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Soapstone in the North
Quarries, Products and People
7000 BC – AD 1700

Gitte Hansen and Per Storemyr (eds)

UNIVERSITETET I BERGEN

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Preface

This book has been a long time in the making. It is an outcome of the five Norwegian University Museums' joint research programme Forskning i Felleskap (FIF, 2010–2015), supported by the Research Council of Norway. FIF kindly facilitated a number of workshops and meetings between archaeologists, geologists and craftspeople, all with a common interest in premodern soapstone quarrying and use. The result is the chapters of this book, which are based on studies carried out over the last two decades and, for the most part, are published scientifically for the first time. We very much thank the authors for participating in this venture. We also thank several colleagues – archaeologists, geoscientists and craftspeople – that assisted the editors in peer-reviewing the chapters: Irene Baug, Birgitta Berglund, Laura Bunse, Poul Baltzer Heide, Richard Jones, Tor Grenne, Torbjørn Løland, Therese Nesset, Astrid J. Nyland, Lars Pilø, Kevin Smith, Lars F. Stenvik, Frans Arne Stylegard and Stephen Wickler; we are very grateful for the job you have done. Not least, thanks go to Tromsø University Museum, NTNU University Museum (Trondheim) and the University Museum of Bergen for their economic support in publishing the book.

Bergen/Hyllestad, Spring 2017
Gitte Hansen
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Mogens Skaaning Høegsberg

The Soapstone of Norse Greenland

The article presents an overview of Norse Greenlandic portable objects of soapstone, based on the author's Ph.D. dissertation (2009). An analysis of 1168 artefacts from six Norse sites and their comparison with soapstone artefacts from other parts of the Norse world is presented. The majority of the artefacts were vessel sherds and the analysis suggests that most vessel types of Norse Greenland have parallels in known types from Norway, Shetland and Hedeby. Two vessel types, one with straight vertical sides and one trapezoid, as well as one rim shape appear to be unique to Greenland. The analysed material also comprises e.g. spindle whorls, loom weights, mending patches, architectural details and even moulds for casting. Most of these artefact types are also paralleled in soapstone finds elsewhere in the Norse world. One area in which the Greenlandic material stands out is in the high frequency of various types of ornamentation on all types of soapstone artefacts. It is suggested that the Norse Greenlanders may have reproduced traditional motives in order to stress continuity with the past and the cultural connection with Scandinavia.

Introduction

When settlers from Iceland made landfall in Greenland towards the end of the 10th century, they arrived in a country that not only lacked suitable clay for the production of ceramics, but also had sparse vegetation resources for the firing of pottery. In Iceland, ceramics as well as soapstone had been imported, but in Greenland, the settlers found and exploited outcroppings of soapstone. Particularly in the northernmost of the two Norse settlement areas, the Western Settlement in the present day Nuuk region, numerous soapstone quarries have been recorded (Appelt et al. 2005:14). Throughout the period of Norse settlement in Greenland, from c. AD 985 to c. AD 1450, soapstone was the dominant material in use for household cooking utensils as well as lamps, loom weights, spindle whorls and a number of other artefact types. Import of ceramic vessels did take place, but apparently on a very limited scale; only about ten ceramic sherds have been recorded from Norse contexts (Christiansen 2004:33). Pottery had to be imported from Europe and was not a vital import such as for instance iron. As such it is likely that pottery was considered an exclusive type of goods, reserved for those with the means to acquire it.

Large quantities of artefacts have been recovered from Norse sites in Greenland since the 1880s, and soapstone objects makes up the majority of portable finds recovered in any excavation of a Norse farm site in Greenland. The thousands of Norse artefacts in the National Museum in Copenhagen and in the Greenland National Museum and Archives have been subject of some interest over the years. But the soapstone, the numerically dominant group of artefacts, has been given little attention apart from in a few studies and in the chapters on finds in the publications of archaeological excavations of Norse farms. While the publications of the excavations in Greenland in the 1920s and 1930s were of a high quality for their time, the finds chapters are relatively superficial and mostly concerned with

a presentation of major finds groups and particularly interesting or well-preserved artefacts. They do not contain detailed analysis of artefacts and often do not contain a complete list of finds.

There are a number of reasons for the lack of interest in soapstone from Norse Greenland. One is that the majority of all artefacts from Norse Greenland in the museums today were recovered in excavations which were not conducted stratigraphically. Most artefacts come from excavations that took place in the 1880s and 1890s and during the Danish National Museum's large campaigns in the 1920s and 1930s. Although the publications rarely, if ever, mention the excavation methods, it is clear that the excavators followed a method whereby the wall-lines of buildings were identified after which each identified room was emptied down to the natural. During the process only features such as fireplaces, benches etc. were recorded, not individual strata. (For an example of this method, see Vebæk 1992:33). Although the artefacts from C. L. Vebæk's post war-excavations of the late 1940s and the 1950s are generally better documented, they are still not assigned to specific stratigraphic contexts. Properly stratified excavations of Norse sites in Greenland did thus not take place until the 1960s and onwards. Consequently, it is difficult to study the development of Norse Greenland material culture over time, and many conclusions cannot be drawn until a larger body of evidence from stratigraphic excavations becomes available. This obviously also applies to the large body of soapstone artefacts.

The aim of this paper is to give an overview of portable objects of soapstone in Norse Greenland, including a discussion of major soapstone artefact types, vessel typology and ornamentation. The paper is, to a large degree, based on my Ph.D. thesis from 2009 (Høegsberg 2009) and deals primarily with soapstone artefacts from six selected Norse sites. This notwithstanding, the soapstone from these six sites are in all likelihood representative of Norse Greenlandic soapstone as a whole (although see below) and the paper aims to characterize Norse Greenlandic soapstone use in a broader sense and to demonstrate the breadth of the material. After a brief presentation of Greenlandic soapstone studies and of the six sites, a broad overview is given of soapstone vessels, other artefact types and of ornamentation on soapstone artefacts; the latter is one of the areas where the Greenlandic material seems to stand out compared to finds from other parts of the Norse world.

The study of Greenlandic soapstone

Among the few studies that have been made of soapstone from Norse Greenland is Arneborg's 1984 thesis from Aarhus University in which, among other artefacts, she studied some 150 vessel sherds from stratified excavations at the two Western Settlement sites W48 and W51 (Arneborg 1984). In her Ph.D. thesis from 2004, Amanda Forster also discusses Norse Greenlandic soapstone (Forster 2004). But apart from these studies, Norse Greenlandic soapstone artefacts have not been subject to closer scrutiny. In the publications of the large scale excavations of the 1920s and 1930s, Poul Nørlund and Aage Roussell must be commended for devoting separate chapters to the recovered artefacts – by no means a given fact at the time – but there was no attempt at a systematic approach to the large material and generally only the most well preserved or curious finds were devoted much interest (e.g. Nørlund 1924:221–227; Nørlund 1930:150–163; Nørlund & Stenberger 1934:122–131; Roussell 1936:133, 143–144, 151–152).

The aim of my thesis was to examine if the material culture of Norse Greenland reflected the existence of a specifically Norse Greenlandic cultural identity. The study included a total of 2663 artefacts from six sites. Of the 2663 artefacts, 1469 were of soapstone while the remainder was made up of a variety of other materials, predominantly wood and iron. Of the 1469 soapstone artefacts, 1168 were recorded; the remaining artefacts were not available for study and hence left out

of the detailed analyses. The 1168 recorded soapstone artefacts were distributed on artefact types as seen in Figure 1.

All soapstone artefacts were recorded using a recording sheet, drawn up by Arneborg and slightly adjusted by myself (Figure 2). The sheet could be used for both vessels and other artefacts. For vessels it contained, among others, fields for vessel type, rim shape, side shape, bottom shape, decoration. All data was then entered into a database to allow for easier analysis, particularly of the various components of the vessels. The choice to record the material in this way was brought on by a major methodological concern; having no stratified collections to work from, I could not hope to extract any information about the development of vessel types or overall artefact

Figure 1. *Soapstone artefacts distributed by types*

Type	Quantity	Percentage
Vessels	764	65.4
Spindle whorls	158	13.5
Loom weights and other weight stones	96	8.2
Unknown function	80	6.9
Mending patches	38	3.3
Architectural details	19	1.6
Moulds	11	0.9
Other	2	0.3
Total	1168	100

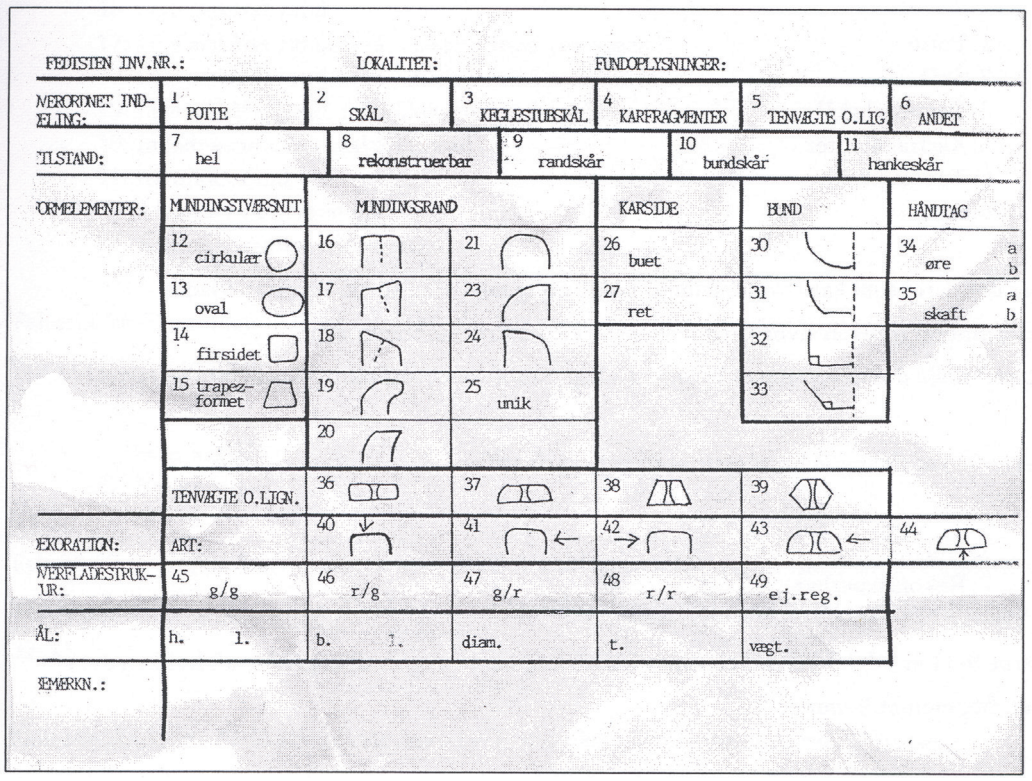

Figure 2. *The soapstone recording sheet developed by Arneborg (1984). For my analysis, I expanded the sheet with further categories, particularly regarding decoration. My data was entered directly into a Microsoft Access database.*

types. Thus taking a point of outset in Arneborg's recording system gave me the advantage of being able to compare many of my findings directly with an assemblage of already classified objects. Out of the 1168 soapstone artefacts, 764 (65%) were vessels and vessel fragments in various sizes and state of preservation. The remaining 404 (35%) consisted of artefact types, ranging from spindle whorls and loom weights to architectural details, moulds and artefacts whose function could not be determined.

Six Norse sites

When the Norse settlers arrived in Greenland, they established settlements in two areas on the west coast of Greenland. The Eastern Settlement was located in the southernmost part of the country, from Cape Farewell in the south to the area around Ivittuut in the north. The Western Settlement was located some 500 km further north, in the fjords of the present-day Nuuk region. Norse sites, traditionally referred to as 'ruin groups', are designated with a number, preceded by E (for Eastern Settlement) or W (for Western Settlement). Of the six sites that provided the material, one is located in the Western Settlement W51, which is traditionally identified with the farm Sandnes and which is mentioned in some of the written sources concerning Greenland. Sandnes was a prosperous farm, favourably located and with a church on the site (Roussell 1936). The remaining five sites are all from the Eastern Settlement: E29, E29a, E47, E111 and E167. Of these, E29a is traditionally identified as the farm Brattahlið, which is also known from written sources and which is believed to be the farm established by Eric the Red upon his arrival in Greenland. E29a is also a church site. E29 is located directly to the south of Brattahlið and may originally have formed part of the land taken by Eric the Red (Nørlund & Stenberger 1934). Ruin group E47 is the single largest Norse ruin group in Greenland and has been positively identified as the site of the farm Garðar, which is known from written sources as the site of the Norse bishop's seat from c. 1125 onwards (Nørlund 1930; Høegsberg 2007). Ruin group E111 is traditionally identified as Herjolfsnes, also known from written sources. The site is best known for the spectacular find of well-preserved pieces of Norse clothing during the excavation of the churchyard there in 1921 (Nørlund 1924). The last site, E167, is less well known and represents the only non-high status site of my examination, although it does not appear to be low-status either. It was located in the inland area called Vatnahverfi (all the other sites are coastal sites) and is not a church site (Vebæk 1992:45–64).

The nature and location of the six sites give rise to questions about representativity. First of all, there is only one Western Settlement farm and secondly all but one farm appears to be definite high status sites. I have not performed an in-depth analysis of any other collections of soapstone, but based on knowledge of soapstone from other sites my distinct impression is that there are no general problems concerning the representativity of the material. One possible exception relates to the assemblage from the Western Settlement, which is only represented by artefacts from W51/Sandnes. It cannot be ruled out that the spectrum of artefact types, vessel types and/or rim shapes could be broadened if a larger body of Western Settlement soapstone was brought to bear. The Eastern and the Western settlements were geographically quite far apart from each other and as such the precondition for the development of regional differences is certainly present. However, as described in the section about soapstone vessels below, there seems to be a good overall correspondence between the vessel types found in both areas and no vessel type can thus far be said to be unique to either of the two settlements.

Regarding the social status of the sites, this does not seem to have a bearing on the types of soapstone vessels found. At least, there does not seem to be any significant differences between the types of soapstone vessels that were found on the definite high status sites E29a/Brattahlið and E47/

Garðar and the ones that were found on e.g. E167. This suggests that soapstone was not a medium for the expression of social status in Norse Greenlandic society. However there are certain other artefact types which as seen below were either more common or which were only found on high status sites, e.g. architectural details and moulds.

A final methodological problem relates to the size of the soapstone artefact collections from each of the six sites. Some collections were very small and some were very large (Figure 3). In some cases this simply reflects the fact that fewer soapstone artefacts were recovered from the excavations or a difference in artefact retrieval policy during the excavations. Bear in mind that the excavations which produced the collections were mostly carried out in the 1920s and 1930s where the logistics of transportation were even more complicated than they are today, and soapstone is a heavy and cumbersome material to transport. In one case, that of E29/Brattalið, there were also problems with finding the artefact collection in the museum storerooms, so that only 12 artefacts were available for study. Given the small number of artefacts, one could ask if it makes sense to include this site in the study, but among the 12 artefacts are some highly decorated ones that merit mention.

Figure 3. *The distribution of soapstone artefacts from the six sites.*

Site	Recorded during analysis	Total number of known recovered artefacts
W51 (Sandnes)	285	292
E29	12	186
E29a (Brattahlið)	114	130
E47 (Garðar)	348	439
E111 (Herjolfsnes)	37	45
E167	372	377
Total	1168	1469

Soapstone vessels

In accordance with the methodology followed, the most important criteria for the analysis of vessel sherds are the main types of vessels – pots, bowls and cone-stump bowls. In addition, a number of other elements are recorded, such as the vessel mouth shape (as seen from above), rim shapes, side shapes, bottom shapes, handle shapes and surface structure. The main vessel types are defined as follows: Pots are vessels where the height of the side is equal to or larger than the diameter of the bottom. Bowls are vessels where the height of the side is smaller than the diameter of the bottom. And cone-stump bowls are bowls with a small, centrally placed 'platform' in the shape of cone-stump. Pots are considered to be cooking and/or storage vessels, while bowls are considered to be vessels for the serving of food. Cone-stump bowls (Figure 4) could conceivably also be used for the serving of food, but the reason for the existence of the cone-stub is unknown.

Arneborg's 1984 study was based on c. 150 vessel sherds from the two Western Settlement sites of W48 and W54. Her methodology was based on three fixed elements which could be analysed in conjunction with a number of variables. The fixed elements were vessel shapes (as seen from above), side shapes and bottom shapes. The variable elements were rim shapes, handle shapes and a number of forms of decoration. The combination of fixed and variable criteria resulted in a total number of 42 possible vessel types. However, there was a marked difference between the statistically possible number of types and the number of types actually encountered in the material; 12 of the 42 possible types were thus found: three types of bowls, eight types of pots and one type of cone-stump bowl. Arneborg's main conclusion was that, in terms of vessel types and rim shapes, the Greenlandic material seemed to follow the development in the Norwegian area. One unparalleled vessel type and one rim shape, however, seemed unique to Greenland: A vessel type with a trapezoidal mouth shape and a rim

shape with flat top and a thick lip towards the inside of the vessel (Arneborg 1984:59).

That Arneborg could compare the development in her material with the development of soapstone vessels in Norway was due to the fact that her material came from stratified contexts. My material did not, so I did not have the possibility of evaluating the chronological development of types, but had to settle for the presence or absence of specific vessel types and other elements compared to available parallel material. One caveat with Arneborg's classification system is that it demands that the vessel sherds are rather well preserved; rim, side and bottom thus need to be preserved in one and the same sherd for the method to be applicable. In the current study only 70 out of 764 vessels/shards lived up to these criteria and merely 9 of Arneborg's 12 types were recognised. On the other hand, six types of bowls and one type of pot, which do not occur in Arneborg's material, were identified. The vessel types found in my study expand the spectrum of Greenlandic types somewhat, but all in all there is great correlation with those identified by Arneborg at W48 and W54. With the considerably larger amount of sherds in the present assemblage one might expect all Arneborg's types to be identified, However, with merely 70 sherds which fulfilled the criteria for a meaningful analysis it is possible, that all of Arneborg's types may hide in the assemblage and would have been found if more sherds had fulfilled the criteria. On the other hand, the types I discovered which were absent in Arneborg's study could equally be related to the difference in sample sizes. More generally, it probably speaks to the limited use of a classification system which emphasizes the preservation of rim, side and bottom in order to be applicable.

Looking at comparative material, there is generally a good correlation with vessel types known from Norway, Shetland and Hedeby. Siri Myrvoll Lossius (1977) divided the vessels from the Borgund kaupang, close to Ålesund, Sunnmøre, in western Norway, into four types, A–D, and two main groups: bowl shaped (*bolleformete*) and bucket shaped (*spannformete*). The two main groups are based on the transition from bottom to side. Lossius' bowl shaped types correspond to Greenlandic vessels with curved sides and both rounded and flat bottoms, while the bucket shaped types correspond to Greenlandic vessels with straight sides and flat bottoms. Lossius' four types were distributed on three types of bowl shaped vessels and one type of bucket shaped vessels (Lossius 1977:19). Lossius does not distinguish between pots and bowls, but both types must be assumed to exist in her material. The shape of the mouth does not play any role in Lossius' analyses, however, the Borgund assemblage generally represents circular vessels (Lossius 1977). Four sided vessels are indeed known from Norway, e.g. lamps from Oslo and Bergen, but I have been unable to find actual four sided pots and bowls in published material from Norway. According to Forster four sided vessels were not common in Norway (Forster 2004:196).

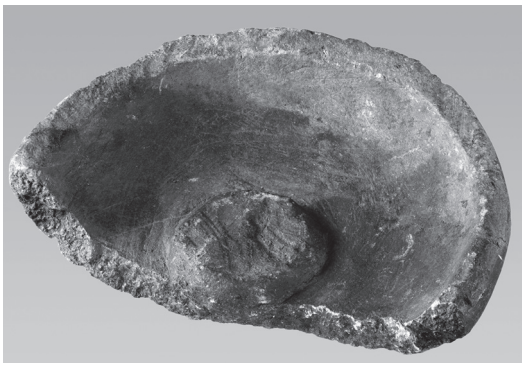

Figure 4. *A cone-stump bowl from W51/Sandnes. Apart from the centrally placed cone-stump, nothing sets these vessels apart from regular bowls. Diameter c. 20 cm. (Photo: J. Lee, National Museum of Denmark).*

The Hedeby material, too, is dominated by circular vessels. No four sided vessels were recorded although it must be noted that a third of the rimsherds were too small to allow for any secure inferences about the vessel mouth shape (Resi 1979:19). In the Hedeby assemblage there are both pots and bowls which all seem to have had curved sides. The bottoms are both rounded and flat. It should be noted that the Hedeby material may not be the best material to use as the basis of comparison with

Greenlandic material due to the time difference. The Hedeby material is strictly Viking Age, while most of the Greenlandic material must be assumed to be medieval and in many cases probably from the later stages of the settlement period (most excavations of Norse farms in Greenland have only touched the later phases of the farms and left the earlier phases more or less untouched).

The soapstone material from Shetland covers a greater variety of types, including oval and four sided vessels, but otherwise the Shetland material is generally comparable with the Norwegian (Forster 2004:165). The four sided vessels from Shetland all appear to have had outward slanting sides, meaning that the four sided Greenlandic vessel type with straight, vertical sides still appears to be unique to Greenland.

I have been unable to find examples of trapezoid vessels outside Greenland and it should be noted that even in Greenland the type is rare. From the six farms included in the study only one example was found. According to Arneborg the cone-stump bowl is paralleled in the Faroes and a possible ceramic example is found at Farum Lillevang, Denmark (Arneborg 1984:58). The Danish bowl is reminiscent of the Greenlandic examples, but with the important difference that in the Danish example the cone-stump is perforated and resembles a candle holder. This is not the case in the Greenlandic examples. The Greenlandic rim shapes resemble the rim shapes seen in Norway, Shetland and Hedeby and with one exception, the Greenlandic rim shapes can be found outside Greenland. The exception has a flat top and has either a thick lip towards the inside of the vessel or is heavily inwardly curved. Out of a total number of 517 recorded rimsherds, 59 sherds represent just over 11% and the type must thus be considered quite common, though not dominant.

Altogether an evaluation of the Greenlandic soapstone vessels shows a marked tendency to correlate with known types from outside Greenland. The only unique element which is significantly represented is the inwardly thick rim type, but even with an occurrence of about 11% it does not seem to have been dominant in any way. Looking at the soapstone vessels from the point of view of shape, the Norse Greenlanders seem to have continued to use well-known types from the rest of the Scandinavian world.

Other soapstone artefacts

About 400 soapstone artefacts are distributed on several groups of objects: spindle whorls, loom weights and other weight stones, mending patches, architectural details and moulds as well as a number of artefacts with unknown functions. In the following these artefacts are presented very briefly.

Spindle whorls

A large group of artefacts is spindle whorls (Figure 5) of which there are 158 from the six sites. The spindle whorls are distributed on four types, with the plano-convex as the most common, followed by the disc shaped (i.e. flat) and conical, and with the double-conical as the least frequent. In addition there are two examples of special and uncommon types. Most of the spindle whorls represent types which are also known from e.g. medieval Bergen in western Norway, where the plano-convex shape is also dominant, although not quite as dominant as in the Greenlandic material. Generally speaking, the types of spindle whorls in the Greenlandic material correspond well to the types that are found in Bergen and this also extends to the relative occurrence of the types (For comparison see Øye 1988:39).

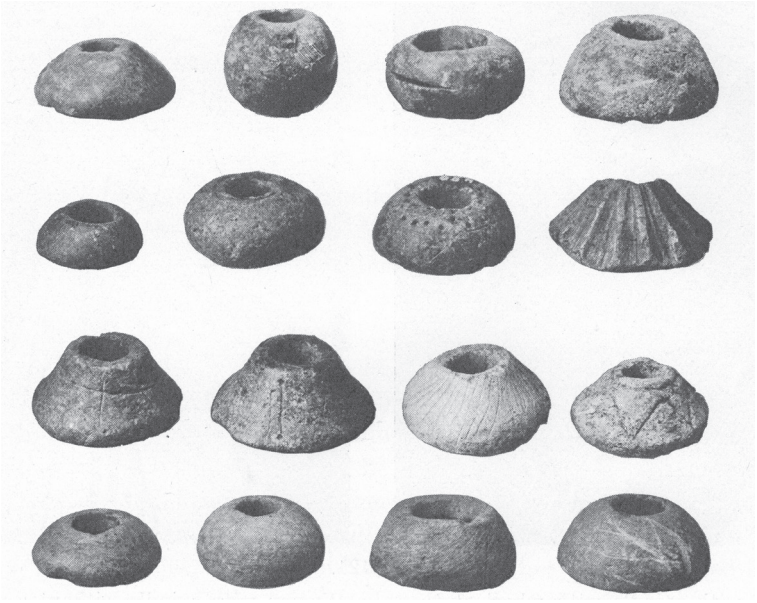

Figure 5. *A selection of spindle whorls from W51/Sandnes. Note that not all the four occurring types of spindle whorl are shown in the photo. (After Roussell 1936:133).*

Loom weights and other weight stones

Loom weights and other weight stones comprise the third largest group. It is hardly the case that every perforated piece of soapstone was necessarily a loom weight and some of the specimens may have been used for other purposes, e.g. as net sinkers. The majority of artefacts in this group are pieces of soapstone which are either unworked or very slightly worked. All are perforated at least once. There are 91 artefacts in this group and very little can be said about them because of the very slight degree of working. Indeed, it is not certain that all were ever used as weight stones, since not all of them bear evidence of wear in the perforated hole(s).

Mending patches

There are 38 mending patches in the assemblage. All have a slightly convex upper side while the other side is flat and has a protruding stub which was meant to be placed in the hole of the broken vessel (Figure 6). In addition there are usually several perforations, either in the stub or on either side of it. The perforations were used for securing the mending patch to the defect vessel with a piece of string. The mending patches come in various sizes; from very small (c. 2.5 cm) and finely wrought, to large (up to c. 17 cm) and more roughly made pieces.

Figure 6. *Mending patches from E167. The largest patch is c. 12 cm wide. (After Vebæk 1992:88).*

Architectural details

Soapstone artefacts interpreted as architectural details are rare and only represented at one of the sites studied here, namely the farm E47/Garðar, site of the Norse bishop's seat. There are a total of 22 artefacts in this group, which comprises both small and large pieces carved with various mouldings, which indicate that the interpretation as architectural details is correct. The interpretation is also supported by the context of the artefacts which is known for all but one piece; they were all found in or near the ruin of the cathedral. It seems, then, that certain building elements of the cathedral at Garðar had details of soapstone. This is a well known phenomenon from Norway where soapstone is used in this way from as early as the 11th century (Ekroll 1997:63).

Moulds

From the sites, there are a total of 11 moulds, eight from Garðar and three from Sandnes. An additional specimen, from E29, was not available for study. The best known moulds are the six found by Poul Nørlund at Garðar in 1926. They appear to have been meant for the production of spindle whorls and carry inscriptions (Figure 7). They are interpreted as moulds not only because of their

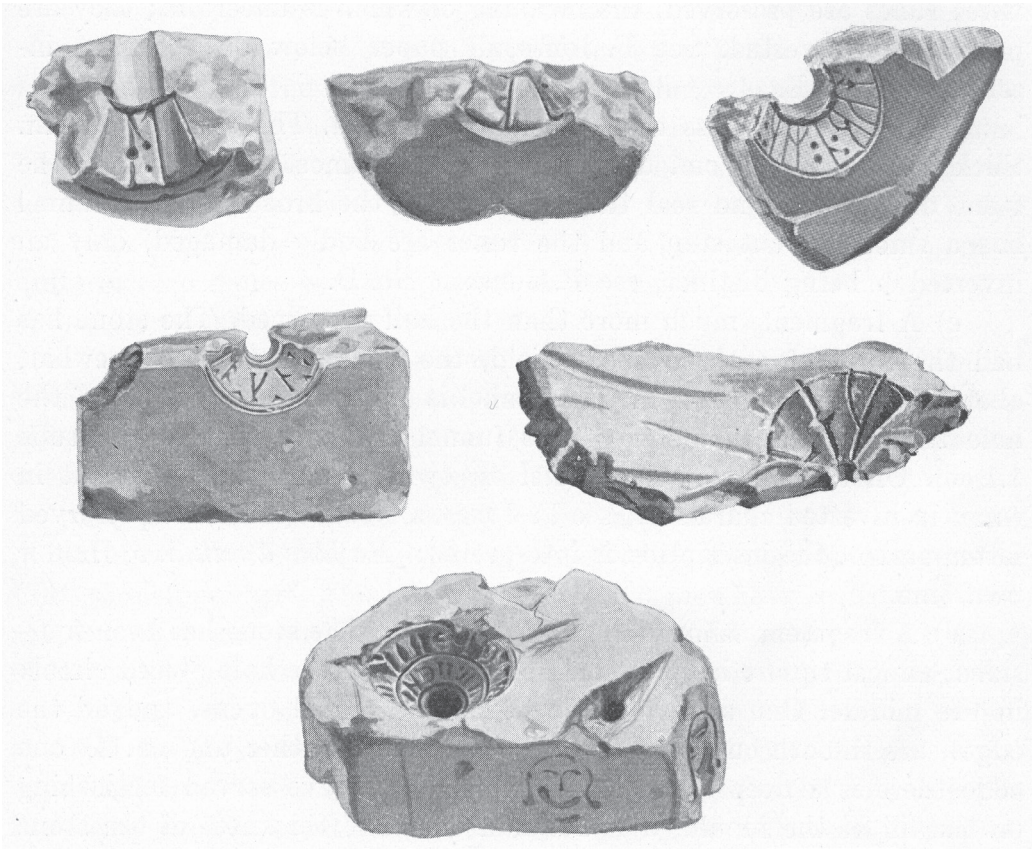

Figure 7. *Moulds for the casting of spindle whorls from E47/Garðar. Note the inscriptions in the moulds. They are runic, except the bottom one which is in Gothic minuscules. All inscriptions are in the negative. The bottom one is c. 10 cm long. (After Nørlund 1930:147).*

shape, but also because the inscriptions are in the negative. Five of the inscriptions are runic; the sixth is in Latin letters (and in the Latin language). Only some of the inscriptions are legible, they contain either names or express ownership (Jónsson 1930:173–174). Moulds of soapstone are known from elsewhere in the Scandinavian world, e.g. for casting metal bars or Thor's hammers (Gräslund 1992:191; Hansen 2005:166). As such there is nothing unique about the existence of moulds in Greenland, but it does beg the question of what kind of metal was meant to be used and indeed if the moulds were ever used to cast spindle whorls. No examples of cast spindle whorls have been found in Greenland so far, but of course any cast spindle whorl may have been reused due to the scarcity of metal as a raw material.

Artefacts with unknown functions

Lastly, there are 80 artefacts of which we do not know the function and of which several are decorated. The artefacts in this group cover a wide variety of shapes. Some are small, perforated pieces that seem to have been too small to function as weight stones. Others are pieces which have clearly been worked, but where the function cannot be determined. The latter can be divided into three main groups: 1) Slabs of soapstone from E47/Garðar of which most appear to have been square while some may have been either triangular or trapezoid (Nørlund 1930:159). Several of these slabs have a carved groove along the edges and several seem to have been decorated with carved concentric circles. It is likely that the combination of the overall shape and the decoration which prompted the excavator Poul Nørlund

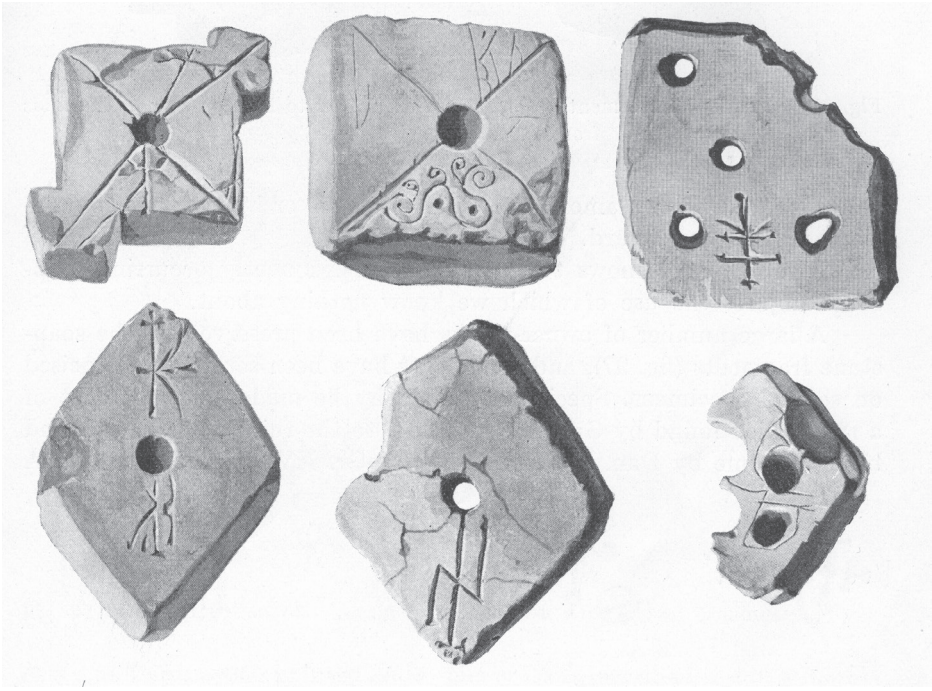

Figure 8. *Unidentified soapstone artefacts from E47/Garðar with various kinds of decoration and/or runic inscriptions. The leftmost slab measures about 6 x 6 cm, the middle one is c. 9 cm along the lengthwise axis and the straight sides of the slab to the right are about 5 cm long. The runic inscription on the slab in the top middle probably reads 'gri', perhaps the male name Grimr. (After Nørlund 1930:159).*

to interpret these artefacts as plates to eat from. 2) Smaller square or rhombic slabs with one or more perforations (Figure 8). One of these slabs has smaller knobs on two of the corners and most of the specimens are decorated in various ways. The majority of these artefacts are from the bishop's seat at E47/Garðar, but one example comes from the Western Settlement farm W51/Sandnes. 3) A group of artefacts of about the same size as the above, only disc shaped, but otherwise also decorated and/or with one or more perforations.

Perhaps many of these artefacts should be interpreted as some sort of weight stones, but the shapes and decorations deviate strongly from the group of simpler loom weights and weight stones; the decoration thus ranges from very simple carved grooves to quite complex motifs. The specimen from Sandnes is decorated with a compass-drawn figure related to the tetragram (known in Scandinavia as the St. Hans's Cross) which in religious contexts is used to symbolize either the name of God or the human nature of Christ (Lexicon des Mittelalters vol. 8:575; Gotfredsen & Frederiksen 2003:57). The context of the artefacts provides no hints to their functions. The specimen from W51/Sandnes was found in the dwelling and the excavator Aage Roussell interpreted it as a loom weight (Roussell 1936:152). We do not know the context of the artefacts from E47/Garðar. Regarding the specimen from W51/Sandnes, it is tempting to see it as a parallel to the consecration crosses of soapstone which can be found in the cathedral Muren in Kirkjubø on the Faroes, although the Faroese examples are considerably larger (Eliasen 1995:23, 25). In this connection, it is important to keep in mind that Sandnes was a large farm with a church. These soapstone slabs and discs appear to be almost unique to Greenland. Apart from the similar soapstone slabs from the Faroes, the only other parallels I have been able to find were uncovered at the Danish Viking Age ring fortress Fyrkat (Roesdahl 1977:69). The specimens from Fyrkat were small perforated discs without decoration, and the functions of these are also unknown.

The other artefact types described in this section, spindle whorls, loom weights/weight stones, mending patches, architectural details and moulds are all found elsewhere in the Scandinavian world and do not reflect anything uniquely Greenlandic. Indeed, the spindle whorls are not only found in shapes, but also in relative quantities that are comparable to e.g. the body of spindle whorls found at Bryggen in Bergen.

Decoration and graffiti

A very interesting aspect of the Greenlandic soapstone that seems to set it apart from contemporary collections elsewhere in the North is the frequency of various types of decoration on soapstone artefacts in Greenland. Here, decoration is meant in the broadest possible sense, including both loosely scratched 'graffiti' (e.g. simple crosses) and more formal decoration (e.g. concentric lines on the body of vessels). Since it has not been employed analytically in the following, I will not enter into a more thorough discussion of this distinction. Incised symbols that may be interpreted as ownership marks are excluded from the present discussion since several of them may in fact be runes (pers. com. Lisbeth Imer). Two-dimensional decoration is found on 377 of the 1168 artefacts studied here. Out of these 259 are vessels and vessel fragments. Finally there is one artefact with decoration that approximates plasticity.

I distinguish between geometric and figurative decoration. (For a similar approach see Fuglesang 1991). As well as 'indefinable decoration' which is clearly intentional, but neither geometrical nor figurative. Geometric decoration can be divided into four sub-groups and figurative into six.

Figure 9. *Distribution of decoration on artefact types.*

Geometric decoration	**Type 1**	**Type 2**	**Type 3**	**Type 4**
Vessels	209	19	20	3
Spindle whorls	20	20	12	4
Mending patches	-	-	-	-
Moulds	-	-	-	-
Loom weights/weight stones	8	5	26	2
Architectural details	-	-	-	-
Other	-	-	-	-
Unknown function	12	3	7	1

Figurative decoration	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 5**	**Type 6**
Vessel fragments	2	-	5	-	-	1
Spindle whorls	-	-	-	-	-	-
Mending patches	-	-	-	-	-	-
Moulds	1	-	-	-	-	-
Loom weights/weight stones	1	-	-	1	-	-
Architectural details	-	-	-	-	-	-
Other	1	-	-	-	-	-
Unknown function	-	-	-	-	-	-

Two dimensional décor and graffiti

In the recorded material, all four geometric sub-groups are represented as well as four of the figurative (nos. 1, 3, 4 and 6, see below). The remaining two types of figurative decoration (animals and mythological creatures) are known from other Norse Greenlandic farms. The types and frequency of the decoration on the various soapstone artefact types are seen in Figure 9. In the following, I will provide a brief description and some examples of the various types of decoration.

Geometric decoration, type 1: Carved grooves

This decoration represents carved grooves which are usually placed on the top of rims or on the body of soapstone vessels. There may be one or more grooves which run the circumference of the vessel and the grooves may be deep or shallow, narrow or broad (Figure 10). This type of decoration is also seen on the slabs and discs of soapstone mentioned above. On the discs there may be one or more carved grooves. On the slabs there is usually one along the edges of the artefact. This is by far the most strict and formalistic of the decoration types seen on the Greenlandic material and it is also by far the most common. Because of their frequency, one might ask if these carved grooves may have had a function in addition the decorative-. However, I fail to see what function they could have performed. Had the grooves only occurred on the bodies of the vessels, below the rim, they might have accommodated a length of string keeping a piece of animal hide secured to the vessel as a sort of lid. However, this is not the case. The vast majority of the grooves are found on the tops of the rims and as mentioned they appear in all widths, depths and numbers. I am inclined to interpret them as a formalistic type of decoration, perhaps inspired by similar ornamentation on the lids of coopered vessels which is often seen in Scandinavia and also in Greenland (e.g. Fuglesang 1991:186).

Geometric decoration, type 2: Other geometric shapes

This sub-group consists of a variety of different geometric shapes, carved into the soapstone: circles, triangles, squares, rectangles, parallelograms and ovals, even simple straight lines used to create a decorative effect. The latter is especially seen on spindle whorls but is also found on vessels. The sub-group accounts for the finest of the decorated soapstone artefacts. For instance it is seen as finely executed zigzagging lines in low relief carved into the top of vessel rims. It also occurs as bands of parallelograms on the body of vessels or as compass drawn, concentric circles on the body of vessels. On spindle whorls we find carved lines, radiating from the central perforation or as zigzagging lines which create a series of triangles. This type of decoration is also seen on loom weights and weight stones in the shape of ovals, semi-circles and squares. While some of the decoration is roughly made and may be considered as a type of graffiti, other examples are very delicately executed, for instance some of the zigzagging reliefs in the tops of vessel rims. The latter decoration must represent a significant investment of time and as such, it may not come as a surprise that this decoration was only found on the definite high status sites of W51/Sandnes, E29a/Brattahlið and E47/Garðar.

Figure 10. *A large soapstone pot from E47/Garðar with concentric lines on top of the rim and on the body of the vessel. Diameter by the rim c. 50 cm. (After Nørlund 1930:151).*

Geometric decoration, type 3: Symbols

This sub-group is dominated almost completely by crosses, although there are other symbols, e.g. the previously mentioned tetragram. The majority of the recorded crosses are extremely simple, being composed by two crossing straight lines. A few are more carefully made, e.g. a cross inscribed in a circle.

Geometric decoration, type 4: Small circular indentations

This is a very rare sub-group of decoration, consisting of very small indentations into the surface of soapstone artefacts, e.g. on a handle from W51/Sandnes. They were probably made simply with the tip of a knife.

Figurative decoration, type 1: Humans

This sub-group of figurative decoration is found on only five artefacts. Two artefacts have extremely simple 'stick figures' carved in such as way that a perforation of the artefact constitutes the head of the human figure. One piece of soapstone has a slightly more detailed human figure with a hint of facial features (Figure 11). On one of the moulds from Garðar there are small circular human faces. And finally there is a very small fragment of an object from Garðar with a human hand in low relief. The latter must come from a larger piece which unfortunately has never been found.

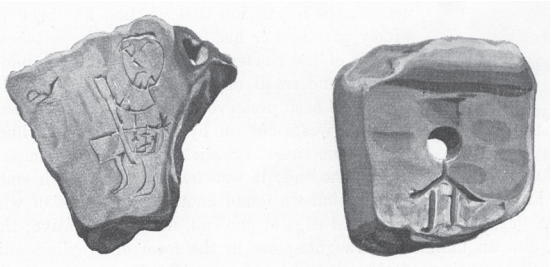

Figure 11. *Soapstone pieces with human figures. The artefacts are c. 6 cm wide. (After Nørlund 1930:161).*

Figure 12. *Slab of soapstone with carvings on both sides, found at E167. On one side there is a depiction of Christ on the cross. The figure of Christ can just be made out. Also note the perforation in the corner which appears to be original. On the other side there is a leaf ornament and a band of diamonds, created by a number of crossing lines. Length of the top rim 6,2 cm. (After Vebæk 1992:77).*

Figurative decoration, type 3: Plants, vines, ribbons and interlacing motifs

This sub-group is the largest in the category of figurative decoration. One example is a rimsherd from E29a/Brattahlið with a very carefully carved rope motif where two ropes weave in and out of each other. Another example is a handle from a soapstone vessel, found at E29, with a ribbon motif. The rope motif from the rimsherd has a very close parallel on a wooden artefact from Oslo (Nørlund & Stenberger 1934:123; Fuglesang 1991:204).

Figurative decoration, type 4: Artefacts

This sub-group is only represented by one artefact from E47/Garðar which, in addition to a human figure, also has a carving which resembles a hammer (Nørlund 1930:161). Any further interpretation, e.g. as a Thor's hammer, should probably be avoided, as the hammer does not have the characteristic shape of the Thor's hammer.

Figurative decoration, type 6: Religious scenes

This sub-group, too, is only represented by one artefact, also from E47/Garðar. It is a very simple Golgotha image, where a carved cross stands on a small hill, set on a straight line which represents the flat ground.

In addition to the 12 recorded items with figurative decoration, there are a further three which were not available for analysis and of which only one has previously been published: A loom weight/weight stone from E29a/Brattahlið with what is definitely a Thor's hammer. The other two are both supposedly from E47/Garðar and are said to carry a plant motif and a bird, respectively. While the number of soapstone artefacts with figurative decoration in the material studied here is very small, various types of figurative decoration do occur on the Greenlandic soapstone judged by my survey of artefact collections from other Norse Greenlandic sites. Still, there is no doubt that various types of geometric decoration dominate. Also, contrary to the geometric decoration, particularly geometric decoration of type 1, many of the figurative decorations give the distinct impression of being graffiti rather than being decoration in the formal understanding of the word. Before discussing the reason for the profusion of decoration on Greenlandic soapstone, a final group of soapstone artefacts must be presented.

Plastic carvings

Although some of the geometric decoration mentioned above was executed in low relief, it was still, essentially, two-dimensional. However, there are a few examples of scenes which are executed in high relief and even one carving which achieve real plasticity.

Only one of the four artefacts presented in the following was available for analysis, the three other objects have been studied using illustrations in publications. The available object stems from E167. It is a fragmented, but probably originally square, slab of soapstone with a carving of the crucifixion on one side. On the other side it carries a leaf decoration as well as a band of crossing lines which create diamond shapes. The artefact is perforated in the one preserved corner as if it was meant for hanging (Figure 12). A second and very similar slab of soapstone was also found at E167 (Vebæk 1992:77). It, too, has a crucifixion scene in high relief on one side and a leaf motif on the other. This specimen is perforated twice, but here the perforations appear to be secondary as one of the holes has been bored straight through the figure of St. John. Both carvings must have been some sort of devotional images, although exactly how they were used and even if they were ever meant to hang, remains an open question. A third enigmatic artefact is a fragmented disc of soapstone from E47/Garðar (Nørlund 1930:161) (Figure 13). It is richly decorated with a deeply carved leaf motif and appears to have been originally perforated in the middle. A presumably secondary perforation has been made in the preserved part of the disc. The use of this artefact is also unknown. Finally, a small, very finely carved bird's head, with a preserved length of c. 5 cm, also found at E47/Garðar, should be mentioned (Nørlund 1930:162). It is clearly broken at the neck and must have come from a larger figure. The bird's head is unique among soapstone from Norse Greenland and even more so because it is a very realistic representation of an actual arctic bird species, the ptarmigan.

Figure 13. *Fragment and reconstruction of a soapstone disc with a deeply and finely carved leaf decoration. The diameter would originally have been c. 18 cm. Found at E47/Garðar. Function unknown. (After Nørlund 1930:161).*

Discussion

Overall, the Greenlandic soapstone presents a somewhat fragmented picture. The majority of the artefacts were vessels, spindle whorls and other types of artefacts which are well known from other parts of the Scandinavian world. The vessel types appear to correspond well to the vessel types known from e.g. Norway, and although one rim shape and one vessel type appears to be unique to Greenland, neither dominated the material in any way. The other well-known artefact types, spindle whorls as well as mending patches, are also shaped just as they were elsewhere. The various discs and slabs of soapstone, many of which were also decorated, do not appear to be frequent outside of Greenland, and their exact function also remains unknown. As such they make the Greenlandic material stand out as something special, compared to soapstone artefacts from other parts of Scandinavia. But they make up less than 7% of the complete body of material and as such we should perhaps be careful not to let their 'strangeness' overshadow the fact that looking at the overall artefact types and shapes, the

Greenlandic material is very well in line with what is known from elsewhere. What really makes the Greenlandic material stand out is the frequency of decoration and graffiti. Just over 32% of the total number of recorded artefacts from the six sites was in some way decorated or carried graffiti.

Some of the figurative decoration should undoubtedly be understood as graffiti, made because of a simple joy of pictures or to pass time. Others probably had a so far unknown function to perform. But no matter how one may look at the figurative decoration, that still leaves the large group of objects with geometric decoration, particularly the carved grooves of type 1, which was intentionally put on the artefacts, particularly vessels, and which was obviously viewed as an appropriate type of decoration for those particular types of artefacts. Even if we only look at the group of vessels with carved grooves, it still represents 27% of the 764 artefacts belonging to the group of vessels. Thus between one fourth and one third of all soapstone vessels were in some way decorated with the formalistic decoration design of type 1.

I have been unable to find numbers for the frequency of decoration on Norwegian soapstone vessels. The same decoration existed in Scandinavia, but the only numbers I have been able to find were for the Hedeby material. Here the same type of decoration appears at a markedly lower frequency; just 10% of the vessels were decorated. So why the large amount of decoration and graffiti on the Greenlandic soapstone compared with the Norwegian material or the Viking Age material from Hedeby?

The focus of my Ph.D. thesis was cultural identity and I focused on this topic in relation to the decorative elements of the Greenlandic soapstone. I also had the advantage of looking at artefact types of other materials than soapstone and to bring those into the discussion. One important thing to note here is the general frequency of both formal decoration and graffiti-like pictures on all sorts of artefacts in Norse Greenland, not just the soapstone. There is simply an abundance of decoration of all sorts and sizes on the Greenlandic artefacts which not only tells us of a people with a basic love of images, but may also reflect aspects of the identity of the Norse Greenlanders. An important point here is that while the frequency of decoration and graffiti may set the Greenlandic material aside as something unique, the motifs are very familiar. The vast majority of motifs could just as easily have been found in a Norwegian town as in Greenland. Frequency of decoration and graffiti aside, the motifs are solidly Scandinavian. And this also goes for the geometric decoration on the soapstone vessels.

My interpretation of the apparent tendency to use known motifs but with a high frequency leads me to suggest that it was employed by the Norse Greenlanders as a part of their identity construction and maintenance. I do not believe that the Norse Greenlanders were trying to establish a special Greenlandic type of identity for themselves through the expression of decoration on their artefacts, but rather the direct opposite. The Norse Greenlanders probably used well known motifs in such profusion exactly because they were well known motifs which stressed continuity with their cultural past. As such, the decoration on the soapstone artefacts may have been used to reinforce their overall Scandinavian identity in that faraway land in the North Atlantic. Such an interpretation fits well with the observation that the majority of overall artefact types and even vessel types correspond to types that were well known in Norway. Soapstone was by far the most common material for household vessels in Norse Greenland. At least in this domain, it does not appear that the Norsemen had any need whatsoever of trying to demonstrate a Greenlandic identity of their own.

Because of the general lack of soapstone artefacts from stratified contexts, it is impossible to say anything about any developments in the choice and prevalence of particular motifs over time. Many of the motifs may already have been known at the time of settlement. Other motifs the Norsemen may have learned through contact with Norwegian merchants or through travels of their own. As

such, it is quite likely that the motifs could be used as an indicator of contact with the rest of the Norse world, but in order to work with the Norse Greenlandic soapstone in this way, more artefacts from stratified contexts need to be procured and analysed.

Conclusion

Soapstone objects are the most frequently found group of portable finds on any Norse Greenlandic site. The body of soapstone material is fascinating because the Norse Greenlanders had the raw material in common with their ancestors in Norway. Soapstone artefacts were also in use in the Faroes and in Iceland, although it was imported into both of those lands of the North Atlantic. Indeed, soapstone appears in many ways to have been a 'carrier of culture'. In most ways, the soapstone of Norse Greenland appears to correspond well with soapstone from other parts of the Scandinavian world, both with regards to overall artefact types and specific vessel types and shapes. There are some artefact types, a vessel type and a vessel rim shape which appear to be unique to Greenland, but these special types are very clearly in the minority. The only place the Greenlandic soapstone really stands out is in the very high frequency of decoration and graffiti. While other explanations may be given, I find that it very likely may be linked to the maintenance of an essentially Scandinavian identity on the part of the Norse Greenlanders.

This presentation of the soapstone of Norse Greenland has only scratched the surface of the very large body of material which sits in the Danish National Museum and in the Greenland National Museum and Archives. Much of it comes from unstratified contexts, but still information can be extracted from it, as I hope this paper has demonstrated. For the exact same reasons it is important that more work be carried out on the Greenlandic soapstone and that particular attention be paid to soapstone from future stratified excavations which could allow the creation of an actual soapstone typology. Much more information may be obtained from the Norse Greenlandic soapstone collections than has been gained so far.

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Soapstone in the North. Quarries, Products and People. 7000 BC – AD 1700

Soapstone is a remarkable rock. While it is soft and very workable, it is also durable and heat-resistant, and with a high heat-storage capacity. These properties have been recognised and valued around the world since prehistoric times, and soapstone has been used for a multitude of purposes, ranging from everyday household utensils to prestigious monuments and buildings. This book addresses soapstone use in Norway and the North Atlantic region, including Greenland. Although the majority of the papers deal with the Iron Age and Middle Ages, the book spans the Mesolithic to the early modern era. It deals with themes related to quarries, products and associated people and institutions in a broad context. Recent years have seen a revival of basic archaeological and geological research into the procurement and use of stone resources. With its authors drawn from the fields of archaeology, geosciences and traditional crafts, the anthology reflects cross-disciplinary work born of this revival.

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