

# PRODUCT OR PRODUCTION

## On the accumulative aspect of rock art at Nämforsen, northern Sweden

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In this article the accumulative aspect of rock art is discussed. In light of the simple fact that we are seeing rock art panels in their final form, questions concerning the interrelation between figures deriving from different time periods are addressed. The author's aim is to draw attention to the long continuity of rock art sites and show how greater awareness of this aspect will affect the way we comprehend this material in general. The continuity of rock art sites is exemplified by means of a case study of Nämforsen, located in the province of Ångermanland, northern Sweden.

*Key words: accumulation, archaizing, chronology, elk motif, Nämforsen, rock art, sequence analysis, symbol theory*

### INTRODUCTION

Since the very beginning of rock art research, these prehistoric images have been seen as the archaeological source material par excellence. The marvellous and aesthetic compositions that we encounter today appear to bear witness to mundane or sacral activities performed in the past. Rock art compositions have consequently been understood as depictions of rituals, cosmologic narratives, hunting methods, or binary oppositions (Hultkrantz 1989; Malmer 1992; Tilley 1991; Lindqvist 1994; 1999; Fandén 1995; Lindgren 2001). In short, the images are often seen as capable of giving detailed information on several different aspects of the prehistoric life-world.

Without denying the significance of rock art, or questioning the im-

portance of studying this material, I would like to bring up an aspect that puts these interpretations in another light. I am referring to the fact that the beautiful and thought-provoking rock art compositions that *we* are seeing did not exist until the last figure was added to the picture. The rock art site, consequently, did not acquire the form we encounter today until the very last figure was carved into the panel. This moment was more or less synchronic with the end of the carving practice, and in this respect the rock carving panels visible today are not showing us what was worshipped so much as what was once abandoned. The prehistoric images that are reproduced in our encyclopaedias of art, in our archaeological theses, or even in the documentation of the sites were thus not visible until the carving practice was over. This remark is possibly regarded as banal, but nevertheless it constitutes a rarely discussed fact within the field of rock art research (for exceptions, see Nordbladh 1980; Kaleas 1990; Helskog 2000; Hauptman Wahlgren 2002:182f; Wriggelsworth 2006). In the way the panels are documented, described and interpreted, it is clear that they usually are seen as coherent pictures.

In this article I will take the fact that rock art is an accumulative phenomenon as my point of departure for an empirical study and a theoretical discussion. My aim is to put attention on the long continuity of rock art sites and show how greater awareness of this aspect will affect the way we comprehend and interpret this material in general. I will exemplify the continuity of rock art by a case study of the carvings at Nämforsen, located in the province of Ångermanland in northern Sweden. Since elk depictions constitute the most frequently explored motif group, I will focus mainly on these images. After having made several visits to the site, I have chosen to base my study on Gustav Hallström's documentation, which still is the only one available. Taking the compositions defined by Hallström (1960) as well as the chronology outlined by Lars Forsberg (1993) as premises, I will examine the process of producing engravings at Nämforsen. The questions addressed in the article are to what extent different phases occur within the same context and whether any patterns can be distinguished in regard to the interference between figures from different time periods.

## NÄMFORSEN

Nämforsen is located in Ådals-Liden parish in the province of Ångermanland, and is one of the largest rock art sites in northern Europe. The

site has been frequently explored since 1705, and several scholars have documented the panels (Hallström 1928; Hallström 1960; Lindqvist 1994; Baudou 1993; Wennstedt Edvinger 1993; Helskog 1999). The most ambitious work is, however, Gustav Hallström's publication from 1960, in which the results of more than 50 years of research are presented (Hallström 1960; Hallström 1967; Baudou 1997). Nowadays, Hallström's calculations of figures and motifs have been modified, and today the site is considered to hold more than two thousand figures (Larsson & Engelmark 2005). The figures are spread out over three islands and over the cliffs of the south river shore, and are, according to Hallström's documentation, placed in 264 different compositions or "subgroups" (Hallström 1960:139). The leading motifs consist of elks, boats and humans, but there are also footprints, birds and fishes at the site.

The age of the rock carvings is of course difficult to establish, and chronology is a topic that never loses actuality. A good indication of the starting point of the carving practice is given by the earliest radiocarbon dates from the settlement "Ställverket", which lies in direct connection to the rock art site. According to these dates, the first carvings may have been made approximately 4200 BC. This date correlates with the shoreline displacement datings carried out by Christian Lindqvist and also with the chronology for the carvings at Alta in northern Norway (Helskog 1988; Lindqvist 1994; Käck 2009; Sjöstrand 2010). Most scholars agree that the rock carving practice at Nämforsen began at the transition from the fourth to the third millennium BC (Bakka 1976; Hagen 1976; Helskog 1988, 1999; Ramqvist 1992; Baudou 1993; Forsberg 1993; Lindqvist 1994; for exceptions, see Malmer 1981; Burenhult 1999). Concerning the end of the practice, different hypotheses have been presented. Most of them, however, suggest that the practice of carving phased out slowly and ended at some point during the first millennium BC (see discussion in Hallström 1960; Hagen 1976; Baudou 1993; Forsberg 1993; Ramqvist 1992; Lindqvist 1994; Lindgren 2001).

To establish solid and precise dates for both the initial and the final carving may not be possible. All chronological results show, however, that the latest figure on the site was added about three millennia after the first one was carved. The time between the first and the last carving is thus almost the same as the time between the last carving and our present time. Keeping this in mind, it is not surprising that the motifs

at Nämforsen have changed several times during this extremely long period. In fact, the possibility to see the accumulative aspect of rock art is related to the constant repetition and variation of the leading motifs. If every engraving were unique in motif and style, it would be very difficult – if not impossible – to establish a chronology. The fact that elks are depicted in different styles thus makes it possible to ascertain the span of time at Nämforsen.

What chronologically oriented publications seldom explore, however, is the reason for the stylistic changes in motifs. Time itself does not cause changes to the material culture; it merely makes them visible. Consequently, differences in style can not be explained, only studied, with the help of chronology. When we try to understand the time overlapping the accumulation of rock art at the sites, it is necessary to reflect on the purpose for the stylistic changes. We must also think about the reason for depicting the same motif in different ways, and seek to understand why these different styles appear side by side.

#### ACCUMULATION, REPETITION, VARIATION

A good way to explain the stylistic variations in motifs, which accumulated during a long period, is to see them as an indication of differences in significance. This is based on the assumption that a certain motif will receive a modified appearance when new connotations or meanings are ascribed to it (Ortner 1979). Just as standardization of logotypes is done when the brand has become well known and consequently associated with altered values and aspects, motifs at Nämforsen were given different attributes or executed in a new carving technique when the concept to which they referred was modified. In order for a new concept to gain significance, a stylistic change, as in the elk, was required to manifest it.

If the supposition outlined above is accepted, the so-called mimetic approach starts to become inadequate (Rosengren 2001, 2002; Sjöstrand in press a; in press b). According to this approach, the meaning of an image is regarded as synonymous with what is being depicted. A figure clearly identifiable as an elk is considered to refer to nothing but this animal. Yet, if the only ambition was to draw an elk, why was this motif altered to such a great degree? Further, why was the same locality used, with the result that this variation became exposed in its clearest light? If these paradigmatic alterations in style had involved a change in carving locality, both the accumulative and multi-stylistic

aspects would be absent. But since figures depicting the same motif in different ways have been mixed and have interacted with each other at Nämforsen, their differences have been highlighted and exposed in a manner that must be seen as well considered.

The most reasonable theory to explain the combined phenomena of accumulation, repetition and variation at Nämforsen is to admit that the same motif is able to hold various meanings. The different ways of depicting elks thus made them refer to different things. According to this notion, the elk motif is in fact a range of symbols, and intricate meanings could be expressed by relating the different elks to each other. When carving a figure next to another that had been made hundreds of years earlier, a complex symbolic interaction was manifested. Therefore, by studying the accumulative aspect we might be able to reveal how the elk motif was used in this symbolic interplay.

### CHRONOLOGICAL PHASES

Before studying the accumulative aspect of rock art and discussing the symbol-theoretical consequences that come with it, the internal chronology of Nämforsen has to be presented. I have chosen to base my study on the phases outlined by Lars Forsberg, since he studied the differences between elk figures in order to find out if there were stylistic changes related to chronology (Forsberg 1993:202). Forsberg's latent assumptions are therefore similar to mine: the accumulation of rock carvings is a process parallel to the variation and repetition of leading motifs.

By using cluster analyses Forsberg was able to show the existence of four stylistic variations within the elk motif (Forsberg 1993:205ff). To find out if these contained a gradient (an even transition between the styles that can have chronological reasons) he applied multidimensional scalar analysis (MDS) to a selected number of figures. From this statistical operation he could confirm that four types of elk figures could be clearly identified and also that the carving technique must be seen as a chronological gradient (Forsberg 1993:222). The results of the statistical analyses confirmed what Christian Lindqvist had already suggested, namely that the surface-pecked motifs are older than the ones outlined by contours (Lindqvist 1994:213f). Since only one of Forsberg's four elk types is surface pecked, this must be the earliest. This fact is also important for constructing a relative chronology for the boat motif. Forsberg argued that the surface-pecked boats were older than the contour-pecked ones (Forsberg 1993:219ff).

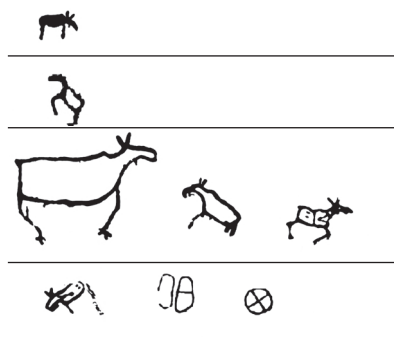


Figure 1a. Forsberg's chronology over the elk motif at Nämforsen. The earliest phase, consisting of surface-pecked elks with straight legs, is shown at the top (examples taken from Hallström's documentation 1960).



Figure 1b. Examples of the earlier (left) and the later (right) boat type (taken from Hallström's documentation 1960).

After establishing that the surface-pecked elks were the oldest type, Forsberg's next question to solve was how the three other types distinguished by the MDS analysis were related to each other in terms of age. This problem was handled by using analogies, further statistical analyses, and studies of carvings that overlapped (Forsberg 1993:219–231). By using analogies Forsberg was able to show that the chronological sequence at Nämforsen ends with the type of elks that are contour pecked, have short straight legs and body marks. The most important analogy used to verify this was made with the carvings at Norrfors, Umeå parish, Västerbotten. At this locality all the elk figures are executed in this particular contour-pecked style. Norrfors is one of few rock art sites in northern Sweden that can be dated accurately through the study of shoreline displacement (Ramqvist *et al.* 1985; Ramqvist 1988; 1992; Forsberg 1992). As local curves of shoreline regression indicate that the panels would have been underwater until 2200 BC, the initial carving activities must have taken place after this date (Segerström 1981). According to Forsberg, it is plausible that the carvings were made around 2100 BC and that this date can be used as a guideline for determining the change between phase three and phase four (Forsberg 1993:216). After establishing that the surface-pecked elks are the oldest, while the ones of “Norrfors type” were added at the end, Forsberg's concern was to place the two middle groups chronologically. He did so by study-

ing how carvings overlap. Since elks belonging to one of the statistical types are overlapping figures of the other types, Forsberg was able to determine the chronological relation between them. As a result of these studies, Forsberg could establish a typology regarding the elk motif at Nämforsen. The first phase is represented by the surface-pecked style. This kind of elk figure has straight legs and is usually surrounded by humans in large compositions (Sjöstrand 2010). The second phase consists of contour-pecked elks with rectangular bodies, angled legs, and surface-pecked heads. The angled legs continue into phase three, but the elks are then a little larger and also are provided with more details such as mouth markings, body marks, and beards. In the last phase, the elks once again have straight legs. They are very similar to the figures at Norrfors and are extremely stylized and schematic. In this phase, there are also south Scandinavian motifs such as footprints and wheel crosses. The characteristic human figures with triangular bodies (so-called athlete type) are also linked to this phase.

#### PICTURES IN THE PICTURE – SEQUENCE ANALYSIS

Now that the chronological background has been outlined, it is time to study how figures from different phases are related to each other. By using Forsberg's chronology it is possible to deconstruct the panels visible today. The definitions of the four phases give us a tool with which to study how new carvings were incorporated in the already existing picture. It can also help us reveal possible patterns regarding the different phases' relation to the pre-existing ones.

In order to exemplify how I use the chronology, and at the same time illustrate the accumulative process that constitutes the object of interest in this article, I have tried to visualize how one of the compositions at Nämforsen possibly appeared before the last figure was added. Figure 2 shows the famous panel "Brådöhallan" as it might have looked during the time of each of Forsberg's four phases. The sequence was created by using an image processing program in which figures were removed according to the phase in which they belonged. It is important to emphasize that these four images were created by removing all of the figures from a certain phase at the same time. They therefore contain the underlying assumption that the panel was only carved at four separate occasions. When looking at the sequence, one must remember that the motifs were added one by one, which means that there exist as many "pictures in the picture" as there are figures

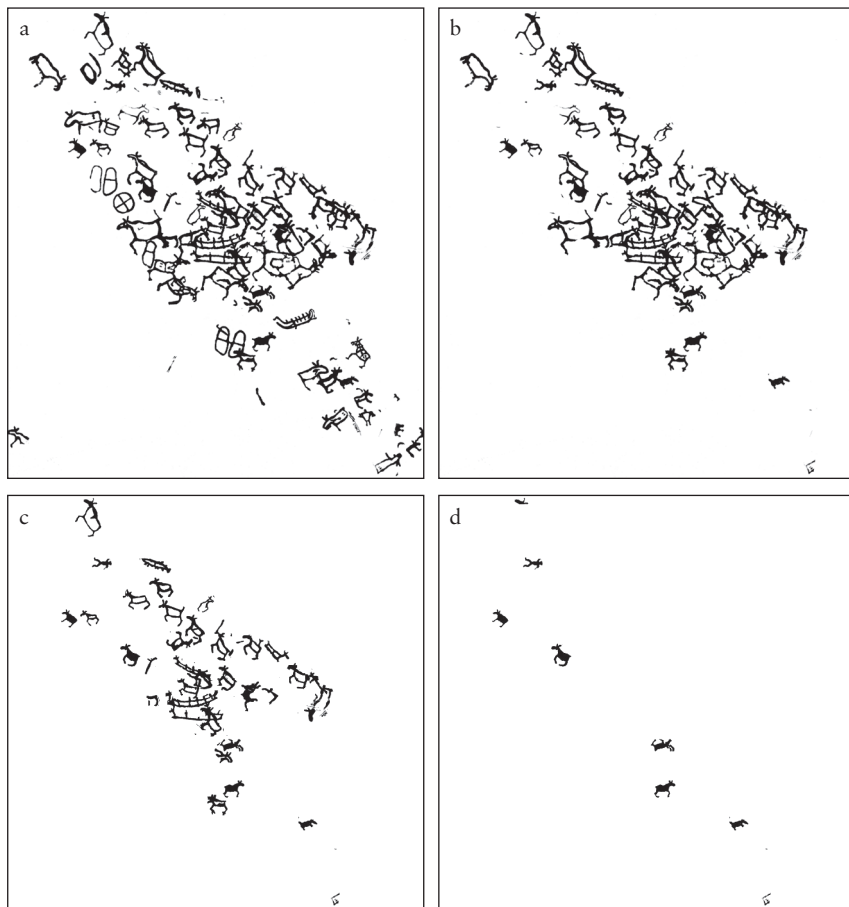


Figure 2. Brådöhallan during a) phase 4 / the appearance it has today, b) phase 3, c) phase 2, and d) phase 1 (based on Hallström 1962).

on the panels. As long as this crucial remark is kept in mind, sequence analysis constitutes a useful tool to visualise rock art sites. It helps us realise the fact that the final appearance of the rock art site is just one of countless others, and makes it easier to understand rock art sites as productions rather than products.

Sequence analyses like the one shown in figure 2 have been made statistically for 93 of the 264 compositions defined by Hallström. The studied compositions were selected on the basis of two criteria: that they contained more than one figure, and that they could be clearly identified using Forsberg's chronology. Of the compositions left out of the study, 112 contained just one figure and 59 were too fragmented to be chronologically definable. The chosen compositions were carefully



studied, and the figures occurring in the different phases were registered in a database. The recording of phases was based on an “absence/presence” criterion. This means that a single occurrence of a figure in a certain phase was enough to regard that phase as being represented in the composition.

The result of this compilation was that 51 of the 93 compositions (55 %) contain figures deriving from different periods (fig. 3a). This means that the majority of the compositions have changed their visual appearance during the time of the rock carving practice at Nämforsen. Bearing in mind that the limitations that define a certain composition will affect the result, this quantity is probably larger. As I soon came to realise, Hallström had limited his compositions according to similarity and dissimilarity between figures, and had therefore – possibly unwittingly – made them represent only one phase. One example can be seen in the compositions P: 1 and P: 2 which are found at the south-west edge of Notön. The figures of P: 1 and P: 2 are located just decimetres apart from each other, but documented as separate compositions (Hallström 1960:Pl XIX).

When putting the data together, it became clear that establishing new limitations for the compositions at Nämforsen would benefit the study of an accumulative process at the site. For example, one could define them by using the viewshed tool in a GIS program and thereafter comprehend compositions as “the entire amount of figures visible from a certain point”. As many scholars already have pointed out, the materiality of the stone itself is part of the rock art composition, and the figures’ placement is greatly dependent on the micro landscape on the panel (Helskog 1999; 2004; Bradley 2000; Sognnes 1999; 2001; Coles 2004; Goldhahn 2002; Lahelma 2008; Gjerde 2010). To take this important aspect into account when defining compositions would be a possible topic for future research. Unfortunately, the amount of data required for such a task makes it impossible to carry out in this study.

In order to address, at least briefly, the problem of composition limitations I did a sequence analysis based on the three “natural” compositions in which the carvings are placed (fig 3b). In other words, I looked to see how figures from the different phases were distributed over the three islands of Laxön, Brådön and Notön. The result of this analysis shows that none of these islands is exclusive for one phase only. All these carving spaces have therefore been changed over time.

Studying the accumulative process which has shaped the panels, it

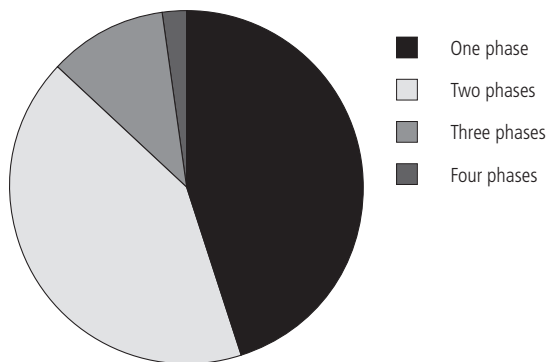


Figure 3a. The distribution over compositions containing different numbers of phases at Nämforsen.

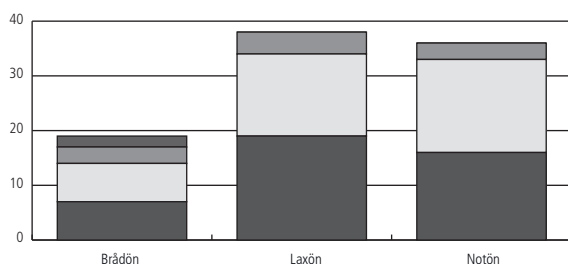


Figure 3b. The distribution over compositions containing different numbers of phases in the three carving spaces at Nämforsen.

it is clear that the motifs are secondary to the process of creating them. This can be supported by a qualitative result of the study of how the phases interact. I have detected plenty of examples of how one motif has been transformed into another by carvings of a later phase, which shows that continuity of rock art sites has affected the motifs themselves (see Myhre 2004 for a similar study). One of these motif modifications is demonstrated in figure 4a, where an early type of boat has been made into elk antlers. The phenomenon of transforming boats into elk antlers is discussed in detail by Antti Lahelma who has observed the same transformative process in the Finnish rock paintings (Lahelma 2008:117). This fact is interesting indeed since antlers are remarkably unusual on elk figures in Fennoscandia (Wennstedt Edvinger 1993).

The body marks of the elks in phase two constitute another interesting example of possible motif modification (fig 4b). Through this attribute, the elks acquire a shape that makes them look like “footprints on legs”. In my opinion it is plausible that these body marks were added at the same time as footprints began to appear within the motif fauna of Nämforsen. A careful study of overlapping carving-lines might be able to confirm or dismiss this hypothesis, but unfortunately I have not been able to carry out such.

When discussing motif transformations related to the accumulative



Figure 4a. Motif transformations: the boats have been made to look like elk antlers (after Hallström 1960).



Figure 4b. Possible motif transformations: elks from the middle phases may have been equipped with ody marks in order to look like footprints (after Hallström 1960).

use of rock art sites, the question of visibility needs to be brought up. It is hard to estimate to what extent the old carvings were discernible for those who made figures on the same panels hundreds of years later. Still, the fact that we are able to see them today makes it hard to claim that the prehistoric people were unaware of the fact that they placed their figures over older ones. In my opinion, we have to assume that overlapping and motif transformations were intentional acts, and not reject this important aspect of rock art production as something accidental. However, as Katty Hauptman Wahlgren has suggested, carvings might have been more or less visible depending on how recently they were made (Hauptman Wahlgren 2002:182–216). Since newly engraved figures are shiny and white, it is plausible that compositions were made by re-carving a selected number of figures.

#### SYMBOLIC INTERACTION – RELATING NEW FIGURES TO OLDER ONES

As the examples of motif transformations show, the addition of new figures to a pre-existing composition has a huge effect on its visual context. The interaction between phases must consequently be seen as the result of a meaningful action, and the placement of new motifs can not be re-

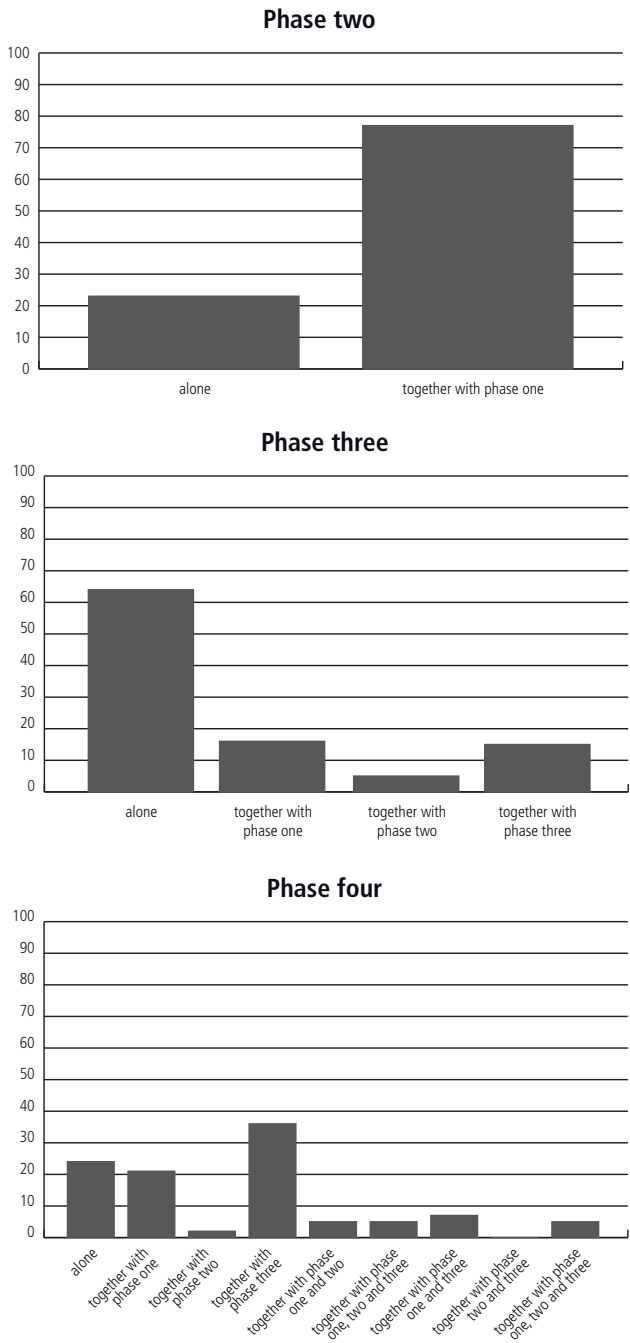


Figure 5. Diagrams showing the combinations of interaction in the four phases at Nämforsen. The values are displayed in percent.

garded as accidental. To further understand how this symbolic interaction has been carried out, I have studied the particular phases one by one with the aim of discovering which other phases they tend to be involved with. I have also examined to what degree they appear alone (fig. 5).

Since the rock carvers of the first phase at Nämforsen could not relate their figures to any older phase, the first phase was excluded from this study. The compilations revealed, however, that phase two was related to the single earlier phase to a great extent. This is interesting, and definitely must be seen as an indication that connecting new figures with those made previously was part of the carving practice at the time. Important to note is that figures of these two phases tend to gather within large compositions where one of the types usually dominates over the other. Since my study is based on the absence/presence criterion, I can not reach or study the fact that a two-phased composition might hold twenty-five elks belonging to phase one but only one elk from phase two. When it comes to the first two phases of Nämforsen, these kinds of distributions are common, and this needs to be kept in mind (see Sjöstrand 2010).

If phase two is mainly integrated, phase three shows almost the opposite tendency. The figures belonging to this phase are carved autonomously to 64 %. This means that compositions containing just one phase are more common during this period than any other. In cases where the figures do appear in multiphase compositions, it is usually together with phase one.

Another interesting result comes from the study of phase four. In this phase, the elks are related to earlier compositions to a great degree (74 %). They do appear alone, but in many cases this independence is a result of the composition's limitations. There are no big panels containing just elks from phase four. Instead, they are scattered over the entire island with no particular concentration. As I interpret the statistical results, phase four is the most integrated of all. Of course, one could claim that the reason for the large quota of integrated figures is a lack of space in the last phase. In my opinion, however, this argument is fairly weak. There is still plenty of room for new carvings at Nämforsen, and the figures of phase four could have been placed somewhere else if so desired.

## METAPHORICAL CONTENTS OF THE ELK MOTIF

The result of the interaction study can be discussed from many viewpoints, and raises lots of questions. What is being focused on in this

paper, however, is the connection between the earliest and the latest phase of Nämforsen. These two types occur together to a large extent and also have visual similarities concerning the short straight legs and the angle of the neck. Even more striking is the resemblance between the elks of phase four and the Mesolithic grounded elks in so-called Nordland style which are found at the sites of Landverk and Gärde not far from Nämforsen (fig. 6). Together with the statistical results, these observations can show that there was a nostalgic or archaizing element connected to the latest phase. As Kjel Knutsson has pointed out, there are also data from the lithic material that support the existence of such a process within the Norrlandic region during the Late Stone Age (Knutson 2005, 2010; Knutson & Knutson 2009; Glørstad 2002).

The archaizing aspect of the elk motif from phase four is of great symbol-theoretical importance. As these figures come to reveal, the motif being depicted is not necessarily equivalent to what is being mediated through appearance. This is because the elks of phase four are not referring to the actual animals in the landscape so much as they are making associations to the very tradition of depicting such animals. With a subtle formulation one can say that they are images of images, that is, standardized symbols that refer to connotations of the initial image rather than to what this might have represented. The figures from phase four thus remind us about the incompleteness of the mimetic perspective. They let us know that elk figures have metaphorical potential.

Since the elk figures carved in phase four are referring to something other than what they are portraying, they are to be understood as metaphors. A metaphor can be described as a tool for thought, a cognitive implement that makes it possible to express one phenomenon by referring to another (Tilley 1999; Lødøen 2003). As the philosopher Susan Langer has pointed out, a metaphoric mind operates by thinking *with*, rather than *of* elements in the life-world. In order to concretise concepts of a non-conceivable nature, we use something visual and material as a tool for thought. By thinking “with” fire we can comprehend the concept of passion, and by thinking “with” clocks and calendars we can manage the abstract concept of time (Langer 1954:130). Hence, the elk motif’s metaphorical potential makes it accurate to see it as something that man in prehistory was thinking with in order to grasp conceptual and immaterial aspects that were brought to the fore. This idea would be suitable to explain the huge variation within the motif group. If the elk motif has a metaphorical content, it becomes reasonable to claim



Figure 6. Archaizing? Grounded elk figure from Landverk executed in typical Nordland style and elk figure from Nämforsen deriving from the latest phase. The figure from Landverk is almost in natural size whereas the one from Nämforsen is about 40 cm high (examples taken from Hallström's documentation 1960).

that the variations are significant for different types of concepts. In other words, if the elk is something used to think with, these thoughts are expressed through the alteration of the motif.

If the variations between the elks are held to be significant for different concepts, the interaction between the phases takes on an interesting dimension indeed. When the elks of phase four are placed in close connection to the earliest types, a metaphorical interaction occurs. By relating a new elk to one belonging to the oldest phase, the conceptual dichotomy between convention and improvement might have been manifested. It is, however, important to note that an elk from phase one becomes a metaphor for the abstract concept of “something very old” first when the standardized and archaized elk from phase four is carved next to it. The elk from phase one was made with the intention of mediating one concept, but the symbolic interaction that comes with the accumulative aspect made it mean something else. The elk motif at Nämforsen can therefore be seen as a motif that embodies a lot of concepts which change according to the variations that become visible through the accumulative process.

By studying how figures were placed in relation to others, we can see how the elk motif was used. After that, it might be interesting to investigate if the time for a particular symbolic interaction between the phases corresponds to changes within the material culture. When this approach is carried out, we need to reverse our understanding of the elk motif. Instead of seeing the elk figures as representations, we

need to see them as metaphors. We must admit their ability to mediate a range of non-conceivable concepts, and also understand that these are supplied through the stylistic diversities as well as the context that comes from the symbolic interaction. Consequently the elk has to be seen as something that man in prehistoric society was thinking with, rather than thinking of. When studying the accumulative aspect of rock art we may be able to reveal how these thoughts were manifested.

## CONCLUSION

In this paper, the accumulative processes of rock art have been analysed. Through a case study of the compositions at Nämforsen in northern Sweden, I discussed the fact that rock art panels contain “pictures in the picture” and accordingly must be studied as productions rather than products. The accumulative aspect of rock art is visible to us by the fact that the same motif has been depicted in different styles. From the position that the images at Nämforsen are metaphors rather than portrayals of reality, I suggested that differences within the motif group reflect differences in meaning. In short, the same motif has been used for expressing a variety of concepts.

The result of the sequence analysis showed that a majority of the compositions defined by Hallström contained figures deriving from more than one phase. This in turn shows that phases have integrated with each other to a large extent. Through statistical studies some patterns concerning the different phases’ relation to each other have become apparent. An important result is that the latest phase is connected to the first one, while the third one is carved more autonomously. Based on this information, I claimed that an archaizing process is reflected through the elk motif. The striking similarities between the elks of phase four and the earliest type of elk figures in the Nordland tradition can also support such an explanation.

Taking this archaizing interpretation as a point of departure, the metaphorical aspect of the elk motif could be shown. By pointing out that the elks of phase four are images of the tradition of depicting elks rather than representations of this animal, I claimed that this motif has metaphorical status.

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