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**Vatnahverfi**

**An inland district of the Eastern Settlement  
in Greenland**

*C. L. Vebæk*



**Man &  
Society**

**17 · 1992**

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# Vatnahverfi

An inland district of the Eastern  
Settlement in Greenland

*C. L. Vebæk*

with contributions by

*N. Lynnerup, V. Alexandersen,  
J. P. Hart Hansen, M. Stoklund  
& Th. H. McGovern*

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## Preface

In the hope that late is indeed better than never, I am publishing in this book – with the invaluable help of other scholars – the results of the investigations in 1948–51 at *Vatnahverfi*, an inland district of the Norse Eastern Settlement in Greenland. Not only does the publication deal with the investigations and excavations at *Vatnahverfi* in those years; I also try to give an up-to-date description of this most interesting part of the Eastern Settlement, along with information about earlier topographical-archaeological activity in this area.

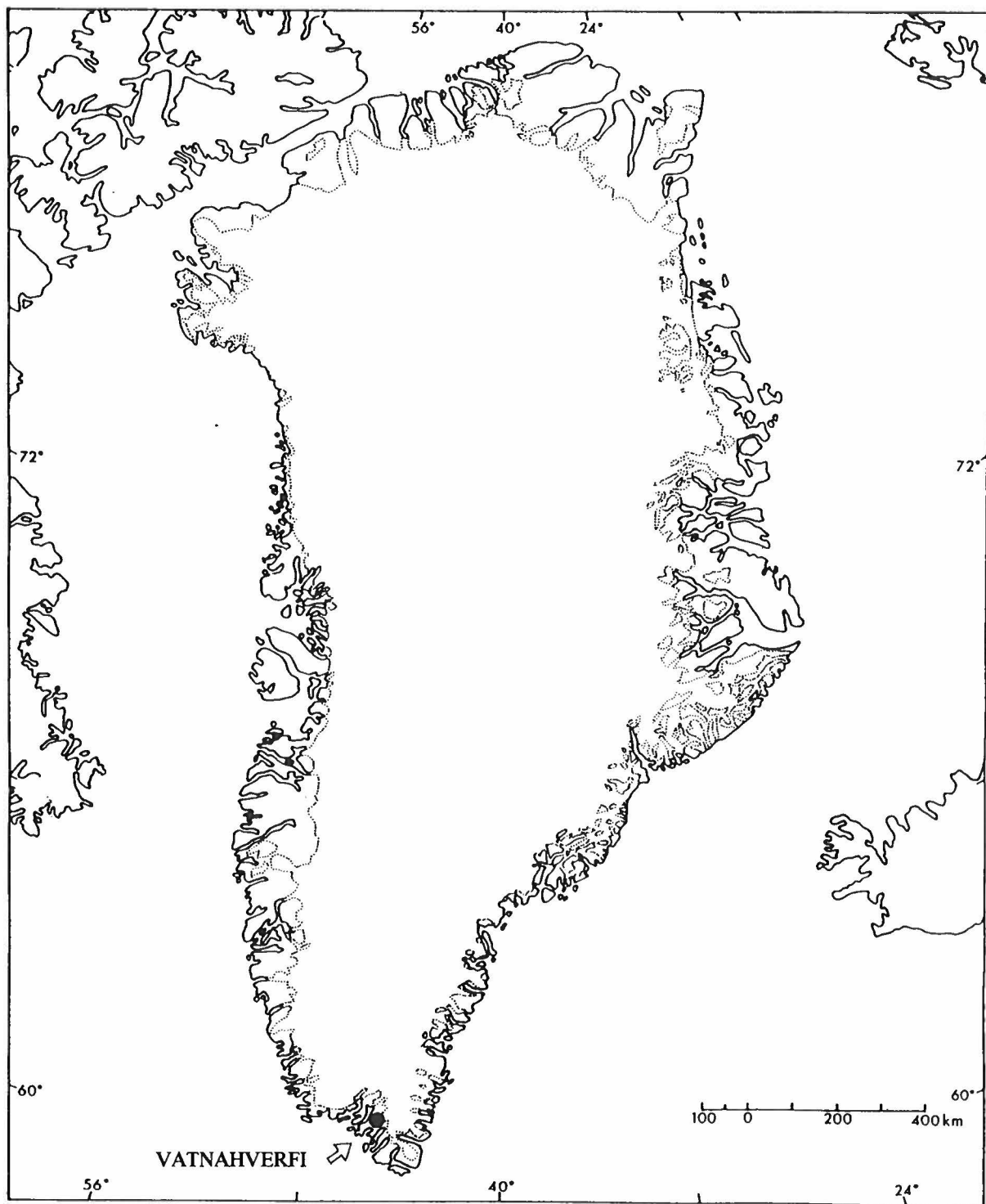
Of course all this could not have been done by one person alone. Several people have contributed, and I owe a great debt of gratitude to all who have made the book possible. I extend my most sincere thanks to many people. First I would like to mention those who cooperated with me in writing the book: the runologist Marie Stoklund, the anthropologists N. Lynnerup, J. P. Hart Hansen and V. Alexandersen, and the American zoologist T. H. McGovern. Then it will be only natural to remember all those who took part in the work in the field, the many young Greenlanders from the surrounding settlements who helped me with all the practical work, especially the excavations; also some sheep-farmers who knew the area, among whom I would especially like to mention Abel Kristiansen and Henning Lund, who – along with the then leader of the agricultural experiments in Greenland, Louis Jensen, the zoologist

Chr. Vibe, and myself – went on the unforgettable Mounted Expedition to *Vatnahverfi* in 1948. I owe my best thanks to *State Antiquary* Professor Olaf Olsen, who made it possible for me to work on this treatise, and to the Carlsberg Foundation for giving me considerable financial support. I must also thank my scientific collaborators in 1949–50, Sverri Dahl, Jørgen Meldgaard, Claus Ferdinand and A. Olling Andersen for their contribution to the good results of our excavations. I also thank Helga Schütze, assistant at the National Museum, for important help in preparing my manuscript for printing. Last – but not least – I thank my dear wife, Måliâraq, for all she did for me and the whole expedition, and for personal inspiration, which cannot be valued highly enough.

In conclusion, some practical information. Nearly all the photos taken and drawings done in the field are the work of the author; if anyone else has taken photos or made drawings, this is explicitly indicated. The photos of objects are by Lennart Larsen and Kit Weiss.

My collaborators and I sincerely hope that this book will be received with interest, and that our work will be looked upon as a contribution – be it ever so modest – to the study of medieval Norse culture in Greenland.

The National Museum  
October 1991  
C. L. Vebæk



# Vatnahverfi – An inland district of the Eastern Settlement in Greenland

C. L. VEBÆK

Vebæk, C. L. 1992. Vatnahverfi. An inland district of the Eastern Settlement in Greenland. – *Meddr Grønland, Man & Soc.* 17, 132 pp. Copenhagen 1993-1-8.

Vatnahverfi was an inland district of the medieval Norse East Settlement situated in an area between Igaliku Fjord to the north and Agdluitsoq Fjord to the south. The countryside there is beautiful, with many lakes and rivers, and most of the area has rich vegetation with much grass, birch and willow scrub. Vatnahverfi was – and still is – an attractive settlement area for sheep farming, and to some extent for agriculture too. In medieval times there was quite a dense population of Norsemen, who settled practically anywhere they could make a living as farmers, with horses, cattle, sheep, goats and pigs. The Norsemen also lived by land and sea hunting and fishing, as demonstrated by the archaeological excavations.

Vatnahverfi has been known to scholars for more than two hundred years, and at the end of the nineteenth century G. Holm and D. Bruun carried out topographical-archaeological investigations in the area. But it was not until 1939 that the first extensive excavations took place (Vebæk 1943). The work at Vatnahverfi was interrupted by the War, but in 1948 the so-called “Mounted Expedition” to Vatnahverfi carried out comprehensive topographical studies in the area. Thanks to some local sheep farmers in particular, a number of previously unknown Norse farms had been registered, and we selected some which looked promising for excavations. These excavations were then carried out in 1949–50, at the localities Ø 70 – a smallish, remote farm in the mountainous part of Vatnahverfi; Ø 71 (Russip Kuua), comprising two separate farms at the eastern end of one of the very large, long lakes in the northern part of Vatnahverfi; and finally Ø 167, the biggest farm known in Vatnahverfi so far, situated at a small lake in central Vatnahverfi. The archaeological results must be said to have been good. We made some very important observations as regards the layout of farms and construction of buildings, and found many objects – some of them never encountered before. We also found a large number of animal bones (including skeletal parts of 110 mice trapped in a large wooden barrel). The most remarkable find of all was parts of the skeleton of a Norseman found in the passage of the largest building at Ø 167. We must assume that this was the last inhabitant, not only of the farm, but of the whole area, since he had not been buried.

With this publication, I and my colleagues and fellow scholars – the runologist Marie Stoklund, the anthropologists N. Lynnerup, V. Alexandersen and J. P. Hart Hansen, and the zoologist T. H. McGovern – hope to make a contribution to the study of the medieval Norsemen in Greenland.

C. L. Vebæk, *Nationalmuseet, Frederiksholms Kanal 12, DK-1220 Copenhagen K.*

## 1. The Topography of Vatnahverfi

*Vatnahverfi* is a Norse (Icelandic) word, which (to my knowledge) only occurs once in medieval manuscripts concerning Greenland – in the *Landnámabók Islands* (Jonsson 1925: 63), where it is briefly mentioned that Hafgrim took Hafgrimsfjord and *Vatnahverfi*.

*Vatnahverfi* means a territory with many lakes (and rivers), and with inhabited places here and there. According to Finnur Jonsson (1898: 292) the *Vatnahverfi* mentioned in the *landnámabók* must undoubtedly be the district east and south east of Hafgrimsfjord, which Jonsson (1898) identifies with certainty as a small but distinct fjord branching from the southern side of Ei-

narsfjord (now called Igaliku Fjord). I believe this identification of the position of *Vatnahverfi* by Finnur Jonsson is quite right – there is simply no other possibility. *Vatnahverfi* is the large area between the Igaliku Fjord to the north and the Agdluitsoq Fjord to the south. To the east *Vatnahverfi* goes right up to the inland ice, while to the west it is bounded by the several small fjords and bays between Igaliku Fjord and Agdluitsoq Fjord. It is of course difficult – if not impossible – to give the exact borders of *Vatnahverfi* – that is, what the Norsemen considered as belonging to *Vatnahverfi* – but if the definition above is even approximately right we have to deal with an area of about 500–550 square kilometres (Fig. 1).

The landscape of *Vatnahverfi* is characterized by many large and small lakes partly connected by rivers. It



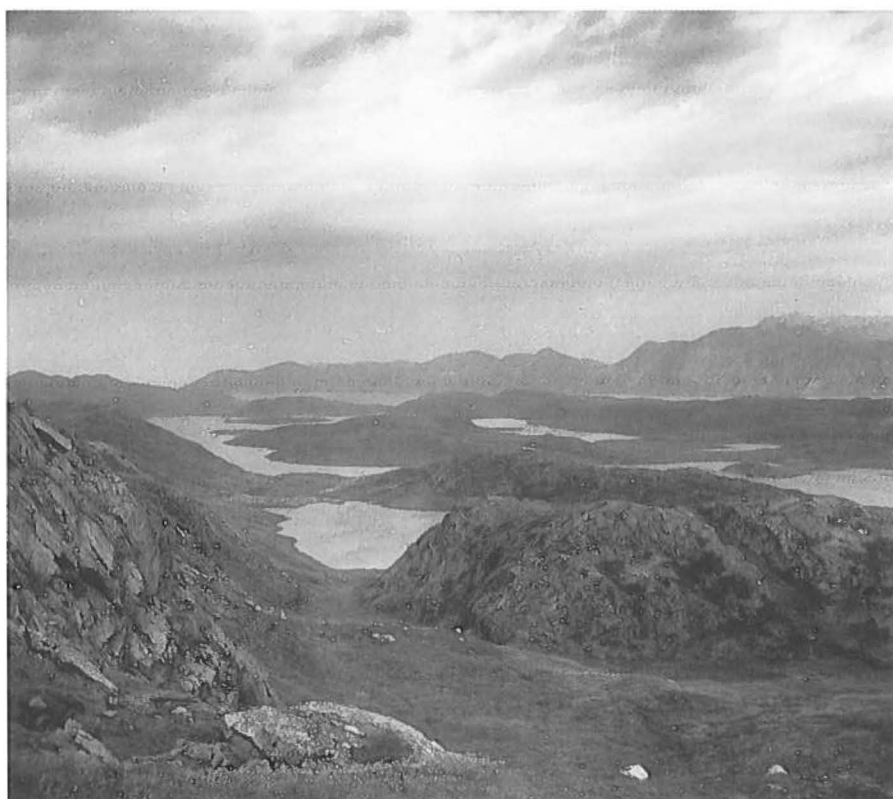


Fig. 1. Typical landscape in Vatnahverfi. View from SE of part of the lake district. In the background Igaliku Fjord (photo, C. L. Vebæk, 1949).



Fig. 2. Birch scrub in Vatnahverfi (photo, C. L. Vebæk, 1950).

Fig. 3. View of some of the southern part of Vatnahverfi (photo, C. L. Vebæk, 1950).



Fig. 4. Typical landscape in Vatnahverfi (photo, C. L. Vebæk, 1950).



is very picturesque, alternating between long valleys with lakes and rivers and the mountainous ridges between them. The vegetation is very rich. Large areas are covered with good grass and much willow-scrub, and there are birch trees here and there – in some places real woods, with scattered rowan trees (Fig. 2). In summer one sees the many typical Greenlandic flowers everywhere – white and red, yellow and blue. The fauna of Vatnahverfi is also comparatively rich, with hares, foxes, ptarmigans and several other birds. And then there are sheep everywhere perhaps several thousand now. On the sheep farms there are a number of horses, like the Icelandic ponies, which are of great importance to the sheep farmers (and which have incidentally been used on several occasions by the archaeologists and others who have travelled in this part of Greenland). As a curiosity I can mention that until a few years ago you could come across yaks near Eqaluit in the northwestern part of Vatnahverfi – certainly not an animal you would expect to find in Greenland! They were the result of an experimental transfer of a small number of yaks to Vatnahverfi (from the zoo in Denmark). The experiment did not succeed, and today not one of these animals is left alive.

It must of course also be mentioned that the lakes and rivers are full of fish, especially arctic char. It is indeed rich countryside (Figs. 3 & 4), yet for limited stretches south and southeast of S. Igaliku one finds real desert, with enormous sand deposits from meltwater rivers coming from the inland ice. The sand masses have been deposited here since the days of Norse habitation, and they have almost completely covered at least one farm – Ø 63c – which I was fortunate enough to find and excavate in 1939 (Vebæk 1943). In this part of Vatnahverfi there is also marked soil erosion. It is partly caused by the strong southeasterly gales which are common here, but seems to be escalating because of overgrazing by sheep, so in recent years it has been considered necessary to fence in certain areas to protect the vegetation. The erosion in eastern Vatnahverfi has been a subject of study now for some years (cf. among others Fredskild (1988) and Thorsteinson (1983)) and is still under observation (cf. Jacobsen & Jakobsen 1986, Jakobsen 1991).

Let us return to the period around 1000 AD. The Norsemen came up the southern part of the western coast of Greenland, and very soon – we must assume – all the most attractive places had been settled. Hafgrim settled at the fjord which was named after him (his farm is undoubtedly the one registered as Ø 78) and he also occupied Vatnahverfi – virgin land, rich in everything the Norsemen wanted, and at that time with no inhabitants. There may well have been earlier Eskimo habitations in the coastal areas, but at the time of the Norse *landnám* it was no one's country. At first the Norsemen – quite naturally – settled in the most attractive places, like Hafgrim's Farm, and by the bay, which sweeps in to what is present-day southern Igaliku (see maps), but

soon – I would guess within a century, or even half a century or less – the inland area was also occupied, and we now know of 40–50 farms in the Vatnahverfi area; more may be found in the future. It must be admitted that the study of Vatnahverfi is not yet as complete as one would wish, which I regret – but then there is work for future archaeologists! (Fig. 5).

## 2. Previous topographical-archaeological investigations in Vatnahverfi (up to World War II)

As far back as the 1770s there was an interest in the Norse settlement of the area we now consider to be the Vatnahverfi of the *landnámabók*. It was already known that there were Norse ruins at the place now known as southern Igaliku (Ø 66), and that there was a church there which could be identified as the Undir Høfði church mentioned in the written sources. More knowledge of Vatnahverfi came from Aron Arctander, a well known Greenland explorer who crossed the region from north (southern Igaliku) to south (Ostermann 1944) late in the 1770s, but the first really important knowledge of Vatnahverfi was obtained by the 1880 expedition led by Gustav Holm (1883: 122–129), who crossed the region from the south as well as from the north. Gustav Holm rediscovered several of the ruins that had been noticed by Arctander; but with the hopeless map material at his disposal it was impossible for him to register them adequately. This was not done until 1894, when Daniel Bruun searched the area, visiting and registering a large number of Norse ruins (Bruun 1895). Daniel Bruun also carried out limited excavations at some sites, especially Ø 66 (southern Igaliku – in Daniel Bruun's day called Kagssiarssuk). Then nothing happened in Vatnahverfi for some years; but in 1911 some Greenlandic hunters found ruins south east of S. Igaliku and reported their finds to the Rev. Erik Jespersen in Julianehaab (now Qaqortoq), who made an excursion to the area. He published his observations in *Meddelelser om Grønland* (Jespersen 1911). As one of the Greenlanders who had found the ruins had the Christian name Enoch, Jespersen called the ruins "Enoch's Ruins", and they have been known by that name in the literature since (Vebæk 1943). In 1926 the geologist Hilmar Ødum and the architect and archaeologist Aage Roussell made an excursion to these ruins, which were registered as Ø 64 a

Fig. 5. Map of part of the Eastern Settlement, covering Vatnahverfi. The filled circles indicate the position of Norse farms, the empty circles the uncertain position of Norse ruins, and the squares indicate places presumed to be Norse ruins.





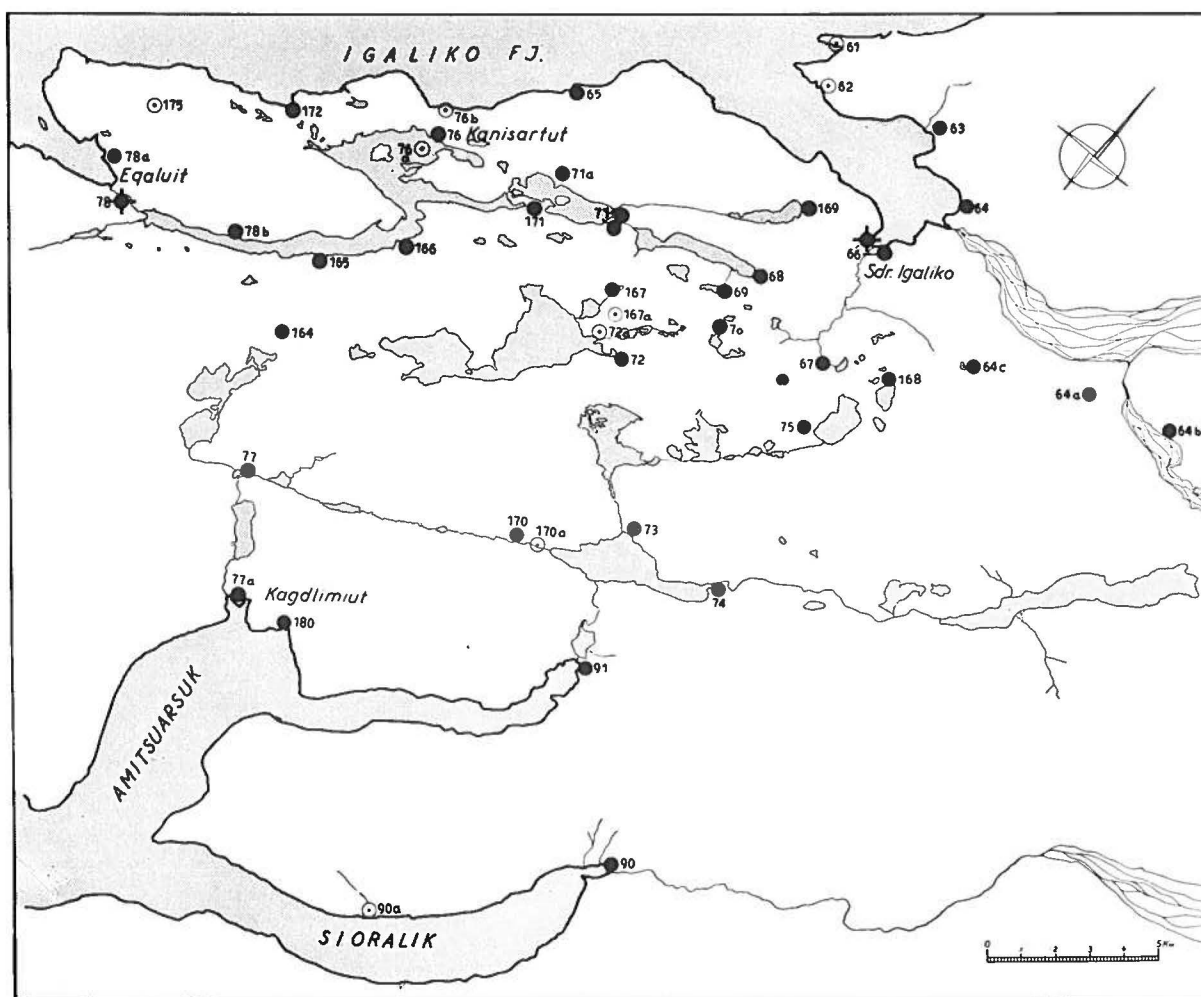


Fig. 6. A drawing of most of Vatnahverfi. The Norse farms are indicated by dots and registration numbers. Crosses indicate sites with a church (C. L. Vebæk, *del.* 1952).

and 64 b (Roussell 1941: 70–73; Ødum 1927). After that no major work was done at Vatnahverfi, except the very important excavation of the church of Undir Høfdi (Ø 66) in 1935, supervised by Roussell assisted by K. Thorvildsen (Roussell 1941: 99–101) (Figs. 6 & 7).

### 3. The churches in Vatnahverfi

Having mentioned the excavation of Undir Høfdi church, I should perhaps give some information at this point about what we actually know about the churches in the Vatnahverfi region. At present we know of three churches: the above-mentioned Undir Høfdi at Ø 66 (Fig. 8), and two others, found by the author in 1951 and 1962 respectively: at Ø 78 – the pioneer Hafgrim's farm – and at Ø 64, at a place called Inorquagssap, only

about three kilometres from Ø 66, but on the other side of the bay. Here I will have little to say about the church at Ø 66 (cf. Roussell 1941: 99–101). It is a comparatively long church, about 18 × 17 m (outside measurements), open at the western gable (which must have been built of wood). This is one of the first known Norse churches, Undir Høfdi, but was also known as the church in Austfjord (Jonsson 1898: 291). Strangely enough, Undir Høfdi church is not mentioned by Ivar Bardarson, although it must have existed in his day (the mid-fourteenth century); nor, by the way, is Vatnahverfi. But the identification of these localities cannot be doubted. In Ivar Bardarson's description of Norse Greenland (Jonsson 1930: 24–25) there is the following remarkable information: "Next lies Einarsfjord [identified with certainty as the present-day Igaliq Fjord], and between this fjord and the abovementioned Rampnesfjord [the present-day Uunartoq Fjord] lies a large manor belong-



Fig. 7. An aerial view of part of northern Vatnahverfi, seen from the west. In the middle of the photo is Igaliku Fjord, and on the right (southern) side of this fjord is Hafgrims Fjord, with the *landnáma* farm Ø 78. Farther in the background is the very long narrow lake, east of which are the two Norse farms Ø 71 (Russip Kuua). (Photo: Geodetic Institute).



ing to the King. This place is called Foss [which means “waterfall”] and at that place there also stands a costly church consecrated to St. Nicholas, which belongs to the king to give in fief; and near this is a large fish-lake, full of big fish; and when the water rises, and the rain comes, and when the water has fallen again and has diminished, there are a lot of fish lying on the beach”. Of course this church, the farm and the “fish-lake” have been searched for, so far without any certain result. But there is every reason to believe that the church described by Ivar Bardarson was not in Vatnahverfi. Ivar must have been mistaken here, as Finnur Jonsson thinks (1898: 302). The “costly church” consecrated to St. Nicholas, must be the cathedral at Gardar (now Igaliku).

Yet it is possible that Ivar Bardarson was actually thinking of the church at S. Igaliku (Ø 66) – known in one of the written sources known as “Undir Høfði church”, and in another as “the church in Austfjord” – but that those who later wrote down what Ivar Bardarson had told them of Norse Greenland around the middle of the fourteenth century had been mistaken in saying that this was not only a costly church, but that it was consecrated to Saint Nicholas. From another very reliable source we know that the church consecrated to



Fig. 8. Undir Høfði church at S. Igaliku, Ø 66 (photo, C. L. Vebæk, 1962).



Fig. 9. The church at Eqa-luit, at Hafgrim's *landnáma* farm (Ø 78), seen from the SE (photo, C. L. Vebæk, 1951).

St. Nicholas was the large church at Gardar (Igaliku) – the episcopal cathedral – and that this was undoubtedly was a “costly church”. There is reason to believe that the above-mentioned fish lake really existed, in the area some kilometres south of southern Igaliku, but that it has now completely disappeared. This is a theory proposed by Knud Krogh (pers. comm.).

Turning to the other two churches in Vatnahverfi, in 1951 I was at Eqa-luit (as so often before), at the *landnáma* farm Ø 78 – a farm which has been completely obliterated and is difficult to observe at all, owing to the heavy southeasterly gales (the *nigeqs*), which often blow through the valley from the east. Suddenly I noticed some stones which seemed to form a circular enclosure,  $5.5 \times 3.5$  m in diameter, with more stones inside it. The thought struck me: could we have a church here of the type known from Qordlortoq in Eiriks-fjord (Tunugdliarfik), and Vagar, which I had found in 1946 (Vebæk 1991: 18ff)? An exploratory excavation soon solved the problem: there were human graves inside the fence. In other words, we had a churchyard – and a church! And for the first time in the history of the investigation of the Norse settlements in Greenland we had found, with absolute certainty, a church which could *not* be identified with any of the “still-missing” parish churches, of which – according to the written sources – there should have been a total of twelve in the Eastern Settlement (Fig. 9). This opened up quite new horizons in the specialized hunt for medieval Norse churches in Greenland. It was now clear that churches had existed whose names are not known to us, and which must be regarded, not as parish churches, but as local churches or farm churches (*bønhus*). This also meant that Nørlund's identification of the two small churches he found at Qordlortoq in 1932 as Undir Solar Fjøllum church (moved from one place to another) was most certainly

wrong. The small churches at Qordlortoq were – like the one found at Eqa-luit – local churches, not parish churches. Incidentally, after intense searching in 1950 I found a church at Sidtlis in Eiriks-fjord, which I believe to be Undir Solar Fjøllum church and also identical to Hardsteinaberg church (cf. Nørlund 1934; Vebæk 1991, e.g. Vebæk 1966: 198–212). My feeling of satisfaction and happiness on the day the church at Eqa-luit was found will be readily understood.

I found the third church in Vatnahverfi in 1962, at the farm Ø 64, Inorquagssap, only about three kilometres from the church at Ø 66 (Fig. 10). The church ruin at



Fig. 10. Inugguassat (Ø 64). View of the farm, with the church and the church-yard, seen from the east (photo, C. L. Vebæk, 1962).

Inorquagssap had actually been found already in 1894 by Daniel Bruun, but he had not recognized that there had been a church there. On Daniel Bruun's typically good sketch of the farm I noticed a circular building or fence, and the idea at once struck me that this could be a church – a small one of the type found at Eqaluit, with a more or less circular fence around it. I went to the place, and a trial excavation inside the fence soon made it clear that we had found a churchyard and one of the local farm churches whose names are unknown to us. (For the churches in Vatnahverfi and elsewhere in the East Settlement, please refer to my publication, Vebæk 1991).

#### 4. Previous topographical-archaeological investigations in Vatnahverfi (continued)

Having discussed the churches in Vatnahverfi we can now return to the investigations carried out before 1940. I have already mentioned the find of "Enoch's Ruins" in the northeastern part of Vatnahverfi. In 1926 Aage Roussell and the geologist H. Ødum went on a reconnaissance trip to these ruins (report by Roussell in the Danish National Museum archives, cf. Roussell 1941: 71–72; Ødum: 1927). Roussell gives a vivid description of the strange landscape in this part of Vatnahverfi, and reports on the great difficulty of crossing the foaming glacial river on the other side of which is Ø 64b – the most isolated of all the farms in Vatnahverfi. Roussell and his companions, however, succeeded in crossing the river, and Roussell produced a good drawing and a fine description of this remote farm.

It was quite natural that Roussell found it worthwhile to excavate the farms Ø 64a and 64b, and the task of doing so was given to me in 1939. I did so according to plan – with one exception. In that particular summer it was simply quite impossible to cross the river, which was very turbulent, on foot or on horseback; so we had to give up the excavation of 64b and concentrate on 64a. Instead we excavated Ø 64c, a farm I found in the desert described above (Vebæk 1943). I had however determined that at some point I would try to visit 64b – and in 1950 I succeeded, in rather fantastic circumstances. I went to the river with two Greenlandic sheep farmers from southern Igaliku. One man stayed there, and the other man and I walked the long and difficult path up the river to the point where it comes out from the inland ice. The icecap here is very steep, but we succeeded in climbing it, and after some walking on the ice we managed to get down to the farm – from behind, so to speak. Here I studied the extremely well-preserved ruins intensely, and then came the trip back. We went down to the river, and with a long, strong rope thrown over to us by the man on the other side, we succeeded

first in jumping out to a rock in the middle of the river, and from there got safely to the opposite bank. But what a day!

The excavations of 1939 at Ø 64a and 64c were described in some detail in my publication (Vebæk 1943), but I will sum up the main results here.

In the 1939 expedition my archaeological collaborator was Holger Rasmussen, *cand. mag.*, and we were assisted by about a dozen young Greenlanders from Igaliku and southern Igaliku. The starting point was southern Igaliku, where there had been a settlement of Greenlandic sheep farmers for some years. For the transportation of material to the inland we used four Iceland ponies owned by some of the sheep farmers.

I will say little about the excavations at 64a and 64c here, as the reader may refer to the publication (Vebæk 1943: 19ff). The farm 64a was well-preserved and turned out to be a most interesting, centralized farm of the type described by Aage Roussell (1941: 159); but at that time this type of farm was only known to be represented by a certain farm at Brattahlid in the Eastern Settlement. The ruin of the main building at 64a, with its many rooms, with comparatively high walls – up to 2 m – still standing, offered a good opportunity for a closer study of the building technique. In one of the rooms – 1,III – there was an interesting stone-built oven, with a common fireplace; this room seemed to have functioned as a bath-house. It was not a small farm. There were several outhouses and we found a large number of Norse relics of all kinds, in several materials, but mostly there were fragments of steatite vessels. We also found quite a number of animal bones – here, as elsewhere in Vatnahverfi, many bones of seals, walrus and whales, animals one would not expect to find at a rather remote inland farm, but (as will be evident from the following) we found large numbers of bones of these sea mammals in all the farms excavated in Vatnahverfi.

We had to abandon the excavation of 64b, but on our way to 64a, in the desert area, I observed what I thought might be the site of a farm, the only visible traces of which were some small ridges that might indicate the walls. This locality was registered as Ø 64c (Vebæk 1943: 54–81). During our excavations at 64a I sent Holger Rasmussen and some of the crew to the spot to start an excavation. I still remember how surprised I was when I personally came to the spot a few days later. The men had dug down into the sand, and deep down under the present surface we could see the walls of a fair-sized farm with several buildings – but everything was covered by enormous dunes of sand, in some places about 3 m high (cf. Vebæk 1943: Fig. 44). We also found a room at 64c that had undoubtedly been used as a bath-house. We would later find similar rooms in some of the other farms excavated in Vatnahverfi. At 64c we also found quite a number of objects of various kinds, including a padlock made of whalebone, an iron steel, and – most surprisingly – an object of Eskimo origin: a towline

handle of walrus ivory (the closest parallel known is from Baffin Island in Canada) (Vebæk 1943: 89, Fig. 62).

We finished the excavations in 1939 by excavating the farm Ø 78a in Eqaqut, at the Norsemen's Hafgrimsfjord but on the other side of the river, where there is a *landnáma* farm quite near the bay. This is a very favourable spot with lush grass. Here we found the ruins of six houses, one of which was no doubt the dwelling, a large site measuring about 40 × 16–17 m; but it was quite overgrown and collapsed. Nevertheless we tried to excavate the ruin, but without success. Not a single wall line could be followed, and everything was quite confused, so after a few days' digging we had to give up the excavation here – it would only have meant a waste of time and money if we had continued (cf. Vebæk 1943: 7–12). I can mention here that a short time after our investigations at Eqaqut, one of the sheep farmers of southern Igaliku, Abel Kristiansen, moved to the spot and established one of the biggest sheep farms in Greenland; and it is still a very fine farm (managed by one of Abel Kristiansen's sons), with large cultivated areas.

This is perhaps a good place to mention what has happened in Vatnahverfi as regards population and habitation since 1939, and especially in more recent years. When Daniel Bruun came here in 1894, Vatnahverfi was uninhabited. In the late twenties (as far as I know) some people from Igaliku settled there at the place now known as Southern Igaliku, at the site Ø 66, and established a sort of village of Greenlanders who lived by sheep farming and keeping some cattle. At the same time a single family from Sydprøven (Agdluitsup-på) established a sheep farm at Qagdlimiut in the southern part of Vatnahverfi, near Amitsuarsuk Fjord. Afterwards Abel Kristiansen settled, as described above, at Eqaqut. At about the same time a sheep farmer, Henning Lund, moved from Sletten (Amassivik) to a place in northern Vatnahverfi, Qanisartut, where there was also a Norse farm (Reg. Ø No. 76). Since that time, and especially during the last 10–20 years, the settlement of Vatnahverfi has progressed, and now several of the places where the medieval Norsemen had their farms have been reoccupied by Greenlandic sheep farmers. There is even a system of roads linking the inhabited places. Indeed, we can say that the medieval Norse habitation in Vatnahverfi has been revived!

But to return to archaeology, our 1939 excavation of Ø 64a and 64c had produced such good results that it encouraged us to do more archaeological work in Vatnahverfi – in fact to embark on a special programme involving the excavation of a number of selected farms. We planned this for 1940 – but then came World War II: all links with Greenland were broken off for more than five years and all archaeological activity in Greenland had to be cancelled for the duration.

Just after the war I returned to Greenland – with the very first ship from Denmark in June 1945 – to resume

my archaeological work (and incidentally to marry the Greenlandic girl to whom I had been engaged since 1939). The plan had been to start archaeological investigations in Vatnahverfi; but another very important project had to be dealt with first: the excavation of the Norse Benedictine Convent in Unartoq Fjord (Ø 149). The excavations there went on for three years (1945–46 and 1948 – cf. Vebæk 1991), but even before we finished at Ø 149 we made a reconnaissance trip to Vatnahverfi. The "Mounted Expedition" (as it was called) will be described in the next chapter.

## 5. The Mounted Expedition to Vatnahverfi in 1948

After the relatively good results of the excavations of "Enoch's ruins" in 1939 we were looking forward to doing some more topographical and archaeological work in the Vatnahverfi region. While still working on the last phase of the excavation of the Benedictine Convent in Unartoq Fjord (Ø 149), I and four others undertook in 1948 what has always been known since as the Mounted Expedition to Vatnahverfi. The other members of the crew were the two sheep farmers Abel Kristiansen and Henning Lund (who owned most of the six horses we used), the zoologist Christian Vibe and the Head of the Agricultural Centre at Julianehaab, my brother-in-law Louis Jensen. For about a week (14/7/48 – 21/7/48) we criss-crossed the countryside visiting as many Norse farms as possible, to describe them and register them on the map. In particular we wanted to find some localities that looked worth excavating. I think I can say that this expedition was a success. We visited several farms hitherto only known to the sheep farmers, and some of the rather few farms known from before (I should point out that I personally discovered very few farms not already known to someone – one of them was the above-mentioned farm 64c, in the "desert"). In the following pages I will give a brief account of the farms we visited on the Mounted Expedition and our observations there. And of course I will mention the farms we considered worth excavating.

We started at Eqaqut – Abel Kristiansen's farm – and from there we made our way to a ruin some kilometres to the north (registered as Ø 175). At the north end of a small lake we found a single house about 12 × 4 m in area, with three rooms; the walls were up to about 0.5 m high (Fig. 11). It was certainly not a proper farm, but the building may have belonged to a farm in the neighbourhood and been used as a hay barn or sheepcote. The next day we set off on a very long and exhausting – but wonderful – crosscountry ride. We followed the southern side of the very long east-west oriented lake, but it was very difficult terrain to travel in because of the very high, dense willow scrub. Two or three kilometres south of the lake (see the maps for this and the





Fig. 11. From the Mounted Expedition of 1948. The horses are standing on the Norse farm Ø 175, in the neighbourhood of Eqaluit (photo, C. L. Vebæk, 1948).

farms mentioned below) we reached a Norse farm at a place the Greenlanders call Kavdlunatsiaq. Near the farm there are two small lakes. Here we observed ten separate houses.

*Ruin No. 1*, on a slope just above the small lakes, is a large site of about  $20 \times 8$  metres, but completely collapsed and overgrown. This is undoubtedly the main building (the dwelling) of the farm. About 5 m north of House 1 is *Ruin No. 2*, a smaller rectangular building about  $16.5 \times 5$  metres in area, with an annexe to the west of about  $4 \times 6$  m. The latter building – built with the dry-masonry technique – may have been a byre. *Ruin No. 3* is a complex of several rooms on a small eminence in the meadow with an area of about  $15 \times 10$  m. *Ruin No. 4* is 20–22 m south of the SW corner of the lake, and measures about  $5 \times 8$  m, with dry-masonry walls up to 0.5–0.8 m high. *Ruin No. 5* is a rectangular house of the same character as No. 4, about  $10 \times 5$  m, situated some 10 m west of the SW corner of the lake. *Ruin No. 6*, approximately 65–70 m NW of No. 5, has completely collapsed and no measurements were noted here. *Ruin No. 7* is a rectangular house about  $12 \times 4$  m in area with walls standing to a height of 0.4–0.6 m.

Directly adjacent to this house is a smaller house (room) of about  $6 \times 1$  m, all in dry-masonry. *Ruin No. 8* is about 35 m NE of *Ruin No. 7* and is a building of the same character as No. 7. It has an area of about  $6 \times 3$  m, and walls up to 1 m high have been preserved. *Ruin No. 9* is a dry-masonry house built between some naturally deposited rocks, maximum area about  $5 \times 6$  m. Finally, *Ruin No. 10* is a rectangular dry-masonry house about  $12 \times 4$ –5 m, with two rooms and rather heavy walls, still standing to a height of 1.3–1.5 m. There is a sketch of this locality with the ruins plotted in, but I regret that its quality is not quite satisfactory, so I will not publish it here. The same is the case with the other farms mentioned in the following, but the original drawings are in the archives of the Danish National Museum. The farm described above and registered as Ø 164 certainly does not seem promising for systematic excavation (Fig. 12).

The next farm we visited is about 100 m south of the long lake, 5–6 km east of Eqaluit. This appears to be a so-called centralized farm. We found only a single ruin of a large complex with many rooms. The site measured about  $27$ – $28 \times 16$ –18 m, and was no doubt the main building, but may have been used both as a dwelling and for other purposes – for example as a byre. We found no other ruins there. There would most certainly have been outhouses, but the willow scrub here is very dense, which makes observation difficult. The farmhouse here was registered as Ø 165. Perhaps the site should be excavated, but it is not one of the most promising ones.

We continued our ride east, and about two kilometres from Ø 165, near the point where the lake turns to the north and widens out considerably, we came upon yet another farm of almost exactly the same type as Ø 165. Here too we found, some 80–90 m from the beach, a very large building measuring  $20$ – $22 \times 30$ –32 m, oriented EW. The ruin is overgrown with grass, and one sees only a few stones. We found no outhouses here either, apart from a typical pen, built up against a huge rock; the pen measures  $13$ – $14 \times 3$  m. I noted that an excavation of the big house here might produce good archaeological results – but so far there has been no excavation here. This farm was registered as Ø 166.

The Mounted Expedition continued (16/7/48) towards the eastern, central and southern parts of Vatnahverfi. Among several other ruins registered previously, we passed the farm Ø 171, at the northeasternmost corner of the long lake. However, I will return to this farm later, as it was not investigated in more detail before the 20/7, but I will mention that it was actually found in 1939 by my wife Måliåraq and myself when we were crossing the district, walking from Eqaluit to Southern Igaliku; and the farm is now – also on the official maps – called Maaliaaqap Illukuu, which means “Måliåraq’s Houses”. According to my notebook (and the one written by Louis Jensen), on the 16/7 we visited the farm Ø 67, some three kilometres south of Southern Igaliku. This was one of the farms already known to Gustav Holm (1883: 125) and Daniel Bruun (1895:





Fig. 12. One of the ruins at the farm Ø 164 (the person is L. A. Jensen) (photo, C. L. Vebæk, 1948).

391). Personally I have only written in my notebook that the main building (which seems to have been of the centralized type) is very large, about  $30 \times 15$  m, and that there is rich grass around it. According to Daniel Bruun it is a smallish farm that may have belonged to the larger farm at Southern Igaliku (Ø 66), but I believe it is a separate farm, and certainly not that small (although we did not notice any outhouses).

According to my diary we did not visit the farms registered by Daniel Bruun as No. 68 and 69, but on the 16/7 we also visited Ø No. 70. This farm (registered by Bruun) is one of the highest-situated farms in the whole of Vatnahverfi, so we gave it the name "the Mountain Farm". I found that Daniel Bruun's sketch was in general acceptable, although Ruin No. 2 is slightly incorrectly placed: it actually lies just behind Ruin No. 1. This farm, Ø No. 70, is not big, but I considered that it would be worthwhile to make an excavation here if possible – we actually did so in 1950, so we will have to return to this farm later in this book. Still on the 16/7, we visited the farm Ø 72. I noticed that there was a rather large dwelling with many rooms, and the walls looked fairly well-preserved, so an excavation here was a possibility. The outhouses, however, were in a poor state. In the neighbourhood of Ø 72 Christian Vibe found a small pen (registered as Ø 72a), about  $6 \times 3$  m in area. The same day, high in the mountains, between Farms 71 and 72, we reached a very large farm – the largest one known in Vatnahverfi, I believe. This farm was found around 1941 by Abel Kristiansen, and we always called it "Abel's Farm", but it was officially registered as Ø 167. At this farm, according to my diary, we found eight ruins, including two very large houses:

one presumably the dwelling, with an area of about  $42 \times 16$  m; and the other a complex with many rooms, about  $31 \times 14$  m. These ruins, and a large outhouse built in dry-masonry, about  $8 \times 4$  m in area, with walls still standing up to about 1.9 m – their original height, in fact – were so wellpreserved that they cried out for excavation (Fig. 13), and were excavated in 1949–50, so I will return to this very interesting Norse farm later in the book (Fig. 14).

On the 17/7 we visited Ø 168, a hitherto unknown farm on the northern banks of a fairly large lake, an estimated four kilometres south of Southern Igaliku (Fig. 15). Here we found three ruins. Ruin No. 1 is a bigish house, EW-oriented,  $20\text{--}22 \times 9$  m in area. There are several rooms, but they are all overgrown and collapsed. Ruin No. 2 is quite near No. 1, a little more to the south east. It is a very large building of about  $18 \times 34$  m (it is possible that the site actually includes two houses). It was assumed, however, that this was the dwelling. I noted that this was a place worth excavating, but so far this has not been done. The third ruin at Ø 168 lies isolated about 300 m south (?) of the other ruins. It is a dry-masonry house built on a rock, measuring about  $6 \times 4$  m; the walls are preserved up to a height of 1.1 m (Fig. 16). On the 18/7, according to my notebook, we visited the farm Ø 74, registered by Daniel Bruun, but already known to Gustav Holm (1883: 125). I have no particular comments on this farm. On the 19/7 we registered a hitherto unknown Norse farm at the eastern end of the lake closest to Southern Igaliku – only 2–3 km away (Ø 169). Some 40–45 m from the lake we found a rather large house measuring  $20\text{--}22 \times 16\text{--}17$  m. Several rooms were traceable. The ruin cer-

Fig. 13. From the Mounted Expedition of 1948. The big dry-masonry building at Ø 167 (Ruin 4). (The person is Christian Vibe) (photo, C. L. Vebæk, 1948).



Fig. 14. View across Ø 64 a and b and (in the back-ground) the inland ice seen from the west (photo, C. L. Vebæk, 1948).





Fig. 15. From the Mounted Expedition of 1948. Farm Ø 168, Ruin No. 3, seen from the NW (photo, C. L. Vebæk, 1948).

tainly has the look of a dwelling, perhaps a centralized farm of the type found elsewhere in Vatnahverfi. Of course we searched the terrain around the ruin, but found no other ruins – this may be because of the willow scrub here.

I have neglected to say that the Mounted Expedition reached the southeasternmost parts of Vatnahverfi on the 18/7 (Figs. 17 & 18). We camped at the very large

lake there, known to the sheep farmers as “Three Horse Lake”. It had been called this some years before after Abel Kristiansen, Henning Lund and a third man came across the inland ice on horseback, from behind Ø 64b, and came down at the northeastern end of this lake. We found no Norse ruins in this part of Vatnahverfi, nor did the sheep farmers know of any such ruins in the vicinity. But we did visit Ø 74, at the eastern end of Lake



Fig. 16. From the Mounted Expedition of 1948. A view from Ø 70 towards Lake Amisuarssuk (photo, C. L. Vebæk, 1948).

Fig. 17. From the Mounted Expedition of 1948. A view from the SW through the valley with the erosion desert, towards Ø 67 and 64c (photo, C. L. Vebæk, 1948).



Amitsuarsuk. But I have no special remarks on this farm; I can only refer to Daniel Bruun (1895: 397). The same is the case with Ø 73 (Bruun 1895: 396).

Returning to July 19, it appears that on that day we also visited Ø 71, a site intersected by a small river connecting two of the large lakes in the northern central part of Vatnahverfi. The Greenlanders called the place "Russip Kuua", which means "the Russian's river", and

I have a reasonably reliable explanation of this strange name. In 1937 a Russian botanist camped here, and since the sheep farmers in the region had no Eskimo name for the locality they called it Russip Kuua – and it is still called by this name. I have noticed that on the official maps the place is called Russit Kuva (*Russit* is the plural of *Russip*) – but this must be a mistake, since as far as I know there was only one Russian there. Here

Fig. 18. From the Mounted Expedition of 1948. A view of part of Vatnahverfi, from the mountains east of Ø 70. In the background the inland ice (photo, C. L. Vebæk, 1948).





Daniel Bruun registered many ruins on both sides of the river – fourteen in all – but he appears to have regarded the ruins as all belonging to a single farm. We soon found out that there is one very well-preserved dwelling on the northern side of the river, but also another, equally well-preserved dwelling on the south side of the river, so that Ø 71 actually covers two farms. This was one of the very best Norse localities we found in Vatnahverfi, and we determined that we would carry out an excavation here later. The excavation took place in 1949 and we will be dealing at length with these two farms later in the book.

On the same day we reached another farm, west of Ø 71, on the northern side of the lake. This farm was not previously known to archaeologists, but was now registered as Ø 71a. It is a rather large farm. The main building, the dwelling, is about 80–90 m from the lake. It is possible that this was actually a centralized farm, measuring not less than 52 × 30 m, with an EW orientation. The house stands out as an elevated area with plentiful grass (Ruin No. 1). In front of it and about 55 m off there is a small lake, with midden deposits between the house and the lake. Just in front of the dwelling, near the western corner, there is a completely collapsed dry-masonry building measuring about 6 × 4 m (Ruin No. 2). Immediately east of the dwelling is Ruin No. 3, also a dry-masonry building of about 18 × 8 m; and about 30 m east of this is Ruin No. 4, a building of the same type measuring some 12 × 5 m. Ruin No. 5 is a fine circular pen built of stones, 8.5–9.0 m in diameter, the walls still rising to a height of about 1 m. This pen is about 35 m behind (north of) the dwelling. Ruin No. 6 is about 130–140 m WNW of Ruin No. 1. Ruin

No. 7 is about 200 m NE of Ruin No. 3; it is a small, rectangular house, about 3.8 × 3.8 m, with heavy walls built exclusively of stones, with the wall still rising to a height of 0.8–0.9 m. Judging from the few fallen stones it was never higher.

On the 20/7/1948 we revisited the farm known as “Málarâq’s Houses” (Ø 171) for more detailed investigation (Figs. 19, 20 & 21). Ø 171 is a typical fair-sized Vatnahverfi farm in a valley between Tasersuaq and the lake to the east, Saqqaata Tasia. The valley is about 450–500 m long and measures 120–180 m across. A total of eleven ruins were registered here, seven of which are closely grouped on the southern side of the valley (Nos. 5–11), while the other four (Nos. 1–4) are scattered on the other side of the valley. Ruin No. 1, near the NW corner of the valley, and only about 25 m from the lake, is a completely overgrown site of a sizeable building with at least four rooms, measuring about 12.5 × 8.5 m. About 150–160 m east of Ruin No. 1 is a comparatively big building, 20 × 8–10 m, completely covered with willow and grass (Ruin No. 2). Another 100–110 m ESE of No. 2 is Ruin No. 3, a totally collapsed and overgrown site measuring about 15 × 10 m; and if we walk some 70 m further to the east we find a low pen built up against a cliff with an area of about 20 × 7.5 m. On the southern side of the valley, just south of Ruin No. 4, is a rectangular, overgrown site, a little up the hill and completely covered with willow-scrub, measuring about 8 × 10 m (Ruin No. 5). Ruin No. 6 is a completely collapsed and overgrown site with many fairly large stones, 15–16 × 11–12 m in area. Ruin No. 7 is a small, overgrown house, at least 6 × 6 m in area and only about 10 m south of No. 6. Some 25–30 m further to the west we



Fig. 19. From the Mounted Expedition of 1948. Some of the members of the expedition (left to right): C. L. Vebæk, Louis Jensen, Henning Lund and Christian Vibe. In the background “Three Horses Lake” (photo, Abel Kristiansen).



Fig. 20. From the Mounted Expedition of 1948. A view towards the east from the terrain just NE of Ø 70. In the background the inland ice (photo, C. L. Vebæk, 1948).



Fig. 21. From the Mounted Expedition of 1948. A view of the farm Ø 171 (Måliaraq's Farm) towards Ø 71, Russip Kuua (photo, C. L. Vebæk, 1948).



have Ruin No. 8, a long house,  $27-28 \times 8-9$  m; some flat standing stones are visible in this ruin, so the house must have been a byre combined with a barn. Immediately adjacent to this house is Ruin No. 9, a big house with many rooms,  $20-22 \text{ m} \times 18-10 \text{ m}$  – undoubtedly the dwelling, with a midden in front. Like all the other buildings at this locality it is completely collapsed and overgrown. Near Ruins No. 7 and 8, but a little further to the north, we find the ruins of No. 10 and 11, both rather small buildings,  $8.0 \times 4.4$  and  $7 \times 6$  m respectively. The bottom of the valley is rather swampy, but otherwise there is plenty of good grass under the dense willow scrub.

Still on the 20/7, we visited a previously unregistered farm – now registered as Ø 172 – by a small bay in Igaliku Fjord, at a place called Tatsip-atâ-kitdleq. Here, within a fairly small area, we found no less than fourteen ruins, so it was a fair-sized farm. Farthest to the west is Ruin No. 1, a fully collapsed building of about  $18 \times 8$  m. Some 25 m NE of here is Ruin No. 2, measuring about  $9 \times 12$  m. About 25 m further to the east is Ruin No. 3, the faint traces of a square building of about  $5 \times 5$  m. Immediately after Ruin No. 3 is No. 4, a large EW-oriented site of about  $40 \times 20$  m, undoubtedly the dwelling. It stands out as a low, uneven elevation with lush grass. Quite near Ruin No. 4, and a little to the north east, there is a small house, no larger than  $4 \times 7$  m, registered as Ruin No. 5. Ruin No. 6 is 10 m east of No. 5 and is a building with many rooms, measuring about  $18 \times 8$  m. Up the valley, farthest to the south east, are the ruins of three small buildings, Nos. 7, 8 and 9 – respectively  $4 \times 3$  m,  $7-8 \times 4-5$  m and a pen built up against a large rock (no measurements). Ruin No. 10 is about 100–110 m from No. 7 and is a clear, although completely overgrown house, very long, with two rooms about  $12 \times 5 + 18 \times 5$  m, with large stones in the sill. Some 25 m farther north, up the mountain, there is a building – a pen – built from large stones up against a rock face and measuring about  $5 \times 4$  m. There is a doorway in the southern side. This was registered as Ruin No. 11. Just 11–12 m from here is a very long site,  $25-26 \times 6-7$  m in area, with several rooms; it may be not a single house, but several houses built together. The site – registered as Ruin No. 12 – is very collapsed and overgrown with willow. Quite near Ruin No. 12 we have a similar house, about  $22 \times 4-5$  m in area – Ruin No. 13. Adjacent to this house on the south side is a pen built of large stones and measuring  $5 \times 12-14$  m. Near the beach, and farthest to the north, lies Ruin No. 14, a house of the same kind as No. 13, but measuring about  $8 \times 4$  m.

On the 21/7/48 we went to the region south and south west of Egoaluit, and registered two Norse farms previously unknown to archaeologists. At Kangerdluarssorujuk Tasia, at the northeastern end of a rather large lake, we registered Ø 173. This is a smallish farm on a narrow plain above a small river. We found six ruins here. Ruins No. 1, 2 and 3 are quite closely grouped. No. 1 is

about  $20 \times 15$  m in area, and was presumably the dwelling. Ruins No. 2 and 3 are about  $12 \times 7$  and  $7 \times 8$  m in area respectively. Situated by itself some 80 m from the lake is Ruin No. 4, an outhouse of about  $13 \times 7$  m with two rooms. A single upright flat stone indicates that one of the rooms was a byre, while the other must certainly have been a barn. A little way up the low mountain north west of the plain lie two small houses, undoubtedly pens, built with the dry-masonry technique (Ruins No. 5 and 6). This farm did not appear to be worth closer investigation.

Quite near the north side of the fjord Kangerdluars-sorujuk, and near Quingua (the innermost part of the fjord), is a sizeable lake called Kangerdluarssorujuk Tasia Atdleq. North east of this lake on a flat area of  $200-250 \times 100-130$  m are the ruins of a Norse farm registered as Ø 174. We only found six sites here, all completely collapsed and grown over. Ruin No. 1, about 40 m from the lake and 150 m from the river towards the east, is a rather big building, about  $20 \times 30$  m in area, with many rooms – undoubtedly the dwelling. About 25 m SE of this is Ruin No. 2, measuring about  $12 \times 7$  m. Some 80 m further to the SE is Ruin No. 3, a smallish house of only about  $4 \times 4$  m. And 40 m east of No. 2 lies No. 4, measuring approximately  $10 \times 4$  m. Ruin No. 5 is some 75 m NE of No. 1 and measures about  $8 \times 4$  m. Finally there is an isolated building about 160 m NW of No. 1. This ruin – No. 6 – is a little more distinct than the other ruins here, and measures about  $12 (?) \times 4$  m. Like farm No. 173 this farm – Ø No. 174 – did not look promising for excavation.

This excursion to the region south and south east of Egoaluit ended the Mounted Expedition to Vatnahverfi. I think I can claim that we obtained some good results. A number of previously unregistered farms had been visited, and we had established which farms were most interesting for further investigation – i.e. for real excavations: the two farms at Russip Kuua (Ø 71), and Ø No. 167 (“Abel’s Farm”) as well as Farm Ø 70 (“the Mountain Farm”). We decided to carry out these excavations in subsequent years – and actually did so as planned.

Before ending my report on the Mounted Expedition I must mention that the zoologist Christian Vibe and the agricultural expert Louis Jensen also obtained good results on the expedition. They both made valuable observations – respectively of the fauna of Vatnahverfi and the possibilities for future sheep farming and cultivation of the land.

## 6. The excavations at Ø 71, Russip Kuua, in 1949

After the Mounted Expedition it had been decided that we would concentrate the next Norse excavations on selected farms in Vatnahverfi – first and foremost Ø 71, Russip Kuua, and Ø 167, “Abel’s Farm”.

As these farms were inland there was naturally the problem of how to get there with tents, excavation materials of all kinds, provisions etc. On earlier expeditions inland (Roussell’s in 1937 to Austmannadal in the Western Settlement, and my own in 1939 to “Enoch’s ruins” in the eastern part of Vatnahverfi) we had used Iceland ponies, but this time I wanted to try another method that had not been tried before: to use the many lakes and attempt to get by boat to the sites where the excavations were to take place. As the map shows, from Eqaluit in the west there runs a very long, rather narrow eastgoing lake which widens towards the east. Its length is estimated to be about 11–12 km. At the easternmost end of the lake there is a very narrow neck of land (about 100 m across) between this and the next lake in the row; about 4 km further east comes the eastern end of the latter lake – and this is precisely where Ø 71,

Russip Kuua, lies. So my plan was to transport two or three rowing-boats from the bay at Eqaluit up to the first lake – an overland stretch of about one kilometre – and then to sail from there up the first, long lake, Taserssuaq, to the small neck of land, where I could unload and transport the boats, equipment and provisions overland to the next lake, Saqqata Tasia, finally sailing from there to Russip Kuua. I had no intention of rowing such a long distance, but wanted to use an out-board motor. We acquired a very good one, a “Penta” (produced in Sweden). And to cut a long story short, the plan was a success. It was very hard work getting the boats from the sea to the first lake, but from there on everything went according to plan. So that year – and the next – we had our base camp at Eqaluit, where we put up a wooden hut near the beach, as we had done in previous years when excavating the Benedictine Convent at Uunartoq Fjord. Here at Eqaluit we used the hut as a storehouse, and in the bay of Eqaluit we also had our motorboat *Daniel Bruun* lying at anchor. So during the summer expeditions of 1949–50 we took a long series of tours on the lakes, and everything went well except for a single tour in late 1950, when we had some trouble with the motor – but we succeeded in repairing it (Fig. 22).

Fig. 22. Starting out in the early summer of 1949 at Eqaluit, where the boat transports set out across the lakes towards the farms at Ø 71 (photo, C. L. Vebæk, 1949).

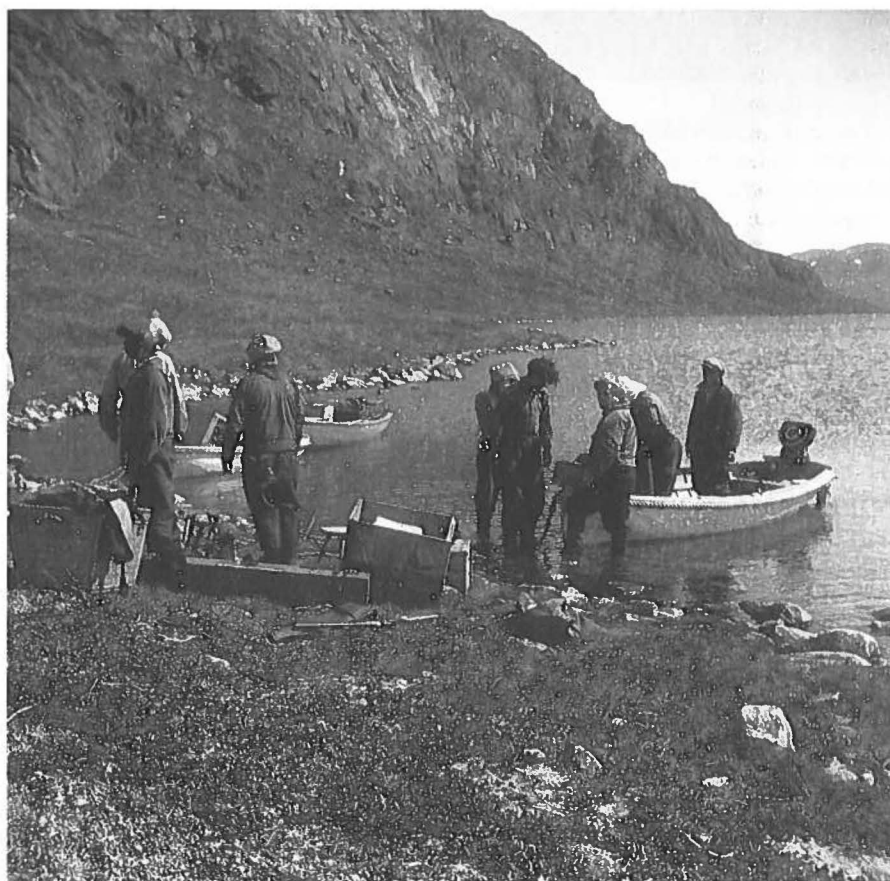




Fig. 23. An aerial view of part of Vatnahverfi, seen from the west. In the foreground the big lake, at the eastern end of which are the farms at Ø 71, Russip Kuua. The farms at Ø 71 are on a strip of land between two large lakes. In the far background the inland ice (photo, Geodetic Institute).

One day in late May or early June 1949 (I regret I did not note the exact day) we carried the boats to the first lake, and started on our adventurous voyage up the beautiful lakes. The team this summer consisted of the young archaeologist Jørgen Meldgaard (later Assistant Curator of the Danish National Museum), the Faroese archaeologist Sverri Dahl (later Curator of the main museum in the Faroe Islands), a number of young Greenlanders, mainly from Igaliiku and Southern Igaliiku, but a few from Julianehaab (Qaqortoq), and finally myself as leader. I also had my wife Måliåraq with me. She took care of the householding and worked as an interpreter – and naturally our two daughters came too.

We arrived at Russip Kuua and at our camp, where many tents had been pitched just west of the ruins of the dwelling of the North Farm. We began by excavating the very long dwelling with an outhouse combining stable and byre on the North Farm (Figs. 23 & 24).

But before going into detail about the excavations here I would like to describe the whole locality. Between the lake Saqqata Tasia and the one further east (only known to me by the Danish name *Skyggesø* "Shadow Lake" – I do not know the Greenlandic name) there is a rather narrow neck of land about 7–800 m long, through which a small, curving river flows with a slight fall from east to west. Close to where the river

runs into the lake Saqqata Tasia there are a number of Norse ruins on both sides of the river – we registered a total of 21. Nineteen of them can be seen on the terrain map; two of the ruins (Nos. 20–21) are outside the published map on the north side of the river. The valley is very rich in grass, especially north of the river, and here too there is some birch scrub. On the slopes along the valley, which is rather steep on the north side, there is a lot of willow scrub. Of the 21 ruins we registered, seven (Nos. 1–7) are grouped fairly close together (within an area of about 100 × 50 m) on the southern side of the river, while all the other ruins (Nos. 8–21) are to be found north of the small river, and are scattered over an area of 300 × 80 m (Figs. 25 & 26). As there are quite safely-identified dwellings both south of the river (House No. 2) and north of it (House No. 12), and there are also byres on both banks, it seems quite certain that we are dealing here with two separate farms which may very well have existed at the same time, although I consider it a possibility that the North Farm is the oldest, judging from certain elements in the building technique. It would perhaps have been reasonable to call the North Farm Ø 71a, and the South Farm Ø 71b, and at the same time to number the ruins on each farm as No. 1, 2, 3 and so on, but for some reason I did not do so. I stuck to one farm number – Ø 71 – as Daniel Bruun had registered it in 1894, and I gave the separate



Fig. 24. Russip Kuua, Ø 71. The white tents indicate the position of the farms, seen from the west from some distance (before the excavation)(photo, C. L. Vebæk, 1949).



buildings numbers from 1 to 21, so that the lower numbers were used for the South Farm and the higher ones for the North Farm. And in order to avoid any confusion I have not changed this later. As we actually started the excavation at the North Farm, that is where I will begin my description of the investigations at Russip Kuua.

## 7. The Excavation of the North Farm

We started by excavating the presumed dwelling on the North Farm – a very large and remarkably well-preserved ruin. Before actually excavating we were able to form an impression of the position of the separate rooms, so that we just had to clear each room and the doorways individually and dig the walls and the floors free. Before the excavation, the site (No. 12) had the appearance of an approximately 50 m long, comparatively low, but clear elevation in the terrain. It measured 6–12 m across and was completely overgrown with grass (Fig. 27).

Excavation soon revealed that the whole house actually consisted of two parts. The western end was the dwelling, about 25–26 m long and 7–12 m broad, with seven rooms in two rows, while directly attached to the dwelling to the east were two large rooms lying end to end with a total area of about 21 × 5–7 m, with the definite appearance of outhouses (Figs. 28 & 29). The one furthest to the east (and longest) was no doubt a

byre. In the dwelling the walls were generally quite high, rising to 1.5–1.6 m in seven or eight courses of stones and turf, and 1.5–2.0 m thick. The turf was greatly decomposed. In general, the sill of the building can be traced very easily. All in all it must be said that this building is unusually well-preserved. There appears to have been some turf cladding against the front wall, but it must have been rather thin – there was no clear trace of the turf itself, but there were many fallen stones. However, there can be no doubt that there was turf cladding at the gables, and there was once a very thick layer of turf on the north side (the back), about 4 m wide with 1.2–1.8 m preserved (Figs. 30, 31 & 32).

The entrance to the dwelling (there only appears to have been one) is in the front wall, about 7 m west of the east gable of this part of the building. It is a very clear door opening, about 0.8 m broad, and – corresponding to the thickness of the wall – about 1.6 m long. The doorway is paved with flat stones which can be followed into the first room we enter (Room I) and through to Room V in the second row of rooms. Just where Room I opens there is a threshold stone (Fig. 33).

*Room I* is rectangular, with a north-south length of about 3 m, while it is uncertain how long the east-west side was. The drawing of the house indicates a wall between Rooms I and II, but I must admit that this partition wall is not certain, although there are some indications that it existed. But perhaps Rooms I and II should be regarded as a single room. If so, Room I+II was 8–9 m long. But if there actually was a partition wall, Room I was only about 4 m long. The walls in





Fig. 25. Russip Kuua, Ø 71. The locality as it looked before excavation, seen from ESE. The ruins stood out as small dark elevations in the terrain (photo, C. L. Vebæk, 1949).

Room I (and II) are not particularly well-preserved inside. Preservation is best on the north side, and the wall and turf here reach a height of about 1.8 m. In this room (I) we found a fine fireplace (Fig. 34). It is a stone-set long-fire, slightly elliptical, about 2 m long, and about 0.55 m wide at the middle (outside measurements). The fireplace consists of two large flat stones lying on the floor end to end, but with a small gap between. Along the edges of these stones were a number of erect, thin, flat stones fencing in the fireplace. On the north side five such stones have been preserved in a row, on the south side only two. Near the middle of the fireplace there is a flat stone standing on end, dividing the fireplace into two parts. The western part of the fireplace is somewhat disturbed, but the original length of the whole fireplace seems to have been about 2.3 m. As far as could be observed on the spot, the level of the fireplace and the floor-stones in the eastern part of the room, and in the doorway, is the same, and represents the first stage of the history of the building, but it also seems clear that there was a later floor level, about 0.35–0.40 m higher. The existence of the big fireplace defines this room as the *eldhús* (kitchen).

There is nothing special to say about *Room II*, except to repeat that it possibly made up a whole with Room I with its fireplace. If it was a separate room its dimensions must have been about  $3 \times 4$  m. In Room II there are several large stones in the soil, indicating that the floor level here must have been a little higher, perhaps 0.1–0.2 m. From Room II there are also passages to the westernmost room in the building, the large Room III, and – in the second row of rooms – to Room IV.

Let us start with *Room III*. This room is the largest and one of the best preserved rooms in the whole building. It measures about  $7 \times 3$  m. Although we have not found a safely identifiable fireplace in this room like the one in Room I, it must be considered – judging from its whole character, and the finds made here – the main room, the “hall”, of the dwelling (Figs. 35 & 36). The connection between Rooms II and III is a little difficult to understand on the basis of the observations made during the excavations. It looks as if there was an opening – a door – between II and III, not less than about 2 m wide, but this cannot have been so in reality. There was so little left of northern part of the wall between II and III that nothing can be said about it with certainty;

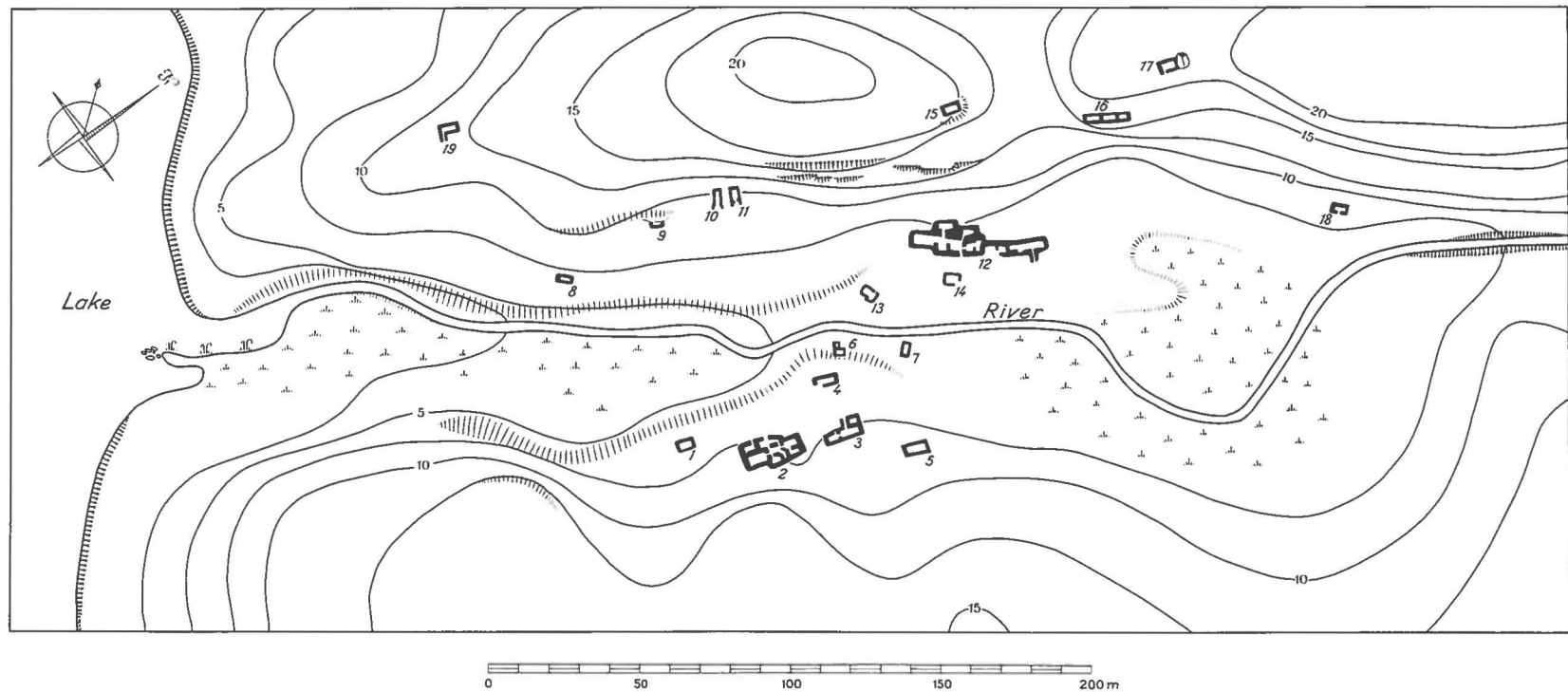


Fig. 26. Drawn plan of the farms Ø 71, Russip Kuua, with Ruins 1-7 of the South Farm and Ruins 8-19 of the North Farm (J. Meldgaard & C. L. Vebæk, *del.*, 1949).



Fig. 27. Russip Kuua, Ø 71. From the North Farm, Ruin No. 12. The dwelling and the byre, before excavation, seen from the NW (photo, C. L. Vebæk, 1949).

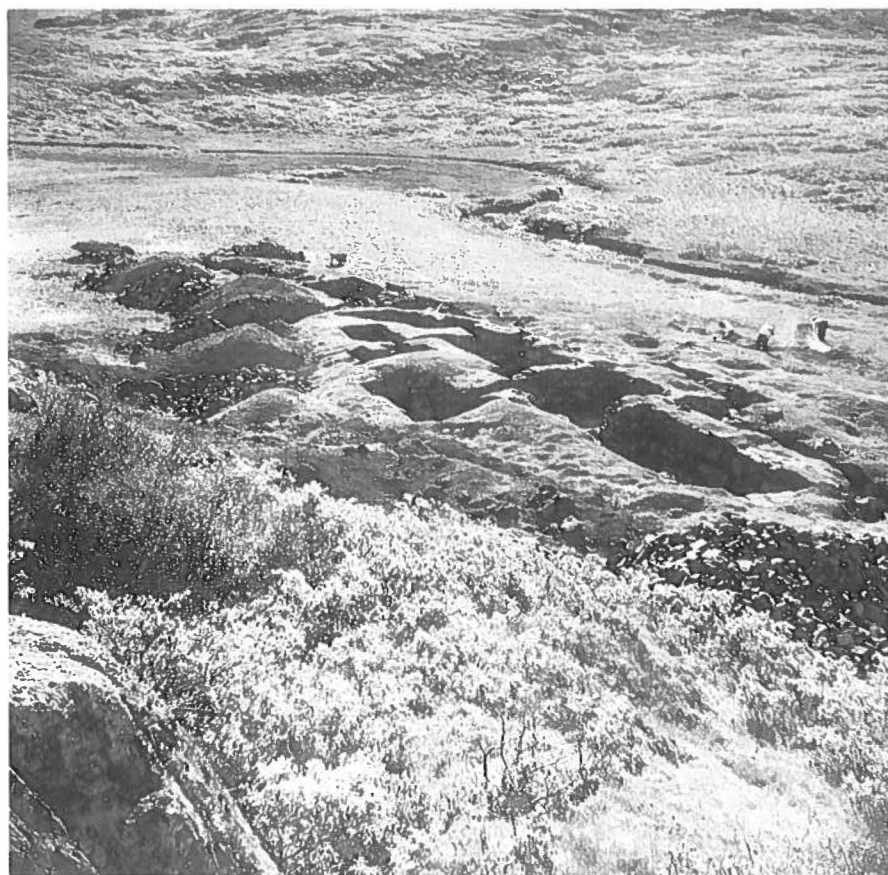


Fig. 28. Russip Kuua. The same ruins as shown in Fig. 27, but after the excavation (photo, J. Meldgaard, 1949).

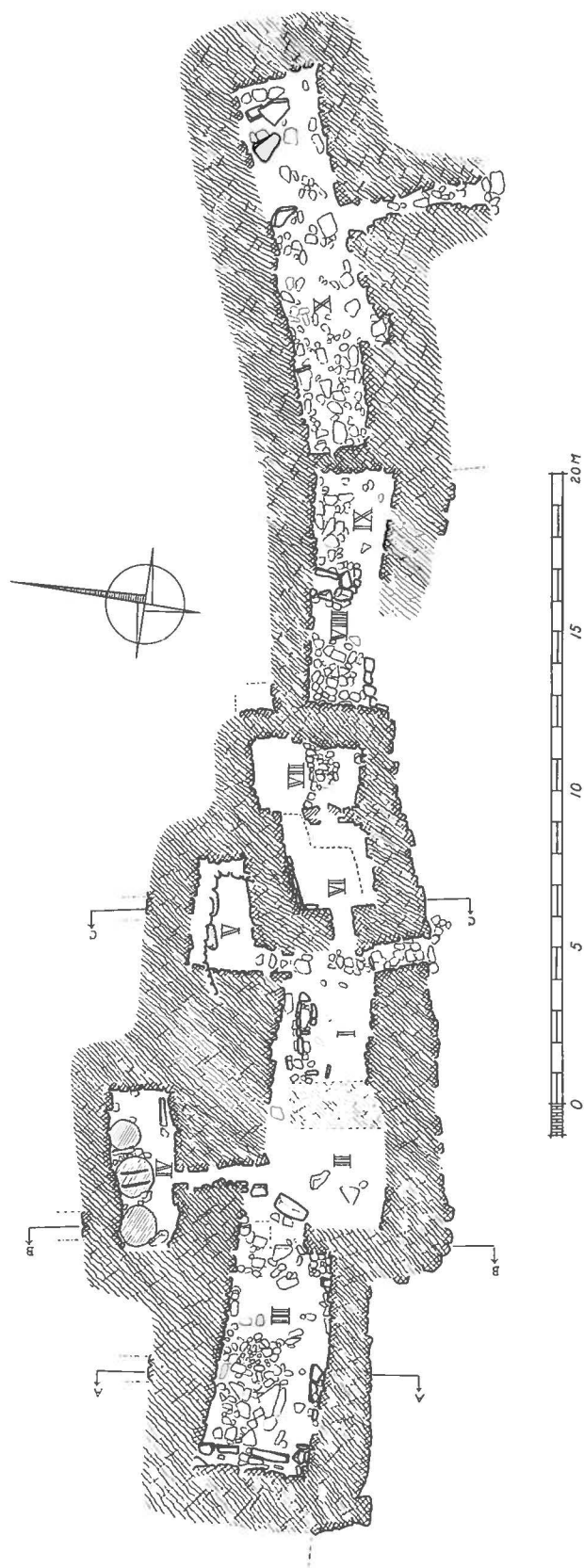
Fig. 29. Russip Kuua, Ø 71.  
A view of the two farms  
from the east, after the  
excavations at the North  
Farm, when excavations had  
just started at the South  
Farm (photo, C. L. Vebæk,  
1949).



Fig. 30. Russip Kuua, Ø 71. The North Farm, with Ruin 12, the dwelling and the byre, excavated, seen from the north (photo, C. L. Vebæk, 1949).



Fig. 31. Drawn plan of Ruin 12 on the North Farm at Russip Kuua, Ø 71 (the dwelling, and the adjoined byre) (J. Meldgaard & C. L. Vebæk, *del.*, 1949).



but I think the doorway was at about the middle of the wall, separating Room II from Room III, and that it was about 1 m wide, perhaps a little less. The walls – especially the sills of the walls – were quite safely identified in Room III. The walls were partly built with rather large stones and turf. In the west gable there are almost only large stones on a layer of turf; the wall is preserved here to a height of about 0.8–1.4 m. In other parts of the room the remains of the walls are about 1.35 m high. Along the western back wall – stretching from the south to the north wall – is a row of very large, oblong stones, the bottoms of which are level with the floor. The fronts of these stones lie about 0.70 m from the back wall. There are two very big oblong stones ( $1.30 \times 0.25 \times 0.18$  and  $0.90 \times 0.23 \times 0.22$  m), lying in the middle, and on each side there is a pair of smaller, more cubic stones. In my opinion we here have a *pallr*, a sort of bench, or rather the foundation for one (Fig. 37). There may have been wooden planks on the stone foundation, and the bench may have been covered with furs so one could sit or lie down there. Along part of the southern wall we find large and small stones placed such that there appears to have been a sort of bench here too. The floor is more or less covered with flat stones. Towards the middle of the room these stones are very marked by fire, so there seems to have been a fireplace here, although not as distinctly formed as the long fire in Room I. There are also certain indications of fireplaces in the southeastern as well as the northeastern corners of this room.

Returning to the room numbered II on the ground plan, at about the middle of the north wall here there is a very clear doorway to one of the two rooms in the second row of rooms in the building. The doorway is not less than 2.7 m long because the wall between Rooms II and IV is extremely thick and seems mainly to have consisted of turf. The doorway is 0.5–0.6 m wide. The walls in the doorway were more or less collapsed, but were safely identified, and we could count six or seven layers to a height of about 1.70 m (Fig. 38).

Room IV is one of the clearest and best-preserved of all the rooms in the house. It measures approximately  $5.0 \times 2.0$ – $2.2$  m. The walls are fairly well-preserved. In one part of the room the stones in the walls are comparatively large and rise to a height of 1.3 m – in the northeastern corner, with about a dozen courses, to 1.6 m, and in some places even to 1.8 m. Room IV is especially interesting because of the distinct traces of three large wooden tubs which have been partly buried in the floor, close to one other, in a row against the northern wall (see the drawing and the photos, Figs. 39–41). It seems possible that there was even a fourth tub, in the SE corner, but as there was no distinct



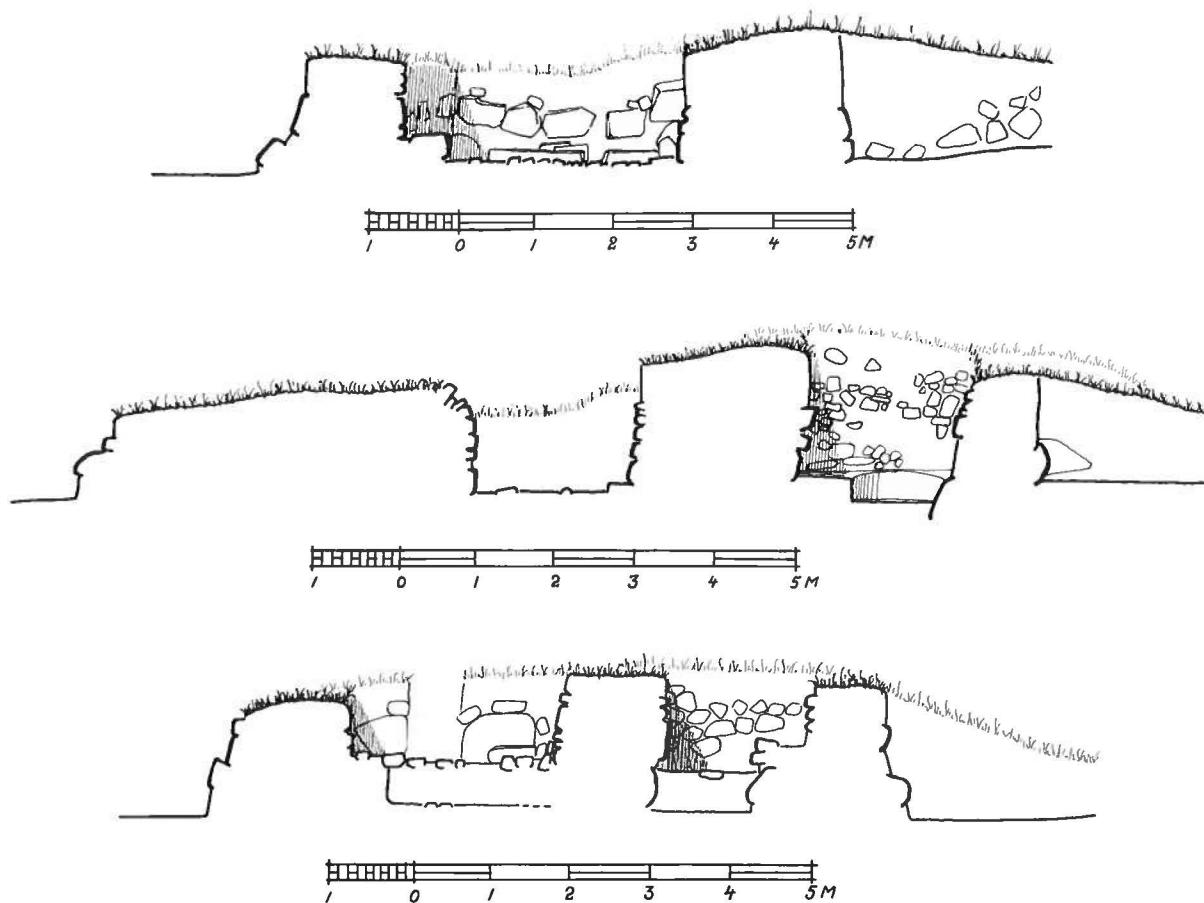


Fig. 32. Three cross-sections, A-A, B-B and C-C, through the dwelling end of Ruin 12 on the North Farm, at Russip Kuua (J. Meldgaard & C. L. Vebæk, *del.*, 1949).



Fig. 33. Russip Kuua, the North Farm, Ruin 12. The entrance to the dwelling and part of Room I as seen from the inside of the room (photo C. L. Vebæk, 1949).



Fig. 34. Russip Kuua, the North Farm, Ruin 12, Room I, with the long-fire, as seen from the SW. (The person behind the fireplace is Sverri Dahl)(photo, C. L. Vebæk, 1949).



Fig. 35. Russip Kuua, Ø 71. The North Farm, Ruin 12, with Room III seen from the west (photo, C. L. Vebæk, 1949).

Fig. 36. Russip Kuua, Ø 71, the North Farm, Ruin 12. Part of the dwelling, Room III, seen from the east (photo, C. L. Vebæk, 1949).



Fig. 37. Russip Kuua, Ø 71, the North Farm, Room III, the NE corner (photo, C. L. Vebæk, 1949).

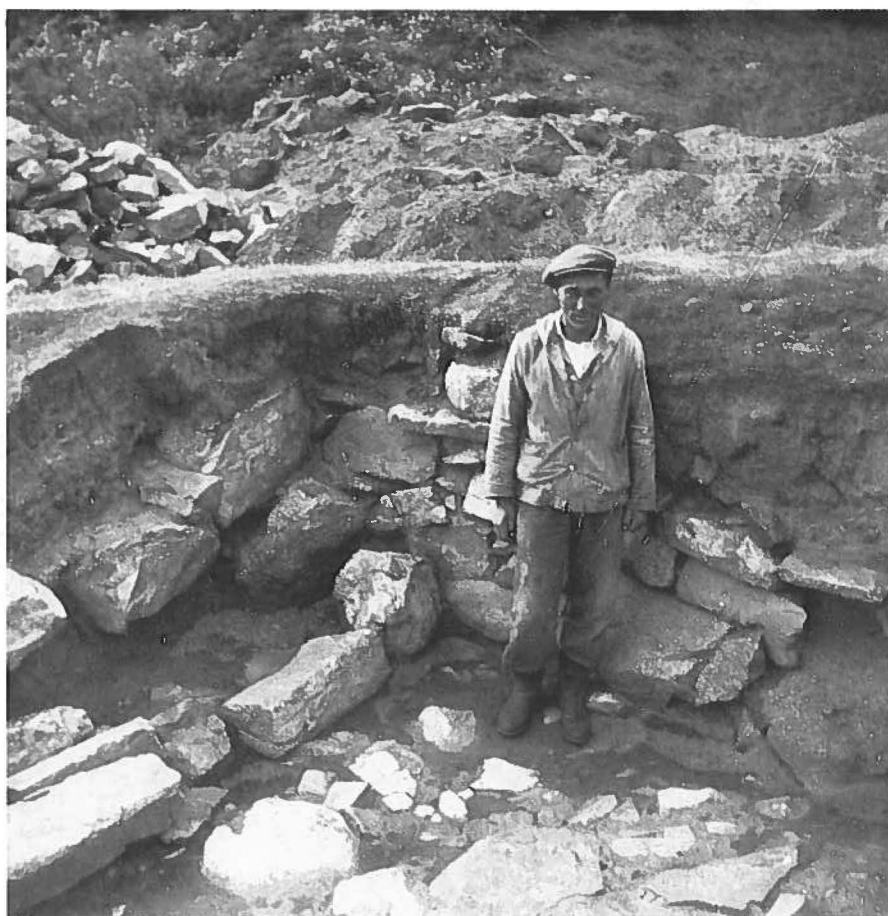




Fig. 38. Russip Kuua, Ø 71. The North Farm, Ruin 12. The doorway from Room II to (in the background) Room IV (with the tubs). (The person is J. Meldgaard)(photo, C. L. Vebæk, 1949).

depression in the floor to show the position and size of this tub it is not indicated on the drawing. The three tubs which were definitely identified were designated *a*, *b* and *c*, *a* being the farthest to the north, and *b* the one in the middle. The depressions for the tubs stood out as light-coloured circles in the floor, and they had been buried 0.15–0.25 m in the floor, most clearly in the case of Tub *b*. The dimensions of the three tubs, and the depressions in which they stood, are as follows: Tub *a* – diameter of the depression 1.17–1.18 m, the tub itself 0.90–0.95 m; the corresponding dimensions for Tub *b* were 1.17–1.23 m and 0.95–1.00 m; and for Tub *c* were 0.88–0.90 and 0.78–0.80 m. Only in Tub *b* were there slight traces of the tub itself – a paper-thin shell of the lower parts of the sides and of the bottom. No doubt all three tubs stood on two heavy wooden logs, but what was left of them was actually only visible in Tub *b* (as will be evident from the photo). On the bottom of Tub *b* there was a culture layer, 0.02–0.10 m thick, of black earth with a little charcoal, a few objects of steatite, and – quite surprisingly – a lot of very small bones of very small animals – all of them, according to the zoologists (McGovern, this publication) mice! There were a total

of 110 mice – a very unusual find, since hitherto not a single mouse had been found in any Norse farm in Greenland. The condition of Tub *a* was about the same as that of Tub *b*, but there was not the slightest trace of the logs on which the tub must have stood, nor of the tub itself. There was some black earth and a few animal bones – but none of mice – and then there were some larger stones suggesting that this tub (and perhaps the two others) had at some time been abandoned and partly filled with stones, after which the room must have been given another function.

There can be no doubt, however, that at some period during the Norse habitation here this room was a milk-room (*fadebur*), and that the tubs were used as containers for sourmilk (*skyr*). Similar milk-tubs are known from other Norse farms, for example Ø 149, the Benedictine Convent, where there were no less than seven such tubs in a single room (from the settlement before the foundation of the Benedictine convent (Vebæk 1991: 52–54)). The strange fact that Tub *b* in Room IV at the Norse farm Ø 71 contained about 110 mice (of which there were none at all in the two other tubs) seems explicable only if this tub was actually used as a





Fig. 39. Russip Kuua, Ø 71. The North Farm, Ruin 12, Room IV. with the tubs (photo, C. L. Vebæk, 1949).



Fig. 40. Russip Kuua, Ø 71. The North Farm, Ruin 12, Room IV. with the three tubs. 110 mice were found at the bottom of the middle tub (photo, C. L. Vebæk, 1949).

Fig. 41. Russip Kuua, Ø 71, the North Farm, Ruin 12, Room IV. The photo shows the middle one of the three tubs, the one in which 110 mice were found. Note the traces of the two cross-beams on which the tub once stood (photo, C. L. Vebæk, 1949).





gigantic mousetrap! The undoubtedly large number of mice in the farm was no doubt a great nuisance to the inhabitants, so to get rid of the mice the inhabitants left one the milk-tubs open and without a cover (which the other tubs must have had), and left some milk in the open tub to attract the mice into it. The mice could easily get inside – but could not get out again, and so perished. I know of parallels from Iceland of mice being caught in the same way as postulated here (cf. Vebæk 1991a: 9).

The room described here, with the tubs, would appear to have had another function before the tubs were put there, and there are also indications that the room had yet another function after the tubs had been abandoned – but we do not know what it was.

*Room V* is the other room in the building, in the second row, east of Room II. This room – which is about 3.0–3.5 m long and 2.0–2.5 m wide – is very difficult to describe, as there seem to have been at least two building periods. I will not try to go into detail about this very confusing room, but will only mention that during its last building period it seems to have had benches – as in Room III – along the north side and the eastern wall, 0.5–0.7 m wide. But there are also indications that the stones in these benches belong to an earlier building period – at least they continue about 1 m in under the western end. The entrance to this disputed room is in the SW corner, from Room I, and is about 0.6–0.8 m wide. In the SW it measures a little more than 1 m. On the floor in the entrance there is paving of flat stones, a direct continuation of the slabs in the eastern part of Room I, and the doorway into Room I from the outside.

We must now look at *Room VI*, in the first row, just east of Room I. The entrance is from here, at about the middle of the partition wall. The doorway is very clear, about 0.7 m wide, and its length – corresponding to the thickness of the wall – is about 1.1–1.2 m. The walls here are preserved to about 1 m. There are small, flat stones in the doorway (regrettably not recorded on the drawing). The room itself is rectangular, almost square, measuring about 2.6–2.8 m each way along the walls. It is remarkable that on each side of the corners between the doorway and Room VI the sill consists of a single, large stone; on the south side the stone is  $1.60 \times 0.60 \times 0.35$  m, and the other stone is  $0.95 \times 0.50 \times 0.35$  m. The walls in the western, southern and northern sides are relatively well-preserved, rising to about 0.7–1.0 m, and the sill is distinct, while the wall to the east, between Rooms VI and VII, is very poorly preserved. The slabs on the floor (I regret that they are not to be seen on the drawing) as well as the stones in the wall, are very sooty, and there seems to have been a fireplace – or perhaps an oven – in the northeastern corner. A closer study of the walls – and the floor – indicates with some certainty that the room was modified during the period of habitation, and it may have changed its function. The level of the floor was no less than 0.45–0.50 m

higher than that of Room I, with the long-fire. That the present (last) position of the walls is not the original one is proved by the fact that under the sill there is a layer of earth, ashes, charcoal and animal bones. This is only true inside the room – the outside southern wall seems to have been built directly on the original soil, like the other sill-stones in the front wall. In parts of Room VI someone has dug down into the original subsoil, consisting of greyish-yellow, fine sand, which is here at a higher level than elsewhere in the building. At the bottom of the dug-out area (indicated by a dotted line) there were slabs at the same level as those found in Room I. The hole in the southern part of the room was filled with charcoal – apparently mainly from birch (there are samples of this material), but there were also earth, ashes and animal bones, especially under the slabs in the doorway to Room I.

*Room VII* is the easternmost room of the building (the dwelling proper) at the North Farm. Its dimensions are about  $3.0 \times 2.0$ –2.5 m. The walls are certain, except for the one which divides Room VII from Room VI – as mentioned during the description of Room VI, it is in poor condition. The walls are generally preserved to a height of 0.9–1.5 m. On the southern part of the floor there is a dense layer of rather thick, smallish stones, down to a depth of no less than 0.8 m. Several of the stones in the room are marked to some extent by fire, especially in the southern wall. The entrance to Room VII is from Room VI, most certainly the northern part of the room, but – as mentioned above – the partition wall between VI and VII was very much collapsed, so the exact position of the door is not quite certain. Nor can we be certain of the function the room had.

There seems to be no doubt that the dwelling to the east ends with Room VII. But contiguous with the dwelling there is a long building with rooms in one row. There are certainly two, and perhaps three rooms (numbered VIII, IX and X) making up an area of not less than  $22 \times 5$ –9 m.

It is not easy to say anything with certainty about the room or rooms just east of the dwelling. It may have been a single room – at least at first – or there may have been two rooms, a western one VIII and the eastern Room IX. The back wall of both rooms is a continuous construction, all of which seems to have been built at the same time; it is quite well-preserved to a height of 1.0–1.2 m, and seems to be about 1.5–2.0 m thick. At the back (to the north) there is a heavy cladding of turf, corresponding to the one behind the dwelling. If we consider it as just one room, it is about 7.5 m long, and measures 2.2–2.6 m across. Near the middle, however, there is a strange wall projecting from the north wall, about 2 m long and 0.7 m high, partly consisting of a few very big stones. This may very well be a partition wall, giving us one room to the west of about 3.5–2.0 m (VIII), and an eastern room of about  $3.0 \times 2.2$ –2.5 m (IX). In both rooms part of the floor is covered with slabs, those in Room IX lying about 0.3 m higher than

Fig. 42. Russip Kuua, Ø 71, the North Farm, with the byre (part of Ruin 12), Room X, seen from the west (photo, C. L. Vebæk, 1949).



those in Room VIII. Part of the front wall – the western part – was completely collapsed, while the eastern part was safely identifiable and quite well-preserved. Access to both rooms seems to have been from about the middle of the southern wall or slightly further to the west. Rooms VIII and IX have the appearance of outhouses, but it is not possible to say anything about their actual use.

*Room X, the byre.* The easternmost room in Building No. 12 can certainly be identified as a byre (perhaps combined with a barn), as there are stalling stones in it (Fig. 42). Only the interior of this room (which should actually be regarded as a separate building, although built directly on to the eastern part of the dwelling) was excavated. Room X seems to have been surrounded on all sides (except to the west, where there is a partition wall shared with Room IX) by a thick layer of turf. How heavy this turf cladding was is evident from the approximately 5 m long, but only 0.5–0.7 m wide entrance passage – a phenomenon rarely seen in Norse houses. Inside, the room measures about 12.0 × 2.4–2.5 m. The inner walls are certain, 0.8–1.4 m high and with 7–8 courses of stones and turf. As will be evident from the drawing, part of the southern wall, between the door opening and the western wall, has a rather curious feature, as there appears to be a niche here of about 1 × 1 m – why we do not know. Most of the floor and the entrance passage is paved with stone slabs, and in the eastern end there are at least four stalling stones, two of which are still in a more or less upright position, so this room has been identified as a byre. As there are no such stalling stones in the western part of the room, it is possible that this part was used as a hay barn.

## 8. The outhouses of the North Farm

This seems an appropriate place to mention the other Norse ruins found north of the river, which are numbered 8–19 on the general map; ruins 20–21 are outside the map. All these ruins are presumed to have belonged to Ø 71, the North Farm.

*Ruin No. 8.* A quite low, small, apparently rectangular building, about 6 × 3 m (outside measurements). Not excavated.

*Ruin No. 9.* A low, rather diffuse site – undoubtedly a pen – built up against a steep, low rock. About 6.0 × 2.5 m (outside) and about 4.0 × 1.3 m (inside). Not excavated.

*Ruin No. 10.* (Excavated). A rather strange house, having the appearance of a cellar, cut out from the slope. About 6.5 m SN, only 1.2–1.3 m across, except for the southernmost part, where above about 1.25 m the width is some 1.8 m, and there is paving. The room is open to the south. The walls – which have collapsed somewhat – are still standing to a height of 0.5–0.8 m and seem to have been 0.7–0.9 m thick. The use of this house is unknown.

*Ruin No. 11.* (Excavated). Not many metres east of Ruin 10 is a house of almost the same type as No. 10. Ruin No. 11 is also cut into the ground. It is about 5.25 m long and 1.6 m across. A metre or so from the opening in the west gable there are some stones which seem to have been a wall no more than 0.5 m broad. As in House 10 the back wall consists of a firm rock. The walls are about 0.7–0.9 m thick and are preserved, with

2–4 large stones, to a height of about 0.6–0.9 m. In the outer part of this room (the function of which is unknown) there are slabs on the floor.

*Ruin No. 12.* The dwelling described above, combined with a byre.

*Ruin No. 13.* (Excavated). A house of rather irregular form, about 5 m in length, and measuring as much as 3.5 m across. Oddly, the walls look as if there is only a single row of stones in the sill – at the east end only four stones in all. The walls are totally collapsed, but there were no fallen stones, so it seems that if the walls were of any considerable height they must have consisted mainly of turf. The entrance to the house was in the northeastern corner. Its function is unknown.

*Ruin No. 14* is between House 12 and the river. There was at least one small house on the spot, with outside measurements of  $6.5 \times 0.4$  m. It was excavated, but later covered up again. The function of the building is unknown.

*Ruin No. 15.* About 40 m north of the dwelling we found a rectangular structure built with the dry-masonry technique. It was not excavated, as it was so dilapidated. The outside measurements of this ruin are  $6.5 \times 0.4$  m.

*Ruin No. 16* lies about 40 m east of No. 14 (not excavated). It is a rectangular outhouse, about  $16.5 \times 4.0$  m (outside measurements), built of fairly large stones, but with low walls, and here too we must assume that the walls were mainly of turf. The ruin is divided into three rooms, but no doors were found.

*Ruin No. 17* is about 20 m NE of No. 16. The building was exposed and partly excavated. It is a rectangular pen built up against a huge rock, and measures about  $7.0 \times 4.5$  m around the outside. This structure too may mainly have been built of turf on a sill of stones which can be followed all the way round. The door is in the SW corner, flanked by two large stones.

*Ruin No. 18.* I regret that I have found no specific description of this building, which is about 90 m ENE of Ruin 12, but according to the ground plan it was a small, rectangular ruin,  $7 \times 4$ –5 m outside measured, with a door in the middle of the south side.

*Ruin No. 19.* (Only the interior was excavated). This is a small, rectangular site, much collapsed. Inside it measures about 3.8 m – perhaps a little more – lengthwise, and about 1.6 m across. The structure was dug slightly into the ground (like Nos. 10 and 11). There appears to have been a door in the SW corner, and a sort of a short passage.

*Ruin No. 20* is a large pen with two big rooms, and apparently two smaller rooms. It was built up against a huge rock on a slope, and its dimensions are about 17 m (along the rock)  $\times$  10 m. It was built with the dry-masonry technique, partly with very large blocks. In some places the walls rise with five courses to about 1.0 m. The entrance is from the south.

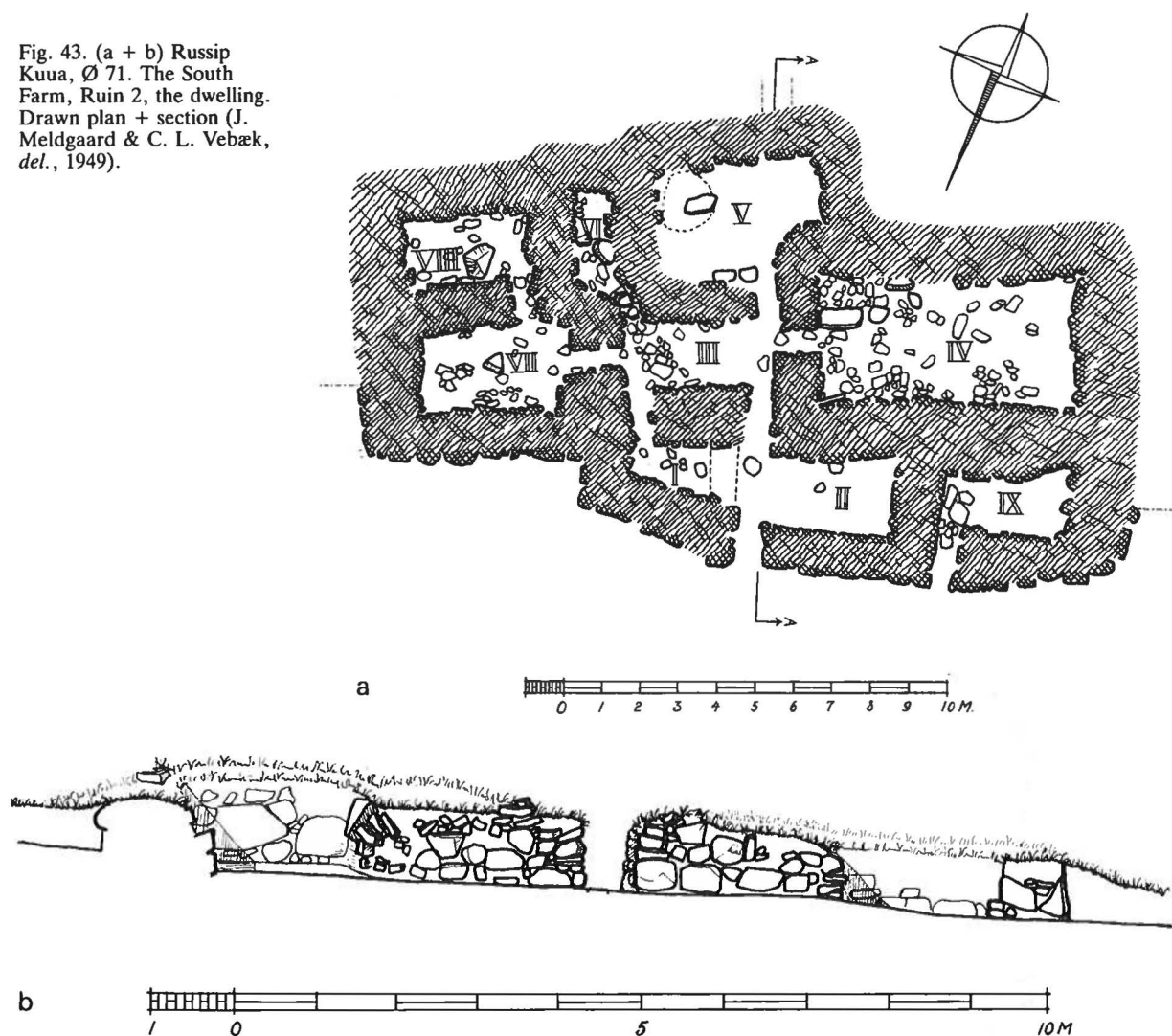
*Ruin No. 21* is a rather unusual building – actually a cave used as a pen. The cave is triangular, at its greatest

length about 3.6 m, and about 2 m across. The wall in front of the cave is built in dry-masonry technique and can be followed for about 3.3 m, with 1–2 stones rising to a height of about 0.5 m. The roof of the cave is very uneven; outside it is about 1.6–1.7 m above the floor, but inside it goes down to the floor.

## 9. The excavation of the South Farm

South of the river, within a comparatively limited area, we had registered seven ruins which must make up a separate farm – *the South Farm* – with a dwelling (Ruin No. 2), a byre (No. 3) and some outhouses (Nos. 1, 4–7). As with the North Farm we will start with *the dwelling, Ruin No. 2* (Fig. 43 a & b). This house is about 30 m south of the river and consists of a complex of rooms, but there can be no doubt that it was exclusively a dwelling. The outside measurements of the building are about  $20 \text{ m} \times 10$ –12 m, orientated WSW-ESE. It consists of eight or nine rooms (I–IX) in rows of two or three. The house was completely excavated inside, while only the front wall (facing north) was dug free on the outside. Most of the walls are preserved to a height of 0.8–1.0 m, with 2–4 courses of stones (and turf), but – especially at the corners – there are wall sections rising to about 1.20 m, and five or six courses of stones. The walls are mainly 1.0–1.5 m thick. It is possible that there was turf cladding outside the house, but we found no reliable evidence of this. All the rooms, with the exception of IX, were connected by doors. The entrance to Room IX is in the front wall, and the main entrance, giving access to all the other rooms, is at about the middle of the same wall. Entering the house through the latter doorway we come to *Rooms I and II* – which may have made up one separate room (Fig. 44). The total area of I+II is  $7 \times 1$ –2 m. The room is widest at the western end (about 2 m), and narrows greatly towards the east. It is possible, but not certain, that there was a partition wall between I and II (indicated on the drawing by two dotted lines). If there was, it must have consisted mainly of turf. Nothing was found to indicate the function of Rooms I and II. In direct continuation of the entranceway there is access through the south wall to *Room III*, the central room of the building (Fig. 45). This is a rather small, but very clear room, about  $4 \times 2$  m. There are no less than six doors from here to the other rooms in the building. There are some slabs on the floor in Room III, but nothing which indicates the exact use of this room. If we use the doorway to the west, we come to *Room IV*, which is the biggest and also one of the most distinct rooms in the whole building. It must have been the main hall (Fig. 46). It measures about  $6.5 \times 3.5$ –4.0 m. The walls are generally well-preserved, with 2–6 courses. On the floor there are

Fig. 43. (a + b) Russip Kuua, Ø 71. The South Farm, Ruin 2, the dwelling. Drawn plan + section (J. Meldgaard & C. L. Vebæk, del., 1949).



a number of slabs, which all seem to be in situ. There are also flat stones in the doorway, which is 0.6 m wide, and the length, corresponding to the thickness of the walls, is about 1 m. As regards the walls, it may be added that there are particularly large, fine stones in the western gable, but they are positioned rather high in the wall, and the foundation here (the sill) seems to have been made of turf. Strangely enough there was no certain dedicated fireplace in Room IV, but many of the stones in the room are very sooty, and there are indications that there was a fireplace in the corner to the NW, and perhaps also one in the opposite corner.

Going back through Room III, we come to a room in the third row, *Room V*, where the door is in the NW corner so that it lines up with the main entrance and the doors between I+II and III. Room V – as we can see in the drawing – has a rather unusual shape; its length varies from 3 to 4 m, its width from 2 to 3 m. Some parts of the walls, especially to the N and NE, must

have consisted of turf; in other parts of the walls there are many stones, some very large. Parts of the walls had more or less collapsed, yet at some points they were preserved to 1.00–1.15 m, with 4–6 courses. The floor level is higher than elsewhere in the building, and it would appear that the builders dug slightly down into the subsoil, especially to the south, to level the floor. Incidentally, part of the floor was covered with a thin, up to 0.15 m thick layer of clay, which partly covered a very large, flat stone. The clay layer is indicated in the drawing by dotted lines. I cannot say anything about the function of Room V.

Between Rooms V and VIII we have *Room VI*, a very interesting room, with the appearance of having been used as a bath-house. It is the smallest room in the building, only 2.30 × 2.50 m long and 0.50–0.85 m across (Fig. 47). The room is orientated approximately SN. The entrance to Room VI is from Room III, through a narrow doorway obliquely placed in the NW





Fig. 44. Russip Kuua, Ø 71.  
The South Farm, Ruin 2,  
the dwelling. Rooms I + II,  
as seen from the east  
(photo, C. L. Vebæk, 1949).



Fig. 45. Russip Kuua, Ø 71.  
The South Farm, Ruin 2,  
the dwelling. Part of Room  
IV (in the foreground) and  
Room III, as seen from the  
SW (photo, C. L. Vebæk,  
1949).





Fig. 46. Russip Kuua, Ø 71. The South Farm. Ruin 2, the dwelling. Room IV, seen from the east (photo, C. L. Vebæk, 1949).

Fig. 47. Russip Kuua, Ø 71. The South Farm. Ruin 2. Room VI, the bath-house, seen from the north (photo, C. L. Vebæk, 1949).



corner. The doorway is about 1.50 m long and 0.40–0.60 m wide. In the doorway few bigish stones have been placed, forming steps from Room III, which is at a slightly lower level than Room VI. The walls of Room VI are rather collapsed, but certain. In the back wall there is a sill consisting of four smallish stones, and – in the middle – a very big stone measuring 0.60–0.45 m. Most parts of the wall consist of turf, still standing to a height of about 1 m. From about the middle of the room out to the doorway there are a few large and some smaller flat stones, apparently floor slabs. The back – almost half in fact – of the room was filled with a mixture of earth, charcoal and several hundred small, rounded stones the size of apples or oranges, and all strongly marked by fire; these stones certainly come from a completely collapsed oven of a type used as bath-house stoves, so this room can be safely identified as the *bath-house* of the farm. Such bath-house stoves are known from other farms in Vatnahverfi (Vebæk 1943: 33–34).

Returning to the central Room III, from here there is a doorway leading to the easternmost rooms of the dwelling, Rooms VII and VIII. *Room VII* is square, about  $3.5\text{--}4.0 \times 2.5\text{--}2.7$  m. The door to VII had collapsed, but was quite identifiable, about 1.60 m long

(corresponding to the thickness of the wall) and about 0.70 m wide. In the western corner, between the doorway and the room, the wall is preserved, with six courses of flat stones, to a height of about 0.85 m. The sill in Room VII mainly consists of rather large stones, mostly in situ. The thickness of the walls is 1.0–1.2 m. One of the sill-stones in the east wall is very long but rather thin, 0.06–0.17 m. This stone – like most of the other stones in the room – is very sooty. On the floor there are more slabs, and a few bigger stones can be seen in the subsoil. There is nothing to explain the function of this room.

From Room VII there is a door in the SE corner leading to *Room VIII*. This room – measuring  $3 \times 2$  m – has safely identifiable walls, with a predominance of large stones in the sill; but towards the west the wall is somewhat displaced from its original position. The walls rise to about 0.70–1.00 m, with 2–5 courses. On the floor there is one large stone projecting from the subsoil, and some secondary slabs. In the door opening there is a flat stone which was undoubtedly a threshold-stone. The door is 0.60 m wide, and its length – corresponding to the thickness of the wall – is 1.20–1.40 m. Its use is uncertain (Fig. 48).

As in the dwelling on the North Farm, we found many



Fig. 48. Russip Kuua, Ø 71. The South Farm. Ruin 2, the dwelling. In the foreground Room VIII (photo, C. L. Vebæk, 1949).

Fig. 49. Russip Kuua, Ø 71.  
The South Farm, seen from  
ESE (photo, C. L. Vebæk,  
1949).



objects of all kinds in the corresponding house on the South Farm. These finds will be described in a special chapter later in this paper, as will the many finds – especially of animal bones – from the midden outside the house. Only part of this midden was excavated (about 30–35 m<sup>2</sup>), but the finds were rich, and if in future there is an opportunity to resume excavations at Russip Kuua, I have no doubt that more of the midden outside the South Farm should be excavated.

## 10. The outhouses of the South Farm

We registered a total of seven houses (numbered 1–7) south of the river. All are presumed to have belonged to a separate farm, the “South Farm”, where the dwelling has been designated No. 2 on the general map. We will now look at the outhouses (Fig. 49).

*Ruin No. 1.* About 15 m east of the dwelling is a small, low, not very distinct structure with outside measurements of about 8 × 15 m, and inside dimensions estimated at 5.0 × 2.5 m. This ruin – which must have

been built mainly of turf – cannot be classified for any special use.

*Ruin No. 3,* only 8–9 m east of the dwelling, is on the other hand clearly a *byre*, undoubtedly combined with a hay barn, and with an extra room to the NE. The total outside length of the building is about 15.5 m. To the east (where there are two rows of rooms) it measures about 7.5 m across, and to the west about 4.5 m. It was excavated (but I regret that I only have a sketch of it). The rooms are built in the usual way of stones combined with turf. The walls have collapsed somewhat, but the wall-flights and doors are fairly intact. The walls are preserved to about 0.5–1.0 m in 5–6 courses. There are two entrances to the building, both on the north side. The western door gives access to *Room 1*, with inside measurements of about 4 × 2 m. The floor consists of earth. It seems reasonable to consider this room as a hay barn. The next room in the building – to which there is access from Room 1 as well as from outside, at about the middle of the room – is no doubt a *byre*. There are stalling-stones, three of which are still standing almost in their original position. The stalling-stones stand along the southern wall. The *byre* is about 7 m long and 2.0–2.5 m across. The floor consists to a great extent of the original subsoil (here rock with a marked



Fig. 50. Russip Kuua, Ø 71. The South Farm. Ruin 3, excavated. The byre, seen from ESE (photo, C. L. Vebæk, 1949).

downward SN gradient) as well as some slabs. The three stalling-stones, standing more or less in their original position, measure  $0.75 \times 0.50 \times 0.12$  m,  $0.90 \times 0.78 \times 0.11$  m and about  $0.92 \times 0.68 \times 0.11$  m. One would have expected at least one more stalling-stone in the byre. Room III lies parallel to Room II, on its north-eastern side; it measures about  $4 \times 2$  m. On the floor there are several slabs. We were not able to find a door leading to Room III, and its actual function is unknown (Fig. 50).

*Ruin No. 4* is situated between Nos. 3 and 6. It is a rectangular site with outside measurements of about  $8.80 \times 3.80$  m (not excavated). We exposed part of the wall to the south, and only one course of stones, mainly large ones, has been preserved. Outside the ruin there were many fallen stones. No doorway was found to the building, the exact use of which is unknown.

*Ruin No. 5* is 14 m east of No. 3. It is a low site (not excavated), about 8 m long, 3.6–4.5 m across (outside measurements). The walls seem to have been about 0.8–1.0 m thick. There were apparently only 1–2 courses of stones, mainly rather big. No door could be observed. The exact function of the building is unknown.

*Ruin No. 6*, which is a few metres from the river, west of No. 4, is a rather strange building, having the character of a cellar (excavated). It is partly dug into the terrain, in the southern side to a depth of about 0.8 m. The ruin consists of two rooms, apparently not connected by a door (Fig. 51). The largest room is only about  $1 \times 3$  m, the other, almost square, about  $1.5 \times 1.5$  m (inside measurements). The walls – which have partly collapsed – seem to have been only 0.6–0.7 m thick. In some places the stone wall is still standing to a height of about 0.8 m, with 2–5 courses of stones. In the biggest of the rooms (I) about half of the floor – the western part – was paved with rather clumsy stones. There was much ash on the floor, and several of the stones in the walls are sooty. This room may have been a smoking-room, for curing fish or meat.

*Ruin No. 7* – also close to the river – lies about 20 m east of No. 6 (partly excavated). It is a rectangular site, about  $7 \times 4$  m outside and about  $5.0 \times 3.7$  m inside. The walls are still standing to a height of about 0.8–1.0 m in 2–3 courses. At the SW corner of the building there is a curious passage or doorway about 2.6 m long and 0.6–1.1 m wide. The thickness of the walls is 0.8–1.0 m. This building may have been a sheepcote.



Fig. 51. Russip Kuua, Ø 71. The South Farm, Ruin 6, excavated, seen from about north (photo, C. L. Vebæk, 1949).



## Summary

To sum up the results of the excavations at Ø 71, Russip Kuua, there can be no doubt that there are two separate Norse farms here: the South Farm, south of the river, and the North Farm on the other side, practically opposite. The South Farm comprises seven registered ruins, Nos. 1–7, one of them a dwelling (No. 2) and one a byre (No. 3). The North Farm is bigger, and fourteen ruins are registered here (Nos. 8–21), among them a dwelling with a byre annexe. The two farms certainly co-existed for a period, but the somewhat different types of dwellings lead me to assume that the North Farm is the oldest. It may be added that the many finds of Norse relics described later in this paper do not seem to shed any light on the possible differences in the ages of the two farms.

## 11. The excavation of the farm Ø 167 (Abel's Farm), 1949–50

Our plans for archaeological investigations in Vatnahverfi included the excavation of the large farm Ø 167, with a number of unusually well-preserved ruins. We started excavations at Ø 167 while we were still excavating at Ø 71, Russip Kuua, in 1949. It was Jørgen Meldgaard, with a number of our Greenlandic assistants, who began the investigations there, concentrating on the very large, most interesting building complex which was later numbered 7 on our ground plan. I should mention at this point that Meldgaard and his men made the rather sensational find of some human skeleton fragments – parts of the skull and some other bones – in the passage in the southern part of the building complex (cf. section 12 below).

The farm is registered as Ø 167; but it is generally known as “Abel's Farm”, as it was the sheep farmer Abel Kristiansen (Fig. 52) who first pointed it out for the archaeologists (during the Mounted Expedition of





Fig. 52. The sheep farmer Abel Kristiansen – who gave his name to the farm Ø 167 (photo, L. Jensen).

1948). But it must be said that other sheep farmers also knew of this locality – and it is even possible that it was first mentioned by Aron Arctander in 1777–79 (cf. Holm 1883: 122 ff).

Before starting on my description of the excavations at Ø 167 I must mention that my Greenlandic assistants in 1950 were almost the same as in 1949. From Denmark I had the young ethnographer Claus Ferdinand. The Danish teacher in Julianehaab, Mr. A. Olling Andersen, also assisted me most of the summer. As in 1949, all transport was by boat, on the lakes from Eqaluit, as far as Russip Kuua. From there it was necessary to use horses, as the farm Ø 167 is up in the mountains, 3–4 km SE of Russip Kuua, and we had to have our camp on the spot for the excavations – also as a base for the excavations we carried out later in the summer at Ø 70 (the Mountain Farm) (Figs. 53 & 54).

Ø 167 is in a smallish mountain valley, just south of a small lake. East of the lake there is a small but steep mountain, from the top of which there is a fine view of the whole farm. The terrain on which the farm lies is not

quite flat, but the vegetation there is luxuriant, and it was certainly a good place for settlement.

Within an area of about 350 × 350 m we registered a total of fifteen ruins, mostly south of the lake, and west of the tiny river which runs into the lake. The ruins are numbered 1–15 on the sketch map (Fig. 55). In the following the ruins will be described and illustrated where possible with drawings and photos – with special emphasis on the most important and best-preserved ruins: No. 1 (the dwelling), No. 4 (the *skemman*) and No. 7 (a unique building complex).

### The excavation of Ruin 1 (the dwelling)

Let us start with the ruins registered as Nos. 1–2 (and *a-b*). Before excavation these ruins stood out as one single, very long (more than 40 m) evenly rounded elevation in the terrain, totally overgrown with grass and some willow. But the excavation soon made it clear that there were two separate buildings (Nos. 1 and 2), with traces between them of what seems to be an older

Fig. 53. From the archaeological expedition in Vatnahverfi in 1950. Breaking camp (photo, C. L. Vebæk, 1950).

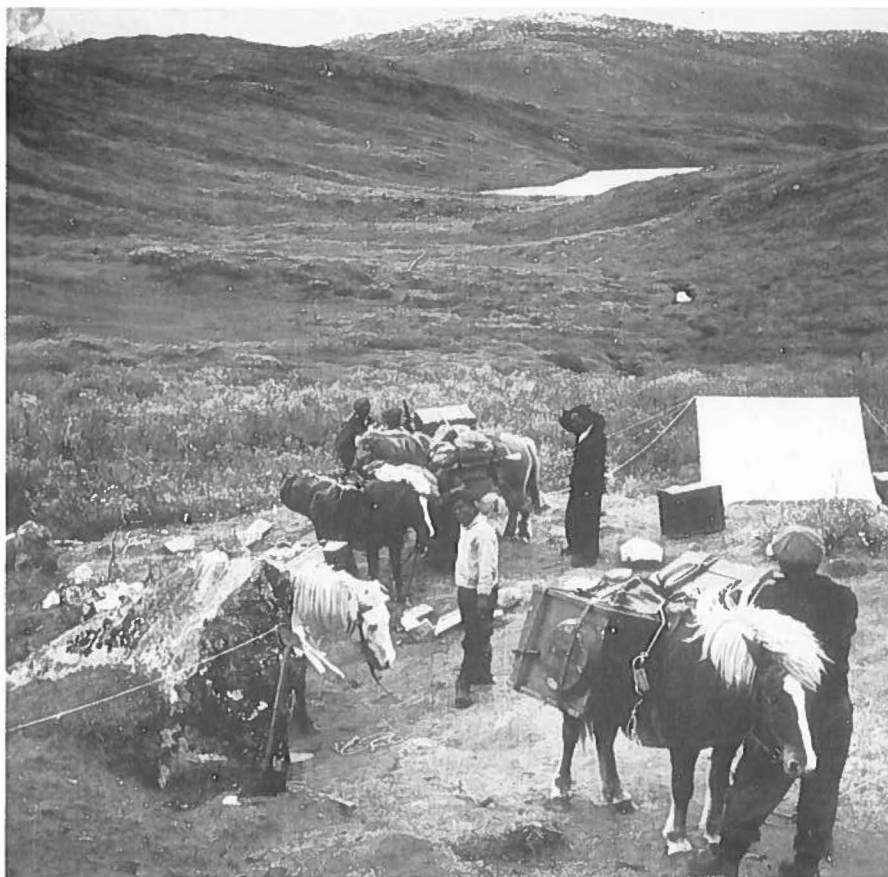


Fig. 54. Ø 167. A view of the farm from the east. Photo from the mountain behind the little lake (photo, C. L. Vebæk, 1950).



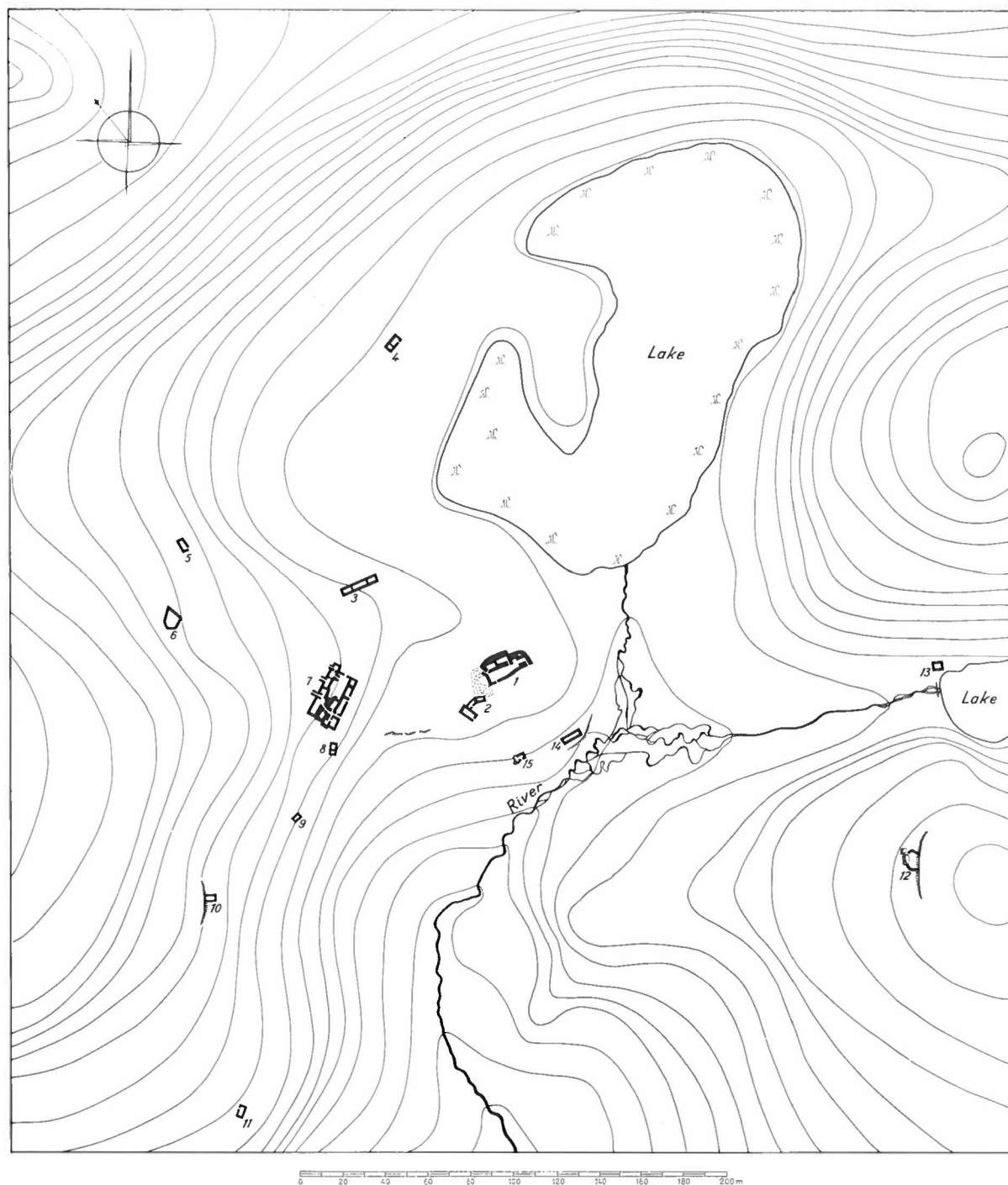


Fig. 55. Drawn general plan of the farm Ø 167 (Abel's Farm). The contour interval is 5 m (C. L. Vebæk, *del.*, 1950).

building, designated *a* and *b*. Ruin 1 – which can be proven with certainty to have been the dwelling – is orientated EW, with outside measurements of about 22 × 8–12 m (Fig. 56). The house consists of six rooms (I–VI) in two rows. There are two clear entrances on the

south side – one to the west, the other to the east – and there is a doorway to the house from the north at the NW corner. Outside, we dug out the front wall towards the south and the western wall. There was some confusion, as there were traces of older buildings on the site,

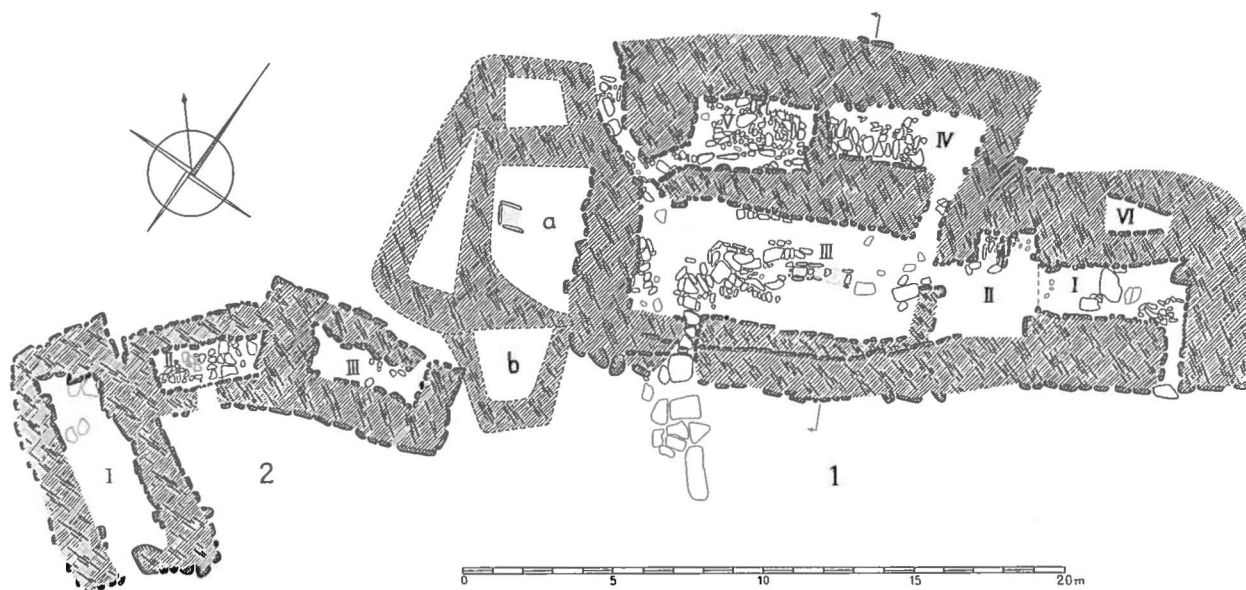


Fig. 56. Ø 167. Drawn plan of Ruins 1 (the dwelling) and 2 (with older Ruins a-b) (C. L. Vebæk, del. 1950).

south and west of this house; but only those *between* Ruins 1 and 2 were drawn (more on this later). There can be no doubt that 1 (in its latest form) had turf cladding on the outside, but it is difficult to say with certainty how thick, as it was greatly collapsed. The walls in Room I were built in the usual combination of stones and turf, and in some places were so well-preserved that they were still standing to a height of about 2 m. The thickness of the walls varied from about 2.0 to 2.5 m. We entered the house through the eastern entrance to get to Room I, a remarkably well-preserved room with high, extremely fine walls. It must be pointed out that the Norsemen, in building this part of the house, used a very large, naturally-deposited stone as the cornerstone (see the illustration). In this part of the building comparatively many stones had been used, with 7–13 courses to a height of 1.3–1.5 m. It is possible – but not certain – that there was once a partition wall between Rooms I and II. If so, Room I measured about 5.0 m × 1.5–2.0 m. The exact use of Room I is not certain, but it undoubtedly had a function related to the householding (Fig. 57).

The next room in the front row is *Room II*. This room was connected with Room I to the east and Room III to the west. The inside measurements of Room II are about 3.0 × 3.5 m. It will be noticed on the drawing that the south wall recedes a little. Incidentally, there were no foundation stones in most of this wall. A feature of special interest in Room II – which establishes that this was the kitchen (the *eldhús*) – is the two fine, well-preserved niches in the north wall, both of which have had fireplaces. Both the fireplace niches measure about 1.9 × 0.8 m, and are separated by a very narrow wall of stones (0.2–0.4 m). While there were a number of slabs

on the floor in Room I, there were only a few in Room II (Fig. 58).

There is a very distinct doorway from Room II to Room III, measuring about 0.7–0.8 m. *Room III* is a very large, well-preserved room, the biggest in the whole house. Inside it measures 9.7–10 m in length and 3.6–3.8 m across (Fig. 59). The walls in Room III are generally well-preserved – especially the inside of the west gable. The drawing shows that the south wall had two building periods. That Room III was the main room – the hall – is evident not only from its considerable size, but also from the find of a very large long-fire, almost in the middle of the room. This fireplace originally seems to have been more than 2 m long and about 0.5–0.6 m across, but about 1.3 m was disturbed. The fireplace was – as usual – constructed with a number of flat stones in the bottom, framed by smaller, flat stones set on edge. There were many slabs on the floor, especially at the western end of the room (Fig. 60).

As mentioned above, there are three doors to Ruin 1: one farthest to the east in the south wall (which has been described); a second (to be described below); and finally a third door in the front wall, through which we enter Room III near the SW corner of the room. The length of this door is about 2.3 m, corresponding to the thickness of the wall; across, it measures only about 0.6–0.7 m (Fig. 61). In the doorway we found a number of carefully placed slabs, forming a set of five steps (the level of the floor in Room III is about 0.5 m lower than the ground level outside the building). Outside the door there is fine paving consisting of rather large slabs. The third door, giving access to the building from the outside, is at the NW corner of Room III, and is the only door in the north side. As the drawing shows, the door-



Fig. 57. Ø 167. Ruin 1, the eastern part with Room I, seen from the SW. (The person is Claus Ferdinand) (photo, C. L. Vebæk, 1950).



Fig. 58. Ø 167. Ruin 1, Room II. The two fireplaces in the north wall, seen from the south (photo, C. L. Vebæk, 1950).



Fig. 59. Ø 167, Ruin 1, Room III, during the excavation, as seen from the east (photo, C. L. Vebæk, 1950).



Fig. 60. Ø 167. Ruin 1, the dwelling. The main entrance to Room III, as seen from the inside (from the north) (photo, C. L. Vebæk, 1950).





Fig. 61. Ø 167. The main entrance to Ruin 1 (Room III), seen from about the east (photo, C. L. Vebæk, 1950).



Fig. 62. Ø 167 (Abel's Farm). The paving outside the main entrance to Ruin 1, seen from the south (photo, C. L. Vebæk, 1950).

way is slightly oblique to Room III. This doorway is a passage about 5.5–6.0 m long. As will be evident from the drawing the passage curves to some extent. The doorway measures 0.45–0.80 m across, and gives access to the room behind the western part of Room III. This is Room V, and is in the same row of rooms as IV and VI (Figs. 62 & 63).

We can begin the description of these rooms with *Room IV*, which is a square room of about  $5.0 \times 1.8$  m. The walls – which are safe – were partly built with turf. On the floor there is paving, mostly of large, flat stones. The use of Room IV is uncertain, but we must presume that it was a living room (perhaps a *skáli*) (Fig. 64).

The next room in the second row is *Room V*, to which there is access only through the west wall – from the passage described above. Room V measures about  $4.0 \times 2.1$ – $2.2$  m (Fig. 65). The walls are generally well-preserved, with 4–6 large and small stones. Only a little turf remains over the stones, so that the height of the walls after the excavation nowhere surpassed 1.6 m. It is possible – but not certain – that there was some sort of bench or dais (a *pallr*) along the southern side. Along part of the north wall there were also indications of such a bench. Near the middle of the north wall is a small, fine fireplace. The back of the fireplace is formed by the wall itself, and on both sides there is a frame of stones leaving an area for the fireplace of  $0.45 \times 0.45$  m. In the fireplace there were several smallish, sooty stones, as well as fragments of objects of steatite, and ashes. Most of the floor in Room V is covered with small and large slabs, forming a row of very long stones, partly standing on edge, on the south side. Behind these stones and the wall there is only turf. The long stones in a row may mark the contour of a bench mainly built of turf. In Room V we found many objects of different kinds, especially strips of leather. Room V clearly has the character of a living room, but a more precise statement of its use is not possible.

To conclude the description of Ruin 1, it should be mentioned that on my ground plan there is a *Room VI*, just behind Room I. I greatly regret, however, that I have been unable to find any individual description of this very small room, for which we found no door – a doorway to Room I would have been natural. As the drawing shows, we found foundation stones in the north and south walls, but none to the west and east. The room is about 2.5 m long and only 0.7–0.8 m across to the east, rising to 1.5 m on the western side. The use of this room is uncertain, but inasmuch as it is built together with the dwelling, it must have had a function connected with it.

To sum up my remarks on *Ruin 1*, there is no doubt that this was the dwelling of the farm. Its whole construction, and certain features of the building like fireplaces make this clear. We were able to determine that during the time the house was in use it underwent certain changes; there were at least two distinct building periods.

## Remnants of older buildings between the dwelling (Ruin 1) and Ruin 2

In an area of about  $13 \times 3$ – $6$  m between Ruins 1 and 2, we found some very difficult ruins – or parts of ruins – no doubt representing an older habitation at the site, older than 1 and 2. On the ground plan, hatched lines indicate some of the rooms which seem discernible, but only two of them have been given numbers, or rather letters: *a* and *b*. In *a* the only building element of any special interest was a very fine fireplace, constructed from three slabs set on edge and forming a rectangular space about  $0.80 \times 0.45$  m. On the bottom we found two slabs on which there was much ash (Figs. 66 & 67).

## Ruin 2, with bath-house

We had been able to establish with certainty that the approximately 40 m long site could actually be divided into three parts: to the east the dwelling (Ruin 1); to the west a rather complex building, Ruin 2, with a bath-house, and between the two ruins elements of earlier buildings.

*Ruin 2* consisted of three rooms, built together in a very distinctive way (see the drawing). The western part of the building – *Room I* – is orientated roughly NNW-SSE. It measures about  $9 \times 5$  m outside and  $6.0$ – $6.5 \times 2.0$  m inside. There is a door in the south side. The walls are mostly about 1.5 m thick, and, except in parts of the western wall, there are fine stones in the foundation course. In some places the walls are preserved to a height of up to 0.8–1.4 m, but other parts have collapsed. It must be mentioned that the south wall mainly consists of one single huge stone, about  $1.2$ – $0.8 \times 0.8$  m.

*Room II* was a rather small room, only connected with Room I by part of the walls (see the drawing). Room II was transverse to Room I, orientated NE-SW. The inside measurements were  $3.5$ – $4.0 \times 1.4$ – $1.6$  m. The walls stood out very distinctly, with carefully-laid courses of stones up to about 0.9 m. The position of the door was not quite certain, but it seems to have been in the middle of the south wall. In the western part of the room, in an area of  $1.0 \times 1.2$  m, was a completely collapsed oven built of 4–6 very heavy stones. The oven was once covered with a large number of small, rounded stones the size of eggs or oranges. All these stones were marked by fire and soot. The oven undoubtedly identifies this room as the *bath-house* of the farm. Under the oven and outside it were slabs, but those outside were in a slightly higher position (0.10–0.15 m). There was very probably a bath pallet of wood, but there was no trace of it (Figs. 68 & 69).

*Room III* of Ruin 2 measures just  $3.5$ – $3.6 \times 1.0$ – $1.3$  m inside; there is a very narrow door in the NE corner. The walls are rather thick – about 1–2 m. The room has a very clear sill outside, but the upper parts of the walls have collapsed somewhat, and the walls are nowhere



Fig. 63. Ø 167 (Abel's Farm). Part of Ruin 1, the dwelling, with a corner of the northern entrance, seen from the south (photo, C. L. Vebæk, 1950).

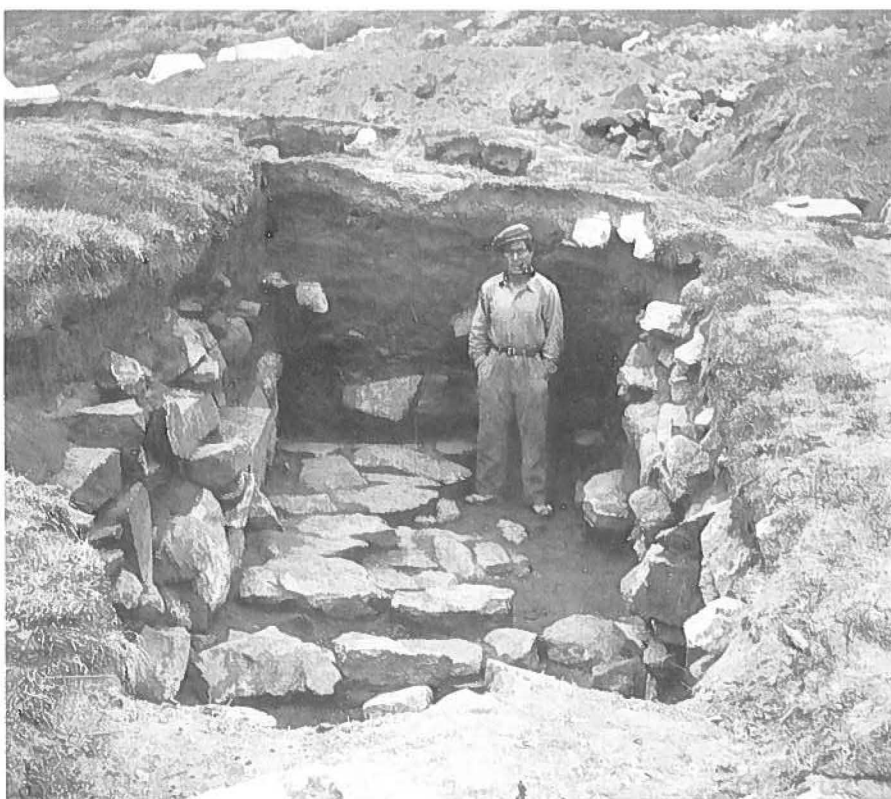


Fig. 64. Ø 167 (Abel's Farm). Ruin 1, Room IV, seen from the west (photo, C. L. Vebæk, 1950).



Fig. 65. Ø 167 (Abel's Farm). Ruin 1, Room V, seen from the west (photo, C. L. Vebæk, 1950).



Fig. 66. Ø 167 (Abel's Farm). "House" a (and other traces of older buildings), seen from WNW (photo, C. L. Vebæk, 1950).







Fig. 67. Ø 167 (Abel's Farm). "House" a. Fireplace constructed with three slabs on edge, and one on the bottom, seen from the east (photo, C. L. Vebæk, 1950).



Fig. 68. Ø 167. Ruin 2, Room II, seen from NNW (photo, C. L. Vebæk, 1950).

Fig. 69. Ø 167. Ruin 2,  
Room II, seen from the east  
(photo, C. L. Vebæk, 1950).



Fig. 70. Ø 167. Ruin 2,  
Room III, seen from the SE  
(photo, C. L. Vebæk, 1950).





Fig. 71. Ø 167. Ruin 4, seen from SSW (photo, C. L. Vebæk, 1950).

higher than 1 m. I am unable to say anything about the use of this room (Fig. 70).

### Ruin 3

Some 35–40 m NW of Ruins 1 and 2 is an outhouse (Ruin 3). This is a long building (about 13 m), but only 3.5 m across. There seem to be three rooms. The walls – as they stand now – are only 1.0–1.4 m high, but here, as in many other places, the upper part of the walls was no doubt turf. The floor is rock, with a few slabs. Each room appears to have had a door in the south side, but there were no doors between the rooms themselves.

### Ruin 4 (the *skemma*)

About 150 m north of Ruin 1 is the northernmost, most isolated ruin at Ø 167. This is the most conspicuous of all the ruins at this farm. At the same time it is the best preserved of all the ruins here – in fact one of the very best preserved Norse ruins in Greenland (Fig. 71).

Ruin 4 is an almost rectangular building, with outside measurements  $7.8 \times 3.4$ – $3.9$  m. It is a structure built with the so-called dry-masonry technique, exclusively of large and small stones with no turf between them (Fig. 72). Like other structures built the same way, it is still standing to a considerable height – up to 2.25 m (that is, very close to its original height). The walls were very carefully built (as will be evident from the photos and

the drawing) and are 1.5–2.0 m thick. It is divided into two rooms: a smaller one to the SW, measuring  $2.2$ – $2.3 \times 1.2$ – $1.5$  m, and a larger one to the NE, about  $4.0 \times 2.0$ – $2.3$  m. The entrance to the building is on the SW side, and is about 0.85 m broad. This entrance seems to have had one large stone slab and some smaller stones.

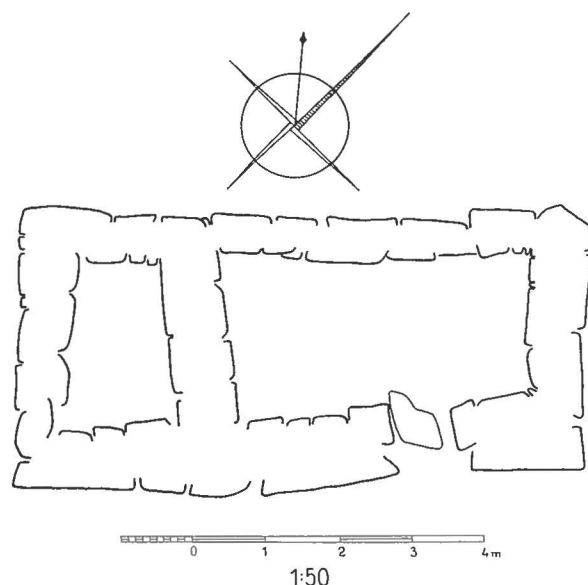


Fig. 72. Ø 167. Ruin 4, ground plan (C. L. Vebæk, *del.*, 1950).

Fig. 73. Ø 167. Ruin 4, the NE wall, seen from the SW (photo, C. L. Vebæk, 1950).



Fig. 74. Ø 167. Ruin 4. Part of the building, seen from the NE. In the foreground the wall between the bigger room and – behind – the smaller one (photo, C. L. Vebæk, 1950).





Fig. 75. Ø 167. Ruin 5, seen from the west (?) (photo, C. L. Vebæk, 1950).

It is very strange that there is no door to the smaller room – this can be said with certainty. Access to the small room must have been from the other two rooms (by a ladder?). The whole character of the building suggests that this was a storehouse – a *skemma* (Figs. 73 & 74). At the western periphery of the farm, about 140–150 m west of Ruin 1, we have the outhouses *Ruin 5* and – about 30 m south of this – *Ruin 6*.

### Ruin 5

This is a pen surrounded by four very large stones measuring 4.7–4.8 × 3.0–4.5 m each. The walls mainly consist of very big stones. Most of the rest of the wall was turf. There is a door at the east corner (Fig. 75).

### Ruin 6

This is a pen of irregular form, built directly on to the rock. It measures about 8 × 9 m. The walls consist mainly of large stones in 1–2 courses up to about 0.9 m. No certain door.

### Ruin 7, the large building complex

About 50 m west of Ruin 2 is a very large, quite unusual structure consisting of 14–15 rooms (one of which does not seem to have been a proper room, but an open yard

surrounded by rooms). The complex – which is orientated NNE-SSW – has a total length of 28–29 m and measures about 19 m across, apart from the ruin farthest to the NW, where there is only a single room measuring 7–8 m across (Fig. 76). As far as we can tell after the excavation of this peculiar building, all parts of it existed at the same time (although certain changes may have been made at times in some of the walls). The ground plan and the observations made during the excavation suggest that the complex falls into two parts: a southern part, including Rooms I–VIII, all connected by a passage running approximately EW through the whole building, from which there are doorways to each room. It should be noted here that what is indicated as Room VII in the drawing may in reality be part of the passage, which has a general width of 0.1–1.0 m (Figs. 77 & 78). This end of the ruin appears to have been a dwelling; some rooms may have had householding functions. The other part of the building, Rooms XIX–IV, has the definite appearance of stables, byres and other buildings for domestic animals. In Room X there is a single standing stone, and three fallen ones, indicating a byre. In Room XIII two slabs which may be regarded as stalling-stones are still standing. The large “Room” XII – measuring 10.0 × 5.5 m – must in my view be regarded as an open yard – perhaps a hay-barn (Figs. 79, 80 & 81).

Ruin 7 has been a very well constructed building, with particularly good stones in the sill towards the east. In



Fig. 76. Ø 167. The Ruin complex (No. 7), before excavation, seen from the NW (?) (photo, C. L. Vebæk, 1949).



Fig. 77. Ø 167. Ruin 7, seen from the SW (photo, J. Meldgaard, 1949).



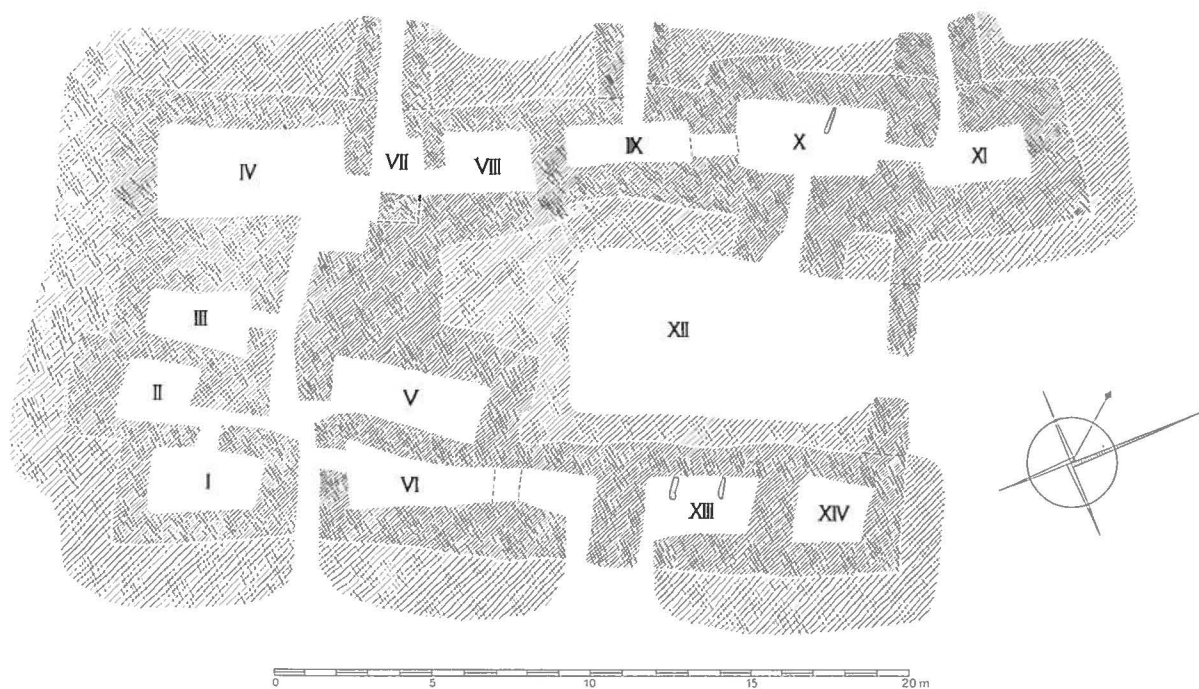


Fig. 78. Ø 167. Drawn plan of the big Ruin complex 7 (C. L. Vebæk, *del.*, 1950).



Fig. 79. Ø 167. The farm at an early stage of excavation, seen from about the west (photo, J. Meldgaard, 1949).

Fig. 80. Ø 167. The eastern part of Ruin 7, with Room XII (the presumed open yard) to the right. In the background the large, flat stone over Room VI. Seen from NNE (photo, C. L. Vebæk, 1950).



Fig. 81. Ø 167. Ruin 7, "Room" XII. In the foreground Room XIV, seen from the east (photo, C. L. Vebæk, 1950).





Fig. 82. Ø 167. Ruin 7. Part of the front wall, towards the entrance to the long passage through the southern part of the building, seen from ENE (photo, C. L. Vebæk, 1949).

general, the stone wall is preserved in 2–3 courses of stones rising to 0.5–0.6 m, but in some places one can count up to ten courses rising to 1.4 m. It will be noticed that there are more than eight entrances to the building: three in the east, one in the west and three in the north (Fig. 82). In connection with the three northern doors we noted that there were stone-set entranceways, no doubt indicating how heavy the turf walls were there (about 2–3 m). Except for the rooms with stalling-stones there was nothing to indicate the use of the rooms – for example there were no definite fireplaces, but in some rooms we found ashes and burned stones, indicating that there had been fires in several places. Among the building elements one feature stands out as quite unique: an enormous flat stone,  $2.0 \times 1.5$  m, and only 0.15–0.17 m thick, which had been placed in an oblique position over part of Room VI. This stone can only be regarded as a partly collapsed roof-stone. I know of no parallel to this stone (Fig. 83).

In Ruin 7 (Fig. 84) we made a number of finds of different kinds. Among the archaeological and anthropological finds there were also the fragments of the biggest steatite bowl we found anywhere in Vatnahverfi (Fig. 85). But the most important find – the most sensational in the whole farm – was the fragments of a skeleton of a man, found by J. Meldgaard in 1949 in the passage leading to Room II (and to Room V on the other side) (Fig. 86).

## 12. The human skeletal material from the Norse farm Ø 167 in Vatnahverfi

By Niels Lynnerup, Verner Alexandersen & J. P. Hart Hansen, Laboratory of Biological Anthropology, the Panum Institute, University of Copenhagen

The human remains consist of poorly preserved fragments of the parietal, occipital, sphenoid, basilar and temporal bones, and a fragment of the maxilla with six molars still attached. There were no postcranial human bones (Fig. 87).

Four other bones found during the excavation were fragments of cranial and sternal bones of seals (*Phoca Groenlandica*), and the first phalanx of a cow (*Bos taurus domesticus*, J. Meldgaard, pers. comm. 1990).

*Evaluation of age at death:* The teeth, the third molar on both sides being well erupted, but almost without abrasion, and the occurrence of distinct sutures along the edges of the occipital and parietal bones, as well as the complete ossification of the sphenobasilar synchondrosis, indicate an age of approximately 20–25 years.

*Evaluation of sex:* The size of the palate, the rem-



Fig. 83. Ø 167. Ruin 7. Part of the southern end, excavated, seen from about the west. To the left is the large, flat stone over Room VI (photo, C. L. Vebæk, 1950).



Fig. 84. Ø 167. Part of Ruin 7, seen from the SW (photo, C. L. Vebæk, 1950).





Fig. 85. Ø 167. Ruin 7.  
From the excavation of the  
large vessel of steatite  
(photo, J. Meldgaard, 1949).

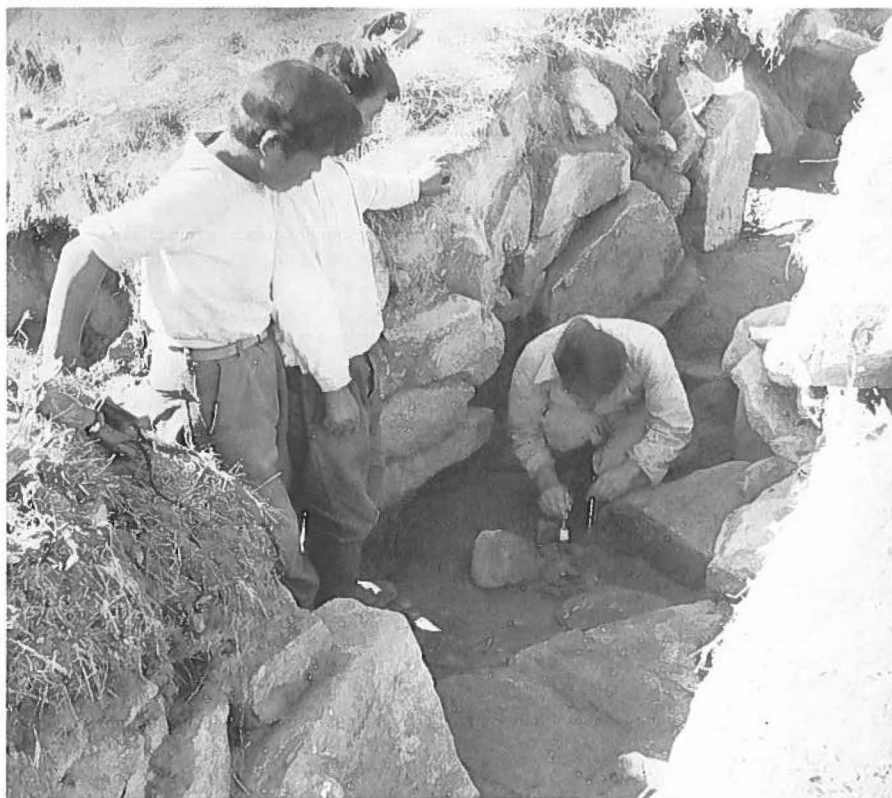


Fig. 86. Ø 167. Ruin 7.  
From the excavation of the  
human bones in the passage  
(photo, J. Meldgaard, 1949).

Fig. 87. Ø 167. Ruin 7. The human skeletal fragments in the passage (photo, J. Meldgaard, 1949).



nants of the mastoid process, as well as a very rugged occipital bone, indicate a male individual.

*Racial affinity:* The few and fragmented bones, as well as the poor state of preservation, make the racial affinity difficult to assess. However, the appearance of the palate – parabolic with slightly jagged palatine suture lines, a narrow mastoid process and, perhaps most significantly, a well developed nasal sill – indicate caucasoid (Norse) racial affinity (cf. Bass 1987; Reichs 1986; Ubelaker 1989; WEA 1980).

Previous investigations have shown that the variation in the size and shape of Eskimo teeth differs from that of European populations, including the Norsemen (cf. Alexandersen n.d.; Morrees 1957; Pedersen 1949; Scott & Alexandersen 1991). Inspection of the empty alveolar sockets in the preserved maxillary bone revealed that the upper first premolars had separate roots. This condition is common in Europeans but rare in Eskimo groups. The molars are all preserved in situ, but have suffered some post mortem damage. The crown size of the third molars was measured. The dimensions were rather small and corresponded to the size of third molars in Norsemen. The dimensions were in the lower range of the variation observed in Eskimo populations.

The morphological analysis of the molars showed greater similarity to the European and Norse dental pattern than to the Eskimo dental pattern. There were no long enamel extensions on the second and third

molars. Cusp 5 was present on a third molar and the Carabelli structure was found on the first molars although faintly developed. The second and third molars had only three cusps. The last-mentioned morphological variants are more common among Eskimos.

*Pathology:* No pathological lesions were observed.

*Conclusion:* The human skeletal material recovered from the farm building, Ruin 7 at Ø 167 in Vatnahverfi, represents the remains of a male individual, aged about 20–25, and of caucasoid (i.e. Norse) race. No pathological lesions were found (Fig. 88).

### Further analyses:

Since the completion of the above physical and dental anthropological analyses, the results of carbon isotope analyses have become available.

The analysis of carbon 14 isotope dated the material (a fragment of the parietal bone), after calibration, to apr. year 1275 A.C.  $\pm 10$  yrs (K-5889). Although C. L. Vebæk has commented on this more extensively, this dating sets the individual not at the proposed final period of the settlement, but rather at an earlier period. This may be more in accordance with the actual conditions of the find: the bones were fragmented, not in anatomical correct position, and they were mixed with animal bones, indicating that the individual may repre-



Fig. 88. Ø 167. Ruin 7. The human skeletal fragments, close-up (photo, J. Meldgaard, 1949).

sent a secondary deposition, i.e. the bones may come from an earlier burial site or grave.

The analysis of delta-13 carbon isotope was of special significance, since this result corroborates the conclusion on the ethnicity of the skeletal remains. The delta-13 carbon isotope (-19,1‰) reflects a mostly terrestrial diet, consistent with the individual being of caucasoid (Norse) origin, and is entirely in accordance with previous analyses on delta-13 carbon isotopes on Norse material (Tauber, personal comm.).

### 13. The human skeletal material from the Norse farm Ø 167 in Vatnahverfi from the archaeological-historical point of view

The anthropologists have analysed the skeletal fragments of a human being found during our excavation at Ø 167 in Vatnahverfi, in 1949. The exact finding-place is

the passageway through the southern part of Ruin 7 – a most exceptional building complex.

The question that then arises is how to use the anthropological results. I shall here try to state my views from the archaeological and historical point of view.

Let us start with a question. Why were the remains of a man – a Norseman – lying in the passage in the big building complex? In my opinion there can only be one answer: that this man was the last inhabitant, not only of this farm, but of a large district, perhaps the whole of Vatnahverfi. The Norsemen were Christians, so it was very important for them to be buried in a churchyard, in consecrated ground. The only explanation of why this man was not buried seems to be that there were simply no other Norsemen at the farm or in the neighbourhood to do so. I think we can safely permit ourselves to say that the skeletal fragments of the Norseman are from the last inhabitant of the area. But I doubt if he was also the very last Norseman in Greenland. Personally I believe the absolutely last Norseman or Norsemen lived farther south. (For further information see p. 108).

At all events the find of parts of the skeleton of a Norseman in the remote Norse farm must be regarded as something of the greatest interest for the study of Norse archaeology and anthropology in Greenland. The find gives us a glimpse of some part of the drama of the disappearance of the Norsemen from Greenland.



Fig. 89. Ø 167. Ruin 11, seen from SSW (photo, C. L. Vebæk, 1950).



## 14. Further houses (outhouses) at Ø 167, Nos.8–15

*Ruin 8.* This little building is just south of Ruin 7. Only the western end of the western part was excavated; it measures about  $7 \times 2$  m. The north wall was made of rock, forming a right angle with the rocky floor. The wall was up to 0.5–0.6 m thick, made of smallish stones still standing to a height of about 0.7 m – in some places to 1.2 m.

*Ruin 9.* This building is about 30 m south of Ruin 8 and is slightly irregularly formed. The walls are mainly very thick, 0.7–1.2 m, and are still standing to about 0.8 m, with 3–4 courses.

*Ruin 10* is farther to the north and built up against a slope. The outside measurements are about  $5 \times 3$  m, and the walls are standing to a height of 0.5–0.7 m.

*Ruin 11.* Farthest to the south of the farm – about 190 m south of Ruin 7 – is a small but rather well-preserved dry-masonry building, rectangular in form, about  $5.0 \times 3.2$  m (Fig. 89). It is orientated approximately NS, and in the north side there is a door, 0.7 m wide. Part of the north wall is still standing to a height of 1.5 m, with 10–11 courses of stones. At the middle of the north gable there is a window, almost square ( $0.55 \times 0.55$  m).

*Ruin 12.* Standing isolated about 200 m SE of Ruin 1

is Ruin No. 12, which is a large pen built up against a low cliff. Some naturally deposited stone blocks were also exploited in the construction. The pen is irregularly shaped, but roughly  $6.5 \times 6.5$  m. The walls are low, up to 0.6–0.7 m, and there are 2–3 courses of fairly large stones.

*Ruin 13* is a low ruin (not excavated). This building (which is about 90 m south of Ruin 11) lies on the shore of a small lake. It measures about  $5-6 \times 3-4$  m.

*Ruin 14.* About 35 m SE of Ruin 1, near the small river is No. 14. The building – most of which had collapsed – was partly excavated. Ruin 14 is about 12.5 m long and 3.5 m across. The building appears to have been a pen.

*Ruin 15.* This building is about 20 m SW of Ruin 14. It is a small building, about  $2.4 \times 1.6$  m, partly built with very large stones, making up one whole wall. The other walls were built with smaller stones and are only preserved to 0.5–0.6 m, with 2–3 courses. There appears to have been a door in the SW corner. There are some slabs on the floor. Some of the stones inside the room are marked by fire. This building may have been used for smoke-curing (?).

But let us finish the description of the farm Ø 167 (Abel's Farm) by raising a question. Is it possible to identify Ø 167 with the large farm mentioned by Ivar Bardarson, who calls it *Foss* (waterfall)? There is no



Fig. 90. Ø 167. Some of the ruins after the heavy snowfall in September 1950, seen from the NE (photo, C. L. Vebæk, 1950).

waterfall in the neighbourhood of Ø 167, nor is there any church (as mentioned by Ivar Bardarson). But at Ø 66 (Igaliku Kujagdleq) we have a fair-sized church, and there is also a rather large farm (cf. Daniel Bruun 1895: 375–388). Although we have no waterfall near Ø 66 (Undir Høfði), I will venture the theory that this was the royal farm mentioned by Ivar Bardarson – not the large farm at Ø 167 described above (Figs. 90 & 91).

## 15. The excavation of the farm Ø 70 (the Mountain Farm) in 1950

About three kilometres north east of Ø 167 is the small Norse farm Ø 70. This was registered by Daniel Bruun

as early as 1894 (Bruun 1895: 392–93). According to Daniel Bruun it was a comparatively small farm – he registered six ruins. On the 16/7/1948 the Mounted Expedition visited the site and found only one more ruin – a low, overgrown site measuring about  $6 \times 3$  m, 35–40 m WSW of Bruun's Ruin No. 2. The farm is by a small lake with an island in it. As far as I can judge, this farm is not only one of the most isolated Norse farms in Vatnahverfi, but also the highest – so we gave it the name "the Mountain Farm" (Fig. 92). As the ruins looked promising for an excavation, we put it on the programme for excavations to be carried out in 1949 (or later), and we actually started excavations there late in the summer of 1950, while we were still excavating Ø 167.

However, the excavations at Ø 70 were never satisfactorily concluded – in fact only part of Ruin 1, the dwelling, was excavated (Fig. 93). On September 20th

Fig. 91. Ø 167. Ruin 4, after the snowfall, seen from about the north (photo, C. L. Vebæk, 1950).



Fig. 92. Ø 70. (The Mountain Farm). A view of part of the farm, before excavation (photo, C. L. Vebæk, 1948).





Fig. 93. Ø 70. A view of the locality, at an early stage of excavation, seen from about the north (photo, C. L. Vebæk, 1948).

we quite suddenly had an enormous snowfall which covered everything – including the ruins and our tents – with a deep layer of snow. It was picturesque – but it forced us to try to finish off Ø 167, and to stop further investigations at Ø 70. At first we had to empty all the ruins of snow, so we could make our last observations and finish taking photos and making drawings. Then, four or five days later, we had to break camp and make our way back across the mountains to Russip Kuua. From there we had to set out on a series of boat trips on the lakes as far as Egoaluit. By then we were on the verge of a minor catastrophe. One morning when I was about to start the outboard motor we found that the frost had cracked the motor block from top to bottom – I had forgotten to empty it of cooling water. We were in quite a spot. But – as it often does – a sort of miracle happened. In the corner of the boat I found a lump of putty. I pressed it in the crack – and the motor worked again. For the rest of the year we had no more trouble with the outboard motor – but some years later, when I returned to Denmark and took it to a professional mechanic, he declared that it was unmendable and was only worth throwing away!

### The excavation of the dwelling at the farm Ø 70

From the outset we concentrated on Ruin 1, the dwelling – and as explained above we never really got any further, so in many ways it was not a satisfactory excavation (Figs. 94 & 95). We never had time to make a real ground plan, and my notes on the excavation are not satisfactory. But the following can be said of the dwelling at Ø 70.

It was a rather long house with rooms in two rows. Referring to the sketch and a small number of photos, I will try to describe Ruin 1. It was orientated approximately EW. Farthest to the west were two square rooms, one behind the other, with a doorway connecting them at the eastern end. The rooms (I and II) measure about  $4.5 \times 1.2$ – $1.3$  m and  $5.0 \times 2.3$ – $2.4$  m (Figs. 96 & 97). At the eastern end of Room II there is a very clear doorway leading to Room(s) III–IV (Fig. 98). In fact there only seems to have been a single room here, the biggest in the house, about  $5.0 \times 3.2$ – $3.3$  m, but at one point I was thinking in terms of two rooms – and later there was no time to change this. The next room in the row is V. This seems to have been the easternmost room in the house. Between Rooms III + IV and V there was a safely-identified stone wall 1.6–1.9 m broad, and there is every reason to believe



Fig. 94. Ø 70. Part of the SW part of the dwelling during excavation (photo, C. L. Vebæk, 1950).



that there was a door in this wall between III+IV and V – but we could find no traces of such a door (Fig. 99). There is also every reason to believe that there were at least two more rooms in the building, behind III+IV and V, and in the same row as Room I. Ruin 1 appears to have been about 20 m long and 6–7 m across. We did not succeed in finding any door out to the open, but there must have been one, and it may have been in the northern part of the building, which we did not have time to excavate. The general thickness of the walls was 1.4–1.5 m. Much of them had collapsed, but as the photos show, there were also parts of the building

where walls with 5–6 courses, rising to about 1 m, were visible (Fig. 100).

This has been a brief and absolutely unsatisfactory description of our excavations in 1950 at Ø 70. Personally I very much hope that it will be possible at some time in the future to finish – and correct – the excavation of “the Mountain Farm” – at least the dwelling. Finally, I must mention that at Ø 70 we found rather a lot of interesting objects of various kinds – among them a unique pommel of a sword or a hammer head – so the prospects for further investigations at the spot look promising.

Fig. 95. Ø 70. Sketch plan of the excavated part of Ø 70, Ruin 1, the dwelling.

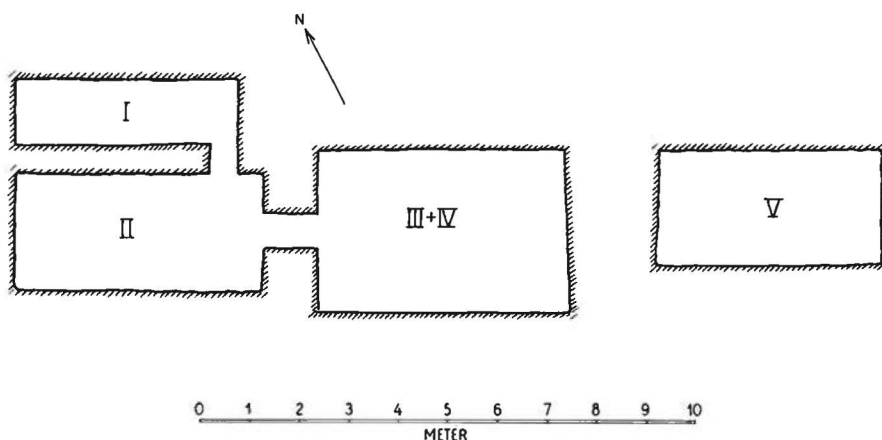




Fig. 96. Ø 70. From the excavated part of the dwelling. Room I, seen from the east (photo, C. L. Vebæk, 1950).



Fig. 97. Ø 70. From the excavation of the dwelling. In the foreground right, Room II (photo, C. L. Vebæk, 1950).

Fig. 98. Ø 70. Part of the excavated part of the dwelling. In the foreground, Room II (photo, C. L. Vebæk, 1950).



Fig. 99. Ø 70. From the excavation of the dwelling. Rooms IV and V, seen from the west (photo, C. L. Vebæk, 1950).





Fig. 100. Ø 70. From the excavation of the dwelling. The walls on the NE side of Rooms III-IV, seen from about the east (photo, C. L. Vebæk, 1950).

## 16. Objects found during the excavations of the Norse farms Ø 70, Ø 71 (the North and South Farms) and Ø 167, 1949 – 50

In the foregoing chapters I have described the excavations at the farm Ø 70, the two farms registered as Ø 71 (the North Farm and the South Farm), and the large farm Ø 167. The time has now come to describe the objects of various kinds found at all four farms. At the end of this book there is an inventory of all the finds registered. It should be pointed out at once that not all the finds were registered and brought to the National Museum. Several hundred objects which were found to be of little interest – or none at all – were left on the spot, especially smaller fragments of vessels of steatite. It must also be mentioned that several of the registered numbers comprise more than one object – for example fragments presumed to belong to one and the same object, or objects of the same type. The finds have the

following registration numbers: Ø 70 D 22 – 1991, Nos. 1–76; Ø 71 (Russip Kuua) D 23 – 1991, Nos. 1–107 (the South Farm) and Nos. 108–290 (the North Farm); and Ø 167 D 24 – 1991, Nos. 1–289. In the following pages I will refer to these lists and describe some of the most interesting objects – but also some more common, but typical Norse relics. A number of photos will illustrate the finds.

Let us start with *Christianity*. Two of the objects found have direct associations with the Christian religion: two fragments of two different Crucifixion figures, in the form of two heavy, richly-ornamented square plaques of steatite, both (on one side) with part of Christ's cross. Both these pieces were found at Ø 167. One of them (No. 1) is a small part (estimated to be less than a third) of the original piece. The form is square. On the front side we see the top of the cross, with the head, part of the body and the right arm of Christ. The whole surface is covered with deeply incised ornamentation. On the other side of the plaque – which is about 1.5 cm thick – there is also rich ornamentation (Fig. 101 a & b). In the corner there is a perforation, and it is to be presumed that the Crucifixion plaque – when it was intact – was about 7 × 7–8 cm, with four perforations, one at each corner, so it must be assumed that it was



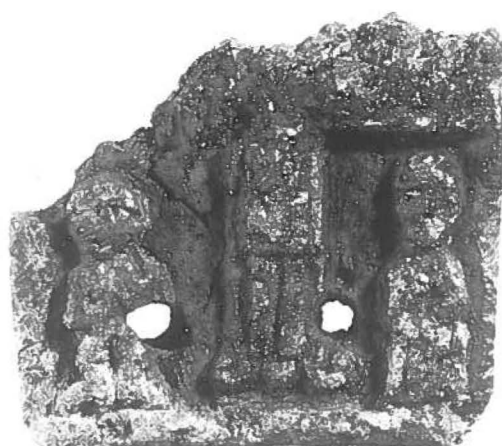


a



b

Fig. 101. (a-b) Crucifixion plaque of steatite, seen from two sides (Ø 167, No. 1). (Length of longest side 6.2 cm).



a



b

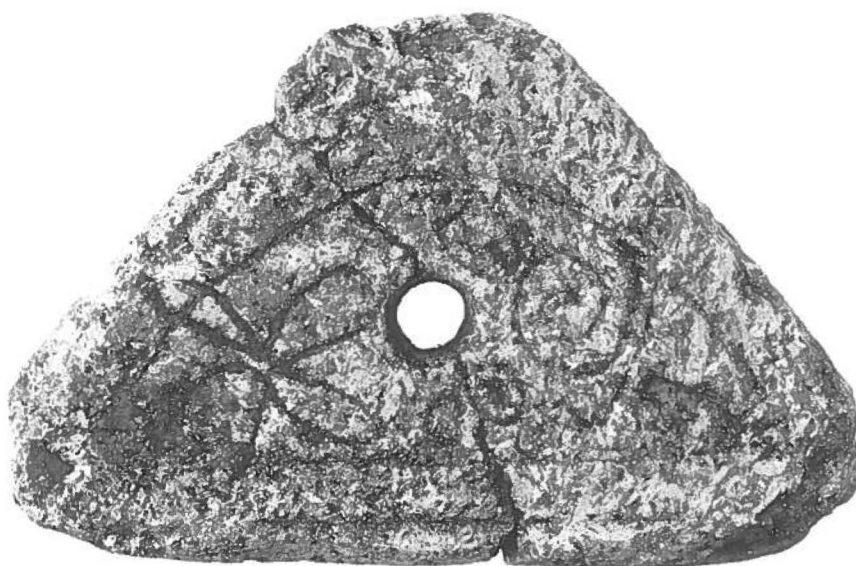
Fig. 102. (a-b) Crucifixion plaque of steatite, seen from two sides (Ø 167, No. 2). (Length of base 5.5 cm).

fastened to the wall or a post (although the back would then have been hidden). The other Crucifixion plaque is of the same nature as the first, but is somewhat larger and represents the lower part – about half – of such a plaque. It is a little thicker, about 1.7–1.8 cm. On one side we see the lower part of the cross and part of the left arm of Christ, and under the cross are seen the two attributes Mary and St. John. It is excellently carved, as is the deep ornamentation on the back (Fig. 102 a & b). In the lower part of the plaque near the corners there are two perforations, and no doubt there was a similar pair of perforations on the upper – now lost – part of the Crucifixion plaque. Crucifixion plaques like these are (to my knowledge) hitherto unknown in Norse finds from Greenland.

One of the most interesting – and strange – objects found during the excavations in Vatnahverfi is a *triangular plate of steatite*. It is a little damaged at the three corners, but it seems to have been about 14 cm on the long side, and about 10 cm on the other two sides, thus forming an isosceles triangle. The plate is about 2.2–2.5 cm thick. Exactly in the centre there is a cylindrical

perforation, 1.0–1.2 cm in diameter. On both sides of the plate, and also on one of the narrow sides, there are incised lines. One of the flat sides has been partly damaged by the cutting-out of an irregular hollow, but near the edges one can see traces of incised lines of almost the same kind as those on the other, well-preserved side. Here we see a very thin, but distinct, curved line, and beneath it, following the “bottom” of the plate, there is a similar line. Inside the curved line, and partly outside it, there is the peculiar ornamentation we can see in the photo Fig. 103 a. Finally, on one of the short, narrow sides, there is ornamentation of a similar type. How should this triangular steatite object be interpreted? Was it meant for a special purpose, or was it just a kind of artistic artefact? Personally I do not know, but I should point out that Captain Søren Thirslund believes it may have been a navigation instrument, and that the above-mentioned curved line is a gnomon curve – a most interesting theory which is being tested this year by Thirslund and other specialists, and aboard

Fig. 103. (a-b-c) Triangular, ornamented plate of steatite (a navigation instrument?). (Max. dimension 11.5 cm).



a

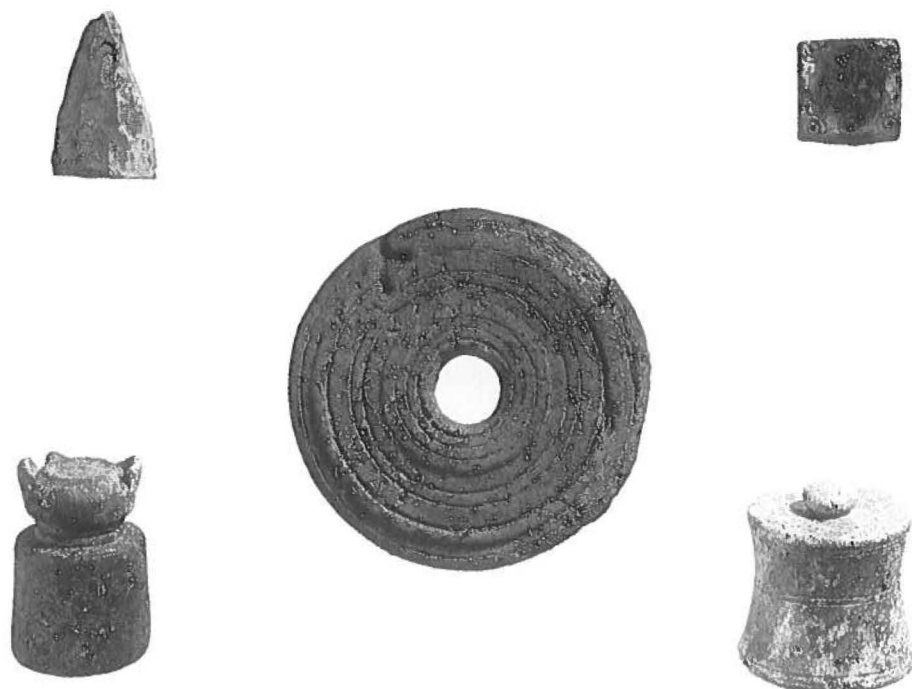


b



c

Fig. 104. A number of game pieces of different kinds. (Diameter of midpiece 5.1 cm).

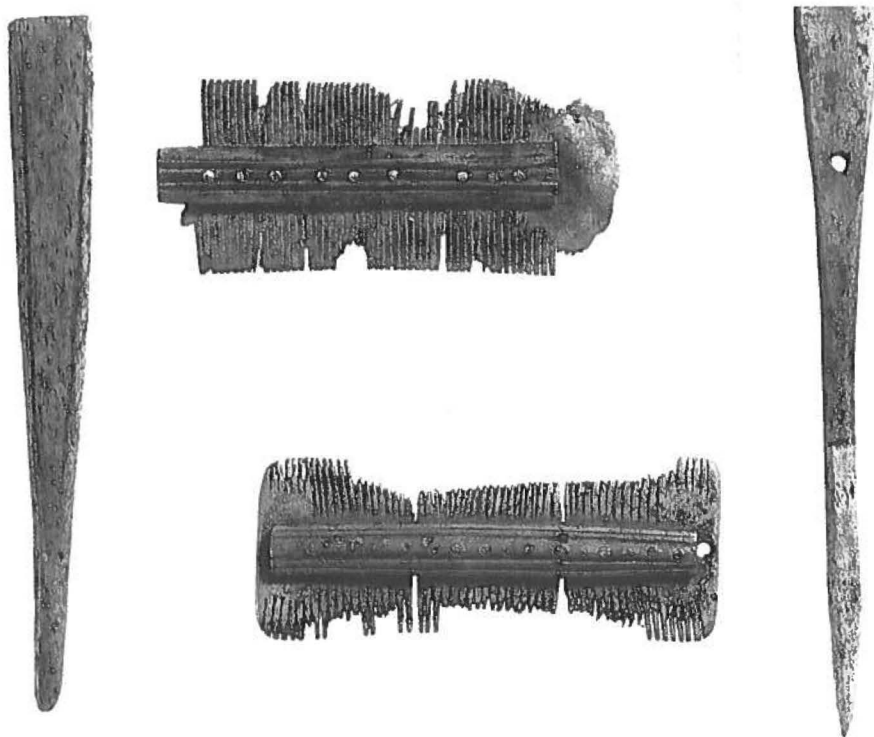


some Norwegian viking ships which are crossing the North Atlantic in these very months. We are looking forward with excitement to news from Captain Thirs-lund of the results of these experiments. So far, how-ever, the question remains open (cf. Vebæk & Thirs-lund 1992).

Among the finds there are also a small number of objects which must be supposed to have been used for *games*, all made of bone or tooth. Some of these objects are shown in Fig. 104. I can point out that the square object (above, right) is a cubic die.

As usual in Norse archaeological material we find a

Fig. 105. Two combs and two bodkins (the combs from Ø 167, No. 12 – the upper one – and Ø 71, No. 108; the bodkins from Ø 167, Nos. 22–23). (Length of longest bodkin 10.5 cm).



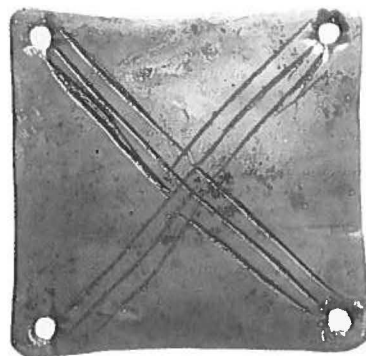
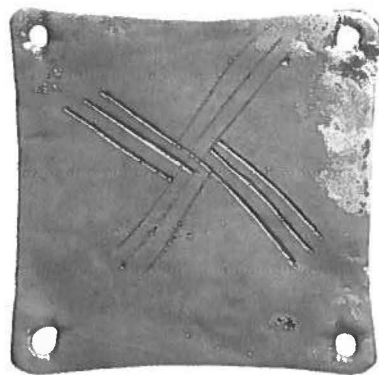
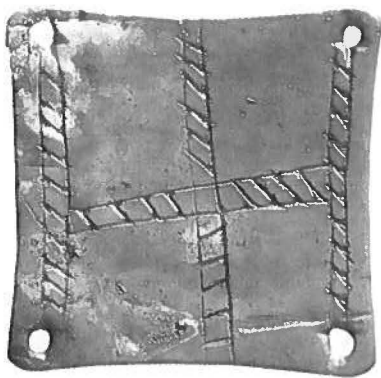


Fig. 106. Two ornamented weaving-plates of bone. (Sides of upper plate 5.0 × 5.0 cm).

Fig. 107. The same two weaving-plates as Fig. 106, but seen from the opposite side.

number of objects which must have belonged to *personal garments*. Among them are a small number of pins and bodkins, and a considerable number of combs (all made of bone). The combs (which are all of the double-sided type – which means they are comparatively late) are nearly all poorly preserved, but in the illustrations here we show a pair of the best-preserved, as well as two bodkins (Fig. 105).

There are plenty of finds associated with *textile fabrication*. First and foremost, small fragments of woven, woollen cloth have been preserved; but besides these

we have a number of the tools used for weaving. Particular attention should be given to two well-preserved, square, ornamented weaving plates made of bone (Figs. 106 & 107). There are also a large number of spindle-whorls, all made of steatite, with the exception of a single one made of bone. Generally the spindle-whorls are shaped like the piece of bone shown to the right in Fig. 108, and without ornamentation; but some pieces are of a rather peculiar shape, and some are ornamented, like the three pieces to the left in Fig. 108. No spindles were preserved in any of the finds, as the



Fig. 108. Four spindle-whorls – three of steatite, the fourth (to the right) made of bone. (Diameter of greatest whorl 4.0 cm).



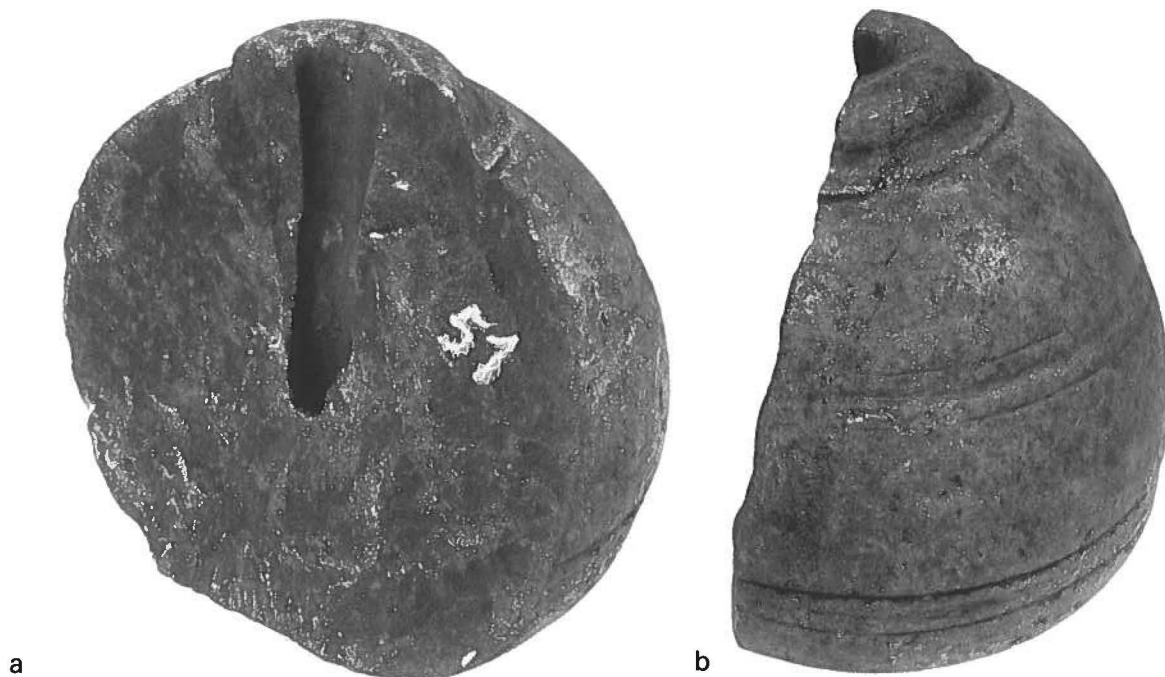


Fig. 109a. Fragment of a presumed spindle-whorl of steatite. (Height ca. 8 cm).  
 Fig. 109b. The same object as in Fig. 109a, but photographed from another side.

conditions for preserving wooden material were very poor. In fact we only found a single object made of wood: a small spoon (see Fig. 110). Before leaving textile instruments, I must mention one object (shown in Fig. 109 a & b), which is most probably a fragment of a heavy spindle-whorl, made of steatite and ornamented with incised lines all round. In connection with textile fabrication in Vatnahverfi we must not forget the large number of (presumed) loom-weights made of steatite. Yet it must be admitted that it can be difficult to distinguish loom-weights from net-sinkers (for fishing).

There are many *tools and implements* of several kinds, all – with the exception of the above-mentioned spoon (Fig. 110) – made of *bone* or *iron*. Among these finds is a rather rare arrowhead of bone, of a type with barbs (one of which is partly broken off) (Fig. 111). There are also some implements of whalebone, among them some spades (the handle of one spade has a runic inscription: “Gunnar owns”; see section 17, Fig. 129). There is also a strange, oblong implement, not less than 38 cm long, pointed at one end, with two perforations; the use of this object is unknown (to me)(Fig. 112). The same is true of the object shown in Fig. 113.

Fig. 110. Spoon of wood. (Length ca. 12,5 cm).

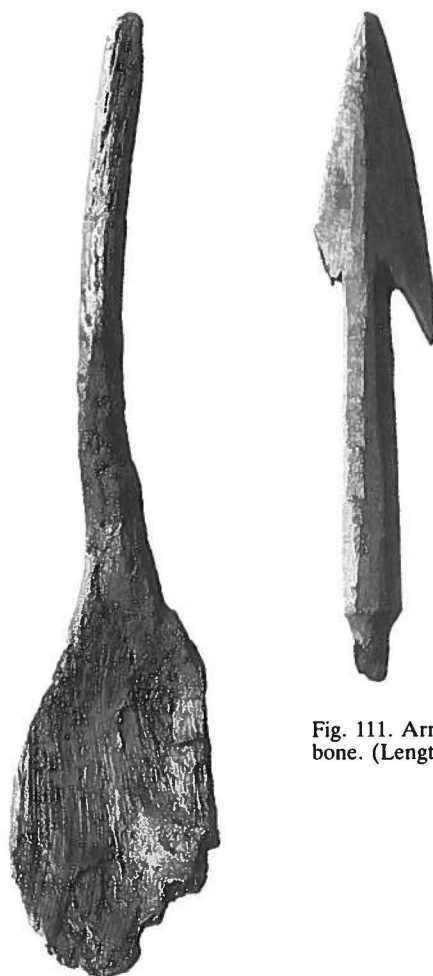


Fig. 111. Arrowhead of bone. (Length ca. 9 cm).

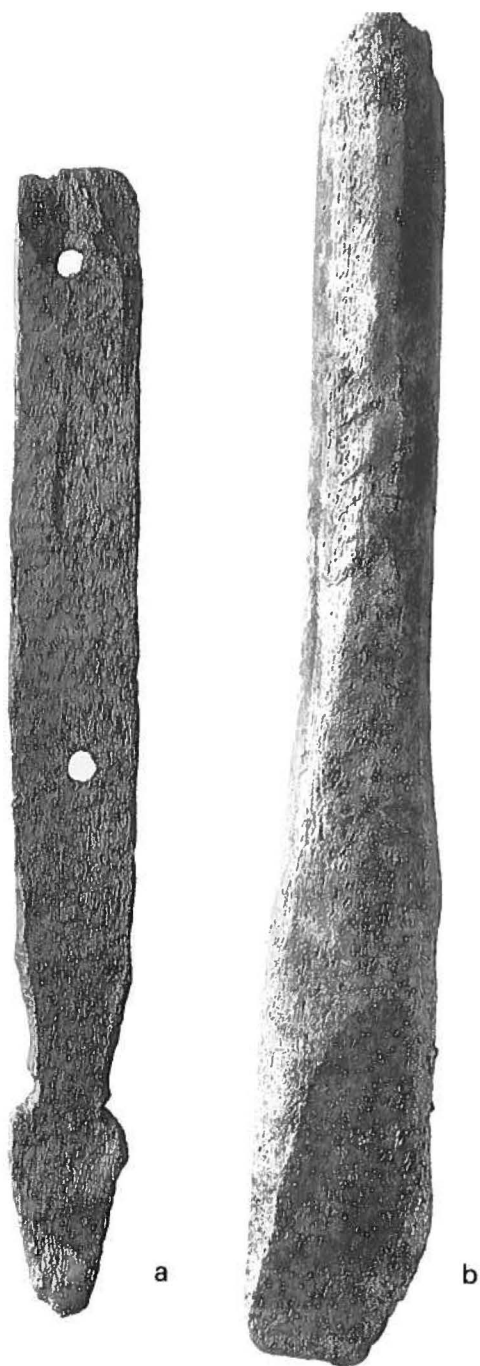


Fig. 112. (a) Pointed object of whalebone (use unknown), and (b) another object of the same material (a sort of chisel?). (Lengths 38 cm and 45 cm).

We will now look at the rather extensive material consisting of *tools, weapons and implements* made of *iron* found during the excavations in 1949–50. From Ø 71 (the North Farm) we have an axe-head – only a fragment, regrettably, as the back is missing (Fig. 114). So far axes of iron have been very rare in the medieval



Fig. 113. Object made of whalebone. Use unknown. (Width 9.0 cm).



Fig. 114. Axe head of iron (fragmented). (Length of edge ca. 7 cm).



Fig. 115. Pommel of iron of a sword or a hammer head. (Breadth ca. 7.5 cm).

Fig. 116. Various objects of iron. To the left a fragment of a wool-cutter, to the right two well-preserved sickles, and a fragment of a third. Below, an angular, heavy object, with some perforations (use unknown). (Length of wool-cutter ca. 20 cm).



Norse finds in Greenland, but it will perhaps be remembered that, as a curiosity, a single axe made of whale-bone has been found (Nørlund 1942: 69).

A unique find is a very heavy, well-preserved hammer head or a pommel of iron of a sword (Fig. 115). This pommel was found at Ø 70 (the Mountain Farm).

Another rather rare tool of iron is the fragment (half) of a pair of scissors used for cutting wool (Fig. 116). At the time of the find no such instrument had ever been found in Greenland, but only a few years later a quite similar piece – also a half – was found by Therkel Mathiassen at Sermermiut, a large Eskimo settlement in

Disko Bay (Mathiassen 1958: 46, Fig. 14(3)). The Eskimos may have got it from Norsemen hunting in Norðr Setur. I should mention however that this type of scissors had been known – indirectly, as it were – from Greenland nearly twenty years before, through a find at Sandnes in the Western Settlement – a wooden box expressly made to hold such a wool-cutter (Roussell 1936: 110, Fig. 88).

The finds include a few sickles (Fig. 116), and there are a great many knives, all of the same type, with a long tongue for the shaft. A number of knives are shown in Fig. 118, and the longest one preserved in Fig.



Fig. 117. A number of tools and implements of various kinds, all made of iron. Below, to the left, an awl and a gimlet, to the right a well-preserved knife. Also some objects of uncertain function. (Length of knife blade ca. 16 cm).

117. The last figure also shows a small awl with the wooden shaft preserved, and a gimlet. The awl and gimlet are the only (safe) representatives of their type in the finds. It must be admitted that it is somewhat surprising that there are not more gimlets – especially heavier ones meant for making bigger holes, since there are in fact several hundred objects of steatite and some of bone (and there must also have been some of wood) with perforations of varying diameters. Some are rather big, like those known from other finds (e.g. Vebæk 1943: 83, Fig. 83).

In connection with the various finds of iron objects – especially the knives and the sickles – I must mention that, as usual in Norse medieval finds from Greenland, we have a considerable number of *whetstones* of differ-

ent sizes and made of different types of rocks – mostly quartzite, porphyrite and Igaliku sandstone (none illustrated here).

There were also a small number of what might be called “semimanufactures” or raw materials for tools and implements of iron. Fig. 119 shows three oblong bars and a square plate, all very heavy. These bars may have been imported (perhaps from Norway), but it is not impossible that they were produced locally – that iron was produced on these farms. At least we have a small amount of iron slag which suggests this.

We will now look at some *objects made of steatite*. Above we have dealt with steatite used for special purposes such as spindle-whorls; but the most common use of steatite was for household utensils – *vessels, pots and*

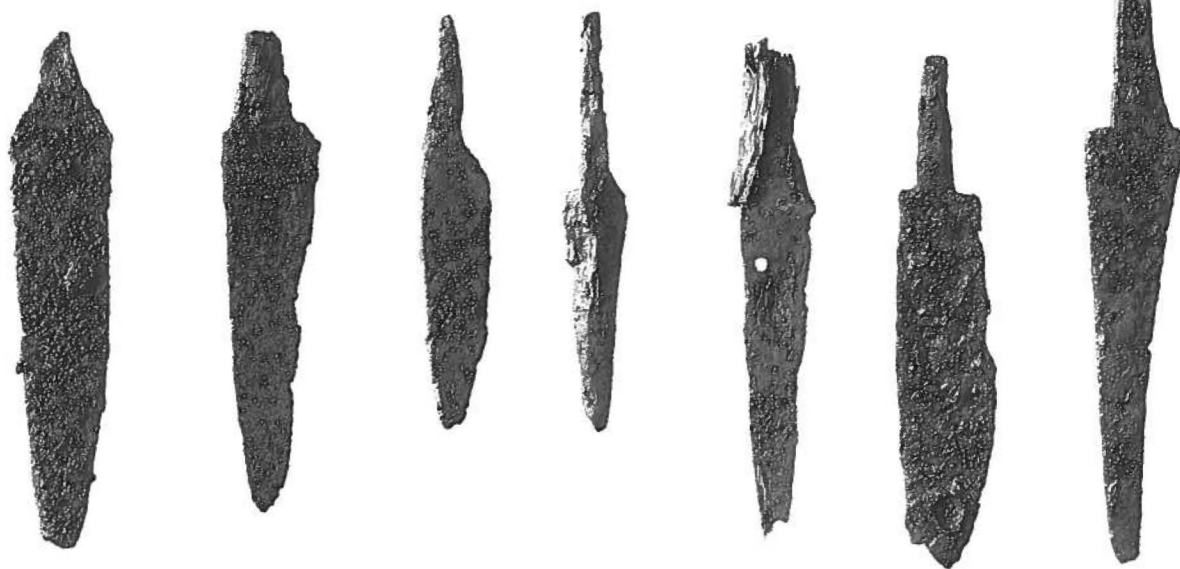


Fig. 118. A selection of knives of iron. (Longest knife ca. 13 cm).

*pans, and lamps.* In all four farms excavated in 1949–50, there were hundreds of fragments of bowls, pans etc., made of this material – but it must be emphasized that, with a few exceptions, we are talking about fragments; only a few pieces are complete (Fig. 120). Most of the vessels of different kinds made of steatite can be divided into three groups: bowl-shaped vessels; vessels of square shape with erect sides and flat bottoms; and finally low, round vessels (as in Fig. 120). The last group – which includes a few complete pieces – may have been lamps; at least some of them have a handle, while the other types of steatite vessels only have a diminutive “handle” in the form of small knobs. Generally there is no ornamentation on the steatite vessels; but if there is, it is most commonly on the rim, or just below it, in the form of parallel lines – one or more – all the way round the vessel. Fig. 121 shows the biggest bowl-shaped vessel found in Vatnahverfi; Fig. 122 shows another, rather big vessel. There was also (Fig. 122 a) a large fragment of a richly ornamented bowl-shaped vessel. Fig. 123 shows an unusually ornamented handle of a (presumably) flat vessel of steatite. We found a number of *repair patches* for steatite vessels of the type mentioned. These repair patches would have been fastened to a damaged vessel with iron nails, and the nails are often found either in the fragments of the vessels or in the repair patches. Some repair patches are shown in Fig. 124. Figs. 125–127, show fragments of steatite objects with various kinds of ornamentation.

Before leaving what might be called local production – or at least items of Norse origin – it must be men-

tioned a pair of *ice skates* made of bone (from a cow). I have to admit that I overlooked these skates, when I originally dealt with the material (more than forty years ago). The skates, with all the other animal bones, were sent to the Danish Zoological Museum, and it is Thomas McGovern whom we have to thank for our knowledge of these skates today – he discovered them many years ago when he was studying the animal bones from Vatnahverfi. The skates are mentioned by McGovern in section 18, to which I must refer. I should just mention that bone skates have been found before in Norse Greenland.

So have the finds of worked *astragali*. McGovern noticed three of these among the animal bones from Ø 71. One is a cattle astragalus, pierced for suspension, with an incised cross (see illustration, Fig. 145). There was also one cattle and one caprine astragalus, both with perforation, but without decoration. These worked astragali may have been used for divination (according to McGovern).

While all the objects described above are home-made, of local origin – with the possible exception of some implements and bars of iron which may have been made in Norway or Iceland – we also have a small number of objects which must certainly have been *imported from Europe*. Among these are the four objects shown in Fig. 128. They were all found at the farm Ø 167. There are three fragments, all of the rims of vessels made of metal (bronze). Yet one of these – the one with the fine decoration – may derive from something other than a vessel. Finally we have a very small sherd of





Fig. 119. Four bars (iron raw material) – three oblong and one square. (Longest bar 12.1 cm).

grooved Rhenish stoneware. Besides these objects there are a few other pieces of bronze, among them some which may have been used for mending wooden vessels.

Finally I must mention a small, but most interesting group of objects of stone which are apparently (perhaps

with one exception) of *Eskimo* origin. There are six stones in all: one large, the others smaller. Three of the stones were found at Ø 71, the North Farm, and the others at Ø 167. I will begin the description of these stones with those from Ø 71. No. 282 is a small piece of transparent quartzite. It has been worked, and there are



Fig. 120. Small, well-preserved pan (or lamp?) of steatite. (Length ca. 12 cm).



Fig. 123. Richly ornamented handle of a vessel (a pan) of steatite. (Breadth 6.8 cm).



Fig. 122a. Large fragment of a big, bowl-shaped vessel of steatite, with a richly – and strangely – ornamented rim. (Width ca. 26 cm).

Fig. 121. Fragment of a bowl-shaped vessel of steatite – the biggest found in Vatnahverfi. (Width ca. 35 cm).



Fig. 122. Fragment of a rather big, ornamented bowl-shaped vessel of steatite. (Width ca. 17 cm).





Fig. 124. Repair-patches for vessels of steatite. (Breadth of largest patch 11.7 cm).

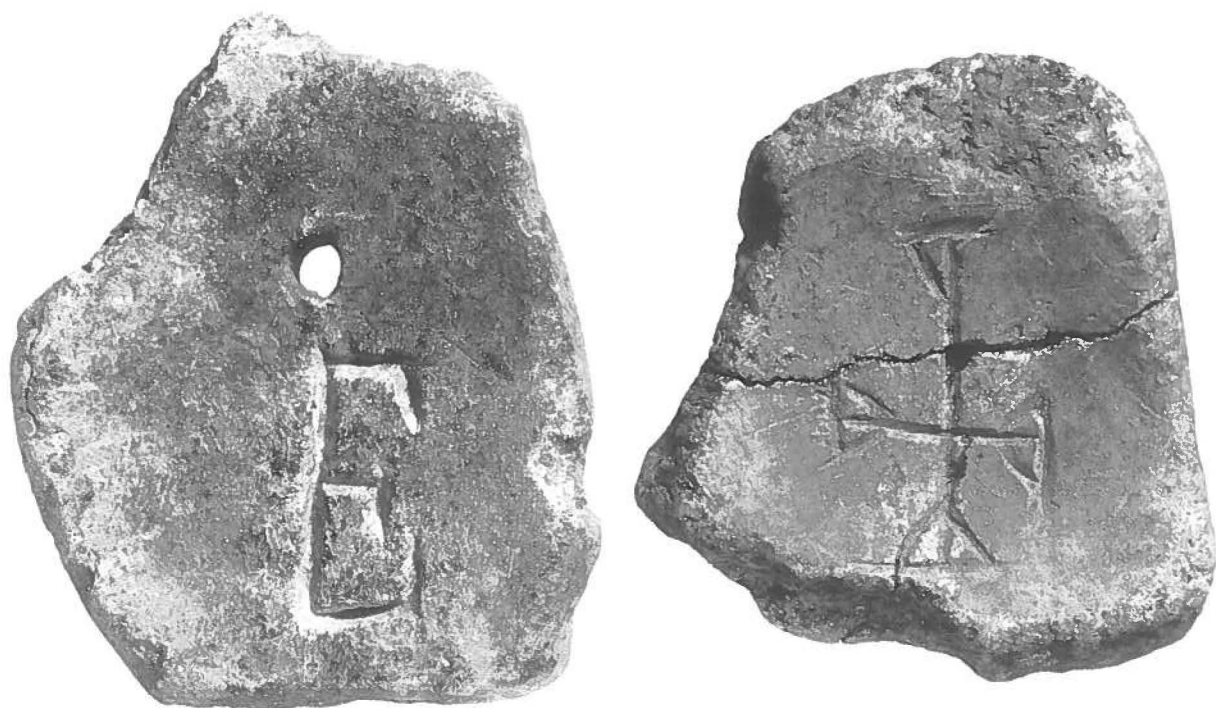


Fig. 125. Two fragments of steatite vessels. The one to the left is decorated with a deeply cut Roman letter "E". On the other one is a carefully scratched cross (Ø 71, N, No. 196 and Ø 167, No. 131). (Height of left fragment 9.3 cm).

Fig. 126. Heavy, ornamented piece of steatite. (Width ca. 10 cm).



Fig. 127. Ornamented fragment of a heavy vessel of steatite, with two perforations. (Height 11.3 cm).



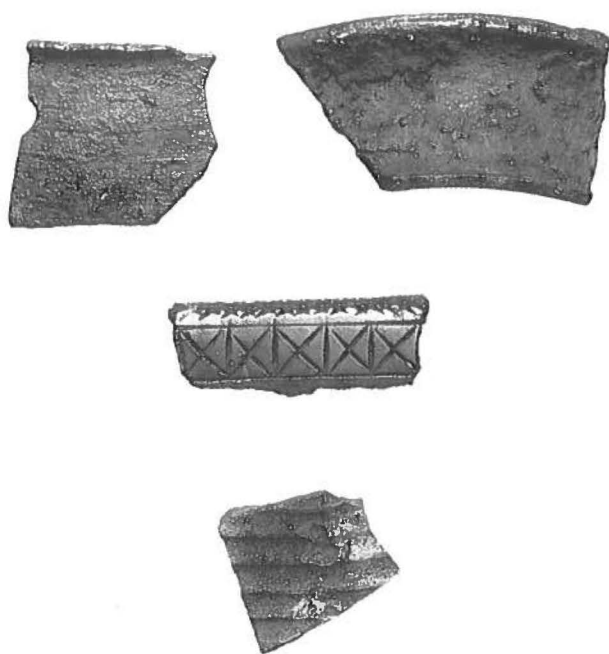


Fig. 128. Fragments of four imported vessels, three of them of metal (bronze), the fourth a sherd of Rhenish stoneware. (Length of mid-fragment 3.5 cm).

scraper-edges along two sides. This piece no doubt belongs with a very small fragment, No. 283, of worked greenish chalcedony. No. 284 is a small, irregularly formed stone in a faint, white material. One of the sides is chipped (*retouche*). The three pieces from Ø 167 are as follows: No. 215, a rather heavy, oblong (about 10 cm) object of red porphyrite; it is cut so that it looks very like a Danish Mesolithic core-axe. No. 223 is a small, fine flake of chalcedony (?), with *retouche* along one of the sides. Finally, No. 247 a very flat, rather small, almost square stone, irregularly worked on part of the surface on one side.

I have discussed these stones with the Eskimo archaeologist H. C. Gulløv, who declares that there can be no doubt that at least five of the six stones are artefacts of Eskimo origin, and that they belong to one of the Palaeoeskimo cultures, either Dorset or Saqqaq – most probably the former. Gulløv cannot say anything with certainty about the red porphyrite object. Personally I would not completely exclude the possibility that it is Norse. If so, it may be a preliminary workpiece, the first step in making a whetstone; or it may be a special tool for which, however, we have no parallel.

It is not uncommon to find Eskimo objects among Norse material. For example, in 1939, at Ø 64c in Vatnahverfi, I found a fine towline handle made of walrus ivory – a rather rare type; at that time its closest parallel was as far off as Baffin Island, but in later years the type has also been found in North Greenland. The Norse-

men most probably got this towline from the Eskimos, perhaps when hunting in Norðr Setur. In other Norse ruins Eskimo objects have been found from a later Eskimo settlement, after the Norsemen had disappeared. In the case of Vatnahverfi, the Eskimo finds described belong to a time before the Norsemen settled there. As there are so few objects they cannot be regarded as representing a real Palaeoeskimo settlement in Vatnahverfi, but the objects tell us that Palaeoeskimo people occasionally came to this part of the country, most probably to hunt caribou.

## 17. Objects with runic inscriptions from Vatnahverfi

By Marie Stoklund, the National Museum

It is evident that some of the people who lived scattered in the medieval farms of the Norse settlements of Vatnahverfi were literate, inasmuch as they could use runes. Some of them wrote their names on implements or used runes on a par with owner's marks, for instance for marking net-sinkers or loom-weights. The following objects with runes originate from the excavations in 1949–50 of the sites Ø 70, Ø 71 and Ø 167. It should also be mentioned that in 1987 a small piece of wood, probably a cross-arm with a *Maria* inscription, was found in rubbish layers belonging to Ø 171. (Information kindly provided by Knud J. Krogh, Stoklund 1989: 6–7).

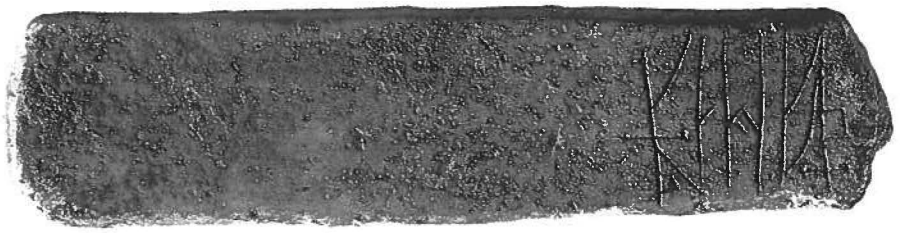
*Handle of whalebone.* No. 225 from Ø 71, Russip Kuua, where it was found in 1949 at the site north of the river. The handle (of a spade?) measures 18.0 × 4.5 × 1.8 cm. The fine little inscription consists of signs about 3.5 cm tall, and begins with a bind-rune, a ligatured **g-u** combined with a cross, while a cross-standard with an **a**-twig ends the inscription (Fig. 129). This little twig, which has hitherto been overlooked, was no doubt cut deliberately, so the whole inscription should be read: **+gūnnarā+**, *Gunnarr á*, "Gunnar owns".

The **gū** bind-rune is rather unusual. In Norwegian runic tradition a similar sign without the point could be a **p**-rune (or possibly the Latin letter **K**). This usage seems unknown in the Greenland inscriptions (where in a few cases Latin **P** is used for *p*). At the same time this sign comes close to an owner's mark – cf. for example a loom-weight from Igaliku (Nørlund 1929: 159, Fig. 95 d; Stoklund 1981: 140, Fig. 1).

The inscription, which was first published by Vebæk (1952: 110, 112, Fig. 9) with the reading "Gunnar", seems to be rather late, since the writing with two **n**-runes probably indicates the influence of the Latin letter tradition, but is contrary to general runic orthography. The **r**-rune has a characteristic form found particularly in many Greenland runic inscriptions.



Fig. 129. Handle of whale-bone. No. 225 from Ø 71, Russip Kuua. Size 18.0 × 4.5 × 1.8 cm. The inscription "Gunnar owns" starts with a bind-rune, combined with a cross, and ends similarly with an a-rune combined with a cross-standard.



Steatite slab, No. 269 from the same site, Ø 71, Russip Kuua. The almost square slab measures 8.0 × 7.3 × 1.7 cm. One corner has been broken off. The slab was probably once pierced with five holes – one in the centre, the others in the corners (like a weaving-tablet for ribbon making). Straight lines connect the holes and frame the edge (Fig. 130). On the reverse diagonal lines divide the plate into eight (Fig. 131). Somewhat similar slabs have been found in Igaliku, for instance – not always square, and with various decorations, in some cases with owner's marks, but their use is unknown (cf. Nørlund 1929: 159f).

The approximately 12 mm tall runes apparently do not belong to the decoration: they were obviously made with another instrument, and cut rather deeply in the soft stone. There is no doubt about the reading: **magne**, *Magni*. A dot between runes 4 and 5 has quite a different character from the points of **g** and **e**, so no doubt it is incidental. *Magni* is a man's name in Norse, although it was first read by Erik Moltke as a woman's name, *Magna* (Vebæk 1952: 112; 1958: 118; 1982: 215). It is quite common in Norwegian sources of about 1250 (Olsen 1960: 251 incl. references). The writing with **e** could be explained as due to vowel harmony (cf. Olsen 1948: 62; Seip 1955: 128) – cf. **baanne**, *Bjarni*, on the Kingit-torsuaq stone, or **gleðe**, "gladden", on Vigdis' tombstone from Igaliku.

Fragment of steatite, No. 69 from Ø 70, found in Room III in 1950. The approximately 2 cm tall runes almost cover the whole of one side of the small flat stone, an area of 3.5 × 2.2 × 0.9 cm (Fig. 132). It is difficult to judge whether the inscription is complete or fragmentary. The runes are rather carelessly made; the inscription seems to start with a sign related to the above-mentioned **gu** on the whalebone, either a bind-rune **kū** or – possibly – an owner's mark. The upper branch is almost semicircular, crossing the main-staff, although only very faintly, on the right side, so that it was probably just a slip of the knife. The reading **p** – **pāradi** or **pārati** – *Paradis* is tempting, but not very likely, since there are no traces of a short-twig s-rune, which one would have expected, and this p-rune seems unknown in the Greenland material, as already mentioned. Considering the **gu** of the *Gunnarr* inscription from the same area, the reading **kūāradi** or **kūārati** is most probable. Moltke read **kūāræ**, but – using a micro-



Fig. 130. Steatite slab, No. 269 from Ø 71, Russip Kuua. 8.0 × 7.3 × 1.7 cm. "Magne", a man's name.

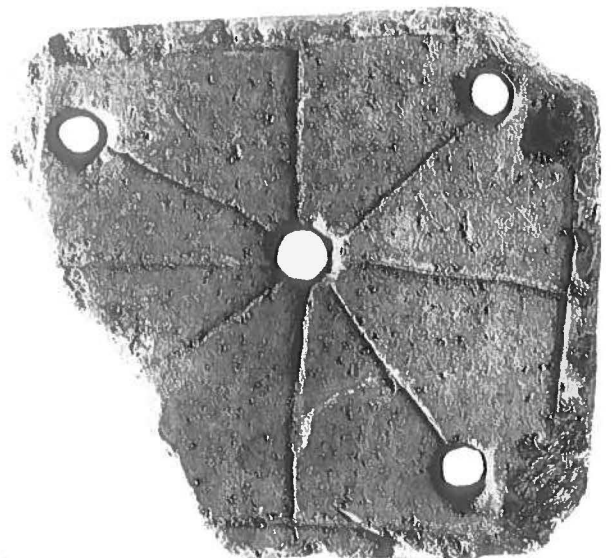


Fig. 131. Reverse of the steatite slab, Fig. 130.



Fig. 132. Fragment of steatite, No. 69 from Ø 70, 3.5 x 2.2 x 0.9 cm.



Fig. 133. Half of a spindle-whorl, steatite fragment, No. 30 from Ø 167, with the inscription "made Sigridr (?)". (Diameter 3.1 cm).

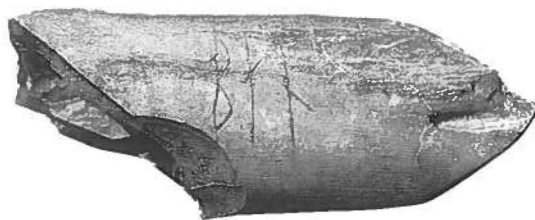


Fig. 134. Fragment of bone, No. 250, from Ø 167, 8.7 x 3.2 cm, with the inscription "bone".

scope – I have only been able to see a one-sided a-rune, while the t-twig seems to be safe, though a little curved and rather faint. Here the surface is somewhat damaged, and a long dot, or rather a short vertical stroke, makes the reading **d** possible, but not safe. However, no interpretation can be given.

From the excavations in 1949 and 1950 of Ø 167, a well-preserved site of what was a very big farm, comes a rich and interesting body of material including some runic objects.

*Spindle-whorl, steatite fragment*, No. 30 from Ø 167, Ruin 1, Room III (Fig. 133). This is more than half of a roughly 2 cm tall, hemispherical spindle-whorl with a diameter of 3.1 cm, with neatly cut, well-preserved runes on the smoothed outer surface. The k-rune measures 17 mm. The inscription is fragmentary: ...**rþe-sikri**...., most probably ...(*ger*)**ði Sigrí(ðr)**...., "...made Sigridr(?)". The most likely subject is *Sigríðr*, but of course other possibilities could be found. One would actually have expected the word order "Sigridr made...", but no cross or division-mark indicates the beginning of the inscription before **sikri**. It is possible to fill in an object, *mik* or possibly *snáld*, the Old Norse

name for this tool. Compare the Norwegian spindle-whorl inscription N188, Hoftuft: **kunitr:kerþsnalt:**, *Gunhildr gerði snáld*, "Gunhildr made the whorl" (Olsen 1954: 40–42) and N582, Uppstad: *Helga á snáld þennan*, "Helga owns this whorl" (Olsen 1960: 198–199) and read (*mik/snáld ge*)**rði Sigrí(ðr)** or just (*Ge*)**rði Sigrí(ðr)**. It is worth noting that though a dotted i-rune has been used for *e* (cf. **magne** above), in what must be the verb, *gerði*, ...**rþe**, no dotted k-rune was used for *g* in *Sig-* in **sikri**.... It is interesting that the inscription and/or perhaps the little tool seem to have been made by a woman, Sigridr, just as the Hoftuft spindle-whorl was probably made by Gunhildr.

*Fragment of bone*, No. 250, Ø 167, found in Ruin 1 Room IV in 1950. This is a split fragment of the thigh bone of a cow (femur, *Bos taurus* – according to information kindly supplied by Tove Hatting) (Fig. 134). It measures 8.7 x 3.2 cm. The runes are about 12 mm tall and finely drawn, probably with a knife. What might look like a twig on rune 1, **b**, when viewed in a microscope, is clearly a later scratch, and there is no doubt about the reading **bæn**, *bein*, "bone", although the æ-writing for the expected diphthong – cf. the form **bain**,



Fig. 135. Two steatite fragments re-used as loom-weights or net-sinkers from Ø 167. No. 240, right, with the two runes **g-i**, measures 10.8 x 9.6 x 3.6 cm. No. 130, left, 11.0 x 8.5 x 3.6 cm. It is questionable whether the incision here is runic. It might be a further development of **ki**, or it could be read **tki**+.

Orphir, Mainland, Orkney (McKinnell 1989: 15) – is remarkable. However, parallels could be found in other Norse sources (Seip 1955: 73, 74, 145). The type of inscription is quite common – cf. for instance the spoon inscription from Narsarsuaq in Uunartoq Fjord (Stoklund 1991: 63f). Animal bones have often been used for runic writing of a more informal type and as trial-pieces. For instance, many partly-garbled futharks (rune-alphabets) have been found in Lund (Moltke 1985: 399, 458–466) and Schleswig (Moltke 1985: 478–481), and cf. the bone inscriptions from Oslo (Liestøl 1977: 214–224; Liestøl & Nestor 1987: 423–432). A piece of bone from Lund says *ossa*, “bone” in Latin; another has *binisþitabiniþit(a)* – “(A) bone is this, (a) bone is this” (Moltke 1985: 460).

Three *steatite fragments from vessels*, reused as *loom-weights* or *net-sinkers*, with examples of marking with runes, should be mentioned – especially since the marks might indicate a certain connection. Ø 167 No. 240 was found in 1949 in Ruin 7, Room I – i.e. in the dwelling part of this large complex. It measures 10.8 × 9.6 × 3.6 cm, and has a hole which was probably made by cutting from both sides. Its outside diameter is 2.3–2.5 cm, the inner diameter 0.6 cm, and it exhibits signs of wear (Fig. 135). The large runes *g-i* are carefully cut: *g* is 6.5 cm tall, with a 2 cm long point – or rather vertical stroke. A small stroke between the two runes also seems to have been cut. It seems likely that these runes are initials. A very similar pair of runes is found on No. 21 from Ø 70 (6.1 × 8.3 × 3.5 cm). The runes *ki* are 2.5 cm tall; another, faintly cut mark is non-runic. On a piece from Ø 167, No. 130, also from Ruin 7 (about 11 × 8.5 × 3 cm) (Fig. 135) the incision may be non-runic, or could possibly be read with a bind-rune *tki+*. But it seems related in some way to the above-mentioned *ki*, *g-i* markings, it could be taken as a *ki* with some additions: a *t*-twig and a cross, in accordance with the general practice of developing owner’s marks.

## 18. The zooarchaeology of the Vatnahverfi

By Thomas H. McGovern, Department of anthropology, Hunter College of the City University of New York

### Animal bones from the Vatnahverfi region

This chapter reports on the analysis of animal bone collections made from the Vatnahverfi region of the Eastern Settlement. These bone collections (archaeofauna) were made by projects led by Dr. C. L. Vebæk,

and represent the majority of Norse animal bones excavated to date from the Eastern Settlement. Dr. Vebæk’s long career spans two generations of zoological analysts. His collections have been analyzed by Drs. Magnus Degerbøl and Ulrik Møhl in the 1930’s-40’s and by Dr. Gerald F. Bigelow and myself in the 1970’s-80’s. This report attempts to summarize the work of both generations of zooarchaeologists and includes material partially published by Degerbøl in Vebæk (1943) and in McGovern (1985a). This report also includes details not previously published, and it is hoped that it may be of use to another generation of zooarchaeologists working on future collections from the region. I would also like to take the opportunity to express my thanks to Dr. Vebæk for his kind patience and encouragement during the analysis, which took place in Copenhagen while I was a graduate student doing doctoral research (unpublished thesis 1979). All collections reported and all basic data are archived at *Universitetets Zoologiske Museum* of the University of Copenhagen, whose Quaternary Department provided generous hospitality and unstinting practical assistance during the analysis.

## Methods of quantification

Zooarchaeological analyses have used a range of quantitative techniques during the past twenty years (Grayson 1984), including bone weight, Minimum Number of Individuals (MNI, MIND), Most Common Element Count, Relative and Adjusted Relative Frequency measures (RF ARF), Density Dependent ratios (DD) and the simple count of identified specimens (NISP, TNB, E). While analysts today agree that there is no single, universally appropriate quantitative measure, the most commonly used techniques at present are MNI and NISP counts. These measures have somewhat different basic assumptions and applications. The MNI count is most suitable for a “catastrophic” or “precipitate” deposition of a number of animals over a short time period, in which many nearly complete individual skeletons are jumbled together. The NISP count has proven more effective for more gradual, accretional accumulations. In such contexts the disjointed, partially consumed fragments of a great many individual animals are deposited (and sometimes reworked) over a long period.

Since the great majority of Norse collections are gradual accumulations of domestic refuse, NISP counts seem more appropriate for most portions of these archaeofauna (see McGovern 1985a for discussion). NISP counts have also proven more effective in dealing with smaller collections (Gilbert & Singer 1982), and are most suited to the integration of the work of Drs. Degerbøl and Ulrik Møhl with more recent North Atlantic studies. Both current theory and Greenlandic zooarchaeological tradition thus favor the use of NISP fragment counts as the basic quantitative measure.

## Data quality

The collections reported here were made forty years ago, long before most archaeologists (including prehistorians) routinely saved unmodified animal bone. The existence of these collections is a testimony to the quality of the excavator's fieldwork and foresight during a period when most zooarchaeological evidence on both sides of the Atlantic was being dumped on spoil heaps. From the condition of the Vatnahverfi collections it is clear that a great deal of hard work in the field was expended to recover bone fragments, including mouse bones and broken pieces smaller than 2 cm.

However, it must be realized that these are hand-recovered, not sieved collections. As numerous experiments demonstrate, unsieved collections are biased towards the larger taxa (in this case seals, caribou, and domestic mammals) and under-represent smaller and rarer taxa (Payne 1972). As argued elsewhere (McGovern 1985a), this "Payne effect" does not render older collections useless, but indicates that only the larger, more numerous taxa should be used for systematic comparison and that small collections (less than 300 NISP) should be excluded from inter-site analyses. Smaller taxa represented by only a few bones per collection are very subject to skewing from many factors, and their quantification here is best considered as a probably incomplete presence/absence measure. Fortunately, in Norse collections (including sieved archaeofauna) cattle, caprines (both sheep and goats), seals, and caribou make up over 80% of the total. Smaller taxa were apparently less commonly exploited as well as less commonly recovered in excavation.

## Species present

Table 1 presents the taxa identified up to the present from Norse sites in the Vatnahverfi area (with both scientific and common English names). The collections include both very small archaeofauna of less than 100 NISP (Ø 66, Ø 68 Ø 78a), two archaeofauna just over 100 NISP (Ø 64c, Ø 64a) and three large archaeofauna ranging from over 800 NISP to over 5,000 NISP (Ø71 North, Ø 71 South, Ø 167). While NISP fragment counts are provided for all sites in Table 1, only the three largest sites will be used in inter-site comparisons.

### Domestic Mammals

As observed long ago by Winge (in Bruun 1895, 1917, 1918) and Degerbøl (1929, 1934, 1936, 1941, 1943), the Scandinavian settlers brought to Greenland a full range of European domestic mammals. Cattle, horses, dogs, pigs, goats, and sheep were all deliberately imported. The house mouse was probably a stowaway, as were a range of Old World insects (Buckland *et al.* 1983). Dog

and horse remains are probably regularly under-represented in the archaeofauna. Their bones were probably often disposed of differently from the other domesticates. This was certainly the case in early modern Iceland, where land registers record far more horses than does zooarchaeology (Amorosi 1991). Pig remains are present only at Ø 167 in the Vatnahverfi, and are rare in all Greenlandic collections. The presence of both newborn and adult bones suggests that live pigs, rather than imported pork, were consumed in Greenland. Stratified collections suggest pig raising was most common in earlier periods, but that some pigs may have survived to the end of the colony. Both sheep and goats are well represented in the collections. These closely related species cannot be distinguished on many bone elements, so an "Ovis/Capra sp." or "caprine" category is included in most zooarchaeological reports. As noted by Degerbøl (1936), the sheep are of the Icelandic "goat horned" type and are morphologically very similar to surviving Icelandic sheep.

### Caribou

Caribou are present in most Eastern Settlement collections, but are far more common in the Western Settlement archaeofauna. From the surviving fragments, Eastern Settlement caribou seem to have been mainly large robust animals similar to the medieval Western Settlement populations. While the Eastern Settlement area is more subject to caribou extinction from over hunting and climatic fluctuation (Meldgaard 1986), caribou seem to have survived throughout the Norse period in both regions.

### Seals

Seals are represented in virtually all Greenlandic archaeofauna, and include both migratory harp and hooded seals and the non-migratory common (or harbor) seals, bearded seals, and hooded seals. As in the case of caprines, many elements cannot be identified to species level and are listed as "seal sp.". Throughout Norse Greenland, the seasonally abundant harp seals were a major resource. In the Eastern Settlement, the larger hooded seal was also taken in considerable numbers. As Degerbøl noted (1929, 1934), the lower ratio of compact to spongy cancellous bone of the hooded seal skeleton may result in systematic under-representation of this species. Considering this factor and the larger body weight of the hooded seal, it seems likely that both migratory species were equally important to Eastern Settlement hunters. While ringed seals are frequently taken today in the former Eastern Settlement region, their remains are very rare in all Norse archaeofauna. Note that seal bones make up the majority of identified remains in all Vatnahverfi samples, despite the inland location of the sites.

Table 1. Species present in all Vatnahverfi archaeofauna, with scientific and common English names.

Vatnahverfi Taxa Present		NISP per site							
		Ø64a	Ø64c	Ø66	Ø68	Ø71 N	Ø71 S	Ø78 a	Ø167
<i>Domestic Mammals</i>									
<i>Bos taurus</i>	cattle	30	24	9	3	126	564	8	321
<i>Equus caballus</i>	horse	—	4	—	—	3	4	—	4
<i>Canis familiaris</i>	dog	—	2	2	—	—	3	—	—
<i>Sus scrofa</i>	pig	—	—	—	—	—	—	—	5
<i>Capra hircus</i>	goat	1	—	—	—	18	76	—	—
<i>Ovis aries</i>	sheep	3	3	—	—	24	148	—	—
<i>Ovis/Capra</i> sp.	caprine	16	19	11	3	263	1942	5	545
<i>Caribou</i>									
<i>Rangifer tarandus</i>	caribou	6	5	—	—	2	82	1	24
antler fragment		—	1	—	—	10	12	—	—
<i>Seals</i>									
<i>Pagophilus groenlandicus</i>	harp	6	11	4	3	33	193	7	52
<i>Phoca vitulina</i>	common	—	—	1	—	5	10	—	4
<i>Phoca hispida</i>	ringed	—	1	—	—	—	1	—	2
<i>Cystophora cristata</i>	hooded	16	12	—	1	10	80	7	22
<i>Erignathus barbatus</i>	bearded	—	—	—	—	4	7	—	1
	seal sp.	25	58	20	31	329	1811	28	427
<i>Whales</i>									
<i>Dephinapteris leucas</i>	beluga	—	—	—	—	—	—	—	1
<i>Lagenorhynchus albirostris</i>	white fronted	—	—	—	—	—	—	—	—
	porpoise	—	—	—	—	—	—	—	1
	small whale	2	—	—	—	1	2	—	2
	great whale	—	—	—	2	—	2	—	2
	Whale sp.	—	—	—	—	—	—	1	3
<i>Birds</i>									
<i>Uria lomvia</i>	murre	—	—	1	—	—	—	—	—
<i>Uria</i> sp.	murre or	—	—	—	—	—	—	—	—
	guillemot	—	—	—	—	4	425	—	6
<i>Lagopus mutus</i>	ptarmigan	—	—	—	—	—	6	—	5
<i>Alca torda</i>	razorbill	—	—	—	—	—	—	—	5
<i>Somateria spectabilis</i>	king eider	—	—	—	—	—	2	—	—
<i>Haliaeetus albicilla</i>	sea eagle	—	—	—	—	—	1	—	1
<i>Aves</i> sp.	bird sp.	—	—	—	—	—	441	—	4
<i>Fish</i>									
<i>Pisces</i> sp.	fish sp.	—	—	—	—	—	—	—	3
<i>Mollusca</i>									
<i>Mytilus edulis</i>	mussel	—	—	—	—	—	—	—	2
<i>Other</i>									
<i>Odobenus rosmarus</i>	walrus	2	3	—	—	5	1	—	11
<i>Ursus maritimus</i>	polar bear	—	1	—	—	—	—	—	1
<i>Lepus arcticus</i>	arctic hare	—	—	—	—	—	2	—	2
<i>Homo sapiens</i>	human	—	—	—	—	—	—	—	1
<i>Mus musculus</i>	house mouse	—	—	—	—	(110)	—	—	—
Total Identified (NISP)		107	144	48	43	837	5815	57	1457
Unidentified Scrap		?	?	?	6	165	987	?	247
Data:									
1) McGovern 1979		2)	2)	2)	1)	1)	1)	1)	1)
2) Degerbøl 1943									



## Whales

Whale bones are notoriously difficult both to identify and to interpret in zooarchaeology. Whale bone and baleen were valued raw materials for a wide range of artifacts in Atlantic Scandinavia. Many fragments recovered are small, much modified remains of craft work, which are very difficult to identify to species level. Even large elements surviving intact have often been extensively modified in use. A common use for the large vertebrae of baleen whales was as a cutting board or chopping block. In Ø 71 South, Ruin 2 both Rooms IV and II contained vertebral centra of a whale the size of a Greenland right whale, both much cut up by repeated strong blows on both flat surfaces, rendering reliable species identification impossible.

It is certainly possible both to butcher a great whale without bringing home a single bone and to bring home fleshless bone collected from a long-stranded carcass without gaining any meat. Active, open water pursuit of great whales is probably an early 16th century innovation in the Scandinavian North Atlantic. However, documentary sources demonstrate that small whales and porpoise (like the beluga and white-fronted porpoise listed in table 1) were driven to shore in many parts of the medieval North Atlantic and that naturally beached great whales were valued strandage and were regularly fought over. The presence of whale barnacles (Degerbøl 1936) and quantities of baleen (Vebæk 1991) in Norse sites indicates that some recently-deceased whale carcasses were exploited in Greenland.

## Birds

A wide range of wild birds were exploited by the Norse Greenlanders, including sea birds, migratory waterfowl, small songbirds, and the local ptarmigan. No domestic geese or chickens have ever been identified in Greenland, though they are present in collections from Iceland (Amorosi 1991). A few falcon and eagle bones recall Greenland's medieval reputation in the international falconry trade, but may also reflect animals killed to protect young lambs. In the Vatnahverfi, as in other parts of Norse Greenland, the medium sized alcids (murre and guillemot) make up the great majority of bones recovered, especially at Ø 71 South (where most of the unidentified "bird sp." fragments are probably also murre or guillemot). These sea birds were probably taken in winter, during their migration from the north. Their presence again suggests regular contact of Vatnahverfi residents with the sea.

## Fish and Mollusca

Fish and molluscan remains are rare in the Vatnahverfi, as they are in most collections from Norse Greenland. Both taxa are generally under-represented in hand collected archaeofauna, but are also rare in more recent

sieved collections. While the ubiquitous arctic char (*Salvelinus alpinus*) has a relatively light skeleton likely to preserve poorly, the more solid remains of gadid (cod family) vertebrae and cranial fragments common on other North Atlantic Scandinavian sites are also rare or absent in Greenlandic Norse sites (though many 18th-19th century Eskimo sites contain quantities of fishbone).

## Walrus and Polar Bear

Walrus and Polar Bear remains are present in small numbers in most Norse archaeofauna (McGovern 1985b). The skeletal elements represented suggest a distant and specialized butchery, possibly carried out in the Nordrsetur hunting grounds near Disko Bay (Table 2). Both the bear elements are finger bones, and both show diagonal slice marks suggesting that they were cut from a skin collected elsewhere (Degerbøl 1943). The walrus penis-bone fragments (perhaps trophies ?) and the tusk and post-canine fragments may indicate that at least some Vatnahverfi residents went on the northern hunt.

## Hare and Human

Arctic hare bones are not very common in most collections. This may reflect attrition and recovery bias, but large sieved collections do not produce much greater numbers of hare and small mammal remains. The single human bone (occipital fragment) from Ø 167 probably derives from the unfortunate individual found inside the ruin during excavation.

## House Mouse

Mouse remains have been recovered from several Norse sites in the Western Settlement (V 51, V 54, V 48) both in floor deposits and in "twig layer" deposits in middens which are probably redeposited floor layers. The greatest number of mouse remains come from the Vatnahverfi farm Ø 71 North, Ruin 12, Room IV, tub b, where a mass of mouse bone was recovered from the bottom of one of the storage tubs sunk below floor level. Elements from the whole skeleton were present, though disarticulated. In this case, the evidence of catastrophic deposition was clear and MNI quantification seems appropriate (Table 3). Mice of all ages were present in the tub, suggesting that much of the total mouse population of Ø 71 North was accidentally trapped at the time of abandonment. Virtually all the imported European species failed to survive their Norse hosts in Greenland (Buckland & Dugmore 1991).

Table 2. Walrus and Polar Bear remains from Vatnahverfi, probably deriving from the Nordrsetur voyages.

Site	Ruin	Room	Species	Element	Comments
Ø 167	I	V	Walrus	post-canine	split lengthwise
Ø 167	I	V	Walrus	post-canine	split lengthwise
Ø 167	I	I-II	Walrus	baculum	
Ø 167	I	IV	Walrus	baculum	
Ø 167	I	IV	Walrus	baculum	
Ø 167	I	VI	Walrus	baculum	
Ø 167	I	midden	Walrus	post-canine	split lengthwise
Ø 167	I	midden	Walrus	post-canine	
Ø 167	I	midden	Walrus	post-canine	
Ø 167	I	midden	Walrus	baculum	
Ø 167	I	midden	Walrus	baculum	
Ø 167	I	passage	Polar Bear	phalanx I	cut marks
Ø 64a				baculum	
Ø 64a				baculum	
Ø 64c				post-canine	
Ø 64c				baculum	
Ø 64c				Tusk root	cut off
Ø 71 S	3	I	Walrus	baculum	
Ø 71 N	12	Midden	Walrus	post-canine	
Ø 71 N	12	IV	Walrus	baculum	
Ø 71 N	12	IV	Walrus	post-canine	
Ø 71 N	12	Midden	Walrus	post-canine	
Ø 71 N	12	Midden	Walrus	post-canine	

Table 3. Mouse remains recovered from the bottom of a large tub. Virtually complete skeleta were collected, femora were the most common element.

Mouse (*Mus musculus*) Remains

Ø 71 North, Ruin 12, Room IV, tub b

Mouse Femora	left	right
Both epiphyses unfused	36	27
Distal epiphysis unfused	40	44
All epiphyses fused	34	26
Total	110	97
MNI	110	

## Relative frequency and inter-site comparisons

The three largest archaeofauna show considerable regularity in the relative frequency of major taxa. The unusually large number of bird bones in the midden at Ø 71 South make up just over 15 percent of the whole site archaeofauna, which somewhat skews the other taxa's NISP percent (McGovern 1985a: 112–114). If we compare only seal, caribou, caprines, and cattle remains for the three sites, the regularity of the overall pattern becomes clearer (Fig. 136). Seal bones make up around forty to fifty percent of the major taxa, while cattle and caprines dominate the rest of the collections.

This general pattern is duplicated in coastal sites such as Ø 17a (McGovern & Bigelow 1984). While further

zooarchaeological research is needed, there is little evidence at present for a sharp division of inland vrs. coastal adaptations or for specialized sheep farms vrs. seal hunting farms. Despite a dispersed settlement pattern, the Norse Greenlanders apparently were capable of organizing large numbers of farmers' labor for seasonal subsistence tasks on a community level, and of then sharing out the resources harvested over an entire community.

## Seal Exploitation

Fig. 137 presents the relative percentages of the identified seal bones in the three large archaeofauna. While

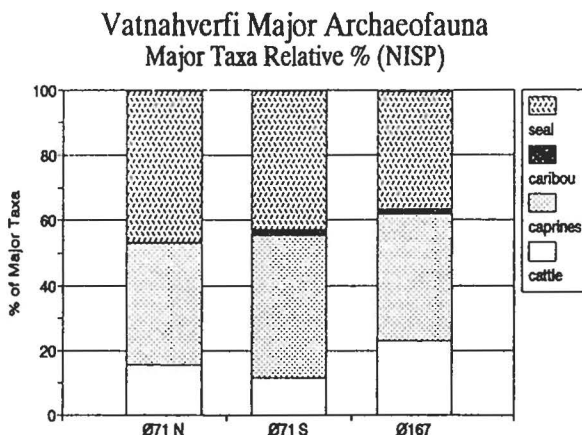


Fig. 136. Major taxa in the three largest Vatnahverfi archaeofauna.

### Vatnahverfi Major Archaeofauna Seal Relative % (NISP)

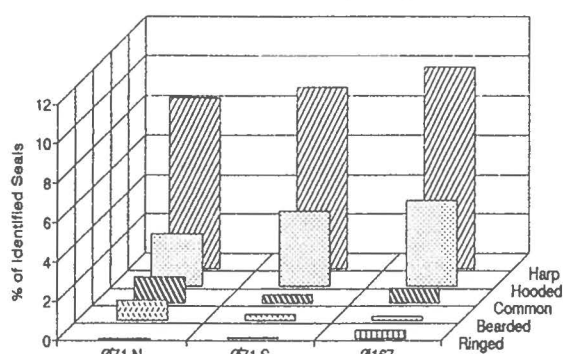


Fig. 137. Relative percentage of seal bones that could be identified to species level in the three largest Vatnahverfi archaeofauna.

there is some inter-site variability (possibly a sampling problem), the general similarity of the seal predation pattern is evident. Seals were being carried quite some distance inland to reach sites like Ø 167. The pattern of bone elements present suggest that nearly whole carcasses (including head and flippers) were brought into upland farms. However, seal bacula (penis bones) are nearly absent from Norse archaeofauna, in contrast to their abundance on Eskimo sites from Greenland. This pattern was noted by Degerbøl (1936), and is confirmed in the present analysis. Eskimo hunters probably retrieved most seals by towing home inflated bodies behind their kayaks, and primary butchery probably took place at their home base: the point of consumption and bone deposition. The Norse faced a longer transport of seals overland to inland farms, and probably eviscerated carcasses at the kill site to slow decomposition. The baculum is not attached to the axial skeleton, and is regularly lost during evisceration.

### Cattle to Caprine Ratios

As table 1 suggests, the ratio of caprine bones to cattle bones in the Vatnahverfi sites is rather low by modern farming standards: well under five caprine to one cattle, and often closer to two to one. This pattern is widespread in Greenland (McGovern 1985a), and is certainly partly the result of the Payne Effect skewing the samples in favor of the larger species. However, data from other parts of the North Atlantic suggest that this relatively low ratio of caprines to cattle is not wholly the result of differential preservation.

Fig. 138 compares the three major Vatnahverfi archaeofauna with the mean for all Greenlandic collections and with two phases of a medieval Icelandic church farm called Svalbard in Thistilfjörður (Amorosi 1991). These sieved collections (1 mm and 4 mm mesh) still produce caprine:cattle ratios between about 3:1 and

### Vatnahverfi Caprine : Cattle Ratio Inter-Site Comparisons

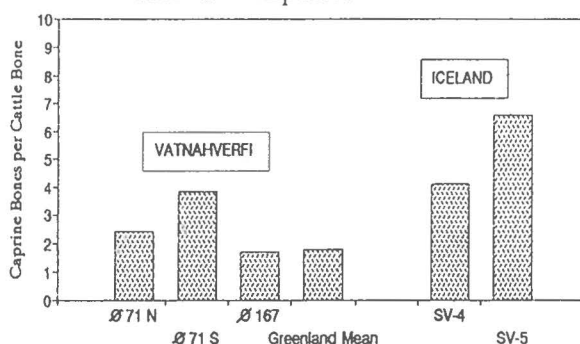


Fig. 138. Comparison of caprine to cattle bone ratios (longer bar indicates relatively more caprines). Icelandic site Svalbard phase SV-4 dates to c. AD 1150-1250, phase SV-5 dates to c. 1250-1400.

6.5:1, suggesting that medieval farmers did in fact maintain many more cattle and fewer sheep than modern North Atlantic farmers.

If we accept caprine to cattle ratios around 3:1 – 5:1, and recall the small size of most Greenlandic cattle byres, then it would appear that the total domestic stock for most farms was quite limited. If farms averaged 10-15 cattle, then caprine flocks between 40-60 sheep and goats may have been typical. The importance of wild animals in the Norse archaeofauna may well reflect the limited number of domestic animals per farm. While the Norse flocks may have been smaller than those of modern Greenlandic farms, the greater number of Norse farms and their dispersal over the Vatnahverfi may still have produced profound impact on vegetation and soils.\*)

### Sheep and Goat Ratios

As Table 1 indicates, only a minority of "Ovis/Capra sp." fragments can be further identified to species level (sheep or goat). As in other Greenlandic collections, the identified elements contain a considerable number of definite goat bones (Fig. 139). Some small Western Settlement farms regularly produce more goat bones than sheep, and the mean ratio of goats to sheep for all present Greenlandic archaeofauna is just over 1:2. In

\*") Apart from the late-glacial period, no erosion and deposition by wind of any importance occurred prior to the Norse era" (Jakobsen 1991:65). "During the Norse era, the favourable continental interior [i.e. Vatnahverfi] was presumably densely settled after a few generations. Due to years with extreme climates – especially highly erosive rainfall and wind activity – the critical threshold for soil erosion was exceeded at exposed sites with small areas of damaged vegetation cover. Notwithstanding the general climatic deterioration, it would probably have been impossible to achieve an ecological equilibrium for carrying capacity if extensive grazing of the natural vegetation was introduced into this marginal area" (op. cit., p. 67).

## Vatnahverfi Goat : Sheep Ratio

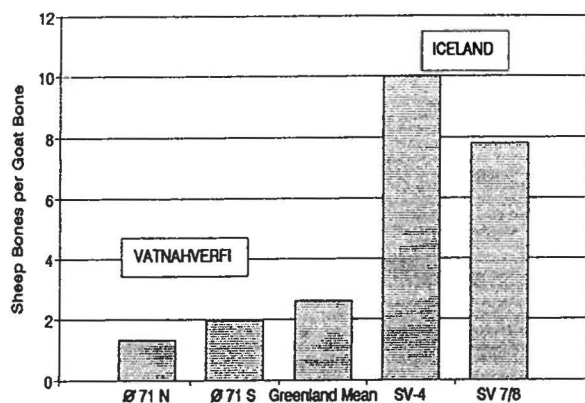


Fig. 139. Comparison of goat to sheep bone ratios (longer bar indicates relatively more sheep). Icelandic site Svalbard phase SV-4 dates to c. AD 1150–1250, phase SV-5 dates to c. 1717–1850.

other parts of North Atlantic Scandinavia, goats are much rarer than sheep. The 1:8 – 1:10 ratio of goat to sheep of the Svalbard site in Thistilfjordur is fairly typical (Amorosi 1991). Goats normally produce more milk than sheep, and can better metabolize leaves and bark of scrub vegetation. A small mixed flock of sheep and goats would provide an efficient use of rough grazing and a steady supply of milk and meat, but would not have been able to produce the regular surplus of wool enjoyed by the Icelanders.

## Distribution of taxa within sites

The field notes kindly supplied by the excavator allow the collections to be located within structures. Tables 4–7 present the distribution of taxa by room. As in other Norse farms, the contents of the floor deposits are quite similar to the distribution of bones in the middens

### Ø 167, Structure 1 Distribution of Taxa by Room

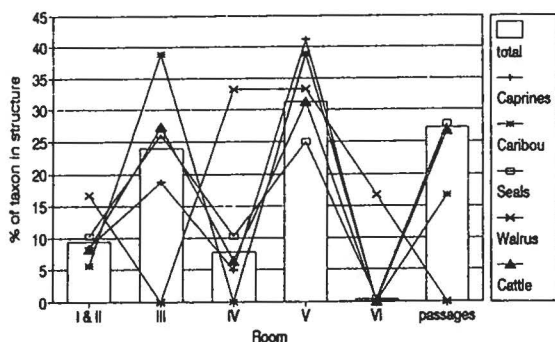


Fig. 140. Distribution of major taxa and walrus bones within Ø 167, Ruin 1. Bar represents the total NISP for Ruin 1.

### Ø 167, Structure 7 Distribution of Taxa by Room

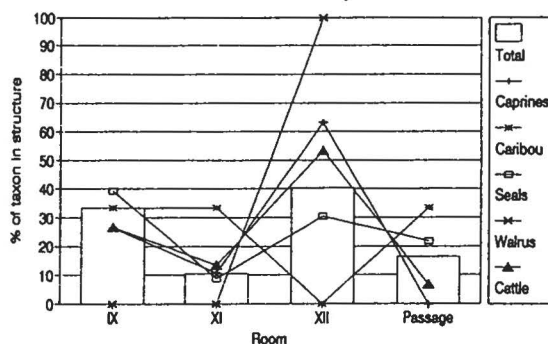


Fig. 141. Distribution of major taxa and walrus bones within Ø 167, Ruin 7. Bar represents the total NISP for Ruin 7.

(Buckland *et al.* 1983). This is probably a result of the characteristic Greenlandic use of a thick twig layer flooring which seems to have absorbed a good deal of bone material (perhaps during winter ?) before being thrown onto the midden (Buckland & Sadler in press). This flooring would have provided excellent insulation and some heat through composting, and its surface was probably far softer and less repellent than the bone collection might suggest.

Fig. 140 presents the distribution of taxa (as percent of the total for the structure) within Ø 167, Ruin 1. Most bone debris was concentrated in Rooms III and V and the passages. The major taxa (cattle, caprine, caribou, seals) are found in approximately uniform distribution within the structure, and do not show a clustering by species in particular rooms.

Fig. 141 presents similar data for Ø 167, Ruin 7. Bone is less common within both Ruin 2 and Ruin 7 than Ruin 1. Bone debris in Ruin 7 is most common in Rooms IX and XII. While there is some variability in caribou (probably the result of small sample size), the distribu-

### Ø 71 North, Structure 12 Distribution of Taxa by Room

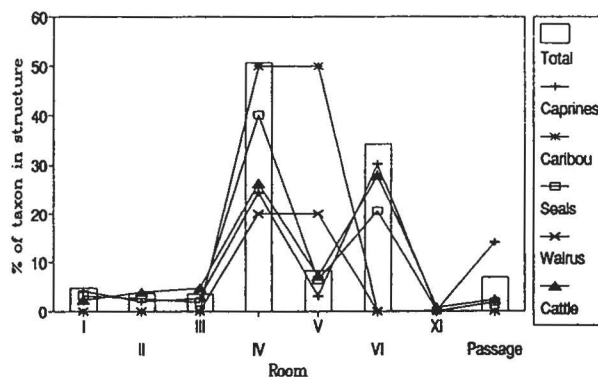


Fig. 142. Distribution of major taxa and walrus bones within Ø 71 North, Ruin 12. Bar represents the total NISP for Ruin 12.

Table 4. Taxa present within Ø 167, Ruin 1 and associated midden.

		NISP by Room							
	Ruin Room	I & II	III	IV	V	VI	1 passages	1 interior total	1 Midden
<i>Domestic mammals</i>									
<i>Bos taurus</i>	cattle	13	43	10	49	—	42	157	108
<i>Equus caballus</i>	horse	—	—	—	2	—	2	4	—
<i>Sus scrofa</i>	pig	—	—	—	—	—	—	0	1
<i>Ovis/Capra</i> sp.	caprine	26	57	15	125	—	81	304	221
<i>Caribou</i>									
<i>Rangifer tarandus</i>	caribou	1	7	—	7	—	3	18	3
antler fragment		—	1	—	1	—	—	2	—
<i>Seals</i>									
<i>Pagophilus groenlandicus</i>	harp	3	1	1	3	—	10	18	29
<i>Phoca vitulina</i>	common	—	—	—	—	—	1	1	3
<i>Phoca hispida</i>	ringed	—	—	—	—	—	—	0	2
<i>Cystophora cristata</i>	hooded	1	2	1	3	—	4	11	9
<i>Erignathus barbatus</i>	bearded	—	—	—	—	—	1	1	—
	seal sp.	22	63	24	57	1	54	221	183
<i>Whales</i>									
<i>Lagenorhynchus albirostris</i>	white fronted	—	1	—	—	—	—	1	—
	porpoise	—	—	—	—	—	—	—	—
	great whale	1	—	—	1	—	—	2	—
	Whale sp.	—	—	—	—	—	2	2	1
<i>Birds</i>									
<i>Uria lomvia</i>	murre	—	—	—	—	—	1	1	5
<i>Lagopus mutus</i>	ptarmigan	—	1	—	4	—	—	5	—
<i>Alca torda</i>	razorbill	2	—	—	—	—	—	2	3
<i>Haliaeetus albicilla</i>	sea eagle	—	—	—	—	—	—	0	1
<i>Fish</i>									
<i>Pisces</i> sp.	fish sp.	—	—	—	—	—	3	3	—
<i>Mollusca</i>									
<i>Mytilus edulis</i>	mussel	—	2	—	—	—	—	2	—
<i>Other</i>									
<i>Odobenus rosmarus</i>	walrus	1	—	2	2	1	—	6	4
<i>Ursus maritimus</i>	polar bear	—	—	—	—	—	1	1	—
<i>Lepus arcticus</i>	arctic hare	—	—	—	—	—	—	0	2
<i>Homo sapiens</i>	human	—	—	—	—	—	1	1	—
Total Identified (NISP)		70	178	53	254	2	206	763	575

tion of the other major taxa shows no strong clustering by room.

Fig. 142 presents similar data for Ø 71 North, Ruin 12. Substantial amounts of animal bone were recovered from this structure, mainly from Rooms IV and VI. Again allowing for sample size effects, there seem to be no strong clusters of major taxa by room.

Fig. 143 presents similar data for Ø 71 South, Ruin 2. Comparatively little animal bone was present in this structure. What bone there was seems fairly evenly spread: Rooms IV and V contained the greatest number. Sample sizes for all taxa were too low for meaningful discussion of distribution.

## Ageing data

The age of death of domestic stock is often reconstructed to provide an indication of past farming practices. While the fusion state of long bone ends (diaphyses and epiphyses) have been used for ageing, there are some theoretical and practical problems in applying this method (Watson 1978). The less dense bones of immature individuals do not resist attrition from all causes as do adult bone. Since the collections from Norse Greenland have been subject to a great deal of attrition, it seems appropriate to follow other workers



Table 5. Taxa present within Ø 167, Ruins 7 and 2.

	Ruin Room	7 IX	7 XI	7 XII	7 Passage	7 Interior total	2 I
<i>Domestic Mammals</i>							
<i>Bos taurus</i>	cattle	4	2	8	1	15	41
<i>Sus scrofa</i>	pig	—	—	—	—	0	4
<i>Ovis/Capra</i> sp.	caprine	5	2	12	—	19	1
<i>Caribou</i>							
<i>Rangifer tarandus</i>	caribou	1	1	—	1	3	—
antler fragment		1	—	—	—	1	—
<i>Seals</i>							
<i>Pagophilus groenlandicus</i>	harp	2	—	1	—	3	2
<i>Cystophora cristata</i>	hooded	—	1	—	1	2	—
	seal sp.	7	1	6	4	18	5
<i>Whales</i>							
<i>Dephinapteris leucas</i>	beluga	—	—	—	1	1	—
<i>Birds</i>							
<i>Aves</i> sp.	bird sp.	—	—	—	1	1	3
<i>Other</i>							
<i>Odobenus rosmarus</i>	walrus	—	—	1	—	1	—
Total identified (NISP)		20	7	28	9	64	56

and use tooth eruption and wear sequences instead (Amorosi 1989).

Table 8 presents the eruption and wear states for all available maxillae and mandibles from the Vatnahverfi. The first four columns present eruption stages, the next three columns present wear states. Note that both eruption time and wear are relative categories, and may not actually translate into precise dates of death. Only the caprine tooth rows from Ø 167 and Ø 71 South are numerous enough to allow further analysis, and the Ø 167 collection is close to the practical lower limit for meaningful quantification.

Fig. 144 presents the data from these sites. The larger Ø 71 South collection, deriving mainly from midden deposits, shows a few lambs dying at the end of their first summer<sup>1</sup>. A majority of animals died around 6 months (late autumn of their first year), and a second peak in mortality occurred at the end of their second summer. Mortality then remained low until a third peak was reached with fully mature animals showing heavy wear on all teeth (probably aged adults). This mortality pattern appears to reflect a herding strategy that attempted to generate both meat and secondary products (wool, milk). A few unpromising lambs and kids might be culled in their first summer, then a larger number of animals might be killed after their body weight had increased, and finally aged animals would be harvested at the end of their life cycle.

<sup>1</sup> We assume that lambs and kids were born in spring, as in traditional Icelandic practice.

The smaller collection from Ø 167 comes mainly from the structure interior, and shows a rather different pattern of caprine mortality. In this archaeofauna, the two peaks of mortality occur at less than six months (newborn-first summer) and in the adult "light" wear category. This pattern does not fit a logical husbandry strategy, but rather suggests the result of slaughtering a group of lambs/kids and their mothers, perhaps in early spring.

A small number of post-cranial bones of very young animals (newborn- 3 months) are also present in Greenlandic archaeofauna. Table 9 presents these remains, both in absolute numbers and as a percentage of the species NISP for each site collection. The young cattle remains are most likely simply the product of a dairy economy that could not afford to raise calves to a more economic meat weight. Neonatal cattle bones are found throughout the North Atlantic archaeofauna in comparable or higher frequency. The newborn caprines are less common in other North Atlantic collections, and may reflect animals that died at birth from natural causes.

## Butchery patterns and worked bone

Like other samples from Norse Greenland, the Vatnahverfi archaeofauna are very heavily fragmented- more fragmented than contemporary archaeofauna from Iceland and Shetland. Virtually all long bones have been

Table 6. Taxa present within Ø 71 North, Ruin 12 and associated midden and Ruin 11.

		NISP by Room										
Ruin	Room	12 I	12 II	12 III	12 IV	12 V	12 VI	12 XI	12 Passage	12 Total Interior	12 Midden	11 Total
<i>Domestic mammals</i>												
Bos taurus	cattle	3	5	6	33	9	35	1	3	95	31	—
Equus caballus	horse	—	—	1	—	—	2	—	—	3	0	—
Capra hircus	goat	—	—	1	6	—	7	—	1	15	3	—
Ovis aries	sheep	1	—	—	11	1	5	—	2	20	4	—
Ovis/capra sp.	caprine	11	5	7	64	8	79	—	37	211	52	—
<i>Caribou</i>												
Rangifer tarandus	caribou	—	—	—	1	1	—	—	—	2	0	—
	antler fragment	—	—	—	—	—	—	—	—	0	10	—
<i>Seals</i>												
Pagophilus groenlandicus	harp	—	—	2	8	3	8	—	—	21	12	1
Phoca vitulina	common	—	—	—	3	—	—	—	—	3	2	—
Cystophora cristata	hooded	3	1	2	—	—	1	—	—	7	3	—
Erignathus barbatus	bearded	—	—	—	3	1	—	—	—	4	0	—
	seal sp.	9	9	3	139	20	69	—	7	256	73	2
<i>Whales</i>												
	small whale	—	—	—	1	—	—	—	—	1	0	—
<i>Birds</i>												
Uria sp.	murre or guillemot	—	—	—	2	—	2	—	—	4	0	—
<i>Other</i>												
Odobenus rosmarus	walrus	—	—	—	1	1	—	—	—	2	3	—
Total Identified (NISP)		27	20	22	272	44	208	1	50	644	193	3
Unidentified Scrap (see Table 1)												

split and splintered for marrow extraction, and whole bones of any species are extremely rare. Tooth marks of carnivores (almost certainly domestic dogs) are found on between 10 – 50 percent of the fragments. Icelandic archaeofauna show far fewer carnivore tooth marks, usually on less than 5 percent of the bone fragments.

### Butchery Patterns

This very complete processing of Greenlandic animal bone by both humans and dogs greatly limits systematic analysis of butchery patterns (and metrical studies). However, a few general observations can be made.

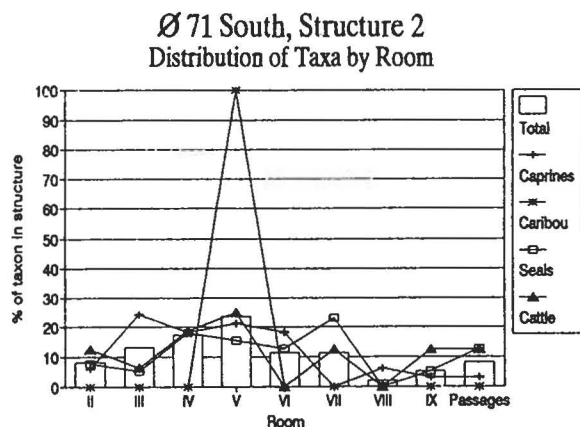


Fig. 143. Distribution of major taxa and walrus bones within Ø 71 North, Ruin 2. Bar represents the total NISP for Ruin 2.

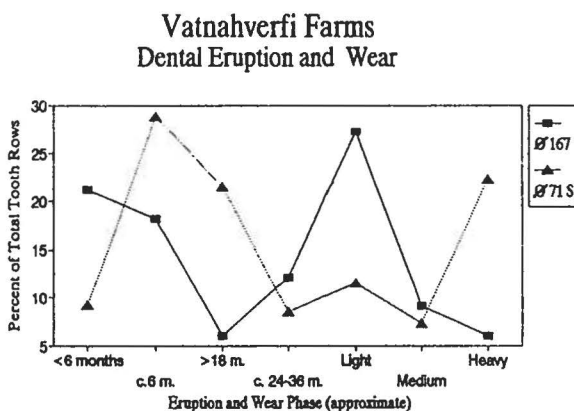


Fig. 144. Caprine dental eruption and wear patterns for Ø 71 South and Ø 167. Age based on Amorosi (1989: 54, 84).

Table 7. Taxa present within Ø 71 South, Ruin 2 and associated midden and Ruin 3.

	Ruin Room	2 II	2 III	2 IV	2 V	2 VI	2 VII	2 VIII	2 IX	2 Passages	2 Total Interior	2 Midden	3 I	3 II	3 III	3 Total Interior
<i>Domestic mammals</i>																
<i>Bos taurus</i>	cattle	2	1	3	4	–	2	–	2	2	16	546	–	1	1	2
<i>Equus caballus</i>	horse	–	2	–	–	–	–	–	–	–	2	1	–	1	–	1
<i>Canis familiaris</i>	dog	–	–	–	–	–	–	–	–	–	0	3	–	–	–	0
<i>Capra hircus</i>	goat	–	–	–	–	–	–	–	–	–	0	76	–	–	–	0
<i>Ovis aries</i>	sheep	–	–	–	–	–	–	–	–	–	0	148	–	–	–	0
<i>Ovis/Capra</i> sp.	caprine	2	8	6	7	6	–	2	1	1	33	1907	–	1	1	2
<i>Caribou</i>																
<i>Rangifer tarandus</i>	caribou	–	–	–	5	–	–	–	–	–	5	77	–	–	–	0
antler fragment		–	–	–	–	–	–	–	–	–	0	12	–	–	–	0
<i>Seals</i>																
<i>Pagophilus groenlandicus</i>	harp	1	1	–	1	–	–	–	–	–	3	189	–	1	–	1
<i>Phoca vitulina</i>	common	–	–	–	–	–	–	–	–	–	0	10	–	–	–	0
<i>Phoca hispida</i>	ringed	–	–	–	–	–	–	–	–	–	0	1	–	–	–	0
<i>Cystophora cristata</i>	hooded	1	–	2	–	–	–	–	–	3	6	73	–	1	–	1
<i>Erignathus barbatus</i>	bearded	–	–	–	–	–	–	–	–	–	0	7	–	–	–	0
	seal sp.	1	1	5	5	5	9	–	2	2	30	1777	–	4	–	4
<i>Whales</i>																
	small whale	1	–	–	1	–	–	–	–	–	2	1	–	–	–	0
	great whale	1	–	1	–	–	–	–	–	–	2	0	–	–	–	0
<i>Birds</i>																
<i>Uria</i> sp.	murre/guillemot	–	–	–	–	–	–	–	–	–	0	425	–	–	–	0
<i>Lagopus mutus</i>	ptarmigan	–	–	–	–	–	–	–	–	–	0	6	–	–	–	0
<i>Somateria spectabilis</i>	king eider	–	–	–	–	–	–	–	–	–	0	2	–	–	–	0
<i>Haliaeetus albicilla</i>	sea eagle	–	–	–	–	–	–	–	–	–	0	1	–	–	–	0
<i>Aves</i> sp.	bird sp.	–	–	–	–	–	–	–	–	–	0	441	–	–	–	0
<i>Other</i>																
<i>Odobenus rosmarus</i>	walrus	–	–	–	–	–	–	–	–	–	0	0	1	–	–	1
<i>Lepus arcticus</i>	arctic hare	–	–	–	–	–	–	–	–	–	0	2	–	–	–	0
Total Identified (NISP)		8	13	17	23	11	11	2	5	8	98	5717	1	9	2	12

Primary disjuncting of carcasses seems to have been carried out with axes or heavy cleavers capable of shearing through cattle long bones. Meat saws were not used, and portions were probably served from a common bowl in fairly large segments, to be further divided by a belt knife. The heavily used wooden trenchers recovered from several sites further indicate the prevalence of this common medieval food consumption pattern. Scraps were either further boiled for collagen, burned as fuel, or fed to dogs. Such attrition may underline the proxy nature of all archaeofauna, and warn against unrealistic attempts to move from MNI counts to meat weights to caloric yield (cf. Grayson 1984; McGovern 1985a).

In both the Vatnahverfi and Western Settlement archaeofauna there are crania distinctively split in two along the midline. These closely resemble the still-popular Icelandic dish "svid", consisting of half a roasted sheep's head. In Greenland, both caribou and caprine heads were prepared in this way.

As observed by Ulrik Møhl (1972), the Norse also

extracted marrow from caprine, cattle, and caribou metapodials by splitting them lengthwise, usually chopping downwards from the proximal end. As Møhl noted, this tends to extensively splinter the bone, and was somewhat less effective than the Saqqaq extraction technique used at Itinnera on caribou metapodials. The splintering method of metapodial marrow extraction remained universal in Norway and Greenland, but in Iceland and Shetland a new marrow extraction method became common sometime before AD 1200 (see discussion in Bigelow in press). This method involves holes cut into the proximal end and lateral surface of the distal end, allowing the marrow to be sucked out- and the conveniently shaped bone to be retained as a possible tool. This simple and highly effective marrow extraction technique is now universal in Iceland and is backed by a folk-belief that any other technique will cause a living sheep to break its leg in the same place. The technique was never adopted by the Norse Greenlanders, perhaps a minor reflection of growing isolation.

Table 8. Eruption and wear stages for cattle and caprines in the Vatnahverfi archaeofauna. Eruption stage 1 has completely deciduous dentition, stage 2 has first adult molar in wear, stage 3 has second adult molar in wear, and stage 4 has third adult molar just in wear. Wear stage 5 has minor reduction of adult crown height and little dentine exposure, wear stage 6 has significant reduction in crown height and moderate dentine exposure, and wear stage 7 has major reduction in crown height and extensive dentine exposure and wear.

		Juvenile Eruption stage			Adult Wear stage			
		1	2	3	4	5	6	7
<i>Caprines</i>								
Ø 167	mandible	7	6	1	4	6	3	2
	maxilla			1		3		
n = 33	total	7	6	2	4	9	3	2
Ø 71 North	mandible		2				1	1
	maxilla					1		
n = 5	total	0	2	0	0	1	1	1
Ø 71 South	mandible	12	51	32	12	19	8	32
	maxilla	12	24	24	10	11	11	26
n = 260	total	24	75	56	22	30	19	58
<i>Cattle</i>								
Ø 167	mandible			1		3		
	maxilla			1		3		
n = 4	total	0	0	1	0	3	0	0
Ø 71 North	mandible	1						1
	maxilla				2			
n = 4	total	1	0	0	2	0	0	1
Ø 71 South	mandible	4	2	4	3	2		
	maxilla	2	4		4	3		
n = 22	total	6	6	4	7	5	0	0

Table 9. Newborn animal bones from the Eastern Settlement archaeofauna. Upper panel presents NISP counts, lower panel presents these as percent of total taxon NISP per site. Neo Natal Bones – Eastern Settlement

Taxon	NISP per site					
	Ø 17a lwr.	Ø 17a upr.	Ø 71 N	Ø 71 S	Ø 149	Ø 167
cattle	5	3	1	10	3	15
caprine	11	2	8	22	0	18
horse	0	0	1	0	0	0
pig	4	1	0	0	0	1
harp seal	0	0	0	0	1	0
common seal	0	0	0	0	0	0
seal sp.	0	0	0	0	1	1

Neo Natal Bones – Eastern Settlement

Taxon	Neo Natal Percent of Taxon NISP					
	Ø 17a lwr.	Ø 17a upr.	Ø 71 N	Ø 71 S	Ø 149	Ø 167
cattle	3.94	3.95	0.79	1.77	3.00	4.67
caprine	4.53	1.85	2.62	1.02	0.00	3.30
horse	0.00	0.00	33.33	0.00	0.00	0.00
pig	40.00	33.33	0.00	0.00	0.00	20.00
harp seal	0.00	0.00	0.00	0.00	2.94	0.00
common seal	0.00	0.00	0.00	0.00	0.00	0.00
seal sp.	0.00	0.00	0.00	0.00	0.35	0.20

## Worked Bone and Antler

All the Vatnahverfi archaeofauna included many small fragments of worked caribou antler showing both knife cuts and saw marks. Contrary to observations made in my doctoral thesis (McGovern 1979) and an earlier unpublished preliminary report (McGovern & Bigelow 1976), there is no evidence of Norse use of burins during bone or antler working in the Vatnahverfi sites. As subsequently demonstrated by MacGregor's thorough study (1983) the burin-like marks were instead caused by the small backed saw in widespread use by early medieval bone and horn workers. Horn cores of cattle and caprines were usually cut into segments, and the frontal bones of both species invariably had the horn cores cut away. Many small fragments of bone (usually horse or cattle long bone) were also marked by knife and saw cuts and several showed some hand-polish. These fragments were marked and set aside, but no function could be inferred from such very small fragments.

Other pieces of worked bone were less enigmatic. Bone ice skates made from the metapodials of cattle and horse are now well documented throughout early medieval Scandinavia and Viking settlements in Britain (MacGregor 1975, 1983). In Greenland, Degerbøl identified two from Ø 29a Brattahlíð, both horse metatarsi showing both drilled holes at the ends (one is missing

Table 10. Available cattle, caribou, and dog metrical data for Vatnahverfi archaeofauna. All measurements follow Von den Dreisch (1976).

Cattle Metrical Data		(In cm)			
Metacarpus		Bp	Bd	SD	GL
Ø 167		4.5	4.71	2.81	15.35
Ø 66		5.9	5.9	3.5	17.2
Ø 149		–	4.8	2.84	16.06
Metatarsus		Bp	Bd	SD	GL
Ø 167		4	4.61	2.29	17.2
Ø 167		–	4.67	2.15	16.9
Ø 64c		4.3	4.7	2.2	19.7
Caribou Metrical Data		(In cm)			
Metatarsus		Bp	Bd	SD	GL
Ø 71 S		–	4.5	–	–
Ø 64a		4.1	4.1	20	18
Humerus					
Ø 71 S			5		
Dog Metrical Data					
Mandible		P1-M3 total length		carnassial total length	
Ø 71 S		7.2		2.05	
V 48		8.18		–	
V 48		6.45		–	
V 54		7.07		–	
V 59		7.63		–	
Modern Greenl. Sled dog		7.42		2.37	
Modern E. Greenl. wolf		9.5		3.12	

part of the proximal end) and longitudinal scratches (Degerbøl 1934, fig. 106). From the Western Settlement site V 52a, Degerbøl (1936:13) reports a split horse metatarsus worn smooth longitudinally, but without holes. The 1984 Sandnes Rescue Archaeology Project recovered a similarly polished and unperforated cattle metatarsus from V 51.

The Vatnahverfi investigations have added two more probable skates. From Ø 71 North, Ruin 12 comes a cattle metacarpus 17.6 cm long, drilled at both proximal and distal ends (holes ca. 0.75 cm in diameter). Cut marks indicate some preliminary flattening and roughening of both surfaces, and the lower surface is scratched and pitted (longitudinal striations clearly visible at 10 × magnification). The second specimen comes from Ø 71 South, from the midden in front of Ruin 2. This is a cattle metacarpus, 14.7 cm long, without holes and lacking distal epiphysis. Both upper and lower surfaces show considerable wear, and the lower surface is abraded and glossy at 10 x magnification.

More unusual are a series of four worked astragali. The most elaborate is a cattle astragalus from Ø 71 North, Ruin 12, Room IV, tub b (fig. 145). Pierced for suspension on the proximal margin, it bears an incised equal-armed cross cut into the major articular facet. Drilled circular pits appear at the ends of the cross, and the suspension hole shows some wear abrasion. The second specimen is also a cattle astragalus from Ø 71 North, the midden in front of dwelling. It was also pierced for suspension, but lacked incised decoration. A caprine astragalus from Ø 71 South, midden, also is pierced but undecorated. From Ø 17a in Narssaq comes a sheep astragalus without a suspension hole, but with a cross cut into the same articular facet as the cattle specimen from Ø 71 North, Ruin 12. This cross is much simpler, and lacks the drilled pits at the ends of the arms. Cattle and caprine astragali act as four-sided natural dice, and have functioned as gamesmen and divination tools in many cultures. In Iceland, sheep and cattle astragali were used for divination (with appropriate rhyming charm) down to recent times (Mjoll Snaesdottir, pers. comm.).

Metrical analysis

The highly fragmented condition of the Greenlandic archaeofauna precludes elaborate metrical analysis, but a few notes should be recorded. All measurements follow Von den Dreisch (1976). Table 10 presents the available metrical data for Vatnahverfi cattle, caribou, and dog. As noted in other studies, cattle in Norse Greenland were small, though occasional fragments of larger individuals (usually unmeasurable) have been observed by all analysts. Caribou remains are generally robust, with well developed antlers (where fragments



Fig. 145. Decorated cattle astragalus from Ø 71 North, Ruin 12, Room IV, Tub b. Hole in upper margin shows some abrasion, possibly from use for suspension.



Table 11. Available caprine metrical data for the Vatnahverfi, with comparative data from the Eastern Settlement, Western Settlement, Iceland, and 13th century Exeter (U.K.).  
Caprine Distal Humerus Breadth (Bd)

site	Ø 71 S	Ø 71 S	Ø 71 S	Ø 71 N	Ø 167	Ø 149	Ø 17a	Ø 17a	V 51	13th c.
taxon	Ovis	Capra	Caprine	Ovis	Caprine	Caprine	Ovis	Capra	Ovis	Exeter
Number of Specimens	49	7	13	7	1	4	2	1	4	41
Range Maximum	3.5	3.4	3.25	3.5		3.29	3.95		3.01	3.06
Range Minimum	2.3	2.3	2.6	2.7		2.5	2.63		2.46	2.54
mean	2.89	2.93	2.88	3.11	2.69	2.86	3.29	3.94	2.75	2.78
sd	0.30	0.36	0.22	0.25		0.33	0.93		0.23	0.128
CV	10.50	12.27	7.48	8.17		11.37	28.37		8.20	4.60

#### Caprine Metatarsal

Distal Breadth (Bd)					Degerbøl (1936)								
site	Ø 71 S	Ø 71 S	Ø 167	Ø 167	Ø 149	W. Settlement	V 48	V 48	V 54	V 54	Adalbol	Stora- borg	
taxon	Ovis	Capra	Ovis	Capra	Ovis	Ovis	Capra	Ovis	Capra	Ovis	Capra	Ovis	
Number of Specimens	8	4	2	1	1	8	4	3	2	1	1	3	
Range Maximum	2.4	2.6	2.41			2.45	2.46	2.43	2.34			2.4	
Range Minimum	2.2	2.2	2.21			2.16	2.23	2.14	2.1			2.15	
mean	2.33	2.35	2.31	2.64	2.40	2.31	2.36	2.25	2.22	2.35	2.28	2.29	
sd	0.09	0.17	0.14			0.10	0.10	0.16	0.17			0.13	
CV	3.79	7.37	6.12			4.44	4.04	6.88	7.64			5.58	

#### Caprine Metacarpal

Distal Breadth (Bd)	Degerbøl (1936)											
site	Ø 71 S	Ø 71 S	Ø 167	Ø 29	W. Settlement	V 48	V48	V54	V54	Adalbol	Stora- borg	
taxon	Ovis	Capra	Ovis	Ovis	Ovis	Capra	Ovis	Capra	Ovis	Caprine	Ovis	Ovis
Number of Specimens	5	1	3	3	14	5	2	3	1	2	8	38
Range Maximum	2.6		2.5	3.1	2.7	2.7	2.48	2.41		2.63	2.7	2.97
Range Minimum	2.3		2.05	2.3	2.23	2.36	2.46	2.33		2.5	2.37	2.3
mean	2.46	2.40	2.26	2.64	2.54	2.50	2.47	2.38	2.73	2.57	2.49	2.56
sd	0.11		0.23	0.41	0.15	0.15	0.01	0.04		0.09	0.10	0.149
CV	4.67		10.02	15.58	5.94	6.00	0.57	1.83		3.58	4.12	5.82

are large enough to judge). The dog remains from the Vatnahverfi are similar to other Norse collections, suggesting some variability around two different types (cf. Degerbøl 1936).

Caprines provided a greater number of measurable elements, but only the very dense distal humerus and distal metacarpus and metatarsus survive in useful numbers. Neither measurement is ideal for reconstructing body size or type, but are reported here with some comparative materials from other sites (Table 11).

Fig. 146 illustrates the distal humerus maximum breadth (Bd) for the available data from the Vatnahverfi sites, with comparative data from Ø 149, Ø 17a, V 51 Sandnes, and a 13th century urban collection from Exeter in southwest Britain (Maltby 1979). The measurements indicate substantial overlap, suggesting a general similarity in body size, with a few outliers (mainly goats).

Fig. 147 illustrates the caprine distal metatarsus maximum breadth (Bd) for the Vatnahverfi sites, again providing comparative data from Ø 149 and Western Settlement sites (both those summarized in Degerbøl 1936, 1943 and recent excavations). Two Icelandic sites are also included for comparison. Adalbol is an interior farm in eastern Iceland whose collection dates to before 1158. Stora-borg was a large farm in the south: comparative material used here dates to ca. 1450–1600 (Amorosi 1991). Again, a broadly overlapping range of measurements is evident, with a single goat bone again forming an outlier.

Fig. 148 illustrates the same measurement taken on the caprine distal metacarpus, using the same comparative collections. A slightly wider distribution of values is probably the result of sampling error in the smaller collections.

### Caprine Distal Humerus Maximum Breadth (Bd)

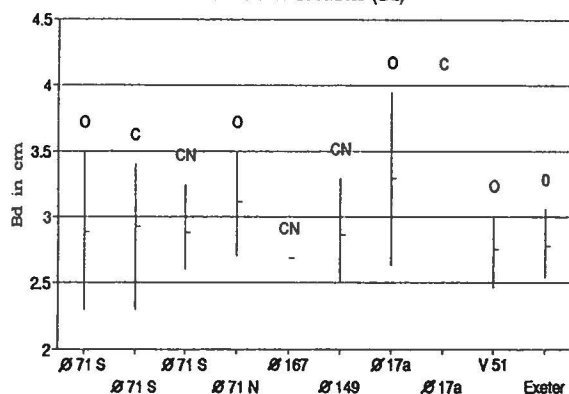


Fig. 146. Distribution of caprine distal humeri maximum breadth measurements, range and mean (Von den Dreisch 1976, Bd.). O = sheep, C = goat, CN = caprine.

### Caprine Distal Metacarpus Maximum Breadth (Bd)

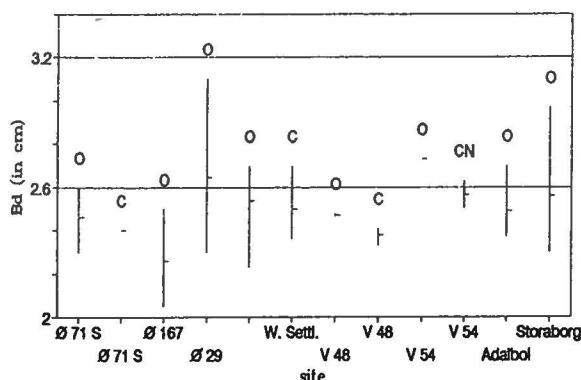


Fig. 148. Distribution of caprine distal metacarpi maximum breadth measurements, range and mean (Von den Dreisch 1976, Bd.). O = sheep, C = goat, CN = caprine.

## Summary

The Vatnahverfi archaeofauna add to an understanding of Norse resource use in Greenland, while confirming several patterns noted by prior analysts. The strong similarity of these collections to other Norse archaeofauna do not reflect a uniform environment or evenly spaced resources. Instead, they demonstrate the effectiveness of Norse social organization in collecting and distributing natural resources over a wide area, bringing seals, seabirds, and walrus to inland farms and the labor of inland farmers to coastal hunting grounds.

## 19. Final remarks and radiocarbon datings

Everything must have an end, and so must this book. I suppose I could write several pages more on minor excavations in Vatnahverfi in 1949–50, and on our excursions from the camps at Russip Kuua and Abel's Farm, and how we revisited some farms that were already known, and found some other previously unknown farms, besides a number of individual Norse ruins, some of which may have belonged to one of the farms already registered, while in other cases they may have been part of farms we had been unable to locate. But I think a detailed description of that part of our activities might be felt to be rather superfluous, so I will stop here.

However, there are some questions and themes I would like to say something about in conclusion. I am thinking in particular of certain questions. How old are these farms? And when were they abandoned? At present it is very difficult, if not impossible, to answer these questions. The types of buildings and the objects found tell us little except that they are not very early. It seems certain that the farms in the interior of Vatnahverfi were relatively late – at least later than the *landnåma* period. Presumably Ø 78 at Eqaluit – Hafgrim's Farm – was a *landnåma* farm, as was Ø 66, at Igaliku Kujatleq; these localities were natural places to start settlement. Later the population increased, and there was a need for more settlement, so the inland area was populated. It is hard to say how long it took for the Vatnahverfi area to be fully settled, but I believe this might have happened as early as the 11th century, or as late as the 12th century. The question of when the settlement was abandoned –

### Caprine Distal Metatarsus Maximum Breadth (Bd)

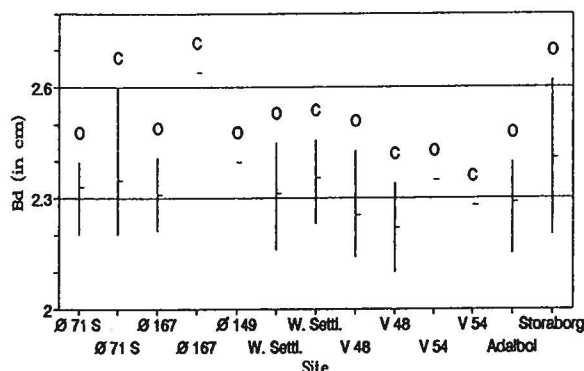


Fig. 147. Distribution of caprine distal metatarsi maximum breadth measurements, range and mean (Von den Dreisch 1976, Bd.). O = sheep, C = goat.

whether this happened little by little, or all at once – is unsolved. There is a chance, however, that we will be able to say something about when Ø 71 and Ø 167 were abandoned.

In June 1992 we received the radiocarbon dating of the skeleton fragments of the man, found in the passage of one of the houses at Ø 167 (carried out by the C14 Laboratory at the National Museum, Copenhagen) and radiocarbon dating of some of the 110 mice, found at Ø 71 in Vatnahverfi (carried out by the Institut for Fysik og Astronomi, Aarhus Universitet).

K-5889 (part of human skull),  $710 \pm 50$  C14 yrs before 1950, i.e. 1265–1285 A.D. calibrated  $\pm 1$  stand. dev. (Stuiver & Pearson 1986). C13 =  $-19.1\%$  PDB.

AAR-909 (femur of mice, *mus musculus*),  $945 \pm 60$  C14 yrs before 1950, i.e. 1015–1165 A.D. calibrated  $\pm 1$  stand.dev. (Stuiver & Pearson 1986). C13 =  $-17.75\%$  PDB.

The man has died not later than 1285 AD, and the mice did not exist later than 1165 AD. – It must be admitted that these datings are a surprise (at least for me), both of them! Seen from an archaeological-historical point of view one should have expected that these farms (and most of the habitation in Vatnahverfi) still existed at a later time. Vatnahverfi was (so I was thinking) a rather rich part of the country, with good conditions for Norse farmers, and here they could live in peace without troubles with the Eskimos, who did not come to the central and southern parts of the Eastern Settlement before in the 14.-15., maybe even the 16. centuries. – It must also be remembered that from the written sources (Ivar Bardarsson) we know that as late as 1350 the Episcopal seat, Gardar, existed, and so did the Benedictine convent in the Siglu Fjord (Uunartoq) and the Augustin monastery in Ketilsfjord (Tasermiut), besides a number of parish-churches (among them Herjolfsnes) and several farms.

And from an Icelandic manuscript we know about a wedding, which took place in Hvalsey church in 1408. – In other words: the Norsemen as late as a. 1350 still lived in the central and southern part of the Eastern settlement, and from P. Nørlund's excavations 1921 at Herjolfsnes based on the archaeological results we are able to say that the Norsemen still lived in Greenland a. 1500 – and perhaps even some decades later. – Accordingly it seems surprising that Vatnahverfi (a part of this district) already should have been given up so early as 12.-13. centuries.

The results of the radiocarbon datings of the mentioned finds from Vatnahverfi must, however, be looked upon as safe: the farm(s) at Russip Kuua (Ø 71) seem to have been given up early in the 13. century, maybe a little before, and the big farm "Abelsgaarden" (Ø 167) must have finished to exist late in the same century. – All this demands, however, an explanation, and I shall here try to do so, seen from my point of view. When we are speaking of giving up the habitation of Vatnahverfi it must – as a starting-point – be remem-

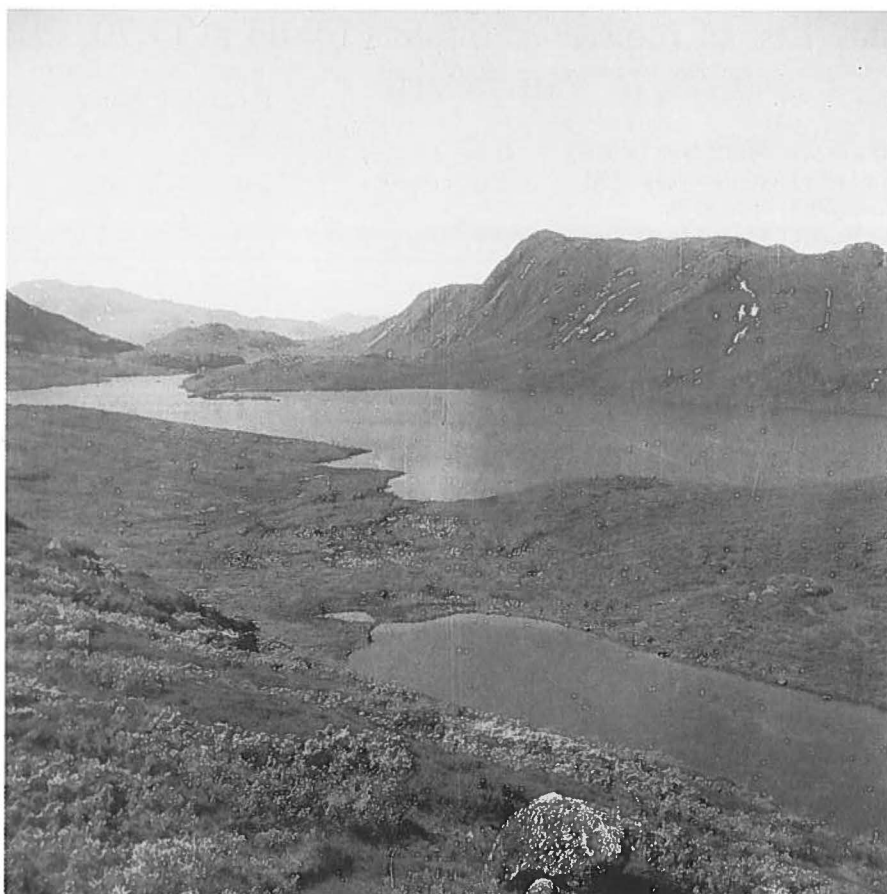
bered that we are here dealing with only 2 (3) farms, Ø 71 (the north farm) Russip Kuua, and Ø 167, "Abels farm". There can, however, be no doubt that the results (the datings) here may have a wider scoop. – In my opinion the radiocarbon datings of (some of) the 110 mice, and the human skeletal fragments from Ø 167 in the future – when we have other, new results from working in the field in Vatnahverfi (combined with the results from earlier excavations, such as my own in the eastern part of Vatnahverfi, in 1939 (Vebæk 1943)) – will give us more safe knowledge of when and especially why the Norse habitation disappeared, not only from Vatnahverfi, but from all Greenland.

What was the reason(s), why the Norsemen left at least some farms in Vatnahverfi as early as in the 13. century? As said above we can leave out the problems of the Eskimos, and also a general giving up of the Eastern Settlement. But what is the explanation then? The answer is at present: we do not know exactly, what it is, but there is all reason to believe that the reason was of local origin. It could theoretically – have been diseases (personally I am not of that opinion). But I think that it had something to do with the climate, and consequently changing in the vegetation, which made it difficult, at last actually quite impossible to exist – at least as a Norse farmer, with his economy based on keeping cattle, sheep and goats, although we know that Norsemen living inland also lived by the local animals: they hunted, by land and by sea, and they fished (Vebæk 1991 a). But a number of bad years could be a catastrophe, and it finally could lead to the total destruction of the Norse farming community in this district.

It is well-known that in the eastern part of Vatnahverfi there are to-day vast areas, which have the character of simply sand-deserts. In one of these desert-areas we in 1939 found and excavated a Norse farm, Ø 64 c. completely covered with heavy sand-dunes up to a. 3 mtrs. (Vebæk 1943). Later, however, geographers, geologists and botanists have worked with these problems and have stated that the natural erosion of part of the country was increased by overgrassing already in Norse time, and that this phenomenon has returned in the later decades, together with our days' modern farming (sheep-holding) by the Greenlandic farmers (see Fredskild *et al.* 1988; Jakobsen 1991).

To return to the two farms, which are of special interest in this connection: Ø 71 and Ø 167. In neither of these farm could be found any trace of erosion, or any sand at all, so this could not have been the reason why these farms were given up. But the phenomenon of erosion in the neighbouring districts may well have had an influence – greater than expected – on the living-conditions at Ø 71 and Ø 167 (and the neighbouring farms). In consideration must also be taken the so-called "Little Ice-Age", which had an influence on whole Vatnahverfi. Concerning the dead man found in the passage in one of the houses at Ø 167, we can only maintain that he was the last inhabitant here, and that

Fig. 149. Goodbye to Vatnahverfi. A view of the farm Ø 173, from the NE (photo, C. L. Vebæk, 1948).



there was nobody in the neighbourhood, who could take care of the dead man (who was lying on the stones in the passage, he was not buried).

I would like to conclude with some brief information on Vatnahverfi today. When we did our investigations in 1948–50(51) there were already some sheep farmers who had settled at some of the best localities in Vatnahverfi: at Igaliku Kujatleq, at Qanisartut, at Eqluit and – to the south – at Qadlimiut. Since then much has happened. There are now several more sheep farmers in Vatnahverfi, and, as in medieval Norse times, they have now settled in several places inland, among other localities at Ø 71, Russip Kuua, where we excavated two farms. And just as one would have in the Norse period, one sees sheep and horses (Iceland ponies) everywhere – but there are no cattle any longer. Until a few years ago there were cattle at most of the sheep farms, especially in Igaliku (the Norsemen's Gardar), where the farmers had kept cattle continuously for about 200 years

after Anders Olsen settled there late in the 18th century. But like so many other things, cattle are no longer profitable.

The topographical-archaeological investigations of the years in Vatnahverfi – especially those of 1948–50 described in this book – must be regarded as steps towards the investigation and study of medieval Norse culture in Greenland. There is still much more to be done in Vatnahverfi: further topographical work, the search for more farms and perhaps a church or two, and more excavations must be done at the most convenient places with modern methods, and as teamwork – also in the field – among archaeologists, geologists, botanists, zoologists and – if a churchyard is to be excavated – anthropologists.

The author of this book and his collaborators wish whoever may follow us the best of luck with renewed investigations in unforgettable Vatnahverfi (Fig. 149).

## 20. List of registered objects found at Ø 70, Ø 71 and Ø 167, 1949–50, in Vatnahverfi

### Ø 70 (*the Mountain Farm*)

List of objects found in 1950

D22–1991, Nos. 1–76

(NB: All finds are from *Ruin 1*, the dwelling)

No.	Finding-place	Object
1.	Room III	Chessman, rather fragmented.
2.	Room IV	Chessman – a rook – of bone (walrus tusk?), well-preserved (Fig. 104).
3.	Room II	Small, double-sided comb of bone, slightly fragmented.
4.	Room III	Middle part of a double-sided comb of bone; all the teeth broken off.
5.	Near Room II	Double-sided comb of bone, rather well-preserved.
6.	?	Small fragment of double-sided comb of bone – the middle part.
7.	Room III	Small fragment of a bodkin of bone, with a flat head through which there is a perforation.
8.	Room II	Spindle-whorl (?) of whalebone, large, flat; on the upper side decorated with a large number of incised lines (Fig. 104).
9.	Room II	Spindle-whorl of steatite.
10.	Room II	Spindle-whorl of steatite, large perforation.
11.	Room III	Very large spindle-whorl of steatite, fragmented.
12.	Room III	Spindle-whorl of steatite, with a short “tube”, and decorated with a number of oblique, short lines on the upper side (Fig. 108).
13.	Room III	Spindle-whorl of steatite.
14.	Room III	Spindle-whorl of steatite.
15.	Room III	Spindle-whorl of steatite, rather irregular, with a large perforation.
16.	Room III	Spindle-whorl of steatite, fragment. Ornamented on the upper side with three concentric circles, between which oblique lines.
17.	Room IV	Spindle-whorl, small, high, with a wide perforation.
18.	Room III	Fragmented spindle-whorl of steatite.
19.	Rooms II-III	Fragment of a low vessel of steatite (about 1/5 is missing). Undoubtedly a lamp.
20.	North of Room III	Fragment of a lamp of steatite, four-sided type, a corner-sherd with a knob. Three perforations for repairs, two of them with fragments of iron nails preserved.
21.	Room I	Very large fragment of a vessel of steatite, with a knob. One perforation. On the inner side, two runes (??).
22.	Room I	Fragment of a vessel of steatite, rim-sherd, with a very unclear knob.
23.	Room I	Small fragment of a vessel of steatite, rim-sherd, with two lines on the rim, and traces of a perforation.
24.	Room I	Fragment of a vessel of steatite, side-sherd, with rounded edges and remnants of a perforation. On the inner side a deeply incised cross (owner's mark?).
25.	Room II	Two small fragments of vessels of steatite (perhaps the same vessel), with three parallel lines on the edge.
26.	Room II	Two fragments of different vessels of steatite, rim-sherds, both with traces of a perforation.
27.	Room II	Knob for a vessel of steatite, with rounded edges, one perforation. On the other side, an irregular cut.
28.	Room II	Fragment of a vessel of steatite, side-sherd, rounded edges, one perforation. On one of the sides, a deep, rounded cut.
29.	Doorway between Rooms II and III	Four-sided, knob-like handle for a vessel of steatite.
30.	Doorway between Rooms II and III	Fragment of a vessel of steatite, rim-sherd, with rounded edges and one perforation.
31.	Room III	Fragment of a vessel of steatite, rim-sherd, with a small, cubic handle.



32.	Room III	Fragment of a vessel of steatite with two parallel lines on the rim.
33.	Room III	Small fragment of a vessel of steatite, rim-sherd, with two broad, deeply incised lines and the traces of a perforation.
34.	Room III	One small and two large rim-sherds of steatite vessels, one very heavy.
35.	Room III	Three small fragments of quite small, rather thin vessels of steatite, perhaps from the same vessel, all rim-sherds.
36.	Room III	Heavy, approximately vertical sherd of a vessel of steatite, rim-sherd, with two parallel lines under the rim, with zig-zag lines between.
37.	Room III	Four fragments of vessels of steatite, heavy material, rim-sherds.
38.	Room III	Fragment of a vessel of steatite, large, curved side-sherd, facet-cut on outside.
39.	Room III	Larger, knob-shaped handle for a vessel of steatite, with a little of the side preserved.
40.	Room III	Fragment of a vessel of steatite, apparently a handle, with traces of a perforation.
41.	Room III	Fragment of a vessel of steatite, rim-sherd, with the large part of the side preserved. The vessel has had a knob-shaped handle. One perforation.
42.	Room III	Four fragments of vessels of steatite, all with a perforation. Two fragments have facet-cut "stripes" on the outside. More or less rounded edges.
43.	Room III	Fragment of a vessel of steatite.
44.	Room III	Fragment of a vessel of steatite, side-sherd, with rounded edges, one with a perforation and traces of two others. On one side, a presumed owner's mark, on the other a very small cross.
45.	Room III	Fragment of a vessel of steatite, side-sherd, with one perforation. On one side is incised a light square-shaped ornament, on the other side a slightly more irregular line ornament.
46.	Room III	Fragment of a vessel of steatite, possibly a rim-sherd. On one side is incised a small cross, on the other side a slightly more complicated figure.
47.	Room IV	A cubic knob, and a small part of the side of a vessel of steatite.
48.	Room IV	Small fragment of a vessel of steatite, side-sherd.
49.	South side of Room II	Fragment of a vessel of steatite, side-sherd from near the corner.
50.	South side of Room II	Fragment of a vessel of steatite, bowl-shaped.
51.	South side of Room II	Small fragment of a vessel of steatite, rim-sherd.
52.	Room II	Repair plate for a vessel of steatite, with a high "knob". One perforation. The plate is much fragmented.
53.	Room II	Repair-patch for a vessel of steatite of square form, rather thin, with rounded corners. Slightly fragmented.
54.	Room II	Fragment of a vessel of steatite, presumed to be a repair-patch, with a very high "knob".
55.	Room III	Undoubtedly a repair-patch for a vessel of steatite, of oval form, with a very high "knob".
56.	The dwelling, outside Room II	A hammer head or a pommel of iron of a sword, very heavy, well-preserved (Fig. 115).
57.	Room IV	Small awl of iron, with remains of the wooden handle (Fig. 117).
58.	North of the dwelling	Small knife of iron, the tip broken off.
59.	Room III	Object made of whalebone, fragmented, but partly reassembled. Its function must have been that of a ladle or a spade.
60.	Room III	Small, four-sided whetstone of quartzite.
61.	Room II	Two iron nails, one of them almost intact.
62.	Room IV	One very long iron nail.
63.	Room ?	Iron slag.
64.	Room IV (?)	Object of iron, resembling a spearhead, but undoubtedly not a weapon. On one side there are some short hairs from the skin of an animal. Much decomposed.
65.	Room III	Small, oblong, very heavy piece of solid iron, square section. Undoubtedly a semimanufacture, a "bar" (Fig. 119).
66.	North of Room III-IV	Object of bone – most likely from a whale – oblong, with a round section. The tip is made like a very fine chisel. Part of the back end is broken (Fig. 112).

67.	Room III	Small fragment of an object of whalebone, with one perforation.
68.	Wall between Rooms III and IV	Fragments of two narrow leather strips.
69.	Room III	Quite small fragment of a thin plate or vessel of steatite. On one side a runic inscription (five runes) (Fig. 132).
70.	Room III	Fragment of a plate (perhaps from a vessel) of steatite. On one of the edges four zig-zag ornaments have been cut, and below this is line ornamentation.
71.	Room III	Fragment of a small, square plate of steatite (about 1/5 – 1/2), with rounded corners. Flat on one side, slightly convex on the other side. One perforation and traces of another. On both sides there is line ornamentation (double circles).
72.	Room III	An object of steatite, presumable a fragment of a vessel, with a perforation at the middle. On one side a circle has been incised around the perforation, on the other side the surface is slightly deepened in a circular area around the perforation.
73.	Room III	Small, irregular formed bead of steatite.
74.	Room III	A small piece of steatite, triangular section. On one side a number of lightly incised lines, and on one of the edges some small triangular cuts.
75.	Room III	Fragment of a vessel of steatite, presumably a rim-sherd, with a large cubic knob. On the inside a broad funnel-shaped depression has been cut through the handle.
76.	Room III	Fragment of a vessel of steatite, with rounded edges, and a groove (like No. 75). There is a perforation through the hollow.

Also (not registered), from the wall between Rooms III and IV: some brown human hair.

### Ø 71, Russip Kua

List of objects found in 1949

D23 – 1991, Nos. 1–290

(The objects numbered 1–107 are from the *South Farm*, those numbered 108–290 are from the *North Farm*)

No.	Finding-place	Object
1.	Ruin 2 (the dwelling) Room IV	Fragments of a comb of bone, double-sided, the middle part, with many nails.
2.	Ruin 2, Room IV	Two fragments of a comb of bone.
3.	Ruin 2, Room IV	Fragment of a comb of bone, the middle piece, with a row of nails.
4.	Ruin 2, Room IV	Three small fragments of a comb of bone, from the middle part.
5.	Ruin 2, Room II	A small bead of steatite.
6.	Ruin 2, Room II	Two quite small fragments of woven cloth.
7.	Ruin 2, Room II	Several fragments of thin, loose, twisted woollen thread.
8.	Ruin 2, Room IV	Well-preserved small fragment of a narrow, very thickly woven belt (?) of wool.
9.	Ruin 2, Room IV	Two small fragments of woven cloth.
10.	Ruin 2, Room II	A spindle-whorl of steatite.
11.	Ruin 2, Room III	A spindle-whorl of steatite, rather flat.
12.	Ruin 2, Room IV	Four spindle-whorls of steatite.
13.	Ruin 2, Room IV	Three spindle-whorls of steatite.
14.	Ruin 2, Room IX	Spindle-whorl of steatite, with concentric circles on the upper side and a conical hollowing at the bottom.
15.	Ruin 2, Room IX	Small fragment of a spindle-whorl of steatite, ornamented all over the upper side.
16.	Midden in front of Ruin 2	Large spindle-whorl of steatite, fragmented.
17.	Ruin 2, Rooms II and III	Two presumed weaving weights, of steatite, rounded, clumsy, each with one perforation.

- |     |                                    |  |
|-----|------------------------------------|--|
| 18. | Ruin 2, Room V                     | Three pieces of very thin, narrow strips of bronze, with tiny nails, for repairing wooden vessels (?)  |
| 19. | Ruin 2, Room VII                   | Small lamp (or pan) of steatite, with a handle. Almost intact (Fig. 120).  |
| 20. | Midden in front of Ruin 2          | Small fragment of lamp of steatite, square, corner plus bottom.  |
| 21. | Midden in front of Ruin 2          | Small fragment from corner of lamp (?) of steatite, square-sided type.   |
| 22. | Midden in front of Ruin 2          | Small fragment of vessel of steatite, part of the side and the bottom.   |
| 23. | Ruin 2, in front of the front wall | Small fragment of a lamp (?) of steatite, very rough, heavy sides.   |
| 24. | Ruin 2, Room II                    | Four small fragments of different vessels of steatite, all rim-sherds, one of them with two perforations.  |
| 25. | Ruin 2, Room II                    | Two large fragments of vessels of steatite, rim and part of the side. Both with a perforation – probably weaving-weights.  |
| 26. | Ruin 2, Room II                    | Two fragments of vessels of steatite. Both with very rounded edges, and one perforation (weaving-weight).  |
| 27. | Ruin 2, Room III                   | Two fragments of vessels of steatite. One of them side + rim and one perforation, the other a side-sherd, decorated with some lightly scratched lines, and with three perforations, two of which are broken.   |
| 28. | Ruin 2, Room IV                    | Fragment of a flat, round pan or dish, very heavy material, with a flat, broad rim, ornamented with concentric circles.  |
| 29. | Ruin 2, Room IV                    | Fragments of a very heavy vessel of steatite, facet-cut outside, with a crust of food inside.  |
| 30. | Ruin 2, Room IV                    | Two rim-sherds of one large vessel of steatite. Heavy material. With one perforation and another half finished.  |
| 31. | Ruin 2, Room IV                    | Three rather large fragments of different vessels of steatite, all of them with rounded edges and knob-shaped handles. One of them is decorated on one side with lightly scratched lines. One fragment has a heavy knob-shaped handle, another has a smaller one of the same kind. Presumably all three pieces are loom-weights. |
| 32. | Ruin 2, Room IV                    | Fragment of a heavy knob-shaped handle of a very heavy vessel of steatite, with one perforation.   |
| 33. | Ruin 2, Room IV                    | Fragment of a very heavy vessel of steatite, rim-sherd, with one perforation.  |
| 34. | Ruin 2, Room IV                    | Two fragments of vessels of steatite, rim-sherds, rounded edges and one perforation.   |
| 35. | Ruin 2, Room IV                    | Four fragments of different vessels of steatite, two of them heavy rim-sherds. The smallest of the four pieces has a large perforation and a similar, broken perforation.  |
| 36. | Ruin 2, Room IV                    | Fragment of a vessel of steatite, rim-sherd. On one side the clear traces of a deeply incised cross.   |
| 37. | Ruin 2, Room IV                    | Fragment of a very heavy vessel of steatite. Rounded edges. Traces of a perforation and a deeply cut hollow.   |
| 38. | Ruin 2, Room IV (?)                | Fragment of a vessel of steatite, rim-sherd, with remnants of two perforations. On one side two sharp lines and a circle (owner's mark?) have been scratched.  |
| 39. | Ruin 2, doorway to Room V          | A small fragment of a vessel of steatite, rim-sherd. A depression has been cut on the inside.  |
| 40. | Ruin 2, Room V                     | Fragment of a vessel of steatite, from the side, with one very flat knob.  |
| 41. | Ruin 2, Room V                     | Two fragments of different vessels of steatite, rim-sherds, heavy material.  |
| 42. | Ruin 2, Room V                     | Three small fragments of different vessels of steatite, all rim-sherds, thin material, one of them with a perforation, the two others with traces of perforation.  |
| 43. | Ruin 2, Room V                     | Two fragments – one large and one smaller – of vessels of steatite, rim-sherds. The large fragment has three perforations.   |
| 44. | Ruin 2, Room V                     | Fragment of a vessel of steatite, with one perforation. Very flat knob.  |
| 45. | Ruin 2, Room V                     | Fragment of a vessel of steatite, side-sherd. One perforation. On the inner side a deeply incised cross.   |

46.	Ruin 2, Room V	Fragment of a vessel of steatite, rounded edges, secondarily broken. On one side a deeply cut, broad incision, with a "cone" in the middle.
47.	Ruin 2, Room VIII	Handle (?) of a vessel of steatite, with one perforation, and a deep irregular depression on one side. On the same side some scratched lines, and some others on the other side.
48.	Ruin 2, Rooms VIII and IX	Large fragment (glued together) of a vessel of steatite, rim-sherd with one perforation.
49.	Ruin 2, Rooms VIII and IX	Large fragment of a large vessel of steatite.
50.	Ruin 2, Room VII	Large fragment of a vessel of steatite, from a corner, with some of the rim and some of the bottom. Judging from the left corner, the vessel was square, with rather thin walls.
51.	Ruin 2, Room VII	Small fragment of a vessel of steatite, very thin walls, very charred on the outside.
52.	Ruin 2, Room VI	Small rim-sherd of a vessel of steatite, heavy material.
53.	Ruin 2, Room VI	Large fragment of a vessel of steatite, rim-sherd, with a large, oblong, flat handle, with one perforation.
54.	Ruin 2, Room VI	Large fragment of a vessel of steatite, four-sided. Some of the sides, the corners and parts of the rim are preserved. With one square, flat handle. The material is rather thin.
55.	Ruin 2, Room VI	Fragment of a vessel of steatite, with rim folded sharply inward.
56.	Ruin 2, Room IX-VI	Fragments of a vessel of steatite, one of them of rounded form, the other with two lines under the rim outside.
57.	Ruin 2, Room IX	Fragment of a vessel of steatite, rim-sherd, bent slightly inward, with a knob-shaped handle.
58.	Ruin 2, Room VI	Very heavy, square piece of a vessel of steatite, with smooth, rounded corners, and one large percussion.
59.	In front of Ruin 2	Two fragments of vessels of steatite, with four perforations, and traces of a further five. The other fragment is a rim-sherd with one perforation. Both have rounded edges. Presumably weight-stones for the loom.
60.	Midden in front of Ruin 2	Small fragment of a large vessel of steatite, a corner-piece. Abundantly ornamented on the upper side, with deeply incised lines and circles.
61.	Ruin 2, midden	Fragment of a handle of a vessel of steatite. The handle has an incised line on the bottom and on the upper side there are similar lines and quite small decorative drillings.
62.	Ruin 2, midden	Fragment of a round, apparently rather flat vessel of steatite, with a strange, flat handle. Ornamented with incised, concentric circles.
63.	Ruin 2, midden	Small fragment of a vessel of steatite, rim-sherd, rather thin.
64.	Ruin 2, midden	Two fragments of vessels of steatite, both rim-sherds, the smaller one with some scratching on the inner side.
65.	Ruin 2, midden	Fragment of a vessel of steatite, rim-sherd, very heavy material. On the inner side a small scratch.
66.	Ruin 2, midden	Fragment of a vessel of steatite, a rim-sherd, broad and positioned at a very acute angle to the side.
67.	Ruin 2, midden	Three small fragments of vessels of steatite, all rim-sherds.
68.	Ruin 2, midden	Fragment of a vessel of steatite, side-sherd, with a flat handle, rounded edges and two obliterated perforations.
69.	Ruin 2, midden	Fragment of a vessel of steatite, rounded edges and two perforations.
70.	Ruin 2, midden	Fragment of a vessel of steatite, presumably a rim-sherd, with four perforations and traces of two others.
71.	Ruin 2, midden	Small fragment of a vessel of steatite, with one perforation and rounded edges. On one side a cross has been lightly incised.
72.	Ruin 2, midden	Fragment of a vessel of steatite, a side-sherd. On each sides a deep, broad furrow has been cut. There are traces of two perforations.
73.	Ruin 3, Room II	Fragment of a round, very flat plate-like vessel of steatite, a rim-sherd.
74.	Ruin 3, Room III	A small fragment of a vessel of steatite, a rim-sherd.
75.	Ruin 2, Room IV	Piece of steatite, seemingly made for repairing a vessel, with one perforation.

76.	Ruin 2, Room V	Small piece of steatite, presumed to have been used to repair a vessel. The fragment has a triangular protuberance through which runs an oblong groove.
77.	Room 2, Room VII	Presumably a piece of steatite, made for repairing a vessel. The piece has a very flat "handle", through which there are three perforations.
78.	Ruin 2, midden	Small piece of steatite, patch for repairing a vessel. On the back there is a protuberance, through which runs an oblong groove.
79.	Ruin 2, Room II	Fragment of a vessel of steatite. Very charred on the inside.
80.	Ruin 2, Room II	Fragment of a gimlet of iron.
81.	Ruin 2, Room II	Fragment of a knife of iron.
82.	Ruin 2, Room IV	Knife of iron, with tang. The tip is broken.
83.	Ruin 2, Room II	Two small whetstones of quartzite.
84.	Ruin 2, Room II	One thin, chipped-out whetstone of grey quartzite (?), with whetting surface on the two broad sides, and on both the narrow ones.
85.	Ruin 2, midden	Three small whetstones of red porphyrite, and one large whetstone of a greyish-black stone material.
86.	Ruin 6	Large whetstone, made of a very hard, red-green type of stone. On one side a large, lightly incised cross.
87.	Ruin 2, Room II	Seven partly fragmented, short nails of iron.
88.	Ruin 2, Room IV	A large iron nail.
89.	Ruin 2, Room III	A large iron nail.
90.	Ruin 2, midden	An arrowhead of caribou antler with two barbs, one of which is broken off (Fig. 111).
91.	Ruin 2, midden	Pin of bone, with a flat head, through which there is a small perforation. The point has been secondarily cut, but the tip has been broken off.
92.	Ruin 2, Room IV	Small, deliberately formed piece of bronze sheet – undoubtedly for repairing a vessel of wood.
93.	Ruin 2, Room IV	Small fragment of bronze sheet, with one perforation.
94.	Ruin 2, the front doorway	A piece like 93, but with one perforation.
95.	Ruin 2, Room II	Small fragment of an object of iron.
96.	Ruin 2, Room IV	A small cut-out strip of leather, use unknown.
97.	Ruin 2, Room IV	Six small fragments of leather strip.
98.	Ruin 2, midden	Small, smoothed, pointed antler, from which several pieces have been cut. At the unpointed end there is a fine chiselled edge.
99.	Ruin 2, midden	Fragment of an object of whalebone, one perforation, and one spoiled perforation.
100.	Ruin 2, Room V	Triangular, rather heavy plate of steatite, with a perforation in the middle. On one of the broad sides and on one narrow one there is rich ornamentation scratched with thin lines, forming various patterns. On the other broad side there is an irregular carved hollow, and there are traces of ornamentation at the edges. Navigation instrument? (Fig. 103a-c).
101.	Ruin 2, Room III	Fragment of a vessel of steatite, with an oblong knob. The fragment is secondarily broken on all sides, so it is only a little larger than the knob.
102.	Ruin 2, midden	Fragment of a small, flat, square piece of steatite. On one side there is a wide, circular depression going almost to the bottom. At one corner there is a quite small depression.
103.	Ruin 2, midden	A short tube of steatite. Use unknown
104.	Ruin 2, midden	Fragment of a small, flat, square piece of steatite.
105.	Ruin 2, Room II	Small fragment of a vessel of steatite.
106.	Ruin 2, midden	Small fragment of an object of steatite, secondarily cut out in a strange, curved form, and with the edges double-facet-cut. Use unknown.
107.	Ruin 2, Room IV	Quite small fragment of a vessel of steatite, with three partly obliterated perforations, and traces of ornamentation.



# Ø 71, Russip Kua

List of objects found at the *North Farm*

<i>No.</i>	<i>Finding-place</i>	<i>Object</i>
108.	Ruin 12, Room VI	Comb of bone, double-sided, rather well-preserved.
109.	Ruin 12, Room VI	Comb of bone, of the same type as 108, a little longer, but not so well-preserved.
110.	Ruin 12, Room VII	Quite small fragment of a comb of bone, of the same type as 108 and 109.
111.	Ruin 12, Room VII	Hairpin (or perhaps rather a shaft for a spoon) of bone, fragmented, with incised lines on both sides.
112.	Ruin 12, Room VIII	Very short tube of steatite. Bead?
113.	Ruin 12, Room III	Very small fragment of woven cloth.
114.	Ruin 12, Room III	Three fragments of thin, twisted woollen thread.
115.	Ruin 12, Room VI	Weaving-plate of bone, square-shaped, with incised, ornamental patterns on both sides. Four small perforations at the corners (Figs. 106 & 107).
116.	Ruin 12, Room VI	Weaving-plate of bone, similar to 115, with a different decorative pattern on one side, while the decoration on the other side is almost the same (Figs. 106 & 107).
117.	Ruin 12	Spindle-whorl, made of the joint of an animal bone (Fig. 108).
118.	Ruin 12, Room III	Two spindle-whorls of steatite.
119.	Ruin 12, Room IV	Spindle-whorl of steatite, fragmented.
120.	Ruin 12, Room II (I)	Spindle-whorl, conical, of steatite. On the sides there are incised vertical lines, as a sort of decoration.
121.	Ruin 12, Room ?	Spindle-whorl of steatite. On the back, four crosses are incised with light lines.
122.	Ruin 12, Room I (II)	Two spindle-whorls of steatite.
123.	Ruin 12, Room I	Two fragments of two different spindle-whorls of steatite.
124.	Ruin 12, Room VII	Spindle-whorl of steatite.
125.	Ruin 12, Room VIII (IX)	Spindle-whorl of steatite.
126.	?	Spindle-whorl of steatite, fragmented.
127.	Ruin 12, Room IX	Spindle-whorl of steatite.
128.	In front of Ruin 12	Spindle-whorl with a circle incised on the back.
129.	In front of Ruin 12	Fragment of a rather large spindle-whorl of steatite.
130.	In front of Ruin 12	Spindle-whorl of steatite.
131.	Ruin 12, Room VII	Two large loom-weights of naturally-formed steatite, each with one perforation.
132.	Ruin 12, Room VII	Small fragment of a low vessel of steatite, thin material (lamp?).
133.	Ruin 12, Room VI	Fragment – about half – of a low, square vessel of steatite, presumed to have been rather large. With a diminutive knob at one corner. One perforation and traces of another.
134.	Ruin 12, Room VII	Small fragment of a low vessel of steatite, very heavy material.
135.	Ruin 12, Room X	A small fragment of a vessel of steatite (a lamp?), square corner, with a knob.
136.	Ruin 12, Room X	Small corner fragment of a square vessel of steatite.
137.	In front of Ruin 12	Small corner fragment of a square vessel of steatite, with part of the rim, in which a line is incised. With a very flat diminutive knob at the corner.
138.	Ruin 12, Room I (II)	Fragment of a vessel of steatite, with curved side. Very charred on the bottom. One drilling, not finished.
139.	Ruin 12, Room I (II)	Fragment of a very low, round vessel of steatite, rather heavy material. On the inside a large irregular depression.
140.	Ruin 12, Room I (II)	Four fragments of different vessels of steatite, all rim-sherds.
141.	Ruin 12, Room I (II)	Two small fragments of steatite, both rim-sherds.
142.	Ruin 12, Room I (II)	Fragment of a bowl-shaped vessel of steatite, side rim-sherd. The vessel has one knob-shaped handle.
143.	Ruin 12, Room I (II)	Fragment of a vessel of steatite, heavy material; with a strange hollow in the one side.

144.	Ruin 12, Room I (II)	Large fragment of a vessel of steatite, side-sherd, with rounded corners. On one side a cross is incised, on the other a number of short, parallel lines along two of the edges. One perforation. Loom-weight or net-sinker.
145.	Ruin 12, Room I (II)	Fragment of a vessel of steatite, most likely a rim-sherd. Heavy material. One partly obliterated perforation.
146.	Ruin 12, Room VI	Fragment of a vessel of steatite, rim-sherd, heavy material. On the outside three concentric, deeply incised lines.
147.	Ruin 12, Room VI	Fragment of a vessel of steatite, rounded sides. On the outside, two parallel lines are incised.
148.	Ruin 12, Room VI	Two rim-sherds of one vessel of steatite.
149.	Ruin 12, Room VI	Two rim-sherds of one vessel of steatite.
150.	Ruin 12, Room VI	Fragment of a vessel of steatite, rim-sherd. On the rim there are three parallel, deeply incised lines. One perforation.
151.	Ruin 12, Room IV	Knob-shaped handle of a vessel of steatite.
152.	Ruin 12, Room IV	Large fragment of a vessel of steatite, side-sherd, with one perforation.
153.	Ruin 12, Room IV	Fragment of a vessel of steatite, rim-sherd. The outside is rather rough.
154.	Ruin 12, Room III	Fragment of a vessel of steatite, cubic, heavy handle (?), with one perforation.
155.	Ruin 12, Room VI	Two fragments – one larger and one smaller of the same vessel of steatite, both rim-sherds, one with a large part of the curved side; the other fragment has a perforation. On the rim two clear lines are incised.
156.	Ruin 12, Room VI	Fragment of a vessel of steatite, a rim-sherd, with part of the very curved side. On the rim two clear lines are incised.
157.	Ruin 12, Room VI	Two fragments of the same vessel of steatite, rim-sherds. On the rim, one incised line.
158.	Ruin 12, Room VI	Six fragments of different vessels of steatite, all rim-sherds, two of them with incised lines on the rim.
159.	Ruin 12, Room VI	Two small fragments of two small vessels of steatite, both rim-sherds, one with incised lines, the other with a perforation.
160.	Ruin 12, Room VI	Two rim-sherds of one vessel of steatite with one perforation. Two lines incised on the rim and three near the bottom.
161.	Ruin 12, Room VI	Fragments of one heavy knob-handle with a small part of the side of a vessel of steatite.
162.	Ruin 12, Room VI	Fragment of a vessel of steatite, rather thin material, with one oblong knob.
163.	Ruin 12, Room VI	Two fragments of different vessels of steatite, both of heavy material. In one of the fragments there is an iron nail. One of the sherds has ornamentation of concentric circular lines.
164.	Ruin 12, Room VI	Two small fragments of vessels of steatite, both from the bottom, one with part of the side.
165.	Ruin 12, Room VI	Fragment of a vessel of steatite, heavy material, most likely from the rim. Smoothed edges. One perforation. Perhaps a loom-weight.
166.	Ruin 12, Room VI	Two fragments of different vessels of steatite, both rim-sherds. One with incised lines on the rim, the other under the rim, outside. Both with one perforation.
167.	Ruin 12, Room VI	Four fragments of different vessels of steatite, side-sherds, all with one perforation. The largest piece has a large number of quite small, round depressions on one side, standing out darkly against the grey surface – perhaps a kind of ornamentation.
168.	Ruin 12, Room VI	Two fragments of different vessels of steatite, side-sherds, with rounded edges and each with one perforation. One of them has clearly incised cross marks on both sides, the other a lightly incised cross on one side. The small piece also has a small drilled hole, in which there is a piece of iron.
169.	Ruin 12, Room IV, Tub <i>b</i>	Fragment of a vessel of steatite, side-sherd, very charred on the outside.
170.	Ruin 12, Room IV, Tub <i>b</i>	Fragment of a vessel of steatite, rim-sherd, with a knob. On the rim, an incised line.
171.	Ruin 12, Room IV, Tub <i>b</i>	Fragment of a large vessel of steatite, rather thin material (assembled from two fragments), rim-sherd. Not less than five perforations.
172.	Ruin 12, Room IV	Knob-shaped handle of a vessel of steatite, with a little of the side preserved.

173. Ruin 12, Room IV Two large fragments of vessels of steatite, heavy material. One with two incised lines, very charred, especially on the outside. Both with one perforation.
174. Ruin 12, Room IV Three fragments of different vessels of steatite, side-sherds.
175. Ruin 12, Room IV Two small fragments of different vessels of steatite, one a rim-sherd.
176. Ruin 12, Rooms V and VI Fragment of a vessel of steatite, rather heavy material, rim-sherd, with one perforation.
177. Ruin 12, Room V Large fragment of a vessel of steatite, rim + part of the side; an oblong knob. On the rim, three concentric lines.
178. Ruin 12, Room V Two fragments of different vessels of steatite, rim-sherds.
179. Ruin 12, Room V Heavy knob-shaped handle of a large vessel of steatite.
180. Ruin 12, Room V Five fragments of different vessels of steatite, side-sherds, all with one perforation. On one of the pieces crosses are incised on both sides, and on the smallest piece some ornamental lines are incised.
181. Ruin 12, Room V Four fragments of different vessels of steatite, rim-sherds, all with more or less smoothed edges. One of them with one perforation, two with traces of a perforation.
182. Doorway between Rooms III and V(IV) Fragment of a vessel of steatite, rim-sherd, with an iron nail in the rim.
183. Under the floor in the doorway between Rooms (III) and VII Fragment of a vessel of steatite, rim-sherd, very sooted.
184. Ruin 12, Room VII Fragment of a vessel of steatite, bottom side-sherd, with three perforations and iron nails in two of them.
185. Ruin 12, Room VII Ten fragments of different vessels of steatite, all rim-sherds, with the exception of one. Three incised lines on one of the fragments.
186. Ruin 12, Room VII Two fragments of different vessels of steatite, side-sherds.
187. The oven, Ruin 12, Room VII Three fragments of different vessels of steatite, rim-sherds, heavy material.
188. The oven, Ruin 12, Room VII Two small fragments of vessels of steatite, both with one perforation. One also has two incised lines on the outside.
189. The oven, Ruin 12, Room VII Seven fragments of different vessels of steatite, with more or less rounded edges.
190. The oven, Ruin 12, Room VII Six fragments of different vessels of steatite, side-sherds, with more or less rounded edges.
191. The oven, Ruin 12, Room VII Two fragments of vessels of steatite, rather heavy material. Two perforations in the smaller one.
192. Ruin 12, Room X Fragment of a vessel of steatite, rim-sherd.
193. Ruin 12, Room X Fragment of a vessel of steatite, presumably part of bottom and side.
194. Ruin 12, Room X Fragment of a vessel of steatite, heavy material.
195. Ruin 12, Room X One larger and two smaller rim-sherds of vessels of steatite.
196. In front of Ruin 12 Fragment of a vessel of steatite, side-sherd, with rounded edges and one perforation. On one side there is clearly-incised ornamentation, shaped like the letter "E" (rather large) (Fig. 125).
197. Midden in front of Ruin 12 A very small fragment of a vessel of steatite, rim-sherd, with one incised line and three drilled dots.
198. Midden in front of Ruin 12 Fragment of a vessel of steatite, rather heavy material, rim-sherd, with a deeply incised line on the rim, and a number of short transverse lines.
199. Ruin 12 (no ref. to room) Eight small fragments of different vessels of steatite, six of them rim-sherds.
200. Ruin 12 (no ref. to room) Fragment of a low vessel of steatite, bottom and a little of the side and the rim.
201. Ruin 12 (no ref. to room) Two small fragments of vessels of steatite, rim-sherds from corners, one with a knob.
202. Ruin 12 (no ref. to room) Large handle of a large vessel of steatite.
203. Ruin 12 (no ref. to room) Large fragment of a heavy vessel of steatite, rim and part of the side. Large cubic knob, one perforation (presumably a weight for a loom or a fishing-net).

204.	Ruin 12 (no ref. to room)	Two fragments of different vessels of steatite. The small one is a rim-sherd with one perforation, the large one is a side-sherd with one perforation and traces of another.
205.	Ruin 12 (no ref. to room)	Four small fragments of different vessels of steatite, two of them rim-sherds.
206.	Ruin 11	Small fragments of a vessel of steatite (a handle?), with one perforation.
207.	Ruin 11	Fragment of a small repair-piece for a vessel of steatite.
208.	Ruin 12, Room IV	Fragment, small, of a vessel of steatite, with two perforations.
209.	Ruin 12, Room III	Repair-patch (?) of steatite, with a knob-like protuberance, across which there is a perforation.
210.	Ruin 12, Room VI, Tub <i>b</i>	Repair-patch for a vessel of steatite, with a small part of the side, and with traces of iron.
211.	Ruin 12	Fragment of a repair-patch for a vessel of steatite.
212.	In front of Ruin 12	Large repair-patch for a vessel of steatite. Two perforations across the protuberance.
213.	Ruin 12, Room III	An axe head of iron (about half – the neck has been broken off) (Fig. 114).
214.	Ruin 12, Room IV	Knife of iron. The edge is somewhat damaged, and part of the tang is missing.
215.	Ruin 12, Room IV	Knife of iron, with a long tang, on which part of the wooden handle is still preserved.
216.	Ruin 12, Room IV	Knife of iron, with a long tang, on which part of the wooden handle is still preserved. The knife itself is much worn.
217.	Ruin 12, Room IV	Apparently a fragment of a knife of iron, a small part of the tang, with some wood preserved.
218.	Ruin 12, Room V	Knife of iron, with broad back and a tang, with fragments of the wooden shaft (Fig. 118).
219.	Ruin 12, Room V	Knife of iron with a tang where the tip has been broken off (Fig. 118).
220.	Ruin 12, Room V	Knife of iron, rather heavy. The tip of the tang has been broken off (Fig. 118).
221.	Ruin 12, Room VI	Knife of iron, with a long tang, well-preserved (Fig. 118).
222.	Ruin 12, Room VI	Small knife of iron, with a tang, well-preserved (Fig. 118).
223.	Ruin 12, Room VI	Knife of iron, with a tang. The tip of the point has been broken off.
224.	Ruin 12	Small knife of iron (or perhaps an arrowhead?), well-preserved (Fig. 118).
225.	Ruin 12, Room III	Shaft of whalebone, undoubtedly for a spade. On one side of the shaft, a very clear runic inscription: "Gunnar owns" (Fig. 129).
226.	Ruin 12, Room V	Spade of whalebone, fragmented, with one perforation.
227.	Ruin 12, Room IV	Five different whetting and polishing stones, one of red porphyrite, one oblong cut piece of greyish-black stone, two oblong pieces of grey quartzite, and one polishing-stone, almost black.
228.	Ruin 12, Room IV	A small, black, oblong, four-sided whetstone of grey quartzite, and a fragment of a whetstone of the same material.
229.	Ruin 12, Room III	Two small fragments of oblong whetstones of red porphyrite, with a square section.
230.	Ruin 12, Room III	Fragment of a large, heavy whetstone of Igaliiku sandstone.
231.	Ruin 12, Room III	Nine small whetstones of greyish-black quartzite, most of them oblong, with a square section, partly fragmented.
232.	Ruin 12, Room VI	Small, four-sided, oblong whetstone of red porphyrite, with facet-ground edge.
233.	Ruin 12, Room VI	Two whetstones of quartzite, one grey, oblong, and the other blacker, of triangular form.
234.	Ruin 12, Room V	Very large, flat, four-sided whetstone of red-grey quartzite, with whetting-surface on the broad side and on one of the narrow ones.
235.	?	One small heavy, roughly cubic whetstone of red porphyrite, and one small whetstone of grey quartzite.
236.	?	Large fragment of a large, flat whetstone of red-grey quartzite.
237.	Ruin 12, Doorway between Rooms III and V	Larger fragment of a whetstone, which seems to have been part of 236 (but they do not fit directly together). On one side there are three quite clear whetting-furrows.
238.	Ruin 12, Room VI	One small, four-sided whetstone of red porphyrite, one small fragment of another, very flat polishing-stone and two small whetstones of grey quartzite.

239.	Ruin 12, under the doorway between Rooms III and VII	Three small whetstones, one of reddish porphyrite, one of grey quartzite, and one of black-grey, hard quartzite (?).
240.	Ruin 12, Room VII	Five small, more or less fragmented whetstones of grey and grey-black quartzite.
241.	Ruin 12, Room IX	A large, heavy, grey stone (whetstone ?), with some deeply incised lines on one side, and two small whetstones of grey quartzite.
242.	In front of Ruin 12	Fragment of a small whetstone of reddish porphyrite; one end is deliberately formed and has a perforation.
243.	Ruin 12, midden	Three fragments of whetstones of grey quartzite.
244.	Ruin 12, Room III	Several pieces of iron slag.
245.	Ruin 12, Room V	Three small pieces of iron slag.
246.	Ruin 12, Room IX	Seven small pieces of iron slag.
247.	Ruin 12, Room IV	Large, heavy nail of iron.
248.	Ruin 12, Room III	A short nail of iron.
249.	Ruin 12, Room VI	Three small double rivets (nails) of iron.
250.	Ruin 12, Room VII	One long nail, and the head of a nail, all of iron.
251.	In front of Ruin 12	One small nail of iron.
252.	Ruin 12, Room VI	Penis-bone of a walrus, slightly cut at the pointed end (use unknown).
253.	Ruin 11	Three small pieces of thin iron plates (perhaps from the same object), each with a pair of nail holes.
254.	?	Small, almost square heavy plate of iron (semimanufacture?).
255.	Ruin 12, Room III	Three small oblong pieces of iron, and two quite small fragments, likewise of iron (semimanufacture?).
256.	Ruin 12, Room IV	Two small fragments of objects of iron.
257.	Ruin 12, Room III	Seven small fragments of different objects of iron.
258.	Ruin 12, Room V	Small, flat, square, rather heavy piece of iron (perhaps the head of a nail).
259.	Ruin 12, Room VII	One small, flat, oblong piece of iron, with one perforation and traces of another and one small piece of iron, with a crook.
260.	Ruin 12, Room III	A square fragment of a very thin, flat piece of leather, with narrow "rims" along the edges.
261.	Ruin 12, Room IV	A larger, but greatly perished fragment of a piece of leather of the same nature as 260.
262.	Ruin 12, Room IV	Worked, pointed piece of a rib (of an animal). Perhaps an arrowhead of irregular form.
263.	Ruin 12, Room III	Small fragment of a worked piece of whalebone, finely polished, with one perforation. Some scratches on the back (use unknown).
264.	Ruin 12, Room VI	Long rib of a large animal. One end is carefully formed by cutting into a long "tang", and the whole piece is very finely polished (use unknown).
265.	Ruin 12, Room VI	Small, very flat, almost square piece of bone, polished on one side (game piece?).
266.	Ruin 12, midden	Worked piece of bone, very similar to 265.
267.	Ruin 12, midden	Flaked, oblong piece of whalebone, deliberately cut out in a special shape, and with a (partly damaged) chisel-edge at one end.
268.	Ruin 12, midden	One large and one smaller fragment of an object of bone (use unknown), with a fine pattern of carefully incised ornamentation.
269.	Ruin 12, Room III	Almost quadratic, flat plate of steatite, well-preserved except for a small corner, which is missing. The object has one perforation in the middle, and one at each corner (one is missing). Both sides of the plate are ornamented with clearly incised lines. There is also a runic inscription: "Magni" (Figs. 130 & 131).
270.	Ruin 12, Room IV	Small, flat, thin pendant of steatite with rounded edges. Perforations in the middle and at one end.
271.	Ruin 12, Room III	Small, rounded fragment of a vessel of steatite. With a conical drilling in one side.
272.	Ruin 12, Room IV	Small fragment of a heavy vessel of steatite, rounded edges, with a large cut-out depression on one side.
273.	Ruin 12, Room VI	A piece of steatite, very like 272, but smaller.



274.	Ruin 12, Room VI	A piece of steatite, very like 272 & 273, but with carved grooves on both sides.
275.	Ruin 12, midden	Short "tube" of steatite, with a double-conical perforation.
276.	Ruin 12, Room III	Small, roughly circular piece of steatite, with rounded edges and one perforation.
277.	Ruin 12, Room VII	Very short, round, rather heavy object of steatite, with a perforation.
278.	Ruin 11	Small, rounded fragment of a vessel of steatite.
279.	Ruin 12, Room III	Fragment of a vessel of steatite, very much like 278.
280.	Ruin 12, Room II	A "double button" made of sandstone (or some other stone – but not steatite).
281.	Ruin 12, Room II	Longer, rather heavy stone, flat, with rounded corners. Of granite (?) or some other very hard stone. On one side a rather large bowl-shaped hollow has been cut out (use unknown).
282.	Ruin 12, Room I	Small, roughly square piece of transparent material (Eskimo scraper?) + a smaller fragment, which may belong to the large piece.
283.	Ruin 12, Room VI	Very small, grey-green, apparently worked piece of stone (chalcedony?). Exact definition not possible (Eskimo?).
284.	Ruin 12, Room VI	Small, irregularly formed piece of quartzite (?) with some fine retouche on one edge (Eskimo?).
285.	Ruin 12, Room VI	Small fragment of a four-sided vessel of steatite, a corner-sherd from the bottom, but a small part of the sides is preserved.
286.	?	Fragment of a very small vessel of steatite, of rounded form, with a handle, partly broken off, through which there is a large perforation. Apparently a lamp.
287.	?	Two fragments of one vessel of steatite, of a flat, disc-like shape, rim-sherds. On the outside are incised concentric lines.
288.	?	Six small fragments of different vessels of steatite, rim-sherds.
289.	?	A fragment of a vessel of steatite, very heavy material, with traces of one perforation.
290.	?	Very small fragment of an object of bone, with a lightly incised pattern (might possibly belong to 268).

### Ø 167 (Abel's Farm)

List of objects found in 1949–50  
D 24–1991, Nos. 1–289

No.	Finding-place	Object
1.	Midden (?)	Large fragment of a crucifix plaque of steatite, of rectangular form. On one side of the fragment – which is richly ornamented on both sides – is the upper part of the cross, with the head of Christ. There is a large perforation at the left corner (Fig. 101a-b).
2.	Midden	A fragment of a different crucifix plaque of the same kind as No. 1. On the fragment preserved there is the lower part of the cross, and the two attributes Mary and St. John (Fig. 102a-b).
3.	In front of Ruin 1 (?)	Small, conical piece of bone – possibly a game piece (Fig. 104).
4.	Ruin 7, Room XI	Small, cubic-formed dice, made of tooth (?) (Fig. 104).
5.	Ruin 1, Room III	Double-conical, well-preserved game piece of bone, with a small top on the upper side (Fig. 104).
6.	Behind Ruin 1	Small, oblong-cut piece of walrus tusk, rounded section. Possibly a game piece.
7.	Ruin 1, Room V	Dorsal vertebra of a large mammal. On one side slight traces of incised circles. One quite thin perforation lengthwise along the object. A trinket (?).
8.	Ruin 1, midden	Fragment of a vertebra similar to No. 7. The object seems to have been cut out and smoothed, and on one side along the rim there is a thin incised line. Most likely a game-piece.
9.	In front of Ruin 1	Fragment (half) of a worked dorsal vertebra, like Nos. 7 and 8. On one side, slight traces of two circular lines. Presumed to be a game piece.
10.	Ruin 1, Room V	Fragment (about half) of a worked vertebra, like Nos. 7–9 (assembled from two smaller fragments).

11. In front of Ruin 7 Very heavy, slightly fragmented dorsal vertebra of a large whale, specially worked so that one of the broad sides stands out as a smaller, flat "hat", inside which there is some obscure ornamentation (representing a human face?). The object is formed from two fragments.
12. Ruin 1, Room I Rather well-preserved comb of bone, doublesided (Fig. 105).
13. Ruin 1, Room I Fragment of a comb, like No. 12, but only the middle part is preserved – all the teeth are broken off.
14. Ruin 1, Room V Fragment of a comb of bone, like 12 and 13.
15. Ruin 1, Room V Two small fragments of the same comb of bone.
16. Ruin 7, Room IV Two fragments of a comb of bone; most of the teeth are missing.
17. Ruin 7, Room IX Fragment of a comb of bone, like the above.
18. Ruin 2, Room III Quite small fragment of a comb of bone.
19. Outside the North wall of Ruin 2, Room II Fragment of a comb of bone, like the above, but no teeth are preserved.
20. Ruin 1 a Quite small fragment of a comb of bone – and end-piece.
21. Ruin 1, Room I Thin needle of bone, fragmented.
22. Ruin 1, Room V Flat bodkin of bone. On both sides clear lines are incised along the edges (Fig. 105).
23. Ruin 1, Room III Flat bodkin of bone. Complete, but formed from two fragments. At the broad end a perforation (Fig. 105).
24. Ruin 1, door between Rooms II and III Needle of bone, with a perforation near the back, almost intact.
25. House 1, wall between Rooms III and IV Needle of bone, the end with the eye broken off.
26. House 1, wall between Rooms III and IV Needle (bodkin) of bone, the point broken off.
27. House 1, wall between Rooms III and IV Needle (bodkin) of bone, flattened where the end with the eye has been broken off.
28. Ruin 1 b Quite small, cubic bead (?) of steatite.
29. Ruin 1, Room I Fragment of a presumed weaver's tablet.
30. Ruin 1, Room III Fragment of a spindle-whorl of steatite, with a runic inscription: **rþe sikri** (Fig. 133).
31. Ruin 7, Room XIV and Ruin 11? Rather large spindle-whorl of steatite. There are two fragments of the same piece, which almost fit together. The spindle-whorl is ornamented on the upper side with dense, slightly oblique incised stripes.
32. Ruin 11 Well-preserved spindle-whorl of steatite. Slightly conical. The piece is ornamented on the upper side with a number of short, erect lines and one line is incised along the periphery (Fig. 108).
33. Ruin 7, the doorway Rather large, very flat spindle-whorl of steatite. Around the perforation there is a small, low eminence.
34. Ruin 1, Room V Spindle-whorl of unusual form, very flat; at the middle there is a high, tube-formed perforation (Fig. 108).
35. Ruin 1, passage between Rooms III and IV Spindle-whorl of steatite, of common form and size, but on the back two crosses have been incised (owner's mark?).
36. Ruin 1, Room III Nine spindle-whorls of somewhat different forms. Two of them are fragments. Above, around the perforation, one of the spindle-whorls has a deeply incised line.
37. In front of Ruin 1 Fragment (half) of a spindle-whorl of steatite. The upper part is ornamented with two incised lines all the way round, between which two rows of small triangles have been cut out.
38. In front of Ruin 1 Two spindle-whorls of steatite, of common form and size.
39. Ruin 1, Room III Well made spindle-whorl of steatite, of common form and size. On the back, two very sharply cut, oblong crosses.
40. Ruin 1, Room VIII Two spindle-whorls of steatite, of common form and size.
41. Ruin 1, between Rooms III and IV Spindle-whorl of steatite, of common form and size.
42. West of Ruin 1 a Fragment (half) of a spindle-whorl of steatite, of common form and size.

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| 43. | Ruin 7, Room VIII                        | Two fragments of two different spindle-whorls, one of them conical, the other more flat.  |
| 44. | Ruin 1, Room III                         | Three spindle-whorls of steatite, of common form, one of them fragmented (about half), very flat, with incised circular lines on the upper and under side.  |
| 45. | Ruin 1, Room IV                          | Five spindle-whorls of steatite, of common form and size, among them one fragment. Also a round, flat disc of steatite with the beginning of a drilling (perhaps preliminary work on a spindle-whorl).  |
| 46. | Ruin 1, Room V                           | Five spindle-whorls of steatite, of slightly different form and size. On the back of one, a few short lines have been incised.  |
| 47. | Ruin 1, between Rooms III and IV         | Two spindle-whorls of steatite, one of common form and size, the other slightly larger, flat and more clumsily cut.   |
| 48. | Ruin 1, Room I-II                        | Two spindle-whorls of steatite, one of them fragmented. On the back of the latter, three small drillings.   |
| 49. | Ruin 1, Room V                           | Two spindle-whorls of steatite, of common form and size. One of them has ornamentation on the upper side, consisting of a groove running round, as well as densely-placed cross-lines. The other piece has a single line running round the upper side.  |
| 50. | Ruin 1, midden                           | Quite small fragment of a spindle-whorl of steatite.  |
| 51. | Ruin 1, passage between Rooms III and IV | Very large, strange object of steatite, fragmented (about half), presumed to be from a very large spindle-whorl. The piece has a rather rounded shape, but a flat bottom. It was circular. The upper end forms a sort of a bead. There is a very narrow penetration lengthwise at the middle of the piece. It is ornamented with 3 times 3 grooves all the way round. One groove is under the bottom and one is near the top (Fig. 109a-b). |
| 52. | Presumably in front of the dwelling      | Larger, very fragmented piece of woven cloth (wool) (mounted between two plates of glass).  |
| 53. | Ruin 1, Room V                           | Large piece of woven cloth (wool).  |
| 54. | Presumed to be from Ruin 1               | Smaller fragment of woven cloth (wool).   |
| 55. | In front of Ruin 1                       | Two pieces of woven cloth (wool).   |
| 56. | Ruin 2, Room II, outside the North wall  | Three smaller pieces of woven cloth (wool).   |
| 57. | Ruin 1, Room I-II                        | Small fragment (a side-sherd) of Rhenish earthenware, with furrow ornamentation (Fig. 128).   |
| 58. | Ruin 7, Room VI                          | Rim-sherd of a bottle of metal (bronze) (Fig. 128).   |
| 59. | Ruin 7, Room XII                         | Small fragment – from the rim – apparently from a vessel of bronze. The rim is rounded. The piece has a pattern of incised lines (Fig. 128).  |
| 60. | In front of Ruin 7                       | Large, oval, slightly fragmented repair-patch, for a large vessel of steatite. With six perforations (Fig. 124).  |
| 61. | Ruin 1, passage between Rooms III and IV | Large, square repair-patch of steatite, with two perforations, in which there are parts of iron nails (Fig. 124).   |
| 62. | Ruin 1, Room VII                         | Fragment (glued together) of a large vessel of steatite.  |
| 63. | ?  | Almost complete, glued-together circular, low, rather heavy vessel of steatite, presumably a lamp. Very charred both outside and inside.  |
| 64. | ?  | Fragment – rim-sherd – of a vessel of steatite, rather thin material, with four perforations.   |
| 65. | ?  | Very heavy lump of steatite, with one perforation. Presumed loom-weight.  |
| 66. | Ruin 1, Room III                         | Lamp of steatite, with a very large handle, roughly cut out of a very large, heavy vessel.  |
| 67. | Ruin 1, Room III                         | Fragment of a large vessel of steatite, rim-sherd, broad, flat rim, the outside bevelled.   |
| 68. | Ruin 7, Room X (?)                       | Fragment of a large vessel of steatite, rim-sherd.  |
| 69. | In front of Ruin 1                       | Fragment (glued together) of a large vessel of steatite, with a crust on the inner side. Two perforations.  |

70. Ruin 1, Room III Three fragments of different vessels of steatite, one a bottom fragment, a corner, of a heavy vessel. The other a rim-sherd, rounded, rather thin material. The third is a side-sherd, with a knob-shaped handle, one perforation and traces of another.
71. Passage between Rooms III and IV Three fragments of different vessels of steatite, all rim-sherds, and all with one perforation.
72. Section north of Ruin 1 Ten fragments of different vessels of steatite, among these five rim-sherds, one of which has a perforation. There are two rim-sherds with knobs, one large side-sherd with five perforations, and two side-sherds, both with a cross and a perforation.
73. Ruin 1 A repair-patch for a vessel of steatite, with a fragment of the vessel itself, and one iron nail; also two side-sherds with iron nails.
74. Ruin 3, eastern Room Large fragment (glued together) of a large, heavy vessel of steatite, with one perforation.
75. Ruin 1, section between Rooms III and IV Fragment – a rim-sherd – of a large vessel of steatite, cut off, with five perforations. All the way round the rim there are incised lines.
76. Ruin 1, Room III Rim-sherd of a vessel of steatite, with two lines on the rim.
77. Ruin 1, section in back wall Large (glued-together) fragment of a vessel of steatite, side-sherd. The piece has 6–7 perforations in most of which fragments of iron nails are preserved.
78. Ruin 1, west of *a* Two fragments of vessels of steatite. One is the handle of a very heavy vessel of steatite, the second is a side rim-sherd, with one iron nail through the side.
79. Ruin 1, Room (?) Fragment of a vessel of steatite (glued together), low, flat, square, rather thin material.
80. Ruin 7, south side Fragment of a vessel of steatite, with some crust on the inside, and one perforation.
81. Ruin 7, Room XIV Two fragments of vessels of steatite, both from the rim. The larger piece has a secondary hollowing and one perforation.
82. Ruin 7, Room IV Eleven fragments of different vessels of steatite, among them six with a large or small knob. Two of these also have a perforation, one of them a large incised cross on the inside; and three rounded side-sherds, each with a perforation, two of them with an incised cross.
83. Ruin 7, Room VII (?) Two fragments of large vessels of steatite, one of them a side-sherd with a large knob and two perforations. The other piece is a side-sherd with one perforation and rounded edges. Both presumably weights for the loom.
84. Back of Ruin 7 Seven fragments of different vessels of steatite, among them three rim-sherds with a knob, one of them with a perforation. Another two rim-sherds of a heavy vessel, both with a perforation, and two side-sherds, each with a perforation. All pieces have more or less rounded edges.
85. Ruin 1, Room V Twelve fragments of different vessels of steatite, of a low vessel with a knob. A further fragment (bottom and some of the side) of a small, rectangular vessel, rather thin material. Two side-sherds (one of which has a cross, the other one a perforation); and finally a fragment with a perforation and an incised cross.
86. Ruin 1, Room III Sixteen fragments of different vessels of steatite, all rim-sherds, several with incised lines over or under the rim. One of them has a knob-shaped handle, and several have perforations.
87. Ruin 1, Room III Small, roughly square, quite low vessel of steatite, possibly made of a fraction of a larger vessel. On the back, an incised cross. Also half of a smaller, bowl-shaped vessel of steatite.
88. Ruin 1, Room III Two repair-patches (clamps) for vessels of steatite, one with two, the other with three perforations.
89. Ruin 1, Room VIII Eleven fragments of different vessels of steatite, among them eight rim-sherds, several of which have perforation. Also a very large, knob-shaped handle with one perforation. Two rounded side-sherds have perforations and a cross on one side.
90. Ruin 1, Room V Quite small repair-patch for a vessel of steatite, slightly fragmented, and a large well-preserved repair-patch for another vessel.

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| 91.  | Ruin 1, Room III                               | Seven fragments of different vessels of steatite (one small rim-sherd of a small, thin vessel and one side-sherd are perhaps from the same vessel). Also three rim-sherds, and one side-sherd with a heavy incised line on one side, and crust on the other, with a small piece of steatite, with one perforation.  |
| 92.  | In front of Ruin 1                             | Four rim-sherds of different vessels of steatite, some with incised lines on the rim, and one bottom rim/side-sherd of a small vessel of steatite.  |
| 93.  | Ruin 1,<br>passage between<br>Rooms III and IV | Eleven fragments of different vessels of steatite, among them two rim-sherds with knob-shaped handle and perforation, and five rim-sherds (two with a knob-shaped handle). Several pieces have incised lines and perforations. Also a bottom side-sherd of a large vessel, four-sided, with a cross, two rounded side-sherds (one with some perforations, the other with a cross) and one side-sherd with distinctive, deeply cut line ornamentation.   |
| 94.  | Ruin 7, Room VIII                              | Twelve fragments of different vessels of steatite, among them rim-sherds (two with a cubic handle). Several pieces have crosses and perforations. Also a bottom side-sherd of a large vessel, square, one rounded side-sherd with a perforation and a cross, and finally a flat presumed fragment of a bottom, with incised concentric circles on both sides.   |
| 95.  | Ruin 2 (?)                                     | Large fragment – the bottom and some of the side – of a rectangular vessel of steatite, with two perforations.  |
| 96.  | Ruin 7, Room VIII                              | Twelve fragments of different vessels of steatite. Among other things, a fragment of a large bowl, and two large side-sherds, possibly from the same vessel, one with a perforation, three side-sherds with facet-like cuts on the outside. One bottom side-sherd of a square vessel, with one perforation. One heavy bottom side-sherd, with crust on one side, and a perforation, on the other side incised lines, one fragment with a cross-arrow mark, and finally a fragment – a side-sherd – with an incised ornament on the rim. |
| 97.  | Passage in Ruin 1,<br>Rooms III and IV         | Large fragment of a vessel of steatite, rim-sherd with one incised line and two perforations, under which a broad furrow. On one side is an irregularly formed ornament, consisting of lightly incised lines (Fig. 127).  |
| 98.  | Ruin 1, Room V                                 | Fragment (about half) of a low, round vessel of steatite (presumably a lamp).   |
| 99.  | Ruin 7, Room IX                                | Three fragments of small vessels of steatite, among them a bottom side-sherd with a perforation and incised double-cross, and a side-sherd with a knob-shaped handle.   |
| 100. | Ruin 7   | Two large, partly joined fragments of a heavy vessel of steatite. On one of the fragments there are some deeply incised lines.  |
| 101. | Ruin 7, Room IX                                | Two fragments of vessels of steatite, one a rim-sherd, the other a rounded corner, with one perforation, and traces of another.   |
| 102. | Ruin 1, Room VIII                              | Small, cut-out piece of steatite, with a deep depression on one side.   |
| 103. | Ruin 7, Room XII                               | Small, roughly cut, round piece of steatite, with a large perforation (spindle-whorl?).   |
| 104. | Ruin 1, Room III                               | A number of objects of steatite: small corner fragment, with a little of the side and the bottom preserved, of a small, square, thin-walled vessel with a knob. Also an oblong, cut piece of steatite, with a depression near one end. Also a rim-sherd with line and dots incised. In addition a fairly small repair-patch for a vessel of steatite; a small, flat almost oval piece of a vessel with a cross on one side; and finally a small, irregularly cut piece of steatite.   |
| 105. | Ruin 7, Room V                                 | Small, irregularly cut piece of steatite, with a perforation, a small rim-sherd of another vessel; fragment of a corner of a small plate of steatite with one perforation and one small, ornamented piece of steatite; and finally a rim-sherd with a cross (?) on the rim.   |
| 106. | Ruin 7, midden                                 | Small bead (?) of irregular form, of steatite.  |
| 107. | Ruin 1, Room V                                 | Rather well-preserved repair-patch of steatite, oval. Curved on the upper side. On the inside there is a very well-preserved reinforcement – a “tube” with a vertical perforation (Fig. 124).   |
| 108. | Ruin 7   | Four fragments of vessels of steatite, all rimsherds, one of them with a furrow (incised line) following the rim, one with a broken-off handle, and one with a perforation.   |



109. Ruin 1, Room I + II Fragment of a vessel of steatite. On one side a cross is incised with distinctively-formed ends.
110. Ruin 1, Room I + II Circular, flat vessel of steatite, complete except for the broken-off handle. Presumed to be a lamp.
111. Ruin 1, Room I + II Circular, very large spindle-whorl of steatite, with a circular incision all round.
112. Ruin 1, Room I + II Fragment of a vessel of steatite, heavy material, with one perforation. Ornamentation on one side, incised with very thin lines.
113. Ruin 1, Room I + II Three very large knobs of a vessel of steatite (with a little of the vessel itself).
114. Ruin 1, Room I + II Two heavy knobs for steatite vessels, one of them with point ornamentation on the rim, and incised lines around.
115. Ruin 1, Room I + II Small, rounded side-sherd of a vessel of steatite, with one perforation, and a flat, knob-shaped handle.
116. Ruin 1, Room I + II Ten rim-sherds from different vessels of steatite, several with circular lines on or under the rim, each with one perforation.
117. Ruin 1, Room I + II Small fragment of a quite small, thin-walled, square vessel of steatite, bottom side-sherd.
118. Ruin 1, Room I + II Fragment of a vessel of steatite, heavy, with one perforation.
119. Ruin 1, Room I + II Twelve rim-sherds of different vessels of steatite, among them one with a knob-shaped handle, one with a perforation and some incised lines. Also a fragment of a vessel, very low, and a bottom side-sherd with lines running round; and finally a fragment of a long, oblong handle, presumably for a low vessel.
120. In front of Ruin 1 Eight rim-sherds of vessels of steatite, among them one with the remains of a knob-shaped handle, and with lines running round the rim. Also a bottom side-sherd from a small square vessel (a corner); and finally a large side-sherd with a perforation and a deep (downward) cut.
121. Ruin 1 (?), Room V Four fragments of different vessels of steatite, among them a very large knob.
122. Ruin 15 Side-sherd of a vessel of steatite, and a small rim-sherd, with lines running round the rim.
123. In front of Ruin 7 A large fragment of a very large vessel of steatite, with narrow edge and two perforations. Heavy crust on the inside. Also a fragment of a repair-patch, and a fragment of a smaller vessel (bottom side rim). Finally, two small rim-sherds.
124. Ruin 7, Room III Rim-sherd of a vessel of steatite.
125. Ruin 14 Two fragments of vessels of steatite, both rim-sherds, one with a perforation. One of the fragments has a knob-shaped handle and incised lines on the rim.
126. Ruin 7, wall between Rooms III and IV Two large fragments of a vessel of steatite – presumably from the same vessel. The outside is cut in a roughly facet-like way. One perforation.
127. Ruin 7, Room III Half of a small, low circular vessel of steatite, with a deep broad furrow round the outside (lamp?).
128. Ruin 7, Room III Quite small, almost spoon-shaped vessel of steatite; the handle broken off. Undoubtedly a lamp.
129. Ruin 7, Room III Three fragments of vessels of steatite, among them a rim-sherd with a knob-shaped handle, secondarily hollowing on the inside, and a rather heavy piece of steatite with one perforation and a cross on one side.
130. Ruin 7, Room II Large fragment of a vessel of steatite, with rounded edges, and one perforation, heavy material. Possibly a weight for the loom or for fishing (Fig. 135).
131. Ruin 7, Room II Fragment of a vessel of steatite (assembled from two smaller fragments). Traces of a knob. On the inside a very fine cross.
132. Ruin 7, Room II Large, rounded fragment of a vessel of steatite, with one perforation. On the upper side there is some rather worn ornamentation, incised with thin lines (Fig. 126).
133. Ruin 7, Room II Nine fragments of different vessels of steatite, some of them rim-sherds. Some of them have perforations and incised crosses. A small side-sherd has deeply cut ornamentation on both sides.
134. Ruin 1, Room IV Fragment of a vessel of steatite, a handle, with very fine, deeply carved line ornamentation (Fig. 123).
135. Ruin 1, Room IV Fragment of a vessel of steatite, richly decorated on one side with line ornamentation, and with a cross on the other. Two perforations and traces of a third.

136.	Ruin 7, Room IV	Thirteen fragments of different vessels of steatite, among them four side-sherds, with a perforation and some line ornamentation. There are four rim-sherds, one of them with a deep furrow under the rim, one large knob-shaped handle, one rim-sherd with a perforation and a strange faceted outside surface; one fragment of a repair-patch, with two transverse perforations of the protuberance. Also a small, rounded piece of steatite, with three perforations and many lightly incised lines on both broad sides and on the narrow edge; and finally a lump of steatite (a weight) with one incised cross.
137.	Ruin 7, Room V	Fragment of a very heavy vessel of steatite, with secondary, irregular hollowing on one side and one perforation.
138.	Ruin 7, Room II	A small, low, oblique vessel of steatite. The handle is broken off, and in its place there is a perforation. Presumably a lamp.
139.	In front of Ruin 7	Two fragments of steatite, one of them a large, knob-shaped handle, with a secondary depression on one side; the other is a rounded side-sherd with a perforation.
140.	Ruin 7, Room I	Large, rounded fragment of a vessel of steatite, a side-sherd with a perforation. On one side some incisions.
141.	?	An oblong handle of steatite, with a large fragment of a vessel of steatite, and a small, almost square, low vessel of steatite which seems to have been part of a lamp.
142.	Ruin 7, passage	Two rim-sherds of vessels of steatite, and a large knob-shaped handle of the same material.
143.	Ruin 1, Room III	Large, composite rim-sherd and a large, bowl-shaped vessel of steatite with a small knob-shaped handle. Richly ornamented with deeply incised lines and a cross just above the handle (Fig. 122).
144.	Ruin 7, Room III	Three fragments of steatite, one of them a large side-sherd with a cross and a little iron; the second is a rim-sherd, and the third an oblong, clumsy piece, with one perforation – undoubtedly a weight.
145.	Ruin 1	Eleven fragments of different vessels of steatite, among them a large rim-sherd with a knob and a perforation. Also one rim-sherd with perforation, three small rim-sherds of rather small vessels with a furrow on the rim, one rim-side-sherd with lines running round the rim and under it. One fragment of a small, bowl-shaped vessel (side + bottom + two broken-off knobs). Finally a rim-sherd with traces of iron and one perforation.
146.	Ruin 7, Room X	Two fragments of vessels of steatite. One is a side-sherd with facet-like cutting on the outside, the other a small, almost square piece, with one perforation in the middle.
147.	Ruin 7 (?)	Ten fragments of different objects of steatite. There are three pieces with knob-shaped handles and one perforation, two small irregularly shaped pieces, both with perforations, one with a cross; two fragments of vessels, each with a perforation and some line ornamentation. Also a four-sided repair-patch, one rim-sherd with a perforation, and finally one large, flat, very wide handle, broken off, deliberately formed at the end.
148.	Ruin 1 a	Small spoon of wood (Fig. 110).
149.	Ruin 7, Room IV	Short scythe (sickle), well-preserved (Fig. 116).
150.	Ruin 1, wall between Rooms III and IV	Sickle of iron, well-preserved (Fig. 116).
151.	Ruin 1, wall between Rooms III and IV	Fragment of a sickle of iron (Fig. 116).
152.	?	About half of a wool-cutter of iron (Fig. 116).
153.	Ruin 1 a	Sickle of iron.
154.	?	Fragment of an object of iron, possibly the point of a fish-hook.
155.	Ruin 1, Room V	A gimlet of iron (Fig. 117).
156.	Ruin 1, wall between Rooms II and III	Three knives of iron: one rather large, but somewhat fragmented; one smaller and well-preserved; and a smaller presumed knife.
157.	Ruin 1, Room III	Knife of iron, with tang.
158.	Ruin 1, between Rooms III and IV (?)	Fragment of a knife of iron.

159.	Ruin 1, wall between Rooms III and IV	Very long, well-preserved knife of iron, with a long tang (Fig. 117).
160.	Ruin 1, Room V	Knife of iron, rather well-preserved.
161.	Ruin 7, Room III	Knife of iron, with a tang. Rather well-preserved, except for some holes in the blade.
162.	Ruin 7, Room XII	Small, well-preserved knife of iron, with tang.
163.	Ruin 7, along the east-west passage	Fragment, the tang and some of the blade of a knife of iron.
164.	?	Four fragments of knives of iron (one with a tang), an iron nail, and a small piece of iron.
165.	Ruin 7, Room I	Knife of iron, with a tang, worn, but well-preserved.
166.	Ruin 7, Room IX	Fragment, the blade tip of a knife of iron.
167.	Ruin 7, Room IV	Fragment of a knife of iron.
168.	Ruin 1, Room IV	Small knife of iron, with a tang, and some of the wooden handle preserved.
169.	Ruin 7, Room III	Fragment, the outer part of a knife of iron.
170.	Ruin 1, Room VIII (?)	Three fragments of knives of iron.
171.	Ruin 1, Room X	Knife of iron, with tang.
172.	?	A heavy lump of iron (photo, with others, Fig. 119).
173.	Ruin 1, Room V	A long, thin piece of iron, pointed at both ends, with a square section (perhaps a gimlet) (Fig. 117).
174.	Ruin 1 a-b, Room V	Two quite identical pieces of an object of iron – use unknown (Fig. 117).
175.	Ruin 1, Room V	Pointed, heavy piece of iron, with square section (an implement of some unidentified type).
176.	Number apparently not used (in error).	
177.	Ruin 1, Room V	A small fragment of a knife of iron and three small objects of iron, the use of which is at present unknown (Fig. 117).
178.	Ruin 7, Room IV	Thin, narrow, oblong piece of iron with bent, short-pointed ends. Use unknown.
179.	Ruin 1, between Rooms III and IV	Bone handle of a knife of iron; a very small remnant of the tang is still in the broad end of the handle, which is smoothed and ornamented with a few incised lines.
180.	Ruin 1, Room IX	A spade, with shaft, made of whalebone; a little fragmented along the edges.
181.	Ruin 7, Room II	Oblong, narrow spade made of whalebone. At the back there has been a perforation.
182.	Ruin 7, Room XI	Very unusual object made of whalebone. It is oblong, about 38 cm, rather narrow and thin, with a square section. At one end a rough point has been formed, much worn; the tip is broken off. There are three perforations. Use unknown (Fig. 112).
183.	Ruin 1, Room I	Fragment of a spade of whalebone – the shaft – oblong, flat, with a square section.
184.	Ruin 1, Room XI	Distinctively cut object of bone (presumably whalebone). A closer description is difficult. Use unknown (Fig. 113).
185.	Ruin 3	A pointed, rather narrow piece of whalebone, with a long handle with a circular section. The exact use of this piece is unknown.
186.	Ruin 7, back wall	Object of whalebone. To some degree like No. 185, but smaller.
187.	Ruin 1, Room V	Knife of iron, with some of the tang preserved, rather fragmented.
188.	Ruin 1, Room III	Cut-off root-end of walrus (?) tusk.
189.	Ruin 1, Room III	Cut and polished tooth (animal unknown).
190.	Ruin 1, Room V	Cut-off, partly worked bone.
191.	Ruin 1, Room III (?)	Cut-off fragment of caribou antler.
192.	Ruin 1, Room I-II	Elegant whetstone of grey quartzite.
193.	Ruin 1, Room I-II	Long, flat, square whetstone of grey quartzite.
194.	Ruin 1, Room I-II	Small whetstone of Igaliku sandstone.
195.	Ruin 1, Room I-II	Small, fine polishing-stone of Igaliku sandstone.
196.	Ruin 1, Room V	Five small whetstones of different sizes and shapes, four of them of grey quartzite, one of another hard stone.
197.	Ruin 7, Room I	Two small whetstones of grey quartzite.

198.	Ruin 7, Room IV	A polishing-stone of red porphyrite, and one whetstone of grey quartzite.
199.	Ruin 1, Room V	Very long, heavy polishing-stone of Igaliiku sandstone, square section.
200.	Ruin 1, Room III	Two somewhat clumsy polishing-stones, of black, hard stone.
201.	Ruin 7, lobby	Two whetstones of grey quartzite.
202.	Ruin 7	Two whetstones of grey quartzite and a fragment of a polished, red stone (porphyrite).
203.	Ruin 1, Room III-IV	Two quite small fine polishing-stones of red porphyrite, the larger one from III-IV, the smaller one from III.
204.	Ruin 1, Room III-IV	One polishing-stone of red porphyrite, one similar of a dark, hard stone, and one whetstone of grey quartzite.
205.	Ruin 1, Room III	Four small whetstones of grey quartzite, one of them with a perforation.
206.	Ruin 1, Room III	Polishing stone of red porphyrite, square section, and a polishing-stone of grey quartzite, triangular section.
207.	Ruin 1, Room VIII	Small whetstone of red porphyrite and a fragment of a similar stone of grey quartzite.
208.	Ruin 1, Room VII	Whetstone, square section, of a greyish-red stone.
209.	Ruin 1, Room XII	Whetstone, of a greyish quartzite.
210.	Ruin 7, Room VIII	Small whetstone of grey quartzite.
211.	b	Fragment of a polishing-stone of red porphyrite.
212.	Ruin 1, midden	Polishing stone (like 203), very small, made of a very black stone.
213.	West of a	Whetstone of grey quartzite.
214.	Ruin 1, Room IX	Whetstone of grey quartzite.
215.	Ruin 1, Room IX	Very strangely cut piece of red quartzite. Use unknown. The object in fact looks quite like a Danish mesolithic implement. Eskimo?
216.	Ruin 1, Room III	Fragment of a sharply pointed goat's (?) horn.
217.	Ruin 1, Room III	Quite small fragment of an object of bone, very thin and finely polished. Use unknown.
218.	Ruin 1, Room III	Fragment of an object, flat, oblong. Use unknown.
219.	Ruin 7, Room IX	Very small fragment of an ornamented object of bone.
220.	Ruin 1, Room III	Square, very thin piece of leather.
221.	Ruin 7	Five small and large, partly twisted fragments of ropes made of leather (seal-skin?).
222.	Ruin 1, midden	Cut fragment of bone.
223.	?	Quite small flake of chalcedony with a little retouche. Eskimo?
224.	Ruin 1, midden	Three quite small thin and narrow pieces of iron, use unknown.
225.	Ruin 1, midden	Four nails of iron, and two nail heads.
226.	Ruin 1, between Rooms III and IV	An iron nail, rather decomposed, and two quite small pieces of iron, narrow and fine. Use unknown.
227.	Ruin 1, Room VI	Square, thin, rather decomposed plate of iron – use unknown.
228.	Ruin 1, Room III	Square, heavy “lump” of iron, well-preserved (Fig. 119).
229.	Ruin 1, Room III	An object of iron.
230.	Ruin 7, Room IV	Long “lump” (bar) of iron, very heavy (photo, with other items, Fig. 119).
231.	Ruin 7, Room IV	Small fragment of an object of iron (not identified).
232.	Ruin 1, Room III	A piece of iron, heavy, pointed at both ends. Use unknown.
233.	Ruin 1	Two small pieces of iron slag.
234.	Ruin 1	One piece of iron slag.
235.	In front of Ruin 1	One piece of iron slag.
236.	Ruin 1, between Rooms III and IV	One small piece of iron slag.
237.	Ruin 1, Room V	A rather large piece of iron slag.
238.	Ruin 1, near Room VII	Rather large piece of iron slag.
239.	Ruin 1, Room XII	A piece of iron slag.
240.	Ruin 7, Room I	A square, rounded fragment of a heavy vessel of steatite. Remains of a knob-shaped handle. One perforation. On one side there are a few runes (Fig. 135).

241.	Ruin 7, passage	A very large fragment (assembled from smaller fragments) of a very large, bowl-shaped vessel of steatite, one of the largest ever found. There is one iron nail as the only trace of a repair (Fig. 121).
242.	?	Eight fragments of different vessels of steatite. Two of the fragments belong together: from a low, roughly cut flat vessel. Two of the other fragments are from heavy vessels, rounded sides, each with one perforation (undoubtedly weights for the loom or for fishing).
243.	Ruin 1, Room III	Large fragment of a heavy vessel of steatite, with a broken-off handle, one perforation, one drilling and an incised cross.
244.	Ø 167?	Mortar stone. An oblong, naturally rounded, heavy, hard, green stone, used as a mortar at one end.
245.	Ruin 1, wall between Rooms III and IV	An object of iron, difficult to classify, perhaps used in building (Fig. 116).
246.	Behind Ruin 7	Fragment – part of the rim – of a vessel of bronze (Fig. 128).
247.	Ruin 1, Room V	Small, quite flat piece of a flint-like stone, which seems worked (“chipped”) along the edges. Eskimo?
248.	Ruin 7, Room IV	Very small, flat piece of steatite, with deliberately cut corners. Use unknown.
249.	Ø 167?	Bead made of an animal’s tooth, with two perforations.
250.	Ruin 1, Room IV	Flaked bone (presumed to be from a cow) with a runic inscription: bone (Fig. 134).
251.	Ruin 7, Room VIII	Small fragment of a piece of wood (or bone), difficult to describe satisfactorily. It is a thin, slightly curved piece. On one side there is a rosette-like ornament, and on both sides small, quite thin plates of bronze are riveted.

NB! I regret that I cannot explain why the numbers 252–273 were not used in this registration. The last numbers used in the list of objects found in 1949–50 at Ø 167 will thus be 274–289.

274.	Ruin 1	Three small, very thin, narrow pieces of iron – use unknown.
275.	Front of Ruin 1	Piece of iron, long, bent, square section. Use unknown.
276.	Ruin 1, Room I-II	Very long, thin, narrow piece of iron, slightly bent near the middle. Use unknown (Fig. 117).
277.	Ruin 1, Room I-II	Short nail of iron.
278.	Ruin 7, Room XI	Two objects of iron: the head of a nail and a short, small, thin, narrow piece of iron (use unknown).
279.	Ø 167 (or Ø 70?)	A well-preserved nail of iron and a small fragment of a piece of iron (not identifiable).
280.	Ruin 7, Room III	Very small piece of iron, not identifiable.
281.	Ruin 7, Room XIII	Iron nail, with a large head.
282.	Ruin 1, Room XI	Double iron nail.
283.	Ruin 1, Room XI	One small and one large iron nail.
284.	?	The head of an iron nail.
285.	Ruin 7, Room IV	Large head of an iron nail (with a short “tip”), and a very small, thin piece of iron (use unknown).
286.	Ruin 1, Room V	Large nail of iron, with considerable remains of wood preserved (under the head).
287.	Ruin 1, Room III	A double nail of iron.
288.	Ruin 1, Room I	Round, flat piece of steatite, with a perforation at the middle. On one side, part of the end is somewhat thicker than the rest. Both sides are densely ornamented with deeply incised, but most irregular ornamentation (NB! this piece was originally numbered 212, but this must be a mistake, and 212 is now used for another object).
289.	Ruin 2, Room I	Large fragment, glued together from several pieces of a large, apparently bowl-shaped vessel of steatite, with a broad, richly – and strangely – decorated rim and a square handle. Very charred on the outside. The diameter of the vessel seems to have been 33–34 cm (NB! This piece was originally numbered 107–108, but these numbers were used by mistake for other objects) (Fig. 122a).



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