

# Excavating Decorated Rock-Shelters in Trøndelag Norway

## Introduction

Two excavations conducted under rock-shelters containing rock art in the Trøndelag region, central Norway are presented. The first known excavation in front of rock art in this region, however, took place at Bardal Farm in Steinkjer, province of Nord-Trøndelag at the then recently discovered large panel today referred to as Bardal I, which is one of the largest rock-art panels known in the region. It is 29 metres long and 7-10 metres high, consisting of two sub-panels separated by a depression almost vertically crossing the rock. More than 350 rock carvings have been identified on this panel (Gjessing 1936, 196; Hallström 1938). These carvings seemingly represent a long time-span, from Late Mesolithic to Early Iron Age. Both Scandinavian rock art traditions are represented by several different motifs and the carvings frequently are involved in superimpositions.

During the investigation that took place in 1896, soil deposits of unknown origin covered the lower part of the panel (Lossius 1896). In order to investigate the entire panel, these deposits were removed. Today we do not know how this work was done; neither do we know which carvings that were covered except that the deposits had covered the lower left-hand part of the panel. Comparing the first drawings made by lieutenant A. Kvam (Lossius 1896) with later tracings (Gjessing 1936; Hallström 1938) we get an impression of what was not

visible when the work started. However, in the report we find no information about the composition and texture of these deposits or on how they were removed.

Thirty-five years later Theodor Petersen in 1931 investigated some newly discovered rather fragmentary rock painting at Vasstrand Farm in Åfjord, province of Sør-Trøndelag (figure 1). Fragments of seven paintings were found but a test excavation showed that the near horizontal terrace in front of the rock face contained large amounts of charcoal, apparently representing a prehistoric habitation site. Hoping to find more of the paintings, Petersen excavated a trench alongside the rock but also a smaller trench perpendicular to this. He found no artefacts during this excavation but collected some charcoal samples, the

Figure 1. Location of the sites described in the text.

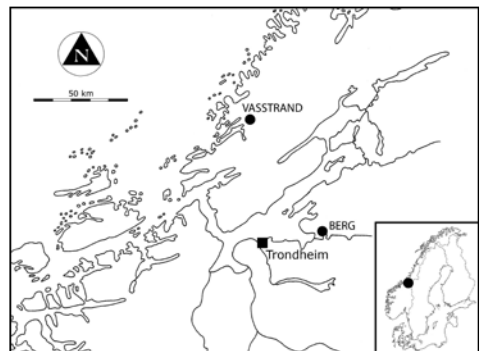




Figure 2. The Vasstrand rock-shelters during the 1931 excavation; Th. Petersen in the foreground. Photo Johs. Petersen, © NTNU Vitenskapsmuseet.

locations of which, however, no longer are known. The deposits remained undated but based on stylistic criteria Gutorm Gjessing (1936, 179-180) suggested that the paintings were made during the Neolithic. In 1993 the author had the opportunity to re-excavate the site.

Two years earlier rock carvings together with more recent graffiti were observed under a small rock shelter on Berg Farm in the lower Stjørdal Valley, Nord-Trøndelag (Sognnes 1996). Here deposits containing charcoal were found too and it was decided to conduct a test excavation in front of the engraved panel.

### Sandhalsen, Vasstrand

The rock paintings at Vasstrand were found on land belonging to a croft called Sandhalsen at the northern side of Lake Stordalsvatnet in the municipality of Åfjord,

which is located in the northern part of the Fosen Peninsula between the Trondheim Fjord and the North Atlantic. On the north-western side of this around 6.5 km long and up to 1.5 km wide lake the steep-sided promontory cuts into the lake. The decorated rock-shelter is located near the end of the promontory c. 35 m above sea level (Gessing 1936, 71). The surface of the lake is c. 20 m above sea level, which means that Stordalsvatnet was isolated from the sea around 4,000 BP.

At Sandhalsen (figure 2) we actually are dealing with two inter-connected rock-shelters separated by a bend in the rock face. Remains of six paintings are found under the larger shelter (Sandhalsen I), a seventh painting under the smaller second shelter (Sandhalsen II). At the far left is an incomplete elk image (1). In front of this is a small pecked image that may be identified as the upper part of an anthropomorph (Gjessing

1936, 72). To the left of and behind the elk Petersen noticed two parallel, horizontal furrows in the rock, which he chalked and photographed. Above were some vertical lines too. Petersen concluded that these lines were natural.

During the 1993 excavation we realised that these horizontal lines formed the gunwale and keel of a one meter long contoured boat image of Stone Age type. Vertical lines marking stem and stern were identified too (Sognnes 1994). At that time most of the rock face was still covered by lichen, which together with dense spruce forest in front of the shelter made these shallow lines difficult to identify. Later it was discovered that at least two persons carrying lances were standing in the front part of the boat (Lindgaard 2009). Petersen did not see this boat although he a decade earlier had investigated the Evenhus site at the Trondheim Fjord (Petersen 1922), which contained the largest number of Stone Age boat images in Norway known at that time (cf. Brøgger and Shetelig 1950).

This illustrates the problem of perception — we see what we already know or what we want to see. Petersen did not expect to find anything but paintings at Sandhalsen. He saw the engraved lines but did not see the image they formed, which the then young and inexperienced archaeology student Geir Grønnesby did some sixty years later.

Remains of yet another rock carving, rendering a whale, was discovered in front of the boat (Lindgaard 2009), but most of this image is damaged by exfoliation. Apparently these two carvings form a hunting scene, which is unique in the region's rock art. In Trøndelag today similar boat images above all are found at Evenhus (Gjessing 1936; Petersen 1922) and at Hammer (Bakka 1988).

Painting number 2 (figure 3), which consists of two combined curved lines, is located 2.81 m to the right of the elk, and 77 cm further to the right was found a curved

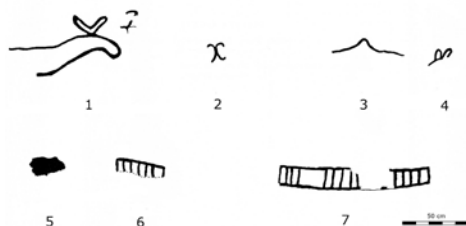


Figure 3. Rock paintings on the rock face under the Sandhalsen rock-shelters; 1-6 from shelter I, 7 from shelter II. Tracings by Th. Petersen, after Gjessing 1936.

line that may render the dorsal fin of a whale (3). To the right of this are some lines that may be the remains of an animal head (4). 4.46 m further to the right is an amorphous patch of paint (5). Finally, 15 cm to the right of this patch is an incomplete grid-like image oriented horizontally along the rock (6). A similar but larger image (7) is found in shelter II (Gjessing 1936, 71-75).

The ground in front of the rock face consists of up to 70 centimetres thick cultural deposits, which form an artificial terrace covering the space under the overhang and a narrow strip outside the drip-line. Petersen dug one trench along the back wall together with a second, perpendicular trench, which provided a cross-section through the terrace. No artefacts were found, which meant that the deposits could not be dated. However, Petersen collected some charcoal samples, but unfortunately his report gives no information about the location from where these samples were taken. This, together with the fact that most of the man-made terrace still remained intact, led the author to conduct a supplementary investigation of the deposits in 1993. The main purpose of this was to systematically collect material suitable for dating. As mentioned above, the floor is virtually horizontal while the rock face is almost vertical, being between 1 and 1.5 m high in shelter I but lower in shelter II. The inner, gently sloping part of the roof is about one meter wide, while in the outer part it raises steeply until it reaches the drip-line between 3 and 5 metres above the terrace, which is almost 5 metres wide, the

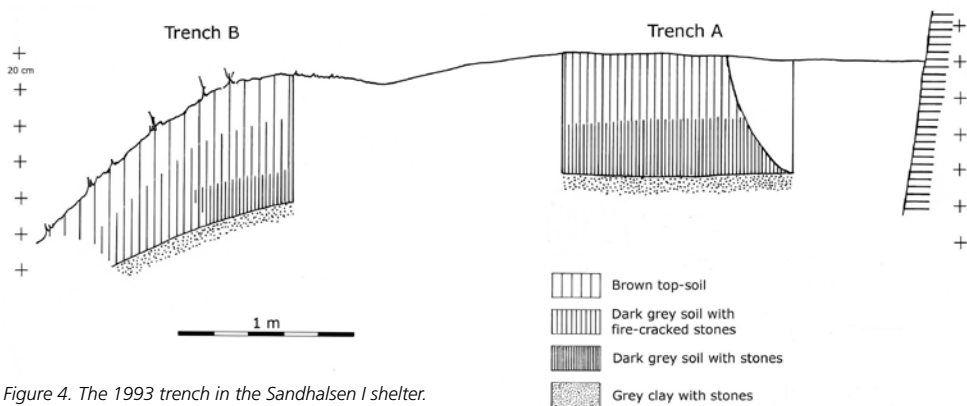


Figure 4. The 1993 trench in the Sandhalsen I shelter.

distance from the rock face to the drip-line up to 3.5 m.

Since Petersen did not find any datable artefacts, we decided to focus on collecting charcoal samples for dating. Replicating Petersen's main trench along the back wall was deemed futile and we therefore only dug a new transversal trench shortly to the northeast of Petersen's. Both trenches were located in front of the images 3 and 4, where the dry area below the overhanging rock is at its widest. There was, however, no direct connection between these two trenches.

We laid out a one metre wide trench from the rock face to the edge of the terrace. The trench was, however, divided into two sections (figure 4), in which the same stratigraphy was found. Under the overhanging rock there was hardly any vegetation; no real topsoil was found. By removing the uppermost 5 cm, Petersen's longitudinal trench was easily identified, the width of which was 1 m. In the outer part of the trench, which was outside of the drip-line, a 20 cm thick brown topsoil layer was found. In both sections the depth of the man-made deposits was 60-70 cm. No distinct strata were identified. Grey and brown soil was found from top to bottom but the upper part contained fire-cracked stones while no such stones were found in

the lower part. Thus, it was possible to divide the deposits into two layers.

Like in 1931 no artefacts were found during this excavation. Charcoal was, however, found throughout both layers and samples were collected in three vertical series, starting 5-6 cm below the top through to the bottom; two series in the inner part of the trench and one in the outer part. The samples were taken from the north-western side of the trench at every 5 cm. Three samples were dated at the radiocarbon laboratory at the University of Trondheim, now the Norwegian University of Science and Technology (NTNU), all from the middle part of the inner trench section.

Sample one, which was taken 6-10 cm below the surface, was dated to  $1180 \pm 95$ , calibrated to AD 760-920 (T-11131), that is, Early Viking Period. The second sample was taken from the upper part of the bottom layer. The date was  $2000 \pm 90$ , calibrated to 90 BC – AD 115 (T-11849), that is, to the transition between pre-Roman and Roman Iron Age. The third sample was taken at the bottom of the trench. The date was  $3315 \pm 75$  calibrated to 1680-1510 BC (TUa-937), that is, to the Scandinavian Early Bronze Age.

## Singeldalen, Berg

A hitherto unknown panel with rock carvings in lower Stjørdal Valley, Nord-Trøndelag was reported in 1991. A short note in the local newspaper "Trønderbladet" stated that some footprints were among the carvings. This came as no surprise since footprints are present at most rock art sites in this area — Stjørdal being one of the major areas for Bronze Age tradition rock art in Norway with footprints accounting around 20 % of carvings known from this municipality (Sognnes 2001). A first visit to the site showed that virtually all carvings were relatively recent, made during the Middle Ages or later. The narrow vertical panel was literally filled with incised lines likely made by knives or similar tools. Within this palimpsest of lines some simple images were found, among them boats and Christian crosses plus some letters. Three

distinct footprints were identified in the lower part of the panel (figure 5). These too were incised, which neither was a surprise; incised footprints are known from a number of sites in Stjørdal and neighbour municipalities.

The incisions were found in shallow nameless rock-shelter about 15 m long and oriented east—west, being located at an ancient path about 50 m from the boundary between the Berg and By Farms. These names indicate that both farms are among the earlier farms in the area, likely being established during Early Iron Age. The path follows the shallow Singeldalen Valley that runs east—west along the northern side of the lower Stjørdal Valley about one hundred metres above sea level. The engraved images, in particular the crosses, indicate that it was part of the pilgrim route to-

Figure 5. Rock engravings on a vertical panel in the Singeldalen rock shelter; the missing block is attached; after Sognnes 1996.







Figure 6. The Singeldalen rock-shelter during excavation in 1993. K. Sognnes photo, © NTNU Vitenskapsmuseet.

wards St. Olav's shrine in Nidaros (Trondheim). Following the path some hundred metres westwards, the valley ends in a steep slope above the By farmstead. From here pilgrims on a clear day would get the first sight of the Trondheim Fjord and the smoke above the city 30 km due west; they were only one day away from their destination.

The vertical engraved panel is located in the eastern part of the rock-shelter, where a 2 m wide room is formed between the rock face and a large boulder, partly being protected by the rock overhang (figure 6). The floor of this room is about 10 sq. m. Next to this boulder are several other large boulders that contribute to hide this room from people passing along the path. The decorated panel stands in a 90° angle to the major parts of the rock face.

At the edge of the panel, the lower part of the incised area, three slightly curved lines are made in a different technique, being wider and deeper and pecked into the rock. A vertical line linked the two upper curved lines. Intuitively these lines were identified as part of a boat image, likely

made during pre-Roman Iron Age (c. 500-1 BC) (Gjessing 1935). The upper line was superimposed by two incised footprints, which likely were made later. The major part of the boat image clearly was missing; it should be found on a block fallen from the rock. Due to its weight this block should have been found immediately below the decorated rock face but no traces of this block were found on the ground. However, the soil contained much charcoal and soot. This opened a long wished-for scenario: perhaps the block was lying below the surface covered by datable deposits. If so, we could get a minimum date for the rock carving.

A small part of the rock-shelter was excavated in 1993. A 2 m wide trench covering almost half of the abovementioned room, which was deemed most suitable for resting, was dug between the rock face and the large boulder. The trench also covered the area in which we expected to find the missing block. The depth of the man-made deposits varied, with a maximum of 70 cm at the large boulder, while the shallower part was found at the rock face of the shelter (figure 7). Two distinct layers were identified. Except for some blocks fallen from the overhang or the rock face, no stones were found in the upper layer, while the lower layer consisted of fire-cracked stones. No artefacts were found; neither were the block or blocks supposedly containing the missing part of the boat image.

However, this block was found in front of the large boulder marking the outer limit of the room. It had been moved from its original location at the rock face and was placed horizontally as a seat in front of this boulder, the engravings facing down. The moving of this block made our search for a minimum age for the engraved boat image redundant. In addition to the missing part of the boat image a fourth footprint was found. Interestingly, this block did not contain any engravings similar to those filling most of the panel, which indicates that the block fell down before these engravings were made.

Three charcoal samples were dated; one was taken from the top of the upper layer.

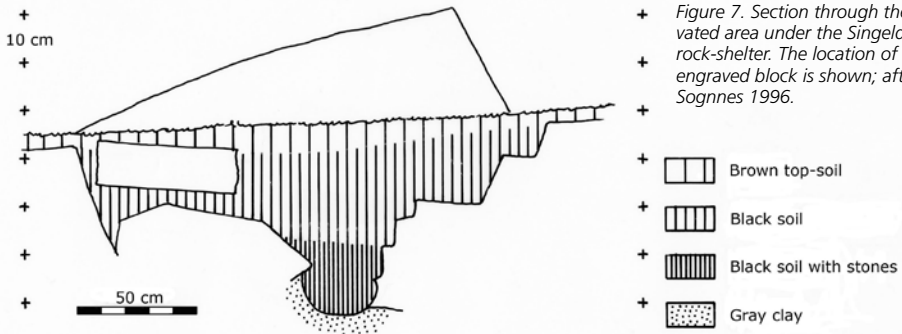


Figure 7. Section through the excavated area under the Singeldalen rock-shelter. The location of the engraved block is shown; after Sognnes 1996.

This sample was dated to  $950 \pm 105$  BP, calibrated to AD 990-1200 (T-11160), that is, Early Middle Ages. A second sample taken from the top of the lower layer was dated to  $1895 \pm 85$  BP, calibrated to AD 25-235, that is to the Early Roman period (T-11850). The third sample, which was taken from the bottom of the lower layer, was dated to  $2480 \pm 130$ , calibrated to 800-400 BC, that is, the transition between Bronze Age and Iron Age (T-11161). The two older dates demonstrate that the Singeldalen rock-shelter was used for resting, perhaps even dwelling, as demonstrated by the fire-cracked stones covering the floor, likely as the result of cooking. Later visitors apparently did not use the shelter in the same way.

## Conclusions

The rock paintings at Sandhalsen and the carvings at the Singeldalen represent each of the two major rock art traditions in Scandinavia, which are dated to different periods (Stone Age and Bronze Age respectively) and associated with different cultures and subsistence economies. These two rock-shelters, however, have in common the decorated rock faces but also the existence of cultural deposits, which represent two phases. Excavations in these shelters did not yield any artefacts. Cultural deposits from the Neolithic and Bronze Age without artefacts are, however, common in this region, even for open-air sites, as demonstrated, for instance, by test excavations at Berg and Rotvoll in Trondheim as well as at Kråkvåg in Ørland, all in Sør-Trøndelag province (Sognnes 1986).

The radiocarbon dates show that both shelters were used during long time span, which should come as no surprise, since they form natural retreats for people during bad weather. However, the layers consisting of fire-cracked stones indicate that for some time they were used more extensively than at other times. The dates obtained from the charcoal samples, do not date the rock art but for Singeldalen the oldest date confirm that this shelter was frequented by humans about the time when this type of boat images were made, as suggested by earlier scholars (e.g. Gjessing 1935, Sognnes 2001). At Sandhalsen, where the oldest date is from Early Bronze Age, not the Neolithic as suggested by Gjessing (1936). However, the discrepancy is only a few hundred years and Gjessing's dating of rock paintings in central Norway was very much based on intuition. Superimpositions show that at least one of the incised footprints at Singeldalen was engraved after the boat image. Footprints, however, appear to have been made in Early Iron Age at other sites in the Trøndelag region as well. The incised lines and images on the same panel likely were made during short visits; the making of these engravings likely were inspired by the existence of the earlier boat and footprint images.

The Sandhalsen rock shelter is located on the northern part of the Fosen Peninsula, where most of the Trøndelag rock paintings are found. Unfortunately these paintings are badly preserved, but the motifs are represented at rock engraving sites too. Being located a short distance from Lake

Storvatnet, this shelter formed a convenient site for people spending the night during hunting expeditions. The lack of artefacts indicates, however, that it may have had a special non-utilitarian significance. It should be of interest here that the earlier date is virtual identical to the earliest date from the Solsem Cave at Leka, Nord-Trøndelag, the inner part of which is decorated with painted anthropomorphs (Sognnes 2009). It also corresponds with the only radiocarbon date from the decorated Helvete Cave in Røst, Nordland province (Bjerck 1995). These dates, of course, are too few for drawing any reliable conclusions but they give some indications that people in Trøndelag and North Norway started using caves and rock-shelters in different ways than before at the beginning of Bronze Age.

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