



The *location* of rock pictures is an interpretive element

This paper is concerned with the landscape or the surroundings of the rock art. The location as an interpretive element will be advocated for. The rock art will be viewed in light of what has been presented as the *macro-landscape*; the location, the environment, the landscape and the *micro-landscape* of rock art: the canvas, the micro-topography, the natural features or the background of the rock art.

The aim of this paper is to demonstrate, by different examples, mainly how natural features and the environment are incorporated in and could be meaningful for the location of rock art. This could show that what we regard as natural features or environment might have been part of or a cultural landscape to them. This will be shown by several case studies at the end of the paper where the micro-landscape in relation to rock art will be prioritized. The case studies are all dated to the Stone Age and are from various sites in northern Fennoscandia with a main focus on Northwest-Russia.

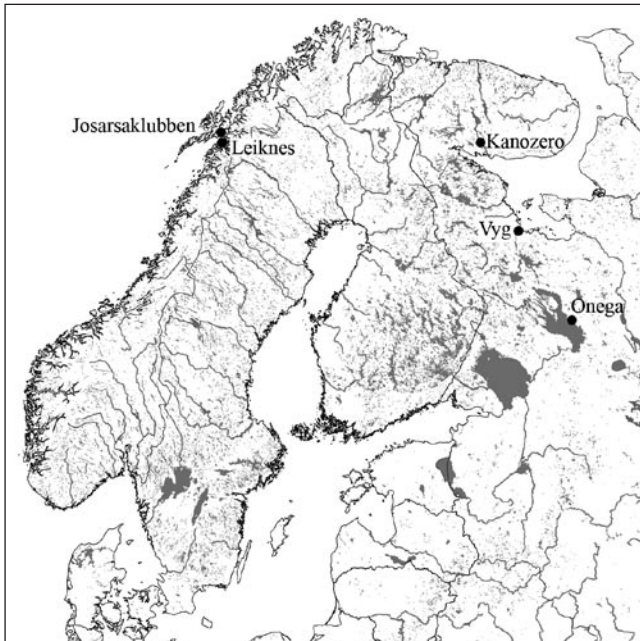


Figure 1. Map of northern Fennoscandia.

Landscape

Landscape is a problematic term within archaeology and other related disciplines; it both invites and defies definition. During the past years, landscape has become a darling with suffixes. We have an abundance of “landscapes” where the word landscape more or less has become a “frosting”. Adding to this, the “-scapes” have multiplied in search of a better word. However some researchers see the ambiguity of the concept as fruitful; it can be useful as a tool to keep different research disciplines together: “... it is the very fullness and ambiguity of the concept of landscape that makes it so useful and helps span the gaps that might otherwise exist between a number of disciplines. The thread that binds geography, archaeology and anthropology together around the theme of landscape is the notion of history that can be derived from it” (Gosden & Head 1994:115 f).

A variety of approaches can be seen in the many uses of the term “landscape” in archaeology. Preucel and Hodder list four such approaches to studying prehistoric landscapes. They see these approaches as a gradation of views, from landscape as natural to the landscape as cultural.

- The first of their approaches is “landscape as environment”. These studies involve the reconstruction of specific environments. They deal with what was out there that past people had to live and adapt to.
- The second approach they termed “landscape as system”. These studies refer to the need to place sites within an overall pattern (of sites and off site activities).
- The third approach is “landscape as power”. This approach regards the landscape as ideologically manipulated in relations of domination and resistance.
- Their fourth approach is “landscape as experience”. The term landscape can be taken to refer to how the environment was perceived and imbued with meaning (Preucel & Hodder 1996:32 f).

Lately several researchers have convincingly shown the weakness of the two first approaches for leaving aside the cosmology, myths and symbolism that give meaning to the natural landscape; advocating the use of aboriginal knowledge of landscape and landscape use where we try to remove ourselves from the Western “gaze of nature” (see e.g. Arsenault 2004a:71 ff; Smith & Blundell 2004). An increasingly popular approach to landscape archaeology during the later years is the phenomenological approach. This approach lies within the above mentioned fourth approach, where the individual experience and the perception of landscapes have been central. The approach has a strong foundation in British archaeology. Experiences of Neolithic and Bronze Age monuments within a “domesticated” landscape are presented and regarded to have been central in the past (i.e. Bradley 1993; Thomas 1996; Tilley 1994). The works of Tilley (1994, 2004) and Ingold (2000) have inspired a great number of studies where experience of the landscape has been central. The common factor within all these early studies of experience is that they view and study monuments in relation to landscape and how we perceive the monuments “today”, and thereby how people in the past could have perceived and included them in their lives. Hence they left out the archaeology of natural places and how natural features were included, applied and perceived by people in prehistory. An introduction to how nature or natural places could have had meaning was presented by Bradley in 2000, complementing his previous work where monuments were the main focus (compare Bradley 1998, 2000).

The concepts and idea of landscapes are particular ways of expressing conceptions of the world and they are also a means of referring to physical entities. The same physical landscape can be seen in many different ways by different people, at the same time (i.e. Meinig 1979) or by different groups or societies (Franklin & Bunte 1994). During my fieldwork in northwest Russia we drove past a river. I was told to pay special attention to “the big water-fall”. I looked out the window. We stopped, and I could still not see the water-fall. When they explained where it was I could see a stronger stream and a drop of ca. 1m in the river. Based on my experience, this is not a “water-fall”. The definitions of the physical landscape, or what we pay attention to within a landscape, will vary in relation to past experience and cultural context. In other words what might be conspicuous for one person might not be so for another person perceiving the same landscape or landscape feature.

Is the location of rock pictures an interpretative element?

In the 1970's, Gro Mandt was one of the pioneers within landscape studies and rock art (Mandt 1972, 1978). One might define Mandt's early studies as belonging to Preucel and Hodder's (1996:32 f) first and second approach that can be seen as complementary (Arsenault 2004a). She studied the rock art of Western Norway (mainly agrarian rock art) within what she subjectively defined as four different topographical and ecological zones: the coastal zone, the farm zone, the mountainside zone, the high mountain zone. One of the hypotheses tested was whether there was an agrarian connection to the “agrarian” rock art. If this connection was present the rock art would have been located in the “flat terrain of the farm zone”. During her analysis of the Bronze Age agrarian rock art, Mandt comes to the conclusion that the: “Connection with the sea is a characteristic feature of the location of the West-Norwegian image-localities” (Mandt 1978:181). When it comes to location, Mandt states that: “Since the main subject of this contribution is whether location is an interpretive element, the motif will not be considered here” (Mandt 1978:172). Within rock art studies, I think we gain more information when it comes to the location as an interpretative element if we consider the relation between the location and the motifs. Mandt is highly aware of this and has been concerned with this topic in her later works (Mandt 1998). Her approach is clearly within Preucel & Hodder's (1996:32 f) third and fourth approach to the landscape where a gendered perspective and the experience of a landscape is presented. Mandt sees the area surrounding the rock carvings in Vingen as a very special place. This impression is emphasized by the dramatic landscape: the narrow fjord, the steep and unapproachable mountains. In Mandt's own words: “Could it be that the landscape itself – the whole scenario of the surroundings – holds the clue to understanding why Vingen was chosen as a site suitable for the production of rock art in the first place?” (Mandt 1998:220). Interpreting Vingen as a sacred place using Eliade's concepts, she sees two aspects of the landscape that may have characterized Vingen as a powerful and potent place. Firstly, Hornelen, a *large mountain formation* that is a massive landmark along the coast of Norway. Secondly, *the entire layout of the Vingen landscape* where she sees the narrow fjord surrounded by the steep hillsides, and, at the bottom of the fjord, the waterfall cascading from the high mountains. Mandt sees this as: “... nature's representation of the female body: the narrow fjord imitates the birth canal between the woman's “thighs” – the hillsides and the water of life is streaming from above. And in clear view from the enclosed Vingen space is Hornelen, its peak (like a phallus) stretching right into the firmament” (Mandt 1998:221).

One might agree or disagree with Mandt's experience of the Vingen site. However, it is her experience, based on several visits to Vingen during the past 20 years or so. Lately a strong critique of the "current" landscape approaches has been put forward by Benjamin Smith and Geoffrey Blundell (Smith & Blundell 2004). They claim that archaeologists are moving on dangerous ground and that we are too focused on large topographical features. This makes us miss the "small features" within the landscape that are more important according to their ethnography (*ibid*:248). "..., if phenomenological approaches are to live up to the promise of a "new perspective, it is precisely these elements we need to consider if we are to avoid simply imposing the Western gaze on the archaeological record" (*ibid*:248). However, in Scandinavia we do not have the luxury of such rich ethnographic data with direct link to the rock art, so to get closer to an interpretation of landscapes in the past we have to look at how indigenous people perceived and lived in landscapes. From the Sámi ethnographic record on sacrificial places, we know that: "One of the characteristic features of such sacrificial places is their location on outstanding formations in the landscape, implying that choice of location was primarily governed by topographical conditions" (Mulk 1994:125). The majority of holy places known today are found on or close to hills or mountains, on islets or places in the lakes, close to waterfalls or on meadows or heaths (Manker 1957:23). The Sámi ethnographic record shows that a kind of animism was practiced and that every object, small or large, could be laden with meaning and stories (Mulk 1994). Rock art has also been found associated with Sámi sacred places (i.e. Bayliss-Smith & Mulk 1999; Simonsen 2001:48). Therefore I find it justified to study the major topographical features in a landscape as well as small topographical features in relation to perception and meaning within northern Fennoscandian landscapes in the past.

Macro Landscapes

The most evident common location criterion for rock art from northern Fennoscandia is that it is coastal and shore-bound. This has been shown for the majority of the rock art sites in northern Fennoscandia (Bakka 1973; 1975; Baudou 1993; Forsberg 1993, 2001; Helskog 1988, 1999; Hesjedal 1994; Savvateyev 1970). Helskog has recently presented a cosmological explanation for the shoreline connection (Helskog 1999:76ff). Sognnes (2003, 2004) is also in favour of the shoreline connection, however he tries to be more careful when he says that we have to include the local topography and that the relation between the rock art and the shoreline at some sites can be questioned.

When looking at the location of the large rock art sites of northern Fennoscandia, quite a number are placed at or nearby conspicuous landmarks or "special locations" in the environment, like mountains, water-falls etc. such as in Vingen, Nämfosén and Vyg, that could have been meaningful for the location of the rock art (e.g. Goldhahn 2002; Mandt 1998).

The most striking of these is most likely Nämforsén in middle Sweden. Joakim Goldhahn has looked at the audiovisual aspect at the rock art sites. He finds that ca. 33% of the rock engraving sites in northern Scandinavia are located next to noisy running water and argues that the interplay between the auditory sense and the visual experience of the landscape could be the reason for the location of rock art sites (Goldhahn 2002). It has also been argued that the rock art sites are located at central places in the landscapes (e.g. Hood 1988), along communication routes etc. (e.g. Nash 2000).

Micro-Landscapes

Supported by ethnography, the rock surface has been interpreted to be laden with meaning and sometimes as a visual representation of the landscape (Lewis-Williams & Dowson 1990; Ouzman 1998; Nash 2002; Helskog 1999, 2004; Keyzer & Poetschat, 2004). According to San belief the rock face constitutes an interface between this world and the spirit world (Lewis-Williams & Dowson 1990). Similar observations have been presented for the Algonkian rock art in northern America. Cracks, crevices and cave entrances in cliffs and rocks served as passageways for these spiritual beings (Arsenault 2004b:299 ff). Knut Helskog has shown that the topography and the natural features related to the rock art may also represent a ritual or a physical landscape (Helskog 2004). The interpretation of such phenomena in rock art can be very subjective, but it is a reappearing phenomenon at many places: from applying natural cracks to the motif/figure or striation marks from the ice age to the use of water pools as “lakes”, running water as rivers. In other words the selection of the surface might be the reason why the motif, scene or composition is located exactly where it interacts with the rock surface.

Documentation of rock art - what you see is what you get

My first experience with rock art documentation was the 1995 rock art summer course held by the Scandinavian Society for Prehistoric Art in Tanum, Sweden. The main focus of this course was to document the figures. Later that year I got the opportunity to join Gro Mandt and Kirsti Hauge Riisøen on a field-course in rock art documentation, preservation and conservation in Vingen, Western Norway. Through several visits to Vingen the following years, I remember questioning the thorough documentation of the rock surface where we traced every crack and feature on the rock surface in relation to the rock art. The main aim was to document the damage for conservation purposes as well as the fact that when you document the cracks in relation to figures you can more easily find the figures later. This had helped Mandt in Vingen. However, Mandt stressed that the quartz-veins and other “information” in the rock surface should also be documented. They could be meaningful. Inter-visibility between panels and topographical features that could be seen from the panel were also accounted for. At Ausevik, Western Norway, all the “damage” to the rock art from cracks to larger natural features was drawn onto the tracings to show the damage to the rock surface and thereby the rock art. The main aim for this was to document it in relation to conservation; however, this information could also be important for the interpretation of the rock art.

Gustaf Hallström had already in the beginning of the 20th century noticed that the natural lines, cracks and hollows in the rock surface were applied when making the rock art (Hallström 1907:185; Hallström 1908:55). Hallström regarded this as the artists being cost efficient rather than applying the natural features for other reasons. Documentation of rock art until the 1990's was mainly based on achieving the most accurate reproduction of the cultural image, thereby distinguishing it from the natural background. However, new research has interpreted the rock surface to be part of the “story” told and could be laden with meaning and stories.

Case Studies

I have had the opportunity to visit the majority of the rock art sites in northern Fennoscandia. Several short case studies from various sites will show how different parts of the rock surface or the surroundings could have been interwoven into the rock art “story”. I am aware of the fact that some of these interpretations can be subjective. We also need to keep in mind that

the rock surface and the landscape are only two of the innumerable factors that might have guided people in the past to locate the rock art where it is found today.

Anything from cracks, glacier-striation marks, layering in the rock, running water, water-pools, difference in elevation, different rock types (different colours in the rock, quartz-veins etc.) or inclination could have had meaning to the people making the rock art at exactly that location in the rock surface. The case studies will move from the tiniest crack making up part of a feature of an animal to the location of sites in relation to the physical landscape.

At the site Josarsaklubben, northern Norway, the life-size reindeer is quite impressive where it stands on a vertical cliff moving towards the river close by. One can see this reindeer at least 100 meters from the site, as a signpost in the landscape where the “white” polished line making up the reindeer stands in bright contrast to the rest of the panel and the surroundings. Quite a few of these polished rock art sites would have been seen from quite a distance in prehistory when approaching them, preferably by boat or moving on land. In this way the rock art would be a signpost in the landscape. Today the landscape has changed and left this figure ca 50 meters above sea level, assuming it was shore bound. There is only one crack on the panel. This crack makes up the mouth of the reindeer (see Fig. 2). Could this be a coincidence?

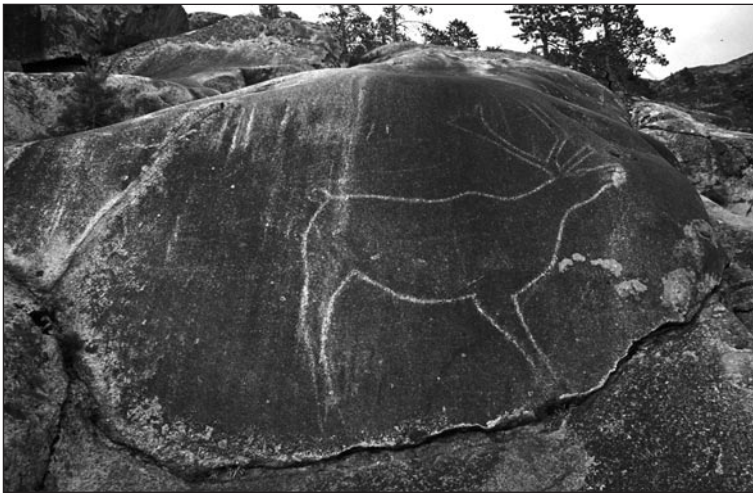


Figure 2. *The reindeer at Josarsaklubben. Photo: J. M. Gjerde.*

On one of the panels at Leiknes, northern Norway, a rare motif in Norwegian rock art is depicted, the swan. One swan figure was documented by Hallström (1938:pl. 6), and Gjessing found two swans superimposed on each other (Gjessing, 1932:pl. IX). Revisiting Leiknes, one can see that the two swans are placed deliberately on top of each other even though there is plenty of space for them on the rest of the panel. A large quartz-vein runs over the rock through the lower parts of the swan depictions. If one looks at how the swans move on the water, these two swans could be the representation of a swan swimming on water. The technique of depicting the swans on top of each other could be seen as a movement, like an early cartoon effect. This could be the earliest attempt of animation in the rock art of northern Fennoscandia (Fig. 3).



Figure 3. *The swans at Leiknes 2. Photo: J. M. Gjerde.*

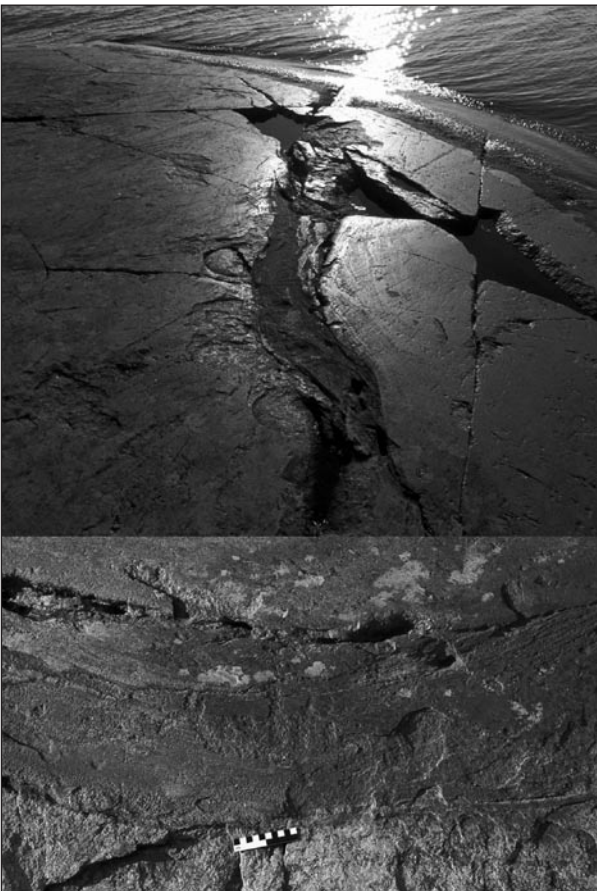


Figure 4. *The "river" at Peri Nos. Photo: J. M. Gjerde.*

On one of the panels at Peri Nos, Onega, NW Russia, one can see a thick line of “black” rock in the red granite (Fig. 4). This line is bending and twirling down towards the lake. Only one motif is depicted in the black rock, a boat. The boat has its stem facing towards the lake. The black line could represent a river going into the lake. As the nearest river, ca 2km away is called The Black River (Chornaya) this becomes more interesting. The river is black due to colouring from the black soil. Here we see how the different colouring in the rock or the different rock type might have been the reason why the boat is made exactly where it is. In addition, it might be a reference to the physical landscape, the river.

At the main panel of rock art at Kammeny, Kanozero, NW-Russia one can see one of the most impressive scenes in rock art from northern Fennoscandia. The scene is that of a skier hunting a bear by following the bear tracks (Fig. 5). The animation of the skier and the scene is further strengthened by the rock art. The skier leaves ski tracks up the hill. A few times he puts his skiing pole into the snow. When he is standing at the “top” of the hill one can see that he leaves marks in the snow when he turns his skies preparing for the downhill. Here he also leaves a few marks from the skiing-pole. In the beginning after he has turned and prepared for the downhill, he leaves a mark in the snow on his right side when he is steering with the skiing pole. The skier stops. He leaves his skies behind and walks a few steps further down the hill where he kills the bear. “Apparently he lived to tell the story”. A similar skiing scene telling the story of an elk-hunt, where the inclination of the rock is part of the story is present at New Zalavruga, Vyg, northwest Russia.



Figure 5. Tracing of the site Kammeny 7. The ski-hunting scene in question can be seen on the right part of the panel. The figures are **scooped out**; however they are not filled in on the tracing. The hunting scene presented superimposition a Beluga whale-hunting scene. Tracing and photo: J. M. Gjerde.

A large whale-hunting scene is found at New Zalavruga 8, Vyg, NW-Russia (Fig. 6). There is also a man hunting an elk with bow and arrow, two rows made up by three bears, a single whale, two spears or harpoons, a swan and a seabird and anthropomorphs. The main scene consists of six boats hunting a Beluga Whale. The people in the boats have all harpooned the whale, hanging after it. One can see 32 anthropomorphs standing in the boats. The

whale hunting visualized at New Zalavruga 4 and New Zalavruga 13 where the boats are surrounding the whale and the rock surface is virtually flat, can indicate that most likely the hunt was conducted in the estuary, in the bays or at open sea (at least in slow running water). The inclination of the panel where the whale hunting scene is depicted is c. 10°. The area where the scene is made has virtually always got water calmly running over the area where the maritime motifs are. This means that the scene could be made there due to the inclination and the running water that could visualize the river. A likely interpretation is that the whale hunting scene at New Zalavruga 8 took place in the river estuary or in the river where the boats were driven behind the whale by the stream or small rapids while the hunt took place.

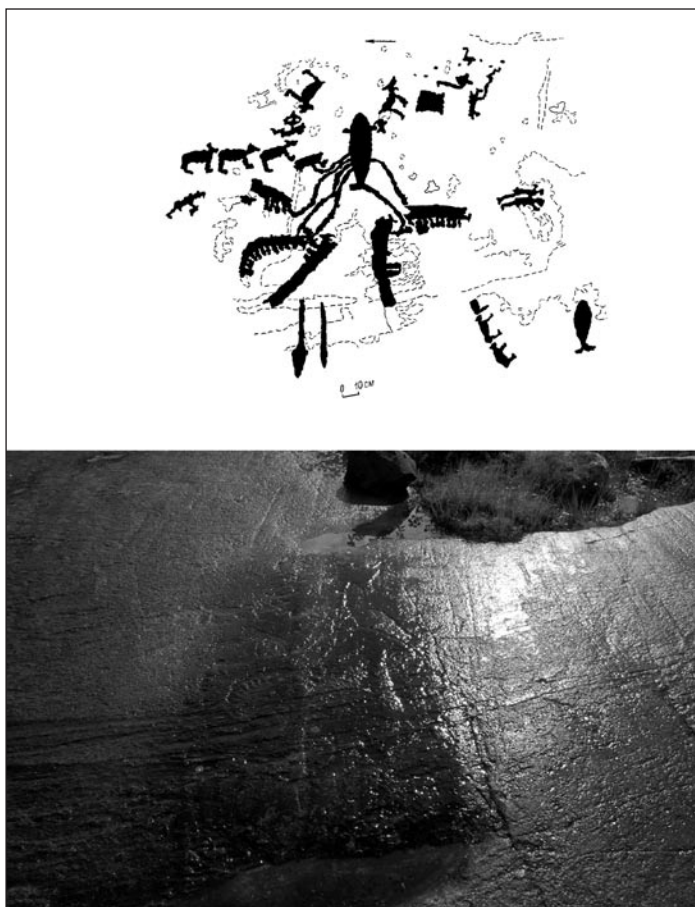


Figure 6. Tracing of New Zalavruga 8 (Savvateyev, 1970:fig.48). Illustration and photo: J. M. Gjerde.

Finally I will show how the motifs can have a direct relation to the macro-landscape. The topographic situation in the McKenzie River Delta area in Canada (McGhee 1974) and the Vyg area, NW-Russia, shows a striking topographic resemblance. The area is made up by a massive river estuary with narrow streams, also divided into a complex of narrow channels running between shoals, bars, and small islands or islets. With a raised sea-level, the bay between the sites below the Shoirukshin waterfalls (strong rapids) would have been a “natural” whale trap.

The waterfalls would be a major obstacle, stopping the Beluga whales from going further upstream (Fig. 7). The evidence for a direct connection between the topographic situation and the actual presence of beluga and beluga hunting is strengthened by the distribution of the motifs. The panels at Jerpin Pudas 3, Besovy Sledki North and Besovy Sledki South include beluga and beluga hunting scenes, while the rock art site at Jerpin Pudas 1 only include one depiction of a single beluga whale. Jerpin Pudas 2 is made up by elk depictions and possibly a human figure and a small swan. The rock art panels that are not facing the hunting places do not have representations of the actual whale hunt. There seems to be a visualization of the whale hunt where it actually happened. For this place this means that there is a “direct” link between the place of action and the action in the rock art. For a more detailed account of the Vyg landscape and its interpretation (see Gjerde *in prep*).



Figure 7. Beluga Landscapes at Vyg, NW-Russia. The Besovy Sledki/Jerpin Pudas area. Base map modified, altered and added information from Ravdonikas, 1938:14, plate 4. The different sections in tracing nr. 1 (Jerpin Pudas 1) is put together in Photoshop (Ravdonikas 1938:plate 20). Tracing nr. 2 (Jerpin Pudas 2) is made from photo with scale in Photoshop. Tracing nr. 3 (Jerpin Pudas 3) is from Savvateyev 1977:72 figure 15. Tracing nr. 4 (Besovy Sledki North) is a section of the panel from Ravdonikas, 1938:plate 22. Tracing nr. 5 (Besovy Sledki South) is a section from Ravdonikas, 1938:plate 32. All the tracings are made into a comparable size. The scale under each tracing is a total of 40 cm. Illustration: J. M. Gjerde.

Concluding remarks

I have shown that natural features interplay with the rock art on different levels. The various examples show that a variety of natural features, from the tiniest crack to larger topographical features, interact with the rock art. Natural features and the surroundings could be the reason why the rock art is located where it is. In other words, the location of rock pictures is an interpretive element.

We should be very cautious when it comes to interpreting the micro-landscape within rock art. It is important that one is aware of the changes within the rock surface and the micro-landscape. I think it is virtually impossible to conduct studies of micro-landscapes through photos and / or tracings. One needs to look at the rock art in a different light and with a wider aim when it comes to documentation. The rock art should be studied *in situ*, preferably over time or through re-visiting. The weathering of the rock-surface, the disappearance of bits and pieces, new cracks or vegetation change through time could give us flawed interpretations.

However, through new documentation it is evident that we can get new interpretations of rock art. When it comes to the location of rock art it seems like countless different factors have influenced the placing of rock art. Studying different levels of landscape in relation to rock art can help us take a step towards a better understanding of the location, the landscape and some of the meaning embedded in the rock art.

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Summary

"The location of rock pictures is an interpretive element"

Revisiting some of Gro Mandt's work on rock art reveals that she was one of the pioneers when it comes to locational studies and rock art. Later she revisited Vingen with the wider landscape in mind.

Within the last decade or so, "landscape studies" have become central within rock art research. This has triggered a new way of studying the rock art. We need to look upon the relation between the topographical features at different levels in relation to the rock art. Evidence points to the fact that the location of "rock pictures" *is* an interpretive element and can be laden with meaning. We have to study the rock art in relation to the macro-landscape and the micro-landscape.

How the macro-landscape and the micro-landscape can be central to the location of the rock art will be shown through different case studies from northern Fennoscandia.

References

- Arsenault, David. 2004a. Rock art landscape and sacred places: attitudes in contemporary archaeological theory. In: Chippindale, C. & Nash, G. (eds.) *The Figured Landscape of Rock-Art. Looking at Pictures in Place*: 69-84. Cambridge.
- Arsenault, David. 2004b. From natural settings to spiritual places in the Algonkian sacred landscape: an archaeological, ethnohistorical and ethnographic analysis of Canadian Shield rock-art sites. In: Chippindale, C. & Nash, G. (eds.) *The Figured Landscape of Rock-Art. Looking at Pictures in Place*: 289-317. Cambridge.
- Bakka, Egil. 1973. Om alderen på veideristningane. *Viking*. Oslo.
- Bakka, Egil. 1975. Geologically dated rock carvings at Hammer near Steinkjer. *Arkeologiske Skrifter fra Historisk Museum i Bergen* 2: 7-49.
- Baudou, E. 1993. Hällristningarna vid Nämforsen – datering och kulturmiljö. In: Forsberg, L. & Larsson, T.B. (eds.) *Ekonomi och näringsformer i nordisk bronsålder*. Studia archaeologica umensis 3: 245-261.
- Bayliss-Smith, T. & Mulk, I.-M. 1999. Sailing boats in Padjelanta: Sámi Rock Engravings from the Mountains in Lapponia, Northern Sweden. *Acta Borealia* 16: 3-41.
- Bradley, R. 1993. *Altering the earth. The origins of monuments in Britain and Continental Europe*. Edinburgh.
- Bradley, R. 1998. *The Significance of Monuments. On the Shaping of Human Experience in Neolithic and Bronze Age Europe*. Routledge. London.
- Bradley, R. 2000. *An Archaeology of Natural Places*. Routledge London.
- Franklin, R. & Bunte, P. 1994. When sacred land is sacred to three tribes. San Juan Paiute sacred sites and Hopi-Navajo-Paiute suit to partition the Arizona Navajo Reservation. In: Carmichael, D. L., Hubert, J., Reeves, B. & Schanche, A. (eds.) *Sacred Sites, Sacred Places*. Routledge: 245-258. London.
- Forsberg, L. 1993. En kronologisk analys av ristningarna vid Nämforsen. In: Forsberg, L. & Larsson, T.B. (eds.) *Ekonomi och näringsformer i nordisk bronsålder*. Studia Archaeologica Umensis 3: 195-245.
- Forsberg, L. 2001. The Social Context of the Rock Art in Middle Scandinavia During the Neolithic. In: Antero, K. (ed.) 2000. *Myanddash. Rock Art in the Ancient Arctic*. Arctic Centre Foundation. Rovaniemi: 50-87. Finland.
- Gjerde, J.M. *in prep.* Beluga Landscapes. Rock Art and Landscapes in the Vyg area, NW-Russia. In: Forsberg, L. & Walderhaug, E. (eds.) *Art and Cognition in the Northern Landscape*. Bergen.
- Gjessing, G. 1932. *Arktiske Helleristninger i Nord-Norge*. Institutt for Sammenlignende Kulturforskning. Oslo
- Goldhahn, J. 2002. Roaring Rocks: An Audio-Visual Perspective on Hunter-Gatherer Engravings in Northern Sweden and Scandinavia. *Norwegian Archaeological Review* 35 (1):29-61.
- Gosden, C. & Head, L. 1994. Landscape – a usefully ambiguous concept. In: White, P. (ed.) *Archaeology in Oceania*. 29(3):113-116.
- Hallström, G. 1907. Nordskandinaviska hällristningar. *Fornvännen* 2 Årgången 160-189. Stockholm.
- Hallström, G. 1908. Nordskandinaviska hällristningar. II De norska ristningarna. I *Fornvännen* 3 Årgången, 49-86. Stockholm.
- Hallström, G. 1938. *Monumental art of Northern Europe from the Stone Age*. The Norwegian Localities. 2 volumes, text and plates. Stockholm.
- Helskog, K. 1988. *Helleristninger i Alta. Spor etter ritualer og dagligliv i Finnmarks forhistorie*. Alta Museum, Alta.
- Helskog, K. 1999. The Shore Connection. Cognitive Landscape and Communication with Rock Carvings in Northernmost Europe. *Norwegian Archaeological Review* 32(2):73-94.
- Helskog, K. 2004. Landscapes in rock-art: rock-carving and ritual in the old European North. In: Chippindale, C. & Nash, G. (eds.) *The Figured Landscapes of Rock-Art. Looking at Pictures in Place*: 265-288.
- Hesjedal, A. 1994. The hunters' rock art in northern Norway: problems of chronology and interpretation. *Norwegian Archaeological Review* 27:1-14.
- Hood, B.C. 1988. Sacred Pictures, Sacred Rocks: Ideological and Social Space in the North Norwegian Stone Age. *Norwegian Archaeological Review* 21(2): 65-84.

- Ingold, T. 2000. *The Perception of the environment. Essays in livelihood, dwelling and skill*. Routledge, London.
- Keyser, J.D. & Poetschat, G. 2004. The canvas as the art: landscape analysis of the rock-art panel. In: Chippindale C. & Nash, G. (eds.) *The Figured Landscapes of Rock-Art. Looking at Pictures in Place*: 118-130.
- 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.
- Mandt Larsen, G. 1972. *Bergbilder i Hordaland*. Årbok for Universitetet Bergen, Humanistisk Serie 1970:2. Bergen.
- Mandt, G. 1978. Is the location of rock pictures an interpretative element? In: Marstrander, S. (ed.) *Acts of the international symposium on rock art*. Institutt for sammenlignende kulturforskning. Serie A. XXIX: 170-184.
- Mandt, G. 1998. Vingen Revisited. A Gendered Perspective on "Hunters" Rock Art. In: Larsson, L. & Stjernquist, B. (eds.) *The World-View of Prehistoric Man*. Kungliga Vitterhets Historie och Antikvitets Akademien: 201-224.
- Manker, E. 1957. *Lappernas heliga ställen*. Stockholm
- McGhee, R. 1974. *Beluga hunters: an archaeological reconstruction of the history and culture of the Mackenzie Delta Kittigaryumiut*.
- Meinig, D.W. 1979. The Beholding Eye. Ten Versions of the same scene. In: Meinig, D.W. (ed.) *The Interpretation of Ordinary Landscapes. Geographical Essays*, 33-48. Oxford.
- Mulk, I.-M. 1994. Sacrificial Places and their meaning in Saami society. In: Carmichael, D.L., Hubert, J., Reeves, B. & Schanche, A. (eds.) *Sacred Sites, Sacred Places*: 121-131. Routledge, London.
- Nash, G. 2000. Defining a Landscape/place – Rock Art as Boundary of Cultural and Socio-Political Identity: A Norwegian Perspective. 1-16. In: Nash, G. (ed.) *Signifying Place and Space. World perspectives of rock art and landscape*: BAR International Series 902.
- Nash, G. 2002. The landscape brought within: a re-evaluation of the rock-painting site at Tumlhed, Torslanda, Göteborg, west Sweden. In: Nash, G. & Chippindale, C. (eds.) *European Landscapes of Rock-Art*: 176-194. Routledge. London.
- Ouzman, S. 1998. Towards a mindscape of landscape: rock-art as expression of world-understanding. In: Chippindale, C. & Taçon, P.S.C. (eds.) *The Archaeology of Rock Art*. Cambridge University Press, Cambridge.
- Preucel, R.W. & Hodder, I. 1996. Nature and culture. In: Preucel, R.W. & Hodder, I. (eds.) *Contemporary Archaeology in theory: a reader*: 23-38. Routledge. Oxford.
- Ravdonikas, W.J. 1938. *Les Gravures rupestres des Bords du lac Onéga et de la mer Blanche. Seconde partie*. Akademii Nauk. Moscow. [Равдоникас, В. И. 1938. Равдоникас, Наскальные изображения Белого моря].
- Savvateyev, Y. A. 1970. *Zalavruga. Part 1, Petroglyphs*. Nauka. Leningrad. [Савватеев, Ю. А. 1970. Элавруга. Археологические памятники низовья реки выг. Петроглифы. Ленинград].
- Savvateyev, Yu. A. 1977. Rock pictures (petroglyphs) of the White Sea. *BSCP Bolletino del Centro Camuno di Studi Preistorici XVI*: 67-86.
- Simonsen, P. 2001 North Norwegian Rock Art. In: Antero, K. (ed.) *Myanndash. Rock Art in the Ancient Arctic*. Arctic Centre Foundation. Rovaniemi: 18-49. Finland.
- Smith, B.W. & Blundell, G. 2004. Dangerous ground: a critique of landscape in rock art studies. In: Chippindale, C. & Nash, G. (eds.) *The Figured Landscape of Rock-Art. Looking at Pictures in Place*: 239-262. Cambridge.
- Sognnes, K. 2003. On shoreline dating of rock art. *Acta Archaeologica* 74: 189-209.
- Sognnes, K. 2004. Arctic Rock-Art in Norway. In: Groenen, M. (ed.) *Upper Palaeolithic and Mesolithic Art*: 151-161. BAR International Series 1311.
- Thomas, J. 1996. *Time, culture and identity: an interpretive archaeology*. Routledge, London.
- Tilley, C. 1994. *A phenomenology of landscape. Places, Paths and Monuments*. Oxford.
- Tilley, C. 2004. *The Materiality of Stone. Explorations in Landscape Phenomenology*. Berg. Oxford.

