The Royal Norwegian Society of Sciences and Letters

FROM STYLES TO MODES: Constructing cervid images in Scandinavian rock art

Kalle Sognnes

Skrifter nr. 4-2020

THE ROYAL NORWEGIAN SOCIETY OF SCIENCES AND LETTERS

Editor

Kristian Overskaug,
The Royal Norwegian Society of Sciences and Letters,
Elvegata 17, 7012 Trondheim

Co-editor

Merete Røskaft,
The Royal Norwegian Society of Sciences and Letters,
Elvegata 17, 7012 Trondheim

e-mail: post@dknvs.no
URL: https://www.dknvs.no

Comments regarding accepted manuscripts, order of reprints, subscriptions etc.
should be sent to the Publisher.

FROM STYLES TO MODES:
Constructing cervid images in Scandinavian rock art

Kalle Sognnes

© DKNVS, Trondheim 2020

ISBN 978-82-93175-62-9 Trykk
ISBN 978-82-93175-63-6 Web
ISSN 0368-6310

Layout and print: Skipnes Kommunikasjon AS

Do not copy from this book beyond what is permitted under the provisions of the Copyright Act, and copying agreements entered into with Kopinor.

Skipnes.no Svanemerket trykksak, 2041 0731

Foreword

Kalle Sognnes (b. 15 September 1945) died on 29 August 2019, aged 73 years. He worked as a professor of archaeology at the Norwegian University of Science and Technology, and was a member of The Royal Norwegian Society of Sciences and Letters. Shortly before his death, Kalle Sognnes submitted for peer review a manuscript for the Society's journal *Skrifter*. As expected, the manuscript received the highest recommendations, and in collaboration and understanding with Kalle Sognnes's wife, Eli Antonisen, the article titled 'From styles to modes: Constructing cervid images in Scandinavian rock art' is published as *Skrifter* nr. 4-2020. We thank Eli Antonisen for her contribution in preparing for publication this fine work by Kalle Sognnes.

Kristian Overskaug
Editor

Merete Røskaft
Co-Editor

Transactions of The Royal Norwegian Society of Sciences and Letters
(Trans. R. Norw. Soc. Sci. Lett. 2020(4), 7-29)

From styles to modes: Constructing cervid images in Scandinavian rock art

Kalle Sognnes
(†)

Abstract

In a tradition that lasted more than a century, studies of the Stone Age rock art in Scandinavia were based on appearances, with the images being sorted into a few vaguely described style groups that were claimed to represent different periods. The tradition was dominated by rock carvings and paintings depicting cervids (elk, red deer, and reindeer). By contrast, Kalle Sognnes deconstructs images from the Trøndelag region in Norway to demonstrate the existence of a few basic modes for reconstructing the drawing method. The modes are represented in other parts of Scandinavia, where also other construction modes can be identified. Although the main construction modes in principle are the same throughout northern Scandinavia, there are distinct regional differences in the images. Furthermore, such differences are identifiable at site levels, suggesting that the makers of the images at each site had their own particular ways of shaping the images, which might have reflected individual preferences. The differences, which can be referred to as styles, may also represent different local groups of people.

Keywords: cervid images, rock art construction modes, Scandinavia, Stone Age rock art

Background

The prehistoric rock art of Scandinavia has long been regarded as belonging to two traditions, respectively dating to the Scandinavian Stone Age and Scandinavian Bronze Age. The reason for this division was the discovery around 1900 AD of sites in northern parts of Norway and Sweden that were significantly different from the ones known prior to then. The sites in question were dominated by images depicting elk and reindeer, which contrasted with the rock art known from southern Scandinavia that was dominated by cup marks and depictions of boats (Hallström, 1907a; 1907b; Lossius, 1896; 1897; 1899; Ziegler, 1900). However, several decades passed before the Norwegian part of that Stone Age record became known to a wider audience (Bøe, 1930; Gjessing, 1932; 1935;1936; Engelstad, 1934; Hallström, 1938), and even longer for the Swedish part (Hallström, 1960). In this article, the main focus is on the Stone Age rock art tradition in the Trøndelag region in Central Norway (Figure 1). The record for the region is compared with the records from other Scandinavian regions. The earliest known record from the region was published in works by Gutorm Gjessing (1936) and Gustaf Hallström (1938). Today, the record is three times larger, consisting of 40 sites with a total of c.700 carved and painted images. The predominant depictions are cervids but whales, fish, and birds are represented too, as well as some other mammals and some geometric designs to a lesser extent (Sognnes, 2017).

As stated by Peter S. Wells (2008), following Alfred Gell (1998), images are not ideas but objects that survive materially and should be evaluated as non-portable artefacts the cultural world, with the form of the images being

> as least as important as the content with regard as to how images functioned in the past, and how they function today. Whereas content depends on what the viewer brings to the image, visuality is a set of properties of the image itself. (Wells, 2008, p. 17)

Wells (2008, pp. 35–36) further emphasises the phenomenon known as inattentional blindness, which means that when we concentrate our attention on one part of a visual representation we are likely to miss other parts or the background. This seems to have happened in many studies of Stone Age rock art in Scandinavia, as we still tend to see the images within a framework that was created more than a century ago – a framework based on styles representing different periods.

Documentation and classification were of great importance to the first generations of scholars who studied Scandinavian rock art dating from the Stone Age, as they sorted the motifs into styles based on aesthetic criteria, in contrast to portable artefacts that were sorted into types (e.g. Hallström, 1907; Shetelig, 1922; 1925). The record

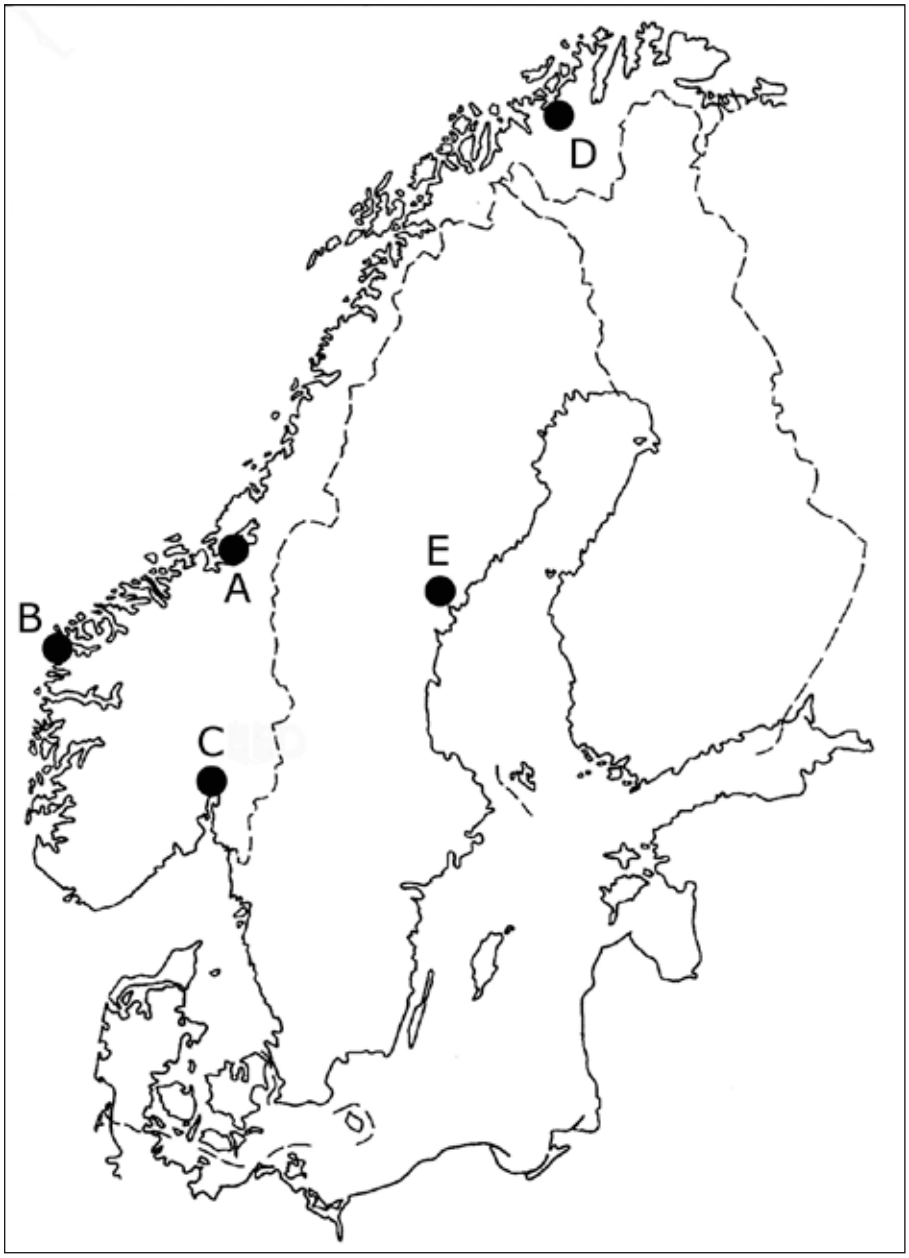

Figure 1. Major clusters of 'northern tradition' rock art in Scandinavia: A – Steinkjer/Stjørdal, B – Vengen, Western Norway, C – Ekeberg/Oslo region, D – Alta, Northern Norway, E – Nämforsen, Northern Sweden.

was believed to represent a development from large naturalistic images towards small schematic ones (Engelstad, 1934; Gjessing, 1936; Hallström, 1938). However, few Scandinavian rock carvings and paintings that depict cervids are close to being

naturalistic representations of animals. Rather, they are more or less schematic abstractions (cf. Bednarik, 2016, 155).

Gutorm Gjessing (1936; 1945), who sorted the record in Central Norway into three style groups, believed that each style represented a certain period; his styles I–III represented the Mesolithic, Neolithic, and Early Bronze Age respectively. To these groups should be added a group of large 'naturalistic' images in Nordland County, in Northern Norway, which Gjessing (1932) believed were earlier than the Trøndelag images in Central Norway. Gjessing's chronology was based partly on style and partly on the isostatic land upheaval along the Norwegian coast in the Holocene. Haakon Shetelig (1922, pp. 148–159) had earlier pointed to the relevance of shoreline dating, but Gjessing (1945, p. 204) was reluctant to accept the earliest possible shoreline dates for the 'naturalistic' images in North Norway, seemingly because it would have meant much earlier dating for the images he had studied.

In later years shoreline dating came back into favour. Based on the still ongoing land upheaval Egil Mikkelsen (1977) redated style III carvings in Eastern Norway to the Late Mesolithic, and Christian Lindqvist (1994) claimed that style III images in Central Norway were the oldest ones in that region. Shoreline dating has also been used for dating rock art in Alta, in Northern Norway (Helskog, 1999; 2012). Based on the method, the making of the large images in Nordland might have started as early as c.9000 BP (Gjerde, 2010, 386), while most 'similar' images in the vicinity of Trondheimsfjorden, in Central Norway, were not started until c.6000 BP and at one site (Stykket) not until c.4500 BP (Kjemperud, 1981; Sveian & Olsen, 1984). This implies that the large 'naturalistic' zoomorphic rock carvings may represent different regional phases.

The primary aim of this study is to create an alternative way of thinking about the images based on how they were constructed (i.e. instead of based on their appearance) and thereby to shift the perspective from the eyes of visitors of today to those of the creators of the images in the past. In this article, the focus is on a small part of the *chaîne opératoire* (operational chain or sequence) that was behind the making of cervid images in Scandinavian rock art. Studies of cave art at this level are common within the French research tradition (e.g. Azéma, 2010; Guy, 2000; Leroi-Gourhan, 1965; Lorblanchet, 1995). This study is based on tracings made since the early 1930s. The quality of each tracing depends not only on the eyes of the observer but also on the tracing techniques used. Ideally, all images included in this study should have been documented by the same person or persons but that was not possible. However, after I had visited virtually all sites in Central Norway under different weather conditions, I found that the existing tracings of rock art at those sites were satisfactory for the purpose of my study. This seems also to have been the case for the tracings from other regions discussed in this article.

From styles to images

For many decades the Stone Age rock art tradition in Scandinavia was studied within the framework of styles, a term borrowed from the study of art, although only a small part of the rock art was claimed to have aesthetic qualities (Hallström, 1907b, pp. 160–161; Shetelig, 1922, pp. 38–41). Thus, a 'non-aesthetic' body of material was studied from an aesthetic perspective. However, we may question whether the modern concept of aestheticism has any relevance for images made thousands of years ago. When Gjessing described the three styles of rock art identified in Central Norway, he presented some vague general descriptions of each style (Gjessing, 1936, p. 168). He did not illustrate the styles but referred to his description of the individual images in the catalogue part of his book. Gjessing's style I consists of 'naturalistic' images: the animals have been drawn full size or even larger. Images belonging to style II are smaller, 'less naturalistic', and many have internal line patterns in the animal's body, whereas style III motifs are the smallest and show 'full schematism' (Gjessing, 1936, p. 168). Style II has since been divided into two substyles (Bakka, 1973; Hagen, 1976) according to whether the animal's body is depicted with internal lines or not. To Gjessing's styles I–III, we may add a 'style IV', represented by images drawn in outline only (Simonsen, 1974; Sognnes, 2003; 2008).

In Central Norway c.250 cervid images are known today, most of which represent Gjessing's style II, whereas no more than 10 cervid images at five sites can be classified as style I images (i.e. only 4% of the cervid images known from the region). Style III images are known from three sites: nearly 60 images are known at Holte (in Levanger) alone and c.25 at Bogge (in Romsdal), which means the two sites together account for c.35% of the total number of style III cervid images in Central Norway.

Figure 2 shows a sample of large 'naturalistic' rock carvings in Norway and one from Sweden. Gjessing (1936, p. 168) classified the images from Bogge (2A) and Bardal (2B) as representing his style I. The later discovered images from Berg (2C) and Stykket (2D) represent this style too, whereas the image from Åmnes (2E) represents Gjessing's Nordland group (Gjessing, 1945, p. 260). The carving from Landverk in Jämtland, Sweden (2F), is regarded as one of the oldest 'naturalistic' rock carvings in Sweden, second only to carvings at nearby Gärde (Hallström 1960, p. 372). Due to its less naturalistic outline and interior line pattern, the Landverk carving should, in my opinion, rather be classified as representing style II. I am inclined to see the Åmøy image as representing this style too, regardless of its size. This emphasises the subjectivity on which the styles were based. Basically, that is a question of seeing – we see what we have been trained to see and are therefore at risk of suffering from inattentional blindness.

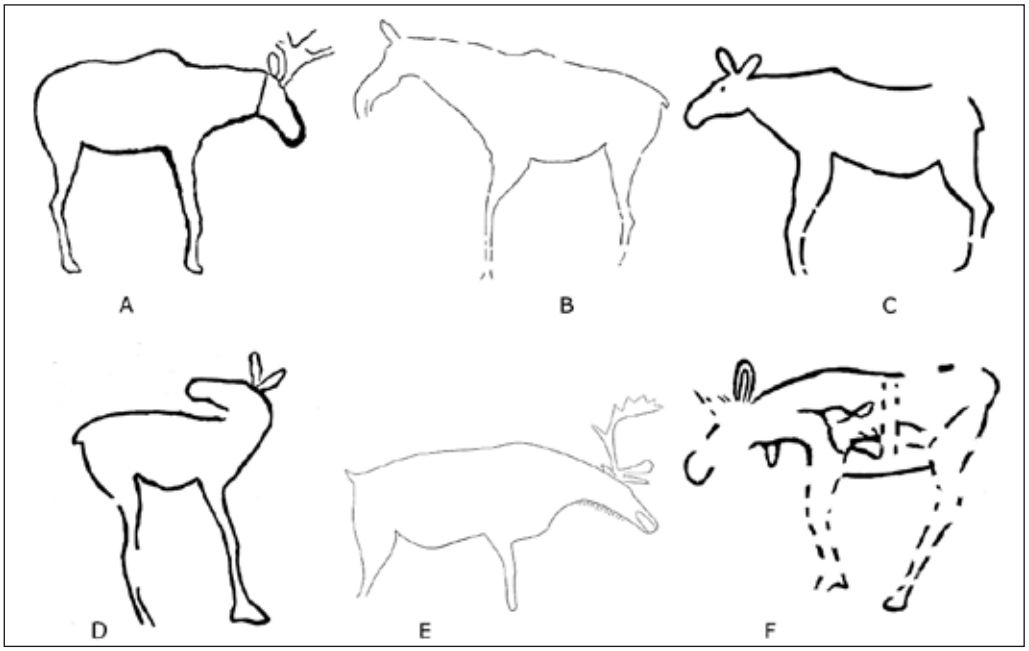

Figure 2. Tracings of contoured 'naturalistic' petroglyphs depicting elk and reindeer: A – Bogge, Romsdal, B – Bardal, Trøndelag, C – Berg, Trøndelag, D – Stykket, Trøndelag, E – Åmnes, Nordland, F – Landverk, Jämtland (Source: Gjessing, 1932; 1936; Hallström, 1938; Sognnes, 2017).

Based on the psychology of perception, J.G. Deregowski (1995; 2005) studied how rock images were constructed. One of his conclusions is that most images depicting animals show species that are fairly easy to draw. This seems to have been the case with regard to depictions of cervids in Stone Age Scandinavia. Evidently, the standard procedure for 'drawing' cervids on rocks was to draw the contour of the animal as a continuous line, including head, ears, body, legs, and, occasionally, antlers, in a more or less 'naturalistic' way. For most images the persons who made them apparently had no intention of creating 'naturalistic' representations of the animals in question.

Rock images were part of visual culture in the past (Elkins, 1999) but at the same time they are part of contemporary material culture, for example due to being pecked into or painted onto rocks. Thus, they are immobile artefacts and may be treated and analysed as analogous with contemporary material culture. How we experience images on rocks, as well as in art, is linked to our visual perceptions and feelings (Morphy, 2005, p. 54). Images that were not created as art may eventually be found to be of interest for art historians and thus be redefined as art (Kjørup, 2001, p. 11), as was the case for the Palaeolithic cave paintings in Europe, as well as the 'naturalistic' zoomorphic rock images in northern Scandinavia (Shetelig, 1922; 1925). However, a basic question remains: Does our thinking about possible aesthetic values of the images have any relevance for our studies of the images of the past?

According to Livio Dobrez (2016, p. 145), the aesthetic, art-historical base for the thinking of Hallström, Shetelig, Gjessing, and their followers will not bring us any further than to a coarse classificatory level. In focusing on styles, we tend to ignore how the images were constructed in practice. However, by identifying line and body segments we may be able to identify important steps in the construction process (e.g. Fritz and Tosello, 2007). The following is an attempt to reconstruct the construction processes for selected cervid images in Scandinavia, based on deconstruction of the elements in each image (Sognnes, 2017). For this purpose, the images are treated as drawings.

Three different ways of drawing cervids are presented in Figure 3, which shows images that are representative of each of the styles identified in the 1930s. Some scholars have since tried to reclassify the cervid images of Scandinavia, such as Mikkelsen (1977), who focused on the different elements of images from Eastern Norway and how the images were designed as a whole. Later, Ingrid Fuglestvedt (2010) studied the internal line patterns in carvings from the same region, while Ylva Sjöstrand (2011) focused on how the legs were drawn on elk images at Nämforsen, in Northern Sweden. Mats P. Malmer (1981, pp. 85–89) created classification systems for all Scandinavian rock art, including the zoomorphic images, based on 'clearly-defined characteristics'. For the zoomorphs he emphasised differences that he believed originated in northern and southern Scandinavia respectively. Malmer used combinations of four letters and numbers to label each identified type: body designs (1), presence of ears or antlers (2), number of legs (3), and intuitive identification of species (4). His system leads us one step away from 'style thinking' but does not bring us closer to the creation process. Heidrun Stebergløkken's doctoral thesis represents a different approach to the study of the Stone Age zoomorphs, including all images known from Central Norway (Stebergløkken, 2016). She based her research on the appearance of the images and rejected the relevance of the style concept in favour of sorting the cervid images into gestalts, each of which includes a number of types. To some extent we (Stebergløkken and I) have reached similar conclusions, but her gestalts are not identical to the modes presented in this article. The modes represent series of line segments that methodologically resemble the *chaîne opératoire* as presented in the preceding section. However, Stebergløkken's gestalts are based on the approach to typology used by Adams and Adams (1991), in which gestalts represent the intuitive types and are so distinctive that they immediately seem to stand out. They are distinctly different from each other to the extent that we do not need to analyse their differences in order to understand what separates them. Stebergløkken (2016; 2017) shows that images of cervids can be divided into just five different gestalts – just five fundamentally different constructions of images but with many different types showing variations in which attributes are present or not. Common to the two different approaches are methodical tools to sort out similarities and differences in the material. Thus far, I

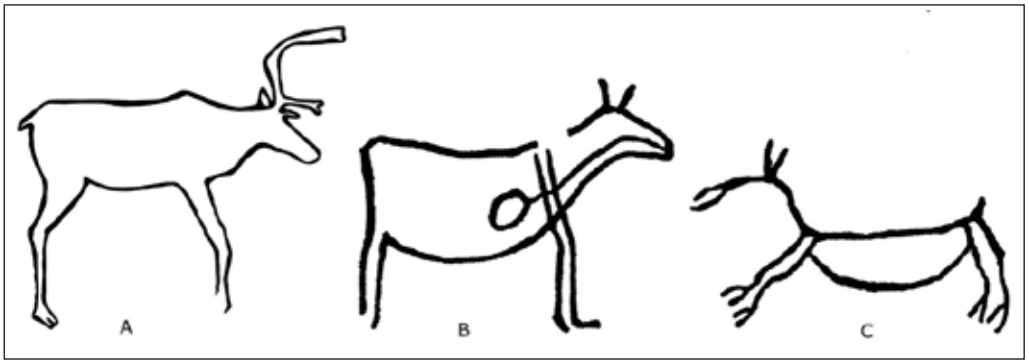

Figure 3. Cervid images from Central Norway, with different degrees of 'naturalism' representing Gjessing's styles I–III respectively: A – **Bøla**, B – Evenhus, C – Bogge (Source: Gjessing, 1936 (B and C); Sognnes, 2017 (A)).

have shown some of the similarities in aspects of the material but that there also is much variation in a few modes or gestalts.

Constructing images

In this section the ways in which the cervid images shown in Figure 3 were constructed are referred to as modes. The 'naturalistic' image from Bøla (3A), in Steinkjer was drawn with a continuous outline consisting of a series of line segments separated by breaks. Identification of individual line and body segments makes it possible to deconstruct the images (Sognnes, 2017, pp. 55ff.) and then to reconstruct the drawing process. It seems natural to start with the head and ears, which determined the size of the image. I suggest that next the segments marking neck and throat were drawn, followed by segments marking the back, which would have determined the length of the animal, then the legs, which determined its height, and finally the belly line together with the line marking the hind part of the foreleg. The image of a cervid from Evenhus (3B), in Frosta, gives a less 'naturalistic' impression. In this case, just two important breaks in the outline can be identified: one at the rump and one at the transition between the belly and hind leg. However, compared with the image from Bola, the most important difference is that the front leg was drawn as a separate segment superimposed on the body. Figure 3C, which shows a cervid from Bogge, was constructed in yet a different manner. No attempt was made to draw any part of the animal as anatomically correct. Evidently, the curved line marking the head and back was drawn first, followed by the lines marking legs and hooves. Thereafter, the belly line was drawn.

Thus, it is essential that there should not be any intuitive identification of styles at an early stage in any research process, but rather that the researcher should start by

looking at the each image per se and identify how it was constructed (Sognnes, 2017). The three images shown in Figure 3 represent the main modes, which hereafter I refer to as A, B, and C respectively, according to which the majority of cervid images known from Central Norway were constructed.

I have deconstructed c.50 images from ten sites in Central Norway in the same way described above (Sognnes, 2017, pp. 58–62). The sample includes most variations represented in the region. Most of the images that make up the record for Central Norway were sorted into three primary modes, each of which was then sorted into a number of secondary modes depending on how the different parts were constructed (Sognnes, 2017, pp. 62–63). Mode A images were drawn with continuous contour lines comprising all main body parts (head, body, legs, and occasionally antlers), with the line segments being separated by breaks in the curves. Most breaks are found in the contour lines of the large 'naturalistic' images that may be considered to represent the 'ideal' mode A. This mode comprises Gjessings's style I. but also many of his style II images. Construction of mode B images started with a depiction of the animal's head and body before the legs were added, the foreleg being attached to or superimposed on the body. This would have been an easier way to make many images in a relatively short time, even images of large herds of animals, which seems to have been the ideal at Vingen, in Western Norway (Bøe, 1930; Lødøen and Mandt, 2012). In some rare exceptions, the curved belly line ends at the back line (cf. Figures 4D and 8D). Mode C images represent distinctly different ways of constructing representations of cervids, with the initial segment being just a single line. In the majority of cases, the line is the back line (sometimes including neck and head) but occasionally also the belly line may be represented this stage.

Mode A images appears more or less 'naturalistic'. Parts of mode B images may look 'naturalistic' too, except for the superimposed front leg. There appear to be significant similarities between mode B images in eastern and western Scandinavia, where many single-line legs having been drawn following this mode in northern Sweden and in Alta, in Northern Norway. For some images also the hind leg was superimposed on the body. In the case of mode C images it is apparent that there were no attempts to make any 'naturalistic' representations of cervids.

The construction processes used for six carvings in Central Norway are shown on Figure 4, in which the focus is on images that represent the main modes: 4A and 4B represent mode A, 4C and 4D represent mode B, and 4E and 4F represent mode C. The number of steps in the construction process varied but in the depictions shown in Figure 4 the processes can be divided into four major steps, from the initial line segment to the complete outline of the cervid. The image from Bogge (4A), the only full-scale carving at that site, has surprisingly few breaks in its contour line. While the

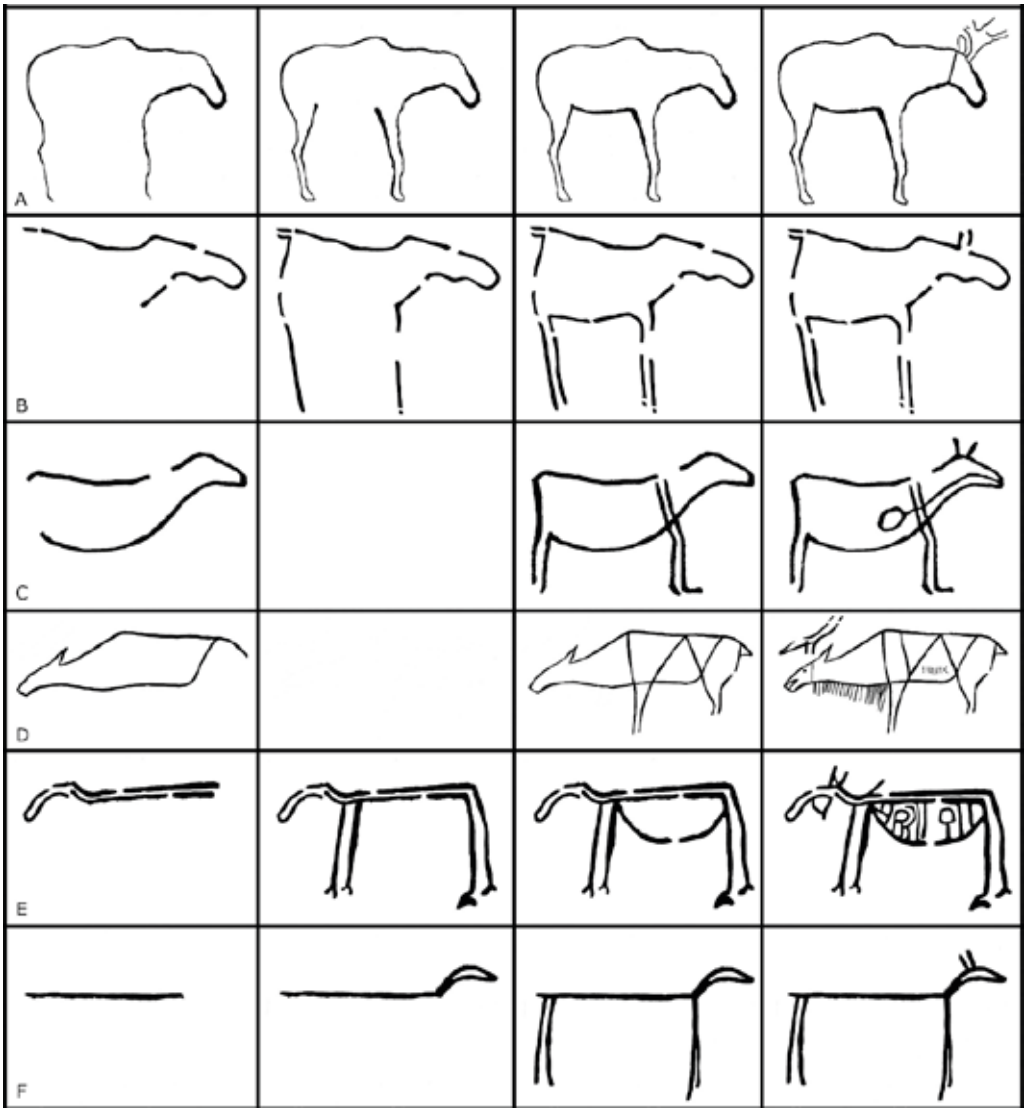

Figure 4. Constructions of cervid images from Central Norway.

ear and an antler might have been added at any time during the process, in Figure 4 they are shown as having been added in 'stage four'. The image from Hammer (4B) has more breaks in its contour line but is smaller and less 'naturalistic' than the one from Bogge (4A). However, the two images were constructed following the same mode. In the Hamar image the animal's head, neck, and back were drawn the initial stage of construction. For the image from Evenhus (4C), the front legs were drawn separately; a 'line of life' completed the image.

For Gjessing (1936, p. 164) and Hallström (1938, p. 387), two large reindeer at Hell (one of which is shown as Figure 4D), in Stjørdal, represented a problem. They were drawn in natural size, which is characteristic of Gjessing's style I, but their bodies were depicted with internal lines, which he supposed were characteristic of the later styles. However, deconstructions of the two reindeer carvings reveals that the internal lines (with one exception) are part of the legs, which were drawn as separate segments, a fact noted by Lossius (1899) when the carvings were first described. The front of the animal was constructed as a set of short line segments, with the belly line reaching the line showing the animal's back. Thus, the carvings may be seen as representing a special variation of mode B. These reclassifications confirm the claim expressed by both Bakka (1973) and Hagen (1976) that Gjessing's style II contains images belonging to two different 'styles'. However, this is not a question of whether the images have internal lines in the body or not, but rather of two different construction modes. Figure 4F represents the simplest construction of all, the initial 'body' segment being drawn as a horizontal line, to which were added vertical legs and a two-line head with ears. For Figure 4E the initial segment, which includes the head, was drawn with two lines. The belly line was added after the legs had been drawn, and the body part was infilled with an elaborate line pattern.

A wider perspective

The Stone Age rock art tradition in Central Norway includes a small proportion only of the images representing cervids in Scandinavia. In the following, I deconstruct images from other Scandinavian regions (Figure 1) according to the same procedure as used for the images from Central Norway in the preceding section. The three modes dominating in Central Norway are represented all over Scandinavia, but more modes appear to be present in other regions, especially Northern Sweden and Northern Norway, which also are the easternmost regions in in the main part of the Scandinavian Peninsula. However, this study is based on a limited number of images tor demonstrate the relevance of new and different ways of classifying and studying the rock art.

Eastern Norway, like Central Norway, apparently lacks sites with large amounts of cervid images of the type found at Vingen, Western Norway (Bøe, 1930; Lødøen and Mandt, 2012), in Alta, Northern Norway (Helskog, 1989; 2012), and Nämforsen, Northern Sweden (Hallström, 1938; Larsson and Broström, 2018; Lindqvist, 1994). The images presented in this article have not been randomly chosen and thus are not statistically representative of the regions in question, but at the same time they show some other construction modes represented by images with pecked body lines, which are frequent at Nämforsen and in Alta, where they probably represent different construction modes. Some other modes are represented also in Central Norway but in very low numbers.

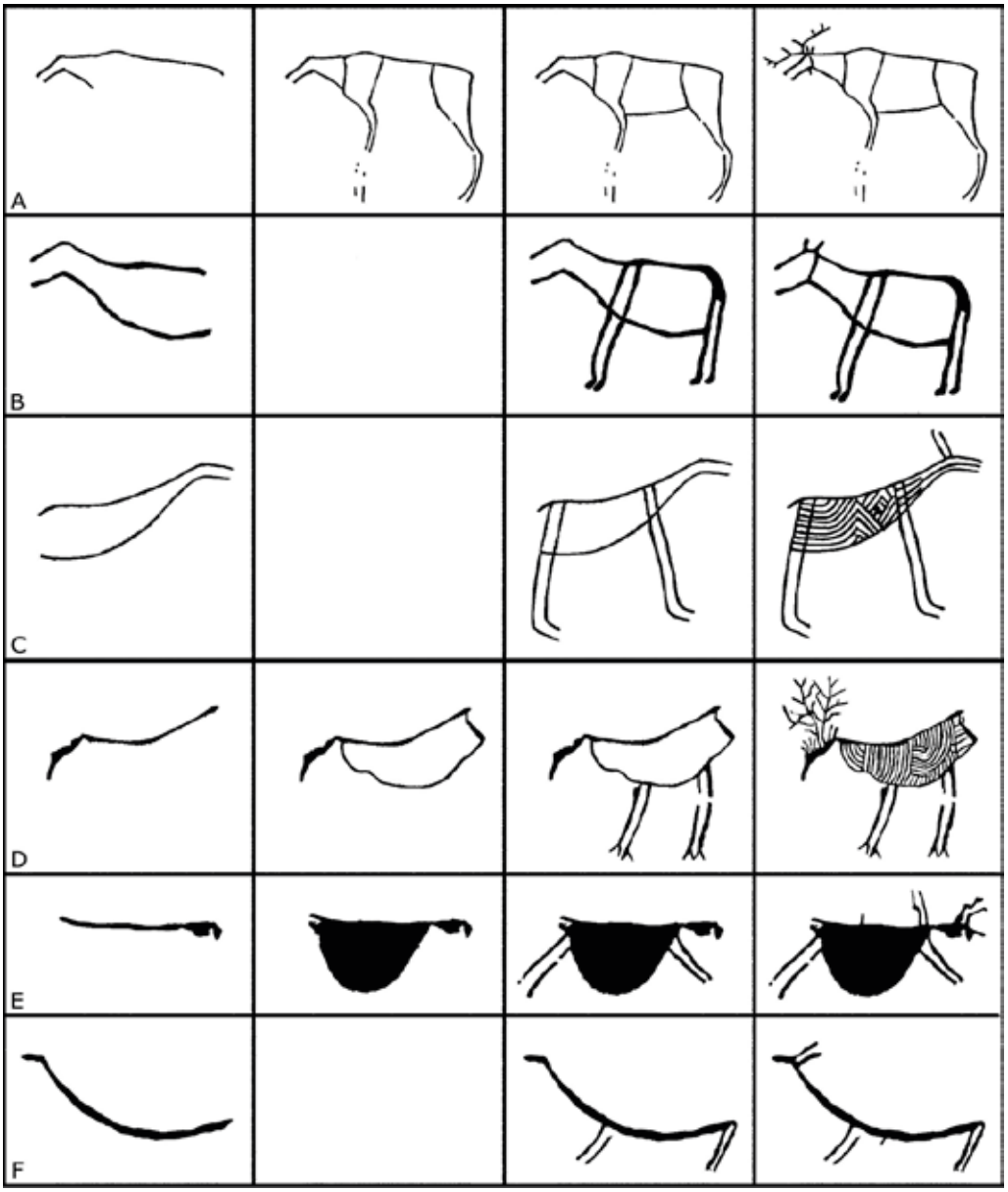

Figure 5. Constructions of cervid images from Western Norway.

Scholars have postulated that there are links between rock images found in different regions. Gjessing (1945, p. 287), following Shetelig (1922, p. 130), claimed that the origin of the smaller, 'schematic' images should be searched for in European Russia and Siberia. On a more local scale, Hallström (1938, pp. 76–77) claimed that close contacts existed between the sites at Glösa in Northern Sweden and Bogge and

Evenhus in Central Norway. Carvings found at these three sites were seen as small and 'schematic', but with a few exceptions they were constructed according to different modes – mode C at Glösa and mode B at both Bogge and Evenhus. Therefore, the comparisons are highly questionable. Helskog (2012, pp. 223) found parallels between carvings at Amtmannsnes in Alta and Holte in Trøndelag but the images at those sites, too, were constructed according to different modes (modes B and C respectively).

Mode B images in particular are common in all regions of Scandinavia but at the same time there are many differences in how the individual images were designed. In the case of cervid images from Western Norway (Figure 5) a high degree of standardisation has been found in mode B images at Vingen, in Nordfjord (Bøe, 1930; Lødøen and Mandt, 2012) – here represented by Figure 5C. The image from Forberg (5B), in Lista (Engelstad, 1934), was constructed following the same mode but looks distinctly different. The image from Vangdal (5A), in Hardanger, has been referred to as a 'contoured' style I image (Bakka, 1966; Mandt Larsen, 1972, p. 62), but it consists of separately drawn segments and should be compared with one of the two reindeer images at Hell (4D), except that the leg liness were drawn before the belly line. I classify the Vangdal image as a variant of mode B. The construction of the images shown respectively as Figures 5D–F started with single lines forming the back of the animals (mode C). In the case of two images from Ausevik (5D and 5E), in Sunnfjord (Hagen 1970), the bodies were drawn before the legs were added. Whereas the body in Figure 5D has an intricate internal line pattern, the body in Figure 5E was pecked. The body in the image from Vingen (5F) was drawn with just one line, which resembles the belly lines in Figure 5C and in many other images at Vingen.

The carvings from Eastern Norway, represented by C in Figure 1 (Engelstad, 1934; Mikkelsen, 1977; 1983), are less standardised and show greater variation compared with carvings in other regions (Figure 6); some appear to have been constructed using a mix of modes A and B. The image from Stein (6A), in Hedmark, represents mode B, as the line showing the animal's back continues as part of the hind leg. Both the image from Glemmestad (6B), in Toten, and the one from Eidefossen (6D), in Fron, follow mode B too. The image from Nordsinni (6C), in Nordre Land, and the one from Ekeberg, Oslo (6E) are difficult to classify but may represent mode B. Figure 6E represents an unusual rectilinear way of constructing the depiction, as is the case for the image from Åsveien, Drammen (6F).

The Alta sites (Figure 1D) dominate the rock art sites in Northern Norway (Helskog, 2012). However, in this article my focus is mainly on images known from other sites (Gjessing, 1932; Simonsen, 1958). The image from Åmnes (Figure 7A), in Helgeland, represents the large 'naturalistic' carvings found in northern parts of the county of Nordland. However, the antler was drawn as a separate segment. The image from

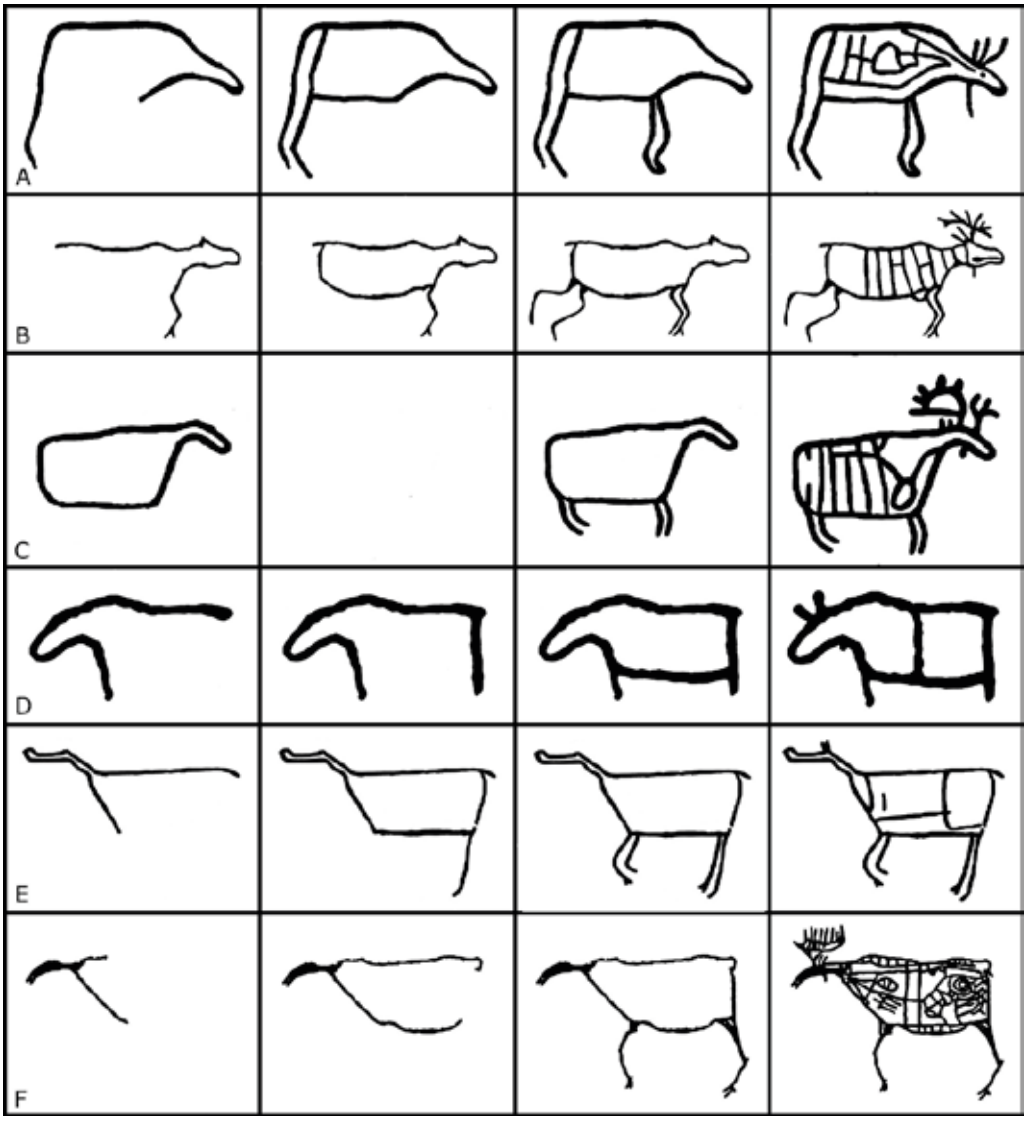

Figure 6. Constructions of cervid images from Eastern Norway.

Alta (7D) is difficult to classify but I suggest that the outline of the body was drawn following mode B before the interior of the body was pecked. (The pecked images may represent a separate mode that is not defined here.) The image from Skavberget (7C), in Troms, is an extremely schematic version of mode B. The cervid image from Alta (7D) was drawn following this mode too. In the case of the image from Leirbukt (7D), in Hammerfest, the front part of the body line was pecked. The start of construction of the carving followed mode B. Another image from Alta (7F) is a mode C image.

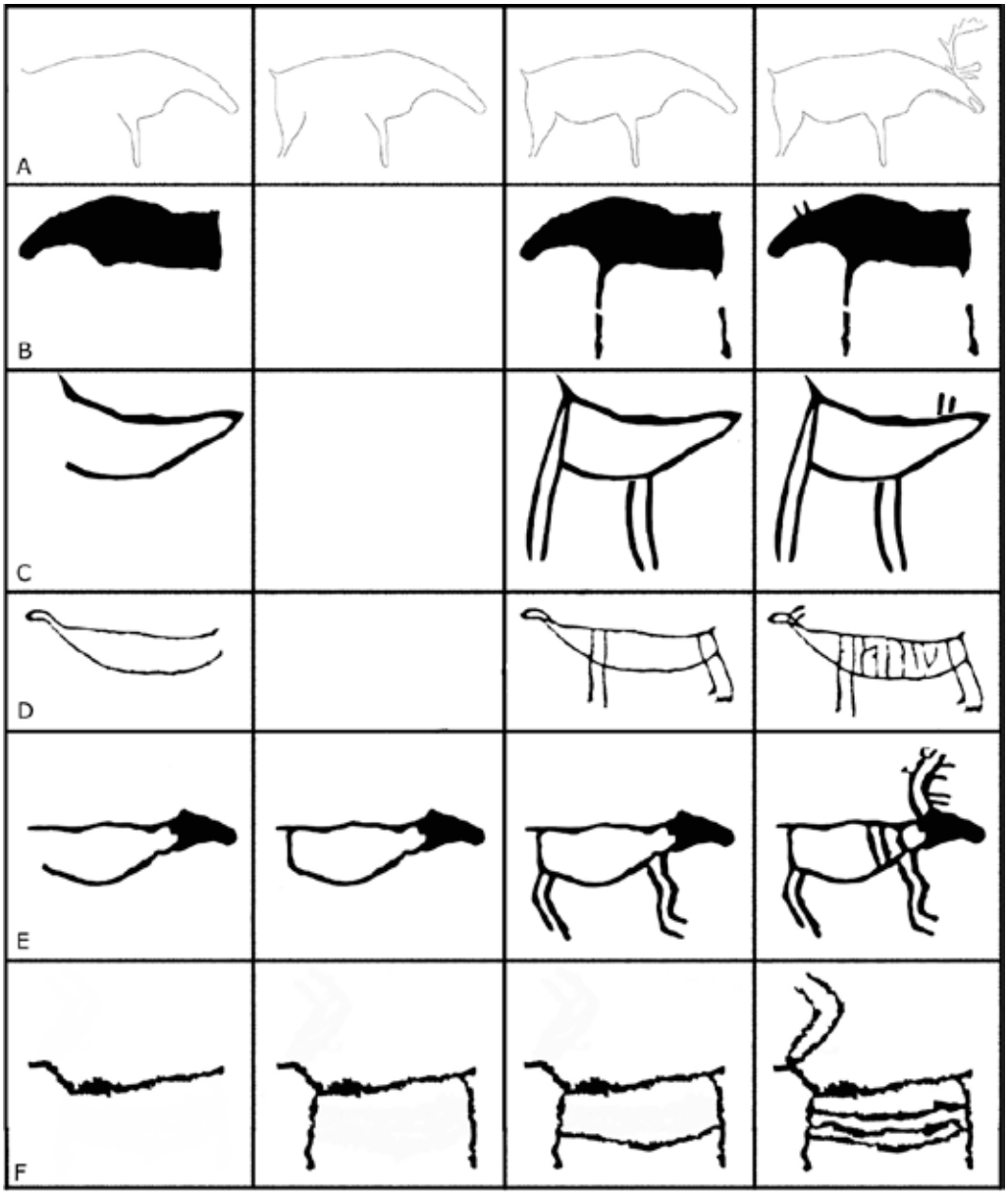

Figure 7. Constructions of cervid images from Northern Norway.

Figure 8 shows carvings from Northern Sweden (Figure 1E), and includes a full-scale elk image from Gärde (8A), in Jämtland. However, the ears were secondary additions. The record in the region is dominated by the large Nämforsen site in Ångermanland, with its more or less standardised small elk images with pecked body lines and single-line legs; these images are not analysed here. Many 'contoured' images have been found too, some of which were made according to mode A, as exemplified by Figure

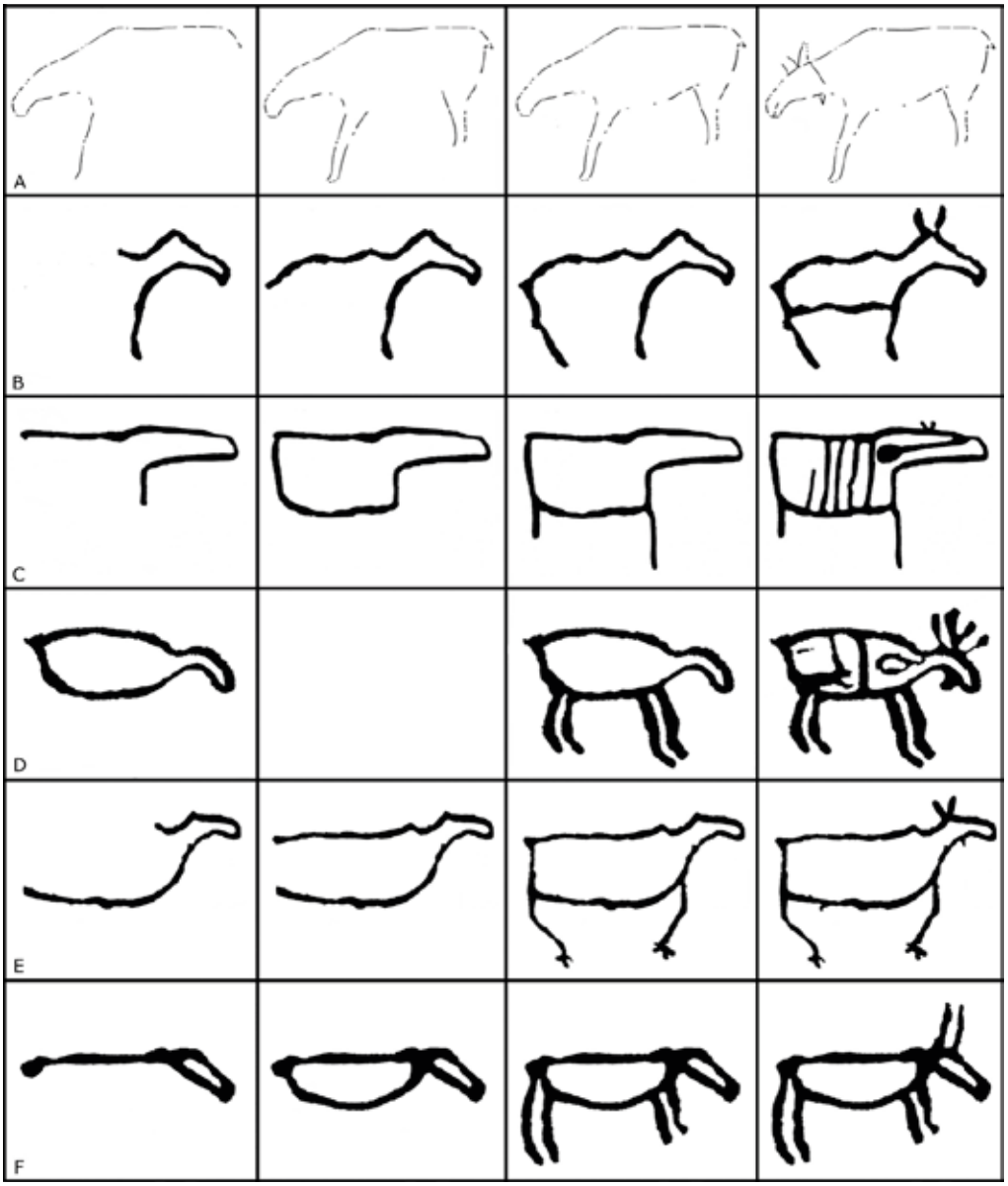

Figure 8. Constructions of cervid images from Northern Sweden.

8B. Others (e.g. Figure 8E) follow mode B. Legs drawn as single lines are characteristic of the cervid images at Nämforsen, but also for those from Stornorrfors on the Ume River farther north (Figure 8C). These sites contrast with the sites in the western parts of the Scandinavian Peninsula but similarly constructed images are known from Alta. A unique example of a mode B image has been found at Glösa (Figure 8D), where the belly and back lines end at the tail, such that the initial body segment appears like the

outline of a bird. Mode C is represented at Glösa too, exemplified by Figure 8F, which depicts a cervid with four legs characteristic of the western sites.

Mode A is represented in images at most sites in Central Norway, but seems to be rare in Western and Eastern Norway, and in Northern Norway it is mainly represented by the large 'naturalistic' Nordland style I images. The mode is also represented in Northern Sweden. Mode B may be the nearest to a standard mode for the construction of cervid images in Scandinavia. However, mode B images also show many variations, most of which are local. The Vingen images represent the ultimate expression of mode B.

From images to styles

Despite the relatively small samples of cervid images included in this study, some general trends are identifiable. Images considered to represent 'naturalistic' depictions of cervids are most common near Trondheimsfjorden in Trøndelag and in the county of Nordland, but also some large images in Jämtland were drawn following the same mode. However, the degree of 'naturalism' represented by these large images varies. Gjessing (1945, p. 262) believed that the reason for this was different skills among the individuals who made the images, and in one respect he might have been right. Although the same construction mode was followed, it seems that each 'artist' working at the sites had their unique way of designing the images in question.

The modes of construction presented in this article do not include all variations that may be identified among rock images depicting cervids in Scandinavia. Primarily, my focus is on how images belonging to the main modes were constructed, not on their appearances. The conclusion I have drawn thus far is that the style concept at the level it was used during the 20th century is not relevant. However, the concept may be relevant at a more basic level as a means to systematise differences that can be identified at secondary (or lower) mode levels, as shown in Figure 9, which includes a selection of the mode B images presented in Figures 5–8. This claim is in accordance with Stebergløkken's conclusion that styles in the Stone Age rock art tradition may be identified at a personal level (Stebergløkken 2016). However, the Figures in this article show only a limited number of the many different ways that mode B images were drawn, such as whether the animals' legs were drawn with one line only, as frequent found at Nämforsen and in Alta. This is also the case regarding the size of the depictions and their non-constructional internal line patterns.

Until c.4000 BP, Trondheimsfjorden comprised four main basins, where one site with large 'naturalistic' images is located: Bøla in the innermost basin (the present-day lake Snåsavatn). Bardal is located adjacent to Beitstadfjorden, the present-day innermost

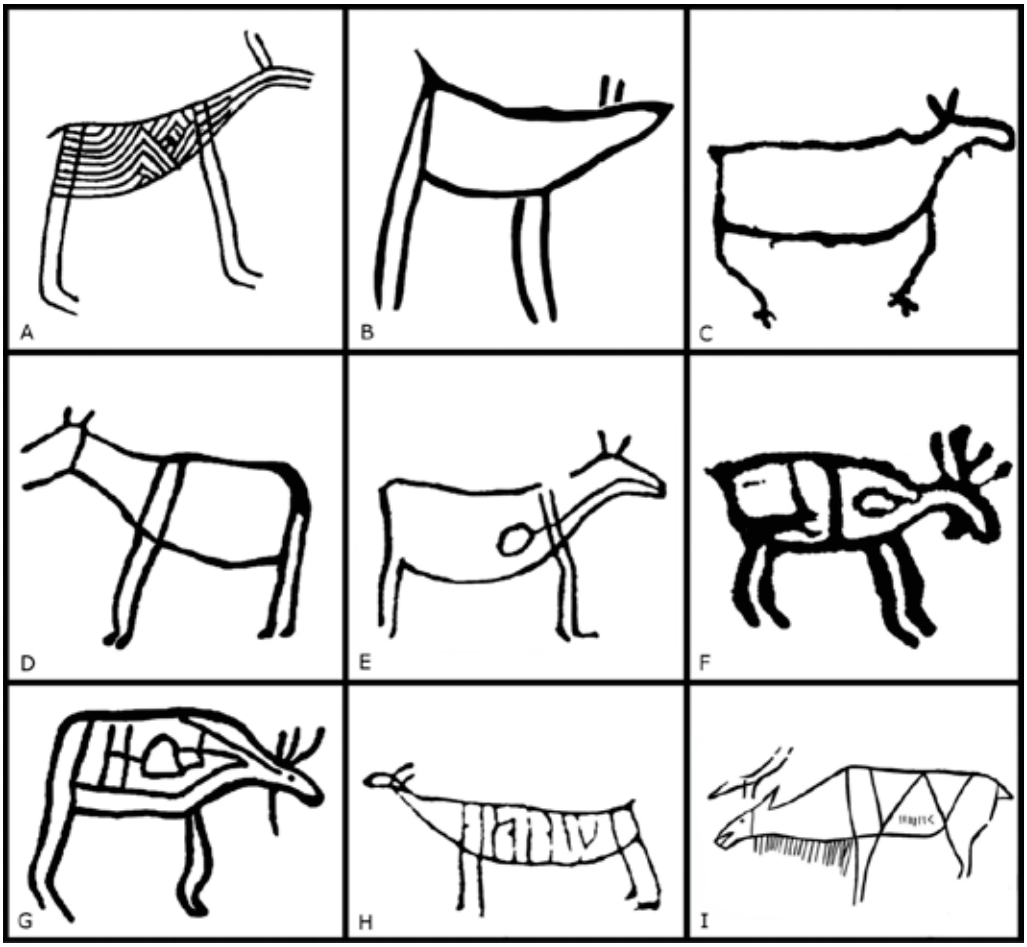

Figure 9. Mode B images drawn in different 'styles': A – Vingen, Western Norway, B – Skavberg, Northern Norway, C – Nämforsen, Northern Sweden, D – Forberg, Western Norway, E – Evenhus, Central Norway, F – Glösa, Northern Sweden, G – Stein, Eastern Norway, H – Alta, Northern Norway, I – Hell, Central Norway.

basin, whereas Stykket and Berg are respectively at the western and eastern end of the large Midtfjorden basin. The Midtfjorden basin is subdivided into two parts by the Frosta peninsula. The location of the sites at Bøla, Bardal, Stykket, and Berg – one in each of the main basins –probably was not random. They may signify a change in habitation pattern, for example when groups moved permanently from their original coastal habitats towards fjords and inland, and symbolically marked their new habitats by carving on rocks depictions of the major animals hunted in the area: elk and reindeer.

Conclusions

This article is primarily based on rock art known from Central Norway, but I have dealt with examples from other Scandinavian regions in the same way. Different techniques (pecking, polishing, incision, and painting) were used when making the rock art. What we, as researchers, observe and emphasise will depend on the level on which we make our comparisons. In recent years scholars have regarded the fixation on styles during most of the 20th century as a 'straightjacket' (Helskog, 1989; Lindgaard, 2014), and Helskog (2010) rightfully questions the emphasis on seeing images in isolation from rock surfaces and myths. Nevertheless, the appearances of individual images must have been of importance, and at many sites the images appear to reflect expressions of individuality rather than community. Where Shetelig (1922; 1925), Gjessing (1936; 1945) and Hallström (1938; 1960) saw similarities, I see differences – the images are characterised not only by their differences in size but also in the ways they were constructed.

For the vast majority of the cervid images in Scandinavian rock art 'naturalism' and/or 'realism' was irrelevant. They were constructed following a few standard procedures, which I refer to as modes. Even for the few examples of 'naturalistic' images, the use of the term 'style' may be questioned. The majority of the images were constructed following one procedure (mode B), which is represented all over Scandinavia. However, direct contacts between the makers of these images can hardly be identified. Differences in the ways the images were constructed vary between regions, but also between sites within each region. Each site appears to represent individual ways of designing the images in question.

The modes discussed in this article may represent different phases or periods. Alternatively, the many variations may be seen as representing local entities and/or meeting places where new images were made more or less regularly. This seems to have been the case particularly for the larger sites at Vingen and Nämforsen, and in Alta, but also at smaller sites such as Evenhus, where images representing other motifs were added, partly superimposed on older images. In its most extreme form, this is the case at Bardal (Gjessing, 1936; Sognnes, 2003; 2008). In most cases the earlier images were respected, also when new maritime motifs – boats, whales, aquatic birds, and fishes, as well as Bronze Age images – were added. However, at Bardal the later images deliberately defaced the older ones, in the same way as it appears that boat images do at Evenhus.

The rock art images, carvings in particular, clearly were meant to last. As such, they represent a means of communication, primarily between people living in the area when they were made. The images may also represent communication between different worlds, with the rock faces representing a membrane between the human world and the

underworld (e.g. Helskog, 1999; Lewis-Williams and Dowson, 1990). At the same time, the rock images have served as a means of communication, not only with people who visited the sites at the time when they were made but also when they were rediscovered. People of the ancient past might have known the original meaning of the images, which has been lost to us today. However, at many sites and on many panels there are later additions to the original images that might have altered the meaning of the images, as well as what was communicated between rock art and its spectators, and between past and present.

Based on this study and my earlier studies (e.g. Sognnes, 2017), I have come to reject the relevance of the style concept in the way that it has been used in research on the northern rock art tradition in Scandinavia. However, the concept may still be relevant at another level, a local one (cf. Stebergløkken, 2016). The different styles may represent local groups or bands of people with a shared focus on the larger cervids and to a lesser degree on some marine animals and oats. Probably, contacts existed between many of the groups that constructed the images by following a limited number of modes. Thus, attempts to date this rock art on the basis of styles seem irrelevant – in this case style seems to have had societal rather than temporal interest. In paraphrasing the old saying that beauty is in the eye of the beholder, we may claim that style, too, is in the eye of the beholder.

To summarise, it may be claimed that the 'northern tradition' Stone Age rock art in Scandinavia is characterised by local variations. This is especially evident in Eastern Norway (cf. Figure 6), where the creators of many images did not follow the same strict 'rules' that can be identified in other regions. Apart from the making of images on rocks, it is difficult to identify a common tradition, except for the focus on certain animal species. This argument is supported by the distribution of the rock art, as we know it today: most images are known from a few scattered regions. Exceptions to this distribution pattern have been found in Alta and at Vingen and Nämforsen. There appears to be an absence of correspondingly large sites in Central and Eastern Norway. My conclusion is that the record is dominated by differences rather than similarities. However, at the same time, certain elements are more frequent than others. First and foremost, the modes according to which the images were constructed were in particular developed at Nämforsen and in Alta, even though there are great variations in the execution of the images and modes at those sites, which I have not discussed here.

References

Adams, W. Y., & Adams, E. W. (1991). *Archaeological typology and practical reality: A dialectical approach to artifact classification and sorting.* Cambridge, England: Cambridge University Press.

Azéma, M. (2010). *L'art des cavernes en action.* Paris: Éditions Errance.

Bakka, E. (1966). To helleristningar frå steinalderen i Hardanger. *Viking, 30*, 77–95.

Bakka, E. (1973). Om alderen på veideristningane. *Viking, 37*, 151–187.

Bednarik, R. G. (2016). *Myths about rock art.* Oxford: Archaeopress.

Bøe, J. (1930). *Felszeichnungen im westlichen Norwegen 1: Die zeichnungsgebiete in Vingen und Henøya.* Bergens Museums skrifter 15. Bergen: A. S. John Griegs Boktrykkeri.

Deregowski, J. B. (1995). Perception – depiction – perception, and communication: A skeleton key to rock art and its significance. *Rock Art Research, 12*, 3–11.

Deregowski, J. B. (2005). Perception and ways of drawing: Why animals are easier to draw than people. In T. Heyd, & J. Clegg (Eds.), *Aesthetics and rock art* (pp. 131–142). Aldershot: Ashgate.

Dobrez, L. (2016). Theoretical approaches to rock art studies. *Rock Art Research, 33*, 143–166.

Elkins, J. (1999). *The domain of images.* London: Cornell University Press.

Engelstad, E. S. (1934). *Østnorske helleristninger og malinger av den arktiske gruppe.* Instituttet for sammenlignende kulturforskning, Serie B 26. Oslo: Aschehoug.

Fritz, C. & Tosello, G. (2007). The hidden meaning of forms: Methods of recording Palaeolithic parietal art. *Journal of Archaeological Method and Theory, 14*(1), 48–80.

Fuglestvedt, I. (2010). Animals, churingas, and rock art in Late Mesolithic Scandinavia. In J. Goldhahn, I. Fuglestvedt, & A. Jones (Eds.), *Changing pictures: Rock art traditions and visions in Northern Europe* (pp. 23–34). Oxford: Oxbow.

Gell, A. (1998). *Art and agency: An anthropological theory*. Oxford: Clarendon Press.

Gjerde, J. M. (2010). *Rock art and landscapes: Studies of Stone Age rock art from northern Fennoscandia.* (Dissertation for the degree Philosophiae Doctor, University of Tromsø). Retrieved from file:///C:/Users/catur/AppData/Local/Temp/thesis.pdf

Gjessing, G. (1932). *Arktiske helleristninger i Nord-Norge.* Instituttet for sammenlignende kulturforskning, Serie B 21. Oslo: Aschehoug.

Gjessing, G. (1935). Von naturalismus zur schematisierung: Neuere untersuchrungen der felsbilder in Trøndelag und Nord-Norwegen. *Jahrbuch für prähistorische und ethnographische Kunst, 1*, 5–19.

Gjessing, G. (1936). *Nordenfjelske ristninger og malinger av den arktiske gruppe.* Instituttet for sammenlignende kulturforskning, Serie B 30. Oslo: Aschehoug.

Gjessing, G. (1945). *Norges steinalder.* Oslo: Norsk arkeologisk selskap.

Guy, E. (2000). Les styles des figurations paléolithiques piquetées de la vallée du Côa (Portugal): Premier essai de charactérisation. *L'anthropologie, 104*, 415–426.

Hagen, A. (1970). *Studier i vestnorsk bergkunst: Ausevik i Flora.* Universitetet i Bergen årbok humanistisk serie 1969 (3). Bergen: Universitetsforlaget.

Hagen, A. (1976). *Bergkunst: Jegerfolkets ristninger og malninger.* Oslo: Det norske samlaget.

Hallström, G. (1907a). Hällristningar i Norra Skandinavien. *Ymer, 1907*, 211–227.

Hallström, G. (1907b). Nordskandinaviska hällristningar 1: De svenska ristningarna. *Fornvännen, 2*, 160–189.

Hallström, G. (1938). *Monumental art of Northern Europe 1: The Norwegian localities.* Stockholm: Almqvist & Wiksell.

Hallström, G. (1960). *Monumental art of Northern Sweden from the Stone Age:* Nämforsen *and other localities.* Stockholm: Bokförlaget Thule.

Helskog, K. (1989). Naturalisme og skjematisme i nordnorske helleristninger. In R. Bertelsen, P. K. Reymert, & A. Utne (Eds.), *Framtid for fortida i nord: I Povl Simonsens fotefar* (pp. 87–103). Tromsø museums skrifter 22. Tromsø: Tromsø museum, Universitetet i Tromsø.

Helskog, K. (1999). The shore connection: Cognitive landscape and communication with rock carvings in northernmost Europe. *Norwegian Archaeological Review, 32*, 73–94.

Helskog, K. (2010). From the tyranny of the figures to the interrelationship between myths, rock art and their surfaces. In G. Bundell, C. Chippindale, & B. Smith (Eds.), *Seeing and knowing: Understanding rock art with and without ethnography* (pp. 169–187). Johannesburg: Wits University Press.

Helskog, K. (2012). *Samtaler med maktene: En historie om verdensarven i Alta.* Tromsø Museums skrifter 33. Tromsø: Universitetsforlaget.

Kjemperud, A. (1981). A shoreline displacement investigation from Frosta in Trondheimsfjorden, Central Norway. *Norsk geologisk tidsskrift, 61*, 1–15.

Kjørup, S. (2001). *Kunstens filosofi: En indføring i æstetik.* Roskilde: Roskilde universitetsforlag.

Larsson, T. B., & S.-G. Broström. (2018). Presentation av hällristningsområderna. In P. Johansson, P. (Ed.), *Nämforsens hällristningar: The rock art of Nämforsen* (pp. 31–120). Näsåker: Näsåker hällristningsmuseum.

Leroi-Gourhan, A. (1965). *Préistoire de l'art occidental.* Paris: Mazenod.

Lewis-Williams, J. D., & Dowson, T. A. (1990). Through the veil: San rock paintings and the rock face. *South African Archaeological Bulletin, 45*, 5–16.

Lindgaard, E. (2014). Style: A straightjacket on hunter's rock art research? *Adoranten, 2013*, 57–68.

Lindqvist, C. (1994). *Fångstfolkets bilder: En studie av de nord-fennoskandiska kunstanknutna jägarhällristningarna.* Theses and Papers in Archaeology, New Series: A5. Stockholm: Stockholm University.

Lødøen, T. K., & Mandt, G. (2012). *Vingen, et naturens kolossalmuseum for helleristninger.* Instituttet for sammenlignende kulturforskning, Serie B 146. Trondheim: Akademika forlag.

Lorblanchet, M. (1995). *Les grottes ornées de la préhistoire.* Paris: Editions Errance.

Lossius, K. (1896). *Arkæologiske undersøgelser i 1896.* Det Kongelige Norske Videnskabers Selskabs skrifter 1896 (8). Trondhjem: xxx.

Lossius, K. (1897). *Arkæologiske undersøgelser i 1897*. Det Kongelige Norske Videnskabers Selskabs skrifter 1897 (5). Trondhjem: xxx.

Lossius, K. (1899). Antikvariske notiser fra Nordre Trondhjems Amt. *Foreningen til norske Fortidsmindesmærkers Bevaring Aarbok 1898*, 143–145.

Malmer, M. P. (1981). *A chorological study of North European rock art.* Kungl. Vitterhets Historie och Antikvitets Akademien, Antikvariska serien 32. Stockholm: Almqvist & Wiksell.

Mandt Larsen, G. (1972). *Bergbilder i Hordaland: En undersøkelse av bildenes sammensetning, deres nærmiljø og kuturmiljø*. Årbok for Universitetet i Bergen, humanistisk serie 1970 (2). Bergen: xxx.

Mikkelsen, E. (1977). Østnorske veideristninger – kronologi og økokulturelt miljø. *Viking, 40*, 147–201.

Mikkelsen, E. (1983). Mesolithic hunter's rock carvings at Geithus, Buskerud, Norway. *Ars Praehistorica, 2*, 61–86.

Morphy, H. (2005). Aesthetics across time and place: An anthropological perspective on archaeology. In T. Heyd, & C. Clegg (Eds.), *Aesthetics and rock art* (pp. 51–60). Aldershot: Ashgate.

Shetelig, H. (1922). *Primitive tider i Norge: En oversigt over stenalderen.* Bergen: John Griegs forlag.

Shetelig, H. (1925). *Norges forhistorie: Problemer og resultater i norsk arkæologi*. Instituttet for sammenlignende kulturforskning serie A 5a. Oslo: Aschehoug.

Simonsen, P. (1958). *Arktiske helleristninger i Nord-Norge II.* Instituttet for sammenlignende kulturstudier, Serie B 49. Oslo: Universitetsforlaget.

Simonsen, P. (1974). The rock art of arctic Norway. *Bolletino del Centro Camuni di Studi Preistorici, 11*, 129–150.

Sjöstrand, Y. (2011). *Med älgen i huvudrollen: Om fångstgroper, hällbilder och skärvstensvaller i mellersta Norrland.* Stockholm Studies in Archaeology 55. Stockholm: Stockholm University.

Sognnes, K. (2003). On shoreline dating of rock art. *Acta Archaeologica, 74*, 189–209.

Sognnes, K. (2008). Stability and change in Scandinavian rock-art: The case of Bardal in Trøndelag, Norway. *Acta Archaeologica, 79*, 230–245.

Sognnes, K. (2017). *The north Scandinavian rock art tradition in Central Norway.* BAR International Series 2837. Oxford: Archaeopress.

Stebergløkken, H. M. V. (2016). *Bergkunstens gestalter, typer og stiler: En metodisk og empirisk tilnærming til veidekunstens konstruksjonsmåter i et midtnorsk perspektiv.* Doctoral thesis at NTNU;2016: 38. Trondheim: NTNU.

Stebergløkken, H. (2017). Where styles meet – What does it mean? In P. Skoglund, J. Ling, & U. Bertilsson (Eds.), *North meets south: Theoretical aspects on the northern and southern rock art traditions in Scandinavia* (pp. 35–58). Swedish Rock Art Series 6. Oxford: Oxbow Books.

Sveian, H., & Olsen, L. (1984). En strandforskyvningskurve fra Verdalsøra, Nord-Trøndelag. *Norsk geologisk tidsskrift, 64*, 27–38.

Wells, P. S. (2008). *Image and response in early Europe*. London: Duckworth.

Ziegler, R. (1900). *Arkæologiske undersøgelser*. Det Kongelige Norske Videnskabers Selskabs skrifter 1900 (7). Trondhjem.

Notes to contributors

Transactions of The Royal Norwegian Society of Sciences and Letters is a multidisciplinary journal, covering subjects from sciences in broad sense. Publication is irregular, and the type of publication varies, from single articles to larger monographies and anthologies. Acceptance of large manuscripts and those containing color prints may be conditional on financial contribution from the author. Transactions is at the scientific Level 1 in the NSD register of authorised publishing channels in Norway, and is indexed in national and international databases for scientific publications.

Peer review and anonymity: All submissions will be subject to peer review. Manuscripts must therefore be anonymized by the author(s), and information about the author(s) must be given on a title page. In the paper, please omit name(s) of author(s), except when citing previous work. Self cites should always be done in the third person and in such a way that reviewers cannot identify author(s).

Title page: The title page must contain the title and the author(s) name, institution, mailing address, phone number, and email address, as well as any acknowledgements. Co-authors must be indicated. This page must also contain a statement that the manuscript has not been published or submitted for publication elsewhere, and co-authors must give their consent to publication.

Manuscript standard: Manuscripts are preferably written in a Scandinavian language or English. All manuscripts are required to have an English summary and title. Submitted manuscripts should contain the following:

- Title
- Abstract, approx. 200 words in the paper's language
- The manuscript
- Notes as footnotes. Notes should be kept to a minimum and used only for comment
- Reference list in alphabetical order
- Numbered figures and table in separate files

Tables, figures and illustrations: All figures and tables in the manuscript must be allowed published. If someone other than the author(s) has made a figure or table, the name of the source should be stated in the text. The author(s) is responsible for obtaining the permission to use earlier published illustrations. Each table/figure should be numbered, and each placing in the text should be marked.

Reference system: Transactions uses APA style for citation and referencing. Within the text, identify sources using the author-date system, e.g. Smith & Jones (2002, pp. 32–45) or (Smith & Jones, 2002, pp. 32–45). If a cited work has more than two authors, use 'et al.'. In the reference list, however, the names of all authors should be given. When citing more than one reference at a time, list them in alphabetical order, divided by semicolon. Citations in the text must agree exactly with the list of references. References must include DOI for sources that have one. Place the DOI-URL at the end of the reference. URL is used for electronic sources without DOI. Include the accessed date.

The list of references is written in alphabetical order. Examples:

- *Article in journal:* Frøland, H. O. & Hatlehol, G. (2000). Organisation Todt and Forced Labour in Norway during the Nazi Occupation: Preliminary Remarks from an ongoing Research Project. *Transactions of The Royal Norwegian Society of Sciences and Letters, 2015*(4), pp. 45–61.
- *Chapter in book:* Searchy, W. A. & Nowicki, S. (2000). Male-male competition and female choice in the evolution of vocal signalling. In Y. Espmark, T. Amundsen & G. Rosenqvist (Eds.), *Animal Signals. Signalling and Signal Design in Animal Communication* (pp. 301–315). Trondheim: Tapir Academic Press.
- *Book:* Borgen, P. (1996). *Early Christianity and Hellenistic Judaism.* Edinburgh: T. & T. Clark.
- *Thesis:* Jensen H. (2002). *Causes and consequences of individual variation in fitness-related traits in house sparrows.* Unpublished Ph.D. thesis, Norwegian University of Science and Technology, Trondheim.

Offprints: 5 offprints are supplied free of charge for each author. Additional offprints must be ordered beforehand and paid by authors.

Copyright: Authors retain the copyright of their article, but allow The Royal Norwegian Society of Sciences and Letters to copy and redistribute the material in any medium or format.

Submit your manuscript: Manuscripts are submitted as Word- or TeX-files by email to post@dknvs.no.

The Royal Norwegian Society of Sciences and Letters website: www.dknvs.no

Transactions of The Royal Norwegian Society of Sciences and Letters

The Royal Norwegian Society of Sciences and Letters was founded in 1760, and the Transactions (Skrifter) first appeared in 1761. The Transactions series is among the oldest scientific publications in the world.

Det Kongelige Norske Videnskabers Selskab ble stiftet i 1760, og Skrifter utkom første gang i 1761. Det er en av verdens eldste vitenskapelige skriftserier som fremdeles utgis.

The Royal Norwegian Society of Sciences and Letters

www.dknvs.no