and Garde 1889, pp 142–143.

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- 15 GHM I, p. IV.
- 16 Holm 1883, pp. 57–145.
- 17 Holm 1883, pp. 64 and 69.
- 18 Holm 1883, p. 70.
- 19 Bruun 1896, pp. 171–495.
- 20 Bruun 1896, p. 186.
- 21 Bruun 1896, pp. 202, 287, 299, 324, 347, 351, cf. 492.
- 22 Schirmer 1886.
- 23 Jonsson 1899, pp. 267–329.
- 24 This information can be found in any Danish or Norwegian encyclopedia, for example *Den store danske encyklopædi*. *Danmarks nationalleksikon*, Copenhagen 2001, entry word “Østgrønlandssagen” and *Store norske leksikon*, Oslo 2005, entry word “Grønlandssaken”.
- 25 <http://natmus.dk/besoeg-museerne/nationalmuseet/udstillinger/danmarks-middelalder-og-renæssance/danmarks-middelalder-og-renæssance/nordbosamlingen/>.
- 26 Herjølvsnes: Nørlund 1924; Gardar: Nørlund and Roussell 1930; Brattahlid: Nørlund and Stenberger 1934.
- 27 Sandnes: Roussell 1936; survey of all known ruins: Roussell 1941. Roussell also excavated Hvalsey.
- 28 Cf. Vebæk, all dates, in the Bibliography.
- 29 Roussell 1936, p. 10; Nørlund 1942, pp. 139–141, English translation, pp. 146–148; Mathiassen 1936(b), pp. 84–84. Mathiassen is not clear on whether he thought the Inuit destroyed only the Western Settlement, or both.
- 30 McGovern 1979, p. 35.
- 31 Skaaning Høegsberg 2005, p. 21.
- 32 McGovern 1979, p. 36.
- 33 McGovern 1979, p. 38.
- 34 Skaaning Høegsberg 2005, pp. 21–22.
- 35 Skaaning Høegsberg 2005, pp. 6–7.
- 36 Skaaning Høegsberg 2005, p. 85.
- 37 Skaaning Høegsberg 2005, p. 127.
- 38 Skaaning Høegsberg 2005, p. 17.
- 39 Skaaning Høegsberg 2007, pp. 85 and 95.
- 40 Skaaning Høegsberg 2005, p. 145.
- 41 Archives of the Danish Nationalmuseum, 2nd department. Here quoted after Keller 1989, p. 104.
- 42 Keller 1989, pp. 103–105.
- 43 Keller 1989, p. 105.
- 44 McGovern 1979, pp. 39–40.
- 45 Vebæk 1943, pp. 1–119.
- 46 Vebæk 1991(b), 1992, 1993.
- 47 Heide 2012 volume 1, p. 184.
- 48 English translation *Land under the Pole Star*, London 1966.
- 49 An example of this is his discovery of the irrigation system at Gardar (cf. Chapter 5, pp. 254–255).
- 50 See also Chapter 1, pp. 19–20.
- 51 Solberg 2002, p. 33.
- 52 This degree was on a higher level than today’s Master’s, but lower than a PhD.
- 53 Ingstad, A. S. 1977.
- 54 Ingstad, B. 2010, pp. 328–330; cf. Wallace 2000, p. 208.
- 55 McGovern 1979, p. 1; Keller 1989, pp. 98–99 and pp. 102–103.
- 56 Keller 1989, p. 103.
- 57 McGovern 1979, chapter 4; McGovern 1985; McGovern 2000, pp. 338–389.
- 58 This makes him repeat incorrect translations; McGovern 1979, p. 225.

- 59 Keller 1989, pp. 96–97.
- 60 Cf. Chapter 5, pp. 256–260.
- 61 Keller 1989, pp. 200–205.
- 62 Wikipedia, entry word “Radiocarbon dating”.
- 63 Cf. McGovern 1979, p. 39.
- 64 Fredskild 1973, 1982, 1992.
- 65 Cf. Chapter 5, p. 269; Mikkelsen et al. 2001, pp. 67–68.
- 66 Lynnerup 1998, pp. 44–50, cf. pp. 7 and 129.
- 67 Dugmore et al. 2012, p. 3662.
- 68 McGovern 2011, pp. 292–293
- 69 McGovern et al. 2007a, pp. 12–36.
- 70 McGovern 2011, p. 299.
- 71 Dugmore et al. 2012, p. 3660
- 72 Dugmore et al. 2012, p. 3661
- 73 Dugmore et al. 2012, p. 3662
- 74 Madsen 2014(a), pp. 4, 8, 32, 36, 39 and 255.
- 75 Madsen 2014(a), p. 255.
- 76 There is one exception. Lisbeth Imer published in 2017 a useful catalogue of rune inscriptions excavated in Greenland, with extensive and informative comments. I have added references to her book in my use of the runic material. She does not discuss the ecological adaptation and final ruin of the Norse settlement.

# 1 The initial settlement in AD 985/6

In AD 985 the Norse language was spoken by the whole or parts of the population in what is today Norway, Iceland, Greenland, Faroes, Shetland, Orkney and the Hebrides. This created a cultural community where the main tie was the common language. If a clan or an individual in Norway or Iceland had to emigrate for some reason, it was natural for them to choose a country where their own language was spoken and where they also might have relatives. Practically all sources which are relevant to the initial Norse settlement of Greenland were written by Icelanders. They had personal ties to Greenlanders and understood the social mechanisms there. It is natural to start this chapter with a discussion of how reliable Icelandic sagas are as sources of the early history of Greenland.

## 1 The Icelandic sagas as historical sources

### *Islendingabok and Landnámabok*

The oldest written descriptions of the initial colonisation of Greenland were authored by the Icelandic priest Ari Thorgilsson Frodi (1068–1148) in two books, *Islendingabok* and *Landnámabok*.

Ari built on oral sources, and he tells us from whom his oral information about Greenland has been received: “this was told to Thorkell Gellison when he was in Greenland by a person who followed Eirik Raudi from Iceland”.<sup>1</sup> Thorkell was Ari’s uncle. After his return to Iceland, Thorkell told Ari about Greenland.<sup>2</sup> The oral information had been transmitted from a person who had been part of Eirik Raudi’s initial settlement group, to Thorkell Gellison and then to Ari who put it in writing. Ari’s *Islendingabok* has been preserved; it is short but reliable.

Ari also wrote the first version of *Landnámabok* and even included sections on Greenland. *Landnámabok* was further developed and expanded in new versions in the 12th and 13th centuries. It was transcribed several times, and it is not known how much of it was composed in Ari’s time. The oldest extant manuscripts, *Sturlubok* and *Hauksbok*, were written in the decades around 1300. Factual information connected to names and places in these manuscripts probably belonged to the oldest version and should be considered as reliable.

Other information may have been fiction and must be evaluated individually. The Vinland sagas expanded the information in *Landnámabok* on Greenland, adding information from others.

As long as the oral tradition on the initial settlement remained in Greenland, it should be seen as reliable, since there would be many persons who could confirm or correct what was being said. The person who told the story had also participated in the first emigration fleet. When Thorkell transferred this information to Iceland, it started a new life there as a written tradition. What Ari wrote about the initial settlement should be seen as the general opinion in Greenland when Thorkell stayed there. When was that?

Thorkell was born in Iceland ca. 1030. If he had talked to a person who arrived in Greenland in AD 985, Thorkell must have visited Greenland early in his life, ca. 1050. He returned to Iceland and lived there as an elderly man until ca. 1090. Ari would then be ca. 20 years old when he listened to his uncle's tales.<sup>3</sup> This is the hypothesis I find to be the most verifiable as it includes all extant information in a coherent narrative. Ari's extant *Islendingabok* is not dated but is assumed to have been written ca. 1130.

The main point is that Ari's narrative is based on an oral transfer of information from Eirik Raudi's time where all transmitters are known and where the resulting narrative was controlled by the general oral opinion in Greenland less than a century after the events.

### ***Who wrote the Vinland sagas and for what purpose?***

The initial settlement in Greenland is given its most extensive description in the two so called "Vinland sagas". Modern philologists have dubbed them "Eirik Raudi's saga" (*Eiriks saga Rauda*) and "The Greenlanders' saga" (*Groenlendinga saga*). Many have pointed out that these names are misleading since both take place in Greenland as well as Vinland, and Eirik Raudi is an important character in both.

Philologists agree that both sagas were composed ca. 1220–1250, but the year is not important in our context. It has been discussed whether the author of Eirik Raudi's saga knew and possibly owned The Greenlanders' saga or the other way round. The arguments both ways are weak.<sup>4</sup> Narratives about the past were widely disseminated orally in the Middle Ages; only the tip of the iceberg was written down in extant manuscripts. The simplest way of explaining similarities and differences between the two Vinland sagas is that the authors built on separate oral traditions. This was supplemented with written sources which were available to them. The philologist Sigurdur Nordal claimed that "These two sagas . . . are so independent of each other that the most natural explanation seems to be that they were written at about the same time but in different parts of the country". He arrives at this conclusion by comparing details in the two saga accounts. The historian of literature Jonas Kristjansson seems to accept Nordal's view.<sup>5</sup> Handwritten manuscripts could remain in a family's or lineage's possession for decades without outsiders reading them.

One cannot be sure whether the authors had visited Greenland. *Fostbroedra saga* is another of the *Islendigasögur*, and part of the action takes place in Greenland ca. AD 1020. The author here assumes that it took a couple of hours to row from a chieftain's farm called Langanes in Einarsfjord to another chieftain's farm Brattahlid in Eiríksfjord in the middle of the night. An unusually large rowing-boat was used with room for the owner Thordis, her son and 15 servants, and the saga author relates that they rowed in the same boat all the way. The editor of the saga in *Islenzk Fornrit* points out that this demonstrates ignorance of the geography in this central part of Norse Greenland, since this would only have been possible if there had been a canal through the isthmus between the two fjords near Gardar, and such a canal did not exist. The story had been transmitted in oral tradition for 200 years, and the Icelander who wrote it down ca. 1220–1250 did not have a clear picture of the landscape.<sup>6</sup>

Why were the Vinland sagas written? “The Greenlanders’ saga” says that travelling to Vinland gave both riches and honour (*at su ferd thykkir bædi god til fjar ok virðingar*),<sup>7</sup> and the Norwegian *King’s Mirror* says that people voyaged from Norway to Greenland for three reasons: honour, gain and curiosity.<sup>8</sup> The main motive for writing the Vinland sagas must have been to give honour to those who had participated.

*Eiríks saga Rauda* claims that Vinland was discovered by chance by Leiv Eiríksson on a return voyage to Greenland from a visit to Norway. He lost his way and found a land where there grew wild wheat and grapes, but finally found his way to his father Eirík Raudi on Brattahlid. Eirík Raudi and another of his sons, Thorstein Eiríksson, next attempted to explore the new land, but contrary winds prevented them from reaching it.<sup>9</sup> The third expedition was organised by the Icelander Thorfinn Karlsefni who visited Eirík on Brattahlid, and there married Gudrid, the widow of Eirík’s son. It was a large-scale expedition of 3 ships, 160 people and many domestic animals. The attempt was abandoned because of the permanent threat from the native population. Thorfinn Karlsefni’s is the only planned expedition which reached Vinland described in “Eirík the Red’s saga”.

“Eirík the Red’s saga” covers 43 pages in *Islenzk Fornrit* IV; of these 16 describe Thorfinn Karlsefni’s Vinland journey. Thorfinn and Gudrid returned from Greenland to Iceland after their journey to Vinland. “Thorfinn had many and honourable descendants”, says the saga. Among them were three Icelandic bishops. There are several indications that the saga was written by a cleric, the most likely hypothesis being that one of Gudrid and Thorfinn’s clerical descendants in Iceland was the author, drawing on oral traditions in the family. The saga was evidently written to increase the honour of both Thorfinn and Gudrid.

“Eirík the Red’s saga” was composed ca. 1220–1250. The oldest extant manuscript was copied 1330–1334 by the Icelandic judge Hauk Erlendsson into a codex which belonged to him and which today is called *Hauksbok*.<sup>10</sup> He was another of Thorfinn and Gudrid’s descendants.<sup>11</sup> He also transcribed *Landnámabok* into *Hauksbok*, and here he gave Thorfinn Karlsefni the honour of having “found Vinland the good” (*Karlsefnis er fann Vinland hit goda*).<sup>12</sup> “Eirík the Red’s saga” in *Hauksbok* is called “The saga of Thorfinn Karlsefni”.<sup>13</sup> This is likely to have

been the saga's original name. The next extant transcript is found in *Skálholtsbók* from ca. 1420, and here the title is *Eiríks saga Rauda*, which has remained its title ever since. The reason for this change of title probably was that Karlsefni's descendants between 1340 and 1420 became less prominent in Iceland. Eirík Raudi and his descendants attracted more interest.<sup>14</sup>

"The Greenlanders' saga" was also composed in the 13th century, but no transcript of the saga as a whole has survived. The compiler of the codex *Flateyjarbók* from ca. 1390 copied sections of the 13th-century version at two different places in his own account.<sup>15</sup> Modern editors have assumed that by combining the sections which contain information on Greenland and Vinland in the *Flateyjarbók*, they can reconstruct the 13th-century saga. The resulting narrative is printed in IF IV, pp. 241–269 with the modern title *Groenlendinga saga*. We do not know whether all parts of the original saga were copied in the *Flateyjarbók*, or whether some of the sections on Greenland and Vinland copied in *Flateyjarbók* are taken from other accounts. The compiler in 1390 evidently had access to a collection of manuscripts, some of which were relevant for the history of Greenland and Vinland. He states that a more detailed narrative about Eirík Raudi's early struggles in Iceland exists in *Sögu Eiríks*.<sup>16</sup> *Groenlendinga saga* as printed in IF and other modern editions may be a shortened version of a lost "Eirík's saga" (*Sögu Eiríks*) from the 13th century. This means that the sagas today called "Eirík Raudi's saga" and "The Greenlanders' saga" originally may have been called "Thorfinn Karlsefni's saga" and "Eirík's saga".

The main honourable achievements described in "The Greenlanders' saga" are:

- Eirík Raudi discovers and settles West Greenland.
- Bjarni Herjólfsson from a different Greenlandic clan discovers Vinland by chance.
- Leiv Eiríksson leads the first planned expedition to Vinland.
- Thorvaldr Eiríksson leads the second planned expedition to Vinland.
- Thorfinn Karlsefni leads the third planned expedition to Vinland. He is connected to the Brattahlíð clan through his wife Gudríd who is Thorstein Eiríksson's widow.
- Freydis Eiríksdóttir leads the fourth planned expedition to Vinland. In "Eirík Raudi's saga" she is called the illegitimate daughter of Eirík.<sup>17</sup> She is portrayed in a very negative manner: she murdered two Icelanders and their crew in Vinland.<sup>18</sup>

The core narrative of "The Greenlanders' saga" calls attention to Eirík Raudi and his four children Leiv, Thorvaldr, Thorstein and Freydis who belonged to the "Brattahlíð clan".

The final chapter of the "Greenlanders' saga" says that "Karlsefni gave a more complete account than anybody else about these voyages, some of which have now been told".<sup>19</sup> Karlsefni was first in the chain of oral transmitters on which the author of the 13th century relied, but the author knew that there was more to be told. This confirms what he wrote earlier that more on this subject was to be



found in *Sögu Eiriks*. What today is named “Eirik Raudi’s saga” focuses more on Karlsefni’s achievements than “The Greenlanders’ saga”; it is therefore probable that both sagas originated from him.

Karlsefni and his wife Gudrid seem to have brought the main oral account of the Vinland and Greenland voyages to Iceland, and there it took different shapes in different social environments. One of the extant versions focuses on Karlsefni, the other on Eirik Raudi’s children. Gudrid first marriage was to Eirik Raudi’s son and her second to Thorfinn Karlsefni. Both Vinland sagas give very positive descriptions of Eirik Raudi, Thorfinn Karlsefni and his wife Gudrid. The heroic pictures painted of heads of lineages must be taken into account when using all sagas as historic sources.<sup>20</sup>

But this must also have motivated the saga authors to tell a story which corresponded to what the potential readers held to be true. The aim was to present their own ancestors as honourable, and then their achievements had to be real and not fiction. The narrative and its social environment must have corresponded to the reality as understood on Iceland at the time of writing ca. 1220–1250. The main accounts in the Vinland sagas are realistic by modern standards; the supernatural events are short stories which can be removed without the main narrative losing its logical progress.

### *Categories of sagas which are relevant for Norse Greenland*

The basic principle in source criticism is to compare information from different and independent sources. Historians will not pick out a coherent narrative from a longer saga and ask whether this section is true from beginning to end. They will pick out isolated information about a person, a building, rites, customs, institutions, beliefs or objects, and compare it to other information about the same phenomenon. If two or more sources confirm one other, and are not contradicted by a third source, the information is considered as reliable. Much relevant information found in sagas stands alone. How should such information be used?

The sagas which are relevant in our context were written by clerics and lay magnates in the period ca. 1120–1350, but their subject matter includes events as far back as the 9th century. Sagas are categorised according to when events described in the saga took place. “Sagas of contemporaries” (*samtidssagaer*) describe events in the period 1100–1350 and were mostly written less than two generations after the events. These are reliable sources similar to English and continental chronicles. Often independent sources will be available for comparison. *Groenlendinga thátttr*, *Sturlunga saga*, *Sverris saga*, *Hákonar saga Hákonarsonar* and the youngest parts of *Morkinskinna* and *Heimskringla* belong to this category.

The other main category of sagas describes events taking place in the period ca. 995–1100. Here the stories were transmitted in an oral tradition for 100–300 years before being written down. During these centuries the stories were transformed in the way oral narratives usually are. The bulk of such sagas are Icelandic family

sagas (*Islendingasögur*); in our context the Vinland sagas and *Fostbroedra saga* are most relevant. The author of *Groenlendinga saga* mentions through which persons his oral account has been transmitted and he assures us that the first oral transmitter Thorfinn Karlsefni was a reliable person. The fact that the saga author gives his readers source criticism of this kind, gives confidence that he did his best to describe the past as it was, even if the information had been transmitted several times in an oral tradition. But even if the aim were realism, it cannot be trusted that their knowledge was adequate to achieve it.

Many king's sagas also have narratives going back before 1100. In the introduction to his history of the ancient kings of Norway (*Heimskringla*), Snorri Sturluson (d. 1241) describes his methods. He attributed highest reliability to oral skaldic poetry composed immediately after the events and later transmitted in oral tradition. The metric form with its stringent rules was a guarantee of reliable transmission. But the bulk of the saga authors' information came from oral prose narratives transmitted from generation to generation. Snorri relied mostly on stories transmitted through men and women whom he could identify and who had possessed "great wisdom and good memory". He names men and women who had communicated reliable information in an oral tradition from the 10th century down to his own time of writing, ca. 1230.

### ***How reliable was the oral tradition on which the saga authors built?***

"The problem is that it is not possible to distinguish between what is fiction, and what is reality [in the Vinland sagas]", wrote the Nationalmuseum archaeologist Knud Krogh in 1982.<sup>21</sup> Was he right?

The most spectacular confirmation of realism in the Vinland sagas was Helge Ingstad's localisation of the Norse settlement at *L'Anse aux Meadows*. He found it using the Vinland sagas as a sailing guide from Greenland to Newfoundland. His "independent source" was the coastal landscape. Information about this sailing route had lived in an oral tradition for a couple of centuries when the saga authors wrote it down ca. 1220–1250.

The sagas name farms along the Greenland fjords and coast. Archaeologists have identified the ruins of several of them. The Vinland sagas date the first settlement in Greenland to AD 985, which corresponds to the results of the archaeological excavations.

The information that the Vinland explorers came to a place where they found wild grapes, in Norse called *vinber*, has been met with scepticism and contributed to undermine confidence in the Vinland sagas.<sup>22</sup> But the priest Adam of Bremen also wrote ca. 1070 that Vinland was so named because there were wild grapes there from which wine can be made.<sup>23</sup> Adam had visited the court of the Danish king Svend Estridsson and obtained his information there.<sup>24</sup> This was only 60–70 years after the events and at least 150 years before the Vinland sagas were written. There was an oral tradition about this which both Adam and the saga authors knew. A close reading of the two "Vinland sagas" shows that "Vinland" is a name for the area south of Labrador (Markland), a large area without clear boundaries

which included the Gulf of St. Lawrence. Reports from the first European explorers in the 16th century confirm that wild grapes at that time grew around the Gulf of St. Lawrence in the Quebec area, and it is perfectly possible that the Norse Greenlanders found them there.<sup>25</sup>

The kings' sagas give a detailed description of King Harald Hardrádi's career as military commander in the service of the Byzantine emperor in his youth ca. 1034–1044. A contemporary Byzantine aristocrat gave a description of Harald's career from his point of view, and the two descriptions can be compared. They agree on Harald's position as leader of the Varangian guard. The wars and other events in which he participated can be identified. But the saga authors often misunderstood place and events and exaggerate Harald's achievements.<sup>26</sup> The narrative had been transmitted in an oral tradition for ca. 180 years when the saga authors inserted it into their sagas.

Criteria can be found for which information is most likely to survive in oral transmission. If oral information is connected to concrete objects like a landscape, a town, a building which was still standing, or concrete events like a battle, it is more likely to be remembered. Narratives which are disconnected from the main action are likely to be less reliable and so are conversations. Events involving famous people are often well preserved in oral tradition, but the chronology between these events is less reliable. Chronology is often unimportant in oral tradition and may be added as an organising principle when the narrative is written down.

The sagas which are relevant in our context have an ambition to tell a story which has taken place, and great events, persons and institutions can be trusted to be real. The details may also be real, but here conscientious source criticism is necessary. Even detailed events which never took place can be interesting for historians because they demonstrate the author's and his audience's understanding of the world which surrounded them. But before going one step further accepting that an event described in a saga really took place, a stricter source criticism has to be applied.

### *Sagas used as “narratives” or “remnants”*

The Vinland sagas and other sagas used in this book were written in the 13th and 14th centuries about events taking place in the 10th to 12th centuries. At the time of writing Norse Greenland still existed, and Icelandic saga authors would know how this society normally worked in their own age. It was unavoidable that the saga author's knowledge about contemporary Greenland influenced his narrative about events 200 years earlier.

Historians will therefore use the sagas both as “narratives” about what happened in the 10th to 12th centuries, but also as “remnants” giving information about social relations in Greenland at the saga author's time. Source criticism has to include an effort to distinguish between the two time layers in the text. This has to be done by comparing to other sources and by analysing the saga as a whole.

## 2 The first Greenlanders

### *When did they go?*

Ari Frodi (1068–1148) was the first Norse author to mention Greenland, and he wrote that Eirik Raudi occupied and settled Eiríksfjörð on Western Greenland “14 or 15 years before Iceland was christened”, that is AD 986 or 985.<sup>27</sup> The two Vinland sagas were written in the 13th century, and both say AD 985,<sup>28</sup> *Eyrbyggja saga* says AD 986.<sup>29</sup> The oldest extant Icelandic Annals were written in the 1280s, and they say that “Eirik Raudi voyaged to Greenland and settled Eiríksfjörð” in AD 986.<sup>30</sup>

*Landnámabók* is preserved in the Sturlubók version<sup>31</sup> which says AD 985 and the Hauksbók version<sup>32</sup> which says AD 984.<sup>33</sup> The last date of 984 stands alone and is probably due to a copying error. All other dates seem to be based on Ari who gives the two alternatives of AD 985 or 986. I can see no reason to prefer the one before the other, but the dating in the Vinland sagas of AD 985 is used by most authors. For practical reasons I have chosen to use the same date in this book.

The Vinland sagas give a schedule for the settlement.<sup>34</sup>

AD 981 summer: Eirik Raudi leaves Iceland to explore Greenland

AD 982 summer: exploration continued

AD 983 summer: exploration continued

AD 984 summer: return to Iceland

AD 985 summer: Eirik accompanied by 14 ships settles in Greenland

Some of those who left Iceland with Eirik Raudi in AD 985 settled in the Western Settlement.<sup>35</sup> This information is confirmed by radiocarbon dates:

The most comprehensive archaeological excavations in the last decades have been done at a Norse farm dubbed “The farm under the sand” (GUS) located in the Western Settlement. Claus Malmros in 1991 dated the first house there to ca. 1005, and in view of the large margins of error for radiocarbon dates this may include 985.<sup>36</sup> Two samples from the “lower cultural layers” of the “landnám farm” E17a Narsaq gave the results AD 980–1035 and AD 905–990.<sup>37</sup> The lowest cultural layer at E34 gave a find which was dated to AD 895–1150.<sup>38</sup> Bent Fredskild analysed the vegetation history of the Brattahlíð area, and he accepted the date AD 985 for the first *landnám*, but pollen analyses are too approximate to reveal smaller departures from this date.<sup>39</sup> Another analysis concluded that “pollen assemblage from Anavik in the Western Settlement reveals an early date for the *landnám* (ca. AD 1000) comparable with that from Eastern Settlement”.<sup>40</sup> For Vatnahverfi “precise dating” using scientific methods confirms that the first Norse settlers arrived “at the end of 10th century”. From the start many farms occupied areas which were marginal for agriculture.<sup>41</sup>

Arneborg claims that “there is not full correspondence between the written and archaeological data” on these points but admits that this is only a hypothesis since the archaeological dates have such large margins of error and are few in number.<sup>42</sup>

### ***What motivated them?***

When the emigration from Norway to Iceland started ca. AD 870 and to Greenland AD 985, the Norse area consisted of pre-state societies governed by chieftains and petty kings. Each chieftain had clients whom he was responsible for protecting.

The pre-state chieftains frequently feuded with each other. The members of a clan which had been defeated could end up without protection against an aggressive neighbour. This gave them the choice between a humiliating submission or leaving the region. The emergence of a proto-state in Norway in the 10th century increased the pressure on the Norwegian chieftains and their clients. This is the picture given in the earliest description of the emigration from Norway written by Ari Frodi (1068–1148). Chieftains refused to submit to the Norwegian crown, and “many of them fled the country”. That was how Iceland, the Faroes and Shetland were settled, and some also went to Orkney and the Hebrides. The main wave of emigration to Iceland started in AD 870 and by AD 930 Iceland was “fully settled” (*albyggd*).<sup>43</sup>

The Icelandic saga authors writing in the period 1130–1300 knew how a pre-state Norse society functioned, not least because in Iceland it had a prolonged life until 1264. Their descriptions of the social mechanisms are realistic even if the individual stories in many cases were more or less fiction. The destiny of Thorolv, Egil Skallagrimsson’s uncle, is an example. Thorolv served the Norwegian king but was at the same time an independent chieftain. The king wanted Thorolv to dismiss his retainers and become a soldier in his retinue (*hird*). Thorolv saw this as degradation and refused. The king then dismissed him from his service, and Thorolv returned to his farm. The king now regarded him as a dangerous adversary.<sup>44</sup> He attacked and killed Thorolv at his farm. Thorolv’s father and brother took revenge by killing 50 of the king’s men. Next they sailed to Iceland with their servants and clients, and Thorolv’s brother settled as chieftain on the farm Borg.<sup>45</sup> The story was probably transformed in oral transmission before it was written down, but illustrates how the expanding power of kings made life dangerous for chieftains and their retainers.

The Vinland sagas explain Eirik Raudi’s road to Greenland in a similar way. His father was a chieftain on Jæren in Norway. They had to leave because of manslaughter charges, and we should assume this was part of a feud where they ended up as the inferior party. They sailed to Iceland and settled at the farm Drangar. The saga author informs us that at this time Iceland was almost fully settled, which means that Eirik’s father did not leave Norway because there was plenty of available land in Iceland. People living close to him at Drangar did not welcome new arrivals. After the death of his father Eirik married and moved to his father-in-law’s farm at Haukadal. Here he cleared new land, which we must imagine was inferior to the land his household had left behind in Norway. He again became

party to a feud and killed several men. At the local Thing assembly Eirik was sentenced to leave Haukadal and moved to his third location in Iceland. He handed over his high seat pillars to a neighbour, probably as a symbol of submission. When he later demanded to have them returned, he found himself in a new feud, killing two of his opponents, but he again ended up as the inferior party. This time he was outlawed at the Thing assembly and decided to found a new settlement in Greenland.<sup>46</sup>

Modern historians and archaeologists tend to present Eirik as a violent and murderous person. *Landnámabok* and the Vinland sagas open up a different interpretation. Eirik was a rational man who acted according to the norms of his society. He and his father were petty chieftains and had the sense of honour necessary to fulfil their social function. This involved them in blood feuds against superior enemies, but their mentality made it hard for them to submit to the victors. In Norway in the final phase of the Viking age the situation grew worse for such chieftains because of additional pressure from the increasingly powerful kings. Eirik was a chieftain with friends and allies in his feuds in Iceland, and when he finally sailed to Greenland there were 25 ships in the fleet. He evidently was a good network builder and for his contemporaries his revenge murders must have appeared as rational actions showing courage and strength. The details in Eirik's story may not be true, but they illustrate social mechanisms which are confirmed by other sources.

The brothers Thorleif Kimbi and Snorri Thorbrandsson grew up in Alptafjord in Iceland. They had an ancestor who was one of the first settlers in Iceland (*landnámsmadr*), and they were foster-brothers to the powerful Icelandic chieftain Snorri godi (ca. 963–1031).<sup>47</sup> This made them part of the Icelandic elite. They became involved in a feud on Iceland,<sup>48</sup> and as part of the peace agreement the two brothers left Iceland and settled in Greenland.<sup>49</sup> Snorri sailed with Eirik Raudi to Greenland in AD 985 and he “took land” in a Greenland fjord which he named Alptafjord after the fjord he had left in Iceland.<sup>50</sup> The statement that Snorri in Greenland was *landnámsmadr* and “took” Alptafjord, is likely to mean that he functioned as chieftain in that fjord. The two brothers cleared a farm and named it Kimbavágr after the elder brother Thorleif Kimbi who lived there permanently.<sup>51</sup> The younger Snorri seems to have shared one farm in Iceland and another in Greenland with his four brothers, and he travelled between the two countries. In ca. AD 1005 he followed Thorfinn Karlsefni from Iceland via Greenland to Vinland on a ship they owned in common.<sup>52</sup> Snorri's life ended in a skirmish with natives in Vinland.<sup>53</sup>

Another immigrant was Thorbjörn Vivilsson. He had been a respected chieftain<sup>54</sup> in Iceland, and he created a network of friends by inviting them to frequent banquets. But one day he realised that he could no longer afford this generosity, and this meant he would lose his position as chieftain. “I will rather change farmstead than destroy my honour (*soemdinni*). I will rather leave the land than bring dishonour over my lineage (*ætt mina svivirda*)”. He sold his farm and bought a ship, and 30 people followed him to Eirik Raudi in Greenland. Eirik gave him the farm Stokkanes in Eiriksfiord, and he became one of Eirik's clients.<sup>55</sup>





*Figure 1.1* Agricultural land at farm E89a, Appendix II map 6.

In the Norse period there was a farm here. The lush vegetation here at the head of the bay and along the shore on the left-hand side is shown by the yellow colour. When the original heather was burned, the new grass would give a good pasture. If it was manured over a long period, the result would be a meadow. Eirik Raudi called the new land Greenland, because he wanted it to have a good name to motivate people to settle there. This picture shows that this name was not only a PR stunt.

Source of photo: Farming in Norse Fjords. Report to the “National Museum of Denmark, Department of Middle Age and Renaissance”, Copenhagen, April 2014, p. 36.

Copyright: The National Museum of Denmark.

Not only chieftains but also peasant households fled to Greenland after a feud. The Icelandic brothers, Helgi and Berg, became involved in a serious blood feud. They visited a Norwegian town, probably Bergen or Trondheim, and Berg was murdered on the street there by an enemy from Iceland. It was to be feared that Helgi now could meet a similar end. The captain of their ship arranged room for him on a ship bound for Greenland.

He lived there and grew up to become a highly respected man. People were sent to Greenland to kill him, but his destiny was to be another. He lost his life on a hunting expedition, and people thought it was a great loss.<sup>56</sup>

This is told in one of the *Islendingasögur* where the action takes place ca. AD 1000, but information about who killed whom, and where people lived, is often reliable. An individual who emigrated from Iceland to Greenland to avoid being killed in a feud is a theme also found in sagas which are pure fiction.<sup>57</sup> In the first part of the 14th century Icelanders must have been familiar with this motive for settling in Greenland.

A peasant household which lost the protection of its chieftain could be forced to move, sometimes in the opposite direction, from Greenland to Norway. Skufr lived at the farm Stokkanes in Eiríksfjörð and the chieftain at Brattahlíð was his protector. The Icelandic Thormod arrived in Greenland to avenge a murder and received help from Skufr and a widow and her son who lived at another farm. Thormod drew his supporters into conflicts with the Brattahlíð chieftain. Skufr and the widow lost their protection and had to sell their farms and move to Norway.<sup>58</sup>

In the works of the Nationalmuseum archaeologists the political motives for moving to Greenland are almost absent. Knud Krogh explicitly claims that the motive for emigration to Greenland was not to escape political conflicts, even if this is the impression given by the Icelandic sagas. The real reason was the search for better resources.<sup>59</sup> Other archaeologists are less explicit. They mention the political hypothesis, but they give economic motives more attention. They do not verify or falsify the two hypotheses in a methodologically correct analysis. The archaeologists have never falsified the political hypothesis.<sup>60</sup>



*Figure 1.2* Farm E96 in its landscape, Appendix II map 7.

In the foreground was the site of the farm buildings, even if little of the ruins is now shown above ground. Nearest to the photographer was a long house  $15 \times 12$ m, possibly the dwelling. Behind it can be seen a darker area with a lush vegetation, which may have been the farm's meadow. If so the Norse manured it through four centuries. Even today Norse farms can be identified in the landscape by their luxuriant vegetation near the ruins. E96 like most Norse farms had easy access to a fjord. In winter and spring local fjord ice and large ice floes drifting from the North Pole would make sea communications difficult or impossible. This picture was taken in July when coast and fjords had navigable waters even in the Eastern Settlement.

Source of photo: Farming in Norse Fjords. Report to the "National Museum of Denmark, Department of Middle Age and Renaissance", Copenhagen, April 2014. p. 40

Copyright: The National Museum of Denmark.



The ecological hypothesis has some evidence to speak for it. If a farmer had more than one son, only the eldest could inherit the farm. The younger had to buy or rent a farm elsewhere or cultivate a new one. In the period 800–1349 the population in the Norse<sup>61</sup> region increased, and there must always have been young men on the lookout for a farm. Ari wrote ca. 1130 that Eirik Raudi discovered the land and called it Greenland, because it would “encourage people to go there if it had a good name”.<sup>62</sup> “Green” was evidently meant to be understood as “suitable for agriculture”. He explored the land for three years before choosing where to settle and took for himself the site which was best suited for cattle farming. Food resources that could be exploited without excessive toil were a precondition if the settlement was to endure, but is it a sufficient explanation? The population of Norway continued to grow until the Black Death in 1349 and in Iceland until 1402, so it was not necessary to leave the country to find farmland for cultivation in AD 985.<sup>63</sup> The written sources indicate that the contemporaries saw available agricultural land as a necessary but not sufficient precondition for moving to Greenland.



*Figure 1.3* Ruin of farm E167 in the Vatnahverfi, Appendix II map 6.

A minority of Norse farms lacked direct or short access to the sea. Many of them were in the Vatnahverfi where they on the other hand had access to unlimited pasture in the outfield. On this farm a house for storing goods has been exceptionally well preserved; it measures  $7.5 \times 5$  m. The vegetation in front of the house is particularly lush with willow. This is likely to have been part of the meadow which in the Norse centuries was covered with grass and manured. It is often said that the area where the Norse settled was more fertile when they left than when they arrived. The photos from E96 and E167 provide evidence of this.

Source of photo: Field report to Nationalmuseets Grønlandsforskningscenter, SILA report no. 25. Published by Nationalmuseets Center for Grønlandsforskning, Copenhagen 2007, p. 25.

Copyright: The National Museum of Denmark.

The Norwegian archaeologist Christian Keller claims that the Norse colonisation of Greenland was motivated by a search for export products, in practice walrus tusk.<sup>64</sup> But if priority was to be given to incomes from trade, secure supplies of food and other necessities had to be accessible at markets in return for the money gained from trading. This kind of food market never existed for the Norse Greenlanders. They obtained food security through their own agriculture and hunting.<sup>65</sup> Access to commercial goods was a desirable, but secondary priority.<sup>66</sup>

Summing up, the Icelandic written sources claim that the first settlers in Greenland in AD 985 and the first decades thereafter belonged to households or clans which had been humiliated in the feuds and disputes which were part and parcel of pre-state Norse society.

Available agricultural resources were a necessary but not sufficient motive for moving to Greenland. The archaeologists have focused on the economic motive without even trying to falsify the alternative political motive. If written and archaeological sources are seen in context, the political motive is best supported by the available empirical material.

### *Were the first immigrants Norwegians or Icelanders?*

The first Norse Greenlanders sailed from Iceland, but that may have been because the only shipping lane to Greenland known at that time went from or via Iceland. It does not necessarily mean that the passengers were Icelanders in the sense that they were born there.

Ari Frodi wrote that Iceland was settled (*byggdisk*) from Norway after AD 870. This means that the first settlers to Greenland in AD 985 had ancestors who may have stayed in Iceland for a maximum of 115 years.<sup>67</sup> The most fruitful definition of an Icelander or Norwegian is in our context land of birth. There is only one example of an immigrant coming from the British Isles to Greenland. He came from the Hebrides which, at that time, had a Norse population.<sup>68</sup> All other immigrants mentioned in the written sources came from Iceland or Norway. No immigrants from Denmark or Sweden are mentioned.

*Landnámabok* and the Vinland sagas name ten men who followed Eirik Raudi and “took land” in named fjords or valleys in Greenland. A man who took land was called *landnámsmadr*, and he decided which peasants should be permitted to settle in his fjord. These peasants became his clients, and he became their chieftain.

Iceland has far better sources than Norway for identifying named immigrants to Greenland. *Landnámabok* gives short factual information about the first settlers on Iceland ca. 870–930 and their nearest descendants. In AD 985, the largest farms on Iceland were owned by descendants from the *landnámsmenn* and the most prominent Icelanders had ancestors who were *landnámsmenn*. I have compared the names of the ten men who followed Eirik to Greenland in AD 985 to the rich Icelandic name material.

Three of the 11 men who according to *Landnámabok* became *landnámsmenn* in Greenland are likely to have been born on Iceland:

Herjolv Bárðarson came from Norway as one of the first settlers on Iceland (ca. AD 870). One of his descendants was also called Herjolv Bárðarson and he sailed to Greenland with Eirik Raudi (AD 985). He settled at Herjolvsnæs, is called in *Landnámabok* “a highly respected man” (*hinn gofgasti maðr*) and became *landnámsmaðr* and chieftain over Herjolvsfjörð.<sup>69</sup> Archaeologists have registered several farms in the fjords behind Herjolvsnæs.<sup>70</sup> Herjolv had a son called Bjarni. As long as his father lived on Iceland, Bjarni owned a ship and traded between Iceland and Norway, living every second winter in each country. When his father moved to Greenland Bjarni also settled there and inherited Herjolvsnæs. This was the first farm which ships reached in Greenland, and made the farm well known among merchants and gave the chieftain opportunities for a first choice of imported goods. Bjarni is said to have been a member of the *hird* of the Earl Eirik who was the ruler of Norway 1000–1014, and in *Groenlendinga saga* he is credited with having discovered Vinland;<sup>71</sup> the source value of this information can be discussed.

Snorri Thorbrandsson and his brother Thorleif came from an Icelandic *landnám* family. They were not chieftains on Iceland but became *landnámsmenn* and chieftains in Greenland. Their life was described earlier.<sup>72</sup> The sequence of names in *Landnámabok* shows that their fjord Alptafjörð must have been north of Herjolvsnæs but south of Einararfjörð.<sup>73</sup>

Thorbjörn Glora, who settled in Siglufjörð, is mentioned immediately after Snorri in Alptafjörð,<sup>74</sup> which indicates that they settled in neighbouring fjords. Siglufjörð is a fjord in Iceland, and it is therefore likely that Thorbjörn Glora also named his Greenlandic chiefdom after the fjord he had left in Iceland.<sup>75</sup>

Three of the *landnámsmenn* who became chieftains in Greenland are likely to have been born in Norway:

Eirik Raudi was born in Norway (see earlier). He was a celebrity in Iceland, and his changes of residence are described in unusual detail in *Landnámabok*.<sup>76</sup> His father is mentioned in *Landnámabok* as the first settler at the farm Drangar on Iceland.<sup>77</sup> Eirik married an Icelandic woman, and her father and mother are mentioned in a separate section in *Landnámabok*. They were descended from an Icelandic *landnámsmaðr*.<sup>78</sup>

Thorkell Farserkr was the chieftain in Hvalseyfjörð. He is described as the “first cousin” (*systrungr*) of Eirik Raudi. *Systrungr* means that Eirik’s mother was the sister of one of Thorkell’s parents.<sup>79</sup> Eirik’s parents were married before they left Norway; his mother must have been born in Norway and this is likely to have been so for his first cousins.<sup>80</sup> Thorkell was chieftain over a wide area between the outer parts of the two central fjords Eiriksfiord and Einararfjörð. He may have functioned as a guard to the most densely populated fjords with the two most important farms Brattahlíð and Gardar.

Einararfjörð was named after Einar who according to *Landnámabok* voyaged with Eirik to Greenland and took land there.<sup>81</sup> Gardar in Einararfjörð was the second largest farm in the Norse settlement and it can safely be assumed

that the first chieftain Einar settled there. Einar is not mentioned elsewhere in the *Landnámabok* or in sagas, which must mean that Einar did not have an ancestor who had been *landnámsmaðr* on Iceland. Why was he given the position as the second most prominent man in Greenland with the second largest farm? He may have been Norwegian and invited by Eirik to participate in the colonisation of Greenland.<sup>82</sup>

Eirik Raudi married his only – illegitimate – daughter<sup>83</sup> to the man who ca. AD 1005 owned Gardar. He was called Thorvard and was probably Einar's son.<sup>84</sup> This was network building between chieftains of neighbouring fjords. The chieftain in Einarsfjord in the 1020s was called Thorgrim Trolle Einarsson who lived at the farm Langanes somewhere along the Einarsfjord. He was rich and followed by many men,<sup>85</sup> and was the second most powerful chieftain in Greenland, after the chieftain on Brattahlid.<sup>86</sup> His name indicates that he may have been the son of the first settler Einar and brother of Thorvard mentioned earlier.

Groenlendinga saga tells us that Eirik's daughter and her husband Thorvard killed 34 of their Icelandic companions on a voyage to Vinland. When they returned to Greenland her brother Leif, who was chieftain in Eiriksfiord, condemned what they had done.<sup>87</sup> It is possible that they were forced to pay such high damages to the surviving relatives that they lost Gardar. Later the chieftains in Einarsfjord had to live at another farm, Langanes.<sup>88</sup> A hundred years later Gardar was made the first bishop's see in Greenland.

Nothing is known about the ancestry of the five last *landnámsmenn* in Greenland:

Ketil took land in Ketilsfjord [Tasermiut].

Hrafn took land in Hrafnfjord.<sup>89</sup>

Sölvi took land in Sölvadal [Unidentified].

Hafgrimr took land in Hafgrimsfjord and Vatnahverfi.<sup>90</sup>

Arnlaug took land in Arnlaugsfjord [Northern Sermilik?].<sup>91</sup>

If these five had belonged to prominent families in Iceland, some information about their ancestry is likely to have been given in *Landnámabok* or sagas. The Icelandic editors of *Landnámabok* find it remarkable that so few of the 11 named *landnámsmenn* in Greenland in AD 985 belonged to households which are mentioned in *Landnámabok* or saga texts.<sup>92</sup> One explanation may be that they had spent their whole life in Norway and never lived in Iceland. They may have come from Norway at Eirik's invitation shortly before the voyage, Eirik planned the settlement in Greenland four summers ahead (981–984), and that would have given him time to send enthusiastic invitations to friends with problems in his motherland and inform them about the meeting point and meeting time. It is not self-evident that it would have been possible to assemble 25 ships owned by Icelanders only and whose owners were willing to leave the island. An alternative hypothesis is that the five last *landnámsmenn* mentioned earlier were Icelanders outside the elite families.

After ca. 1050 the Norwegian crown gained control of armed violence in mainland Norway and feuding decreased. In Iceland the feuding continued until 1264 when the pre-state period ended there. If the main cause of immigration to Greenland was political, one should expect that immigration from Norway ceased or declined strongly after ca. 1050, but that it continued from Iceland until 1264. Norway had a far larger population than Iceland.

The Icelandic saga tradition claimed that the great wave of immigrants to Greenland came in AD 985 and in the years immediately afterwards. The Icelandic *Sturlunga* saga covers the period 1050–1264 and includes information about feuds and settlement of feuds in Iceland. It has only one example of Icelandic immigration to Greenland in this period. A peasant in Iceland with the byname “Murder-Hauk” (Viga-Haukr) and one of his relatives Magnus Markusson from Isafjordsysla in Northern Iceland ended up as the weaker party in an inheritance dispute.<sup>93</sup> Hauk decided ca. 1203 to emigrate to Greenland. He sailed via Norway with his family, probably because there was no direct shipping between Northern Iceland and Greenland. From Norway he hired his passage to Greenland.<sup>94</sup> Wherever he went he was highly esteemed (*thotti hann mikill madur hvar er han kom*). His ally Magnus Markusson also went to Greenland. None of them returned to Iceland.<sup>95</sup> The Icelandic *Sturlunga* saga gives reliable descriptions of the life of the Icelandic elite and their clients ca. 1120–1260. As Greenland is mentioned only once as a refuge, it should be taken as evidence that it was rarely used as such.

Both Norwegians and Icelanders emigrated to Greenland 985–1050, the empirical material does not permit a quantification of the two groups. But it seems that the motive for emigration was the same for both groups: defeat in dispute. In the period 985–1050 this was a serious problem in both countries. Since Norway had a far larger population, the Norwegian part of the immigrants may have been significant.

### *The chieftain and his clients*

In his *Islendingabok* from ca. 1130 Ari Frodi says that Eirik Raudi “took land where it later has been called Eiríksfjörð, and gave the land the name Greenland”.<sup>96</sup> Eirik lived at and owned the farm of Brattahlíð.<sup>97</sup> In the first phase he decided who should be permitted to build farms elsewhere in Eiríksfjörð. An Icelandic Annals has this notice under AD 986: “*Tha for Eirekur hin raudi til Grænlands og bygdi Eireks fiord*”.<sup>98</sup> *Byggja* means “provide with houses and people”. When one of Eirik’s friends from Iceland called Thorbjörn arrived at Brattahlíð with his household, Eirik Raudi gave him land (*gaf Eiríkr Thorbirni land*) at the opposite side of Eiríksfjörð, where Thorbjörn built an honourable farm (*soemligr boer*) for himself.<sup>99</sup> In the quotation above Ari distinguishes between Eiríksfjörð where Eirik “took land”, and Greenland over which he had symbolic power since he had given it a name.

In the following period the households to which Eirik had given land in his fjörð became his clients and he their chieftain. It was a Norse tradition that a chieftain invited his clients and allies for a feast at least once a year. Eirik Raudi followed