DATING OF ROCK ART AND INTERPRETATION OF STONE AGE IDEOLOGY

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INTRODUCTION

In this paper I will present new interpretations of archaeological material from the Vingen area which is Southern Norways most extensive rock art location. The area is almost exclusively known for its carvings (Bøe 1932, Hallstrøm 1938:415ff; Fett 1941; Bakka 1973:151ff, 1979:115ff; Mezec 1989; Mandt 1998:201ff) but in this paper, excavated finds and documented structures will also be discussed to provide valuable information on how the area was used, and what activities were performed. This is essential information for interpreting the production of rock art in itself. That is, what kind of social practice was rock art production associated with? In addition the excavated finds and the radiocarbon datings give important information for the further approach towards dating of the rock art. It will be argued that the rock-art was produced during the Late Mesolithic, chronologically equivalent to the time span between 7500 and 5200 before present, uncalibrated. It will further be argued that the Vingen area played an important role among western Norwegian hunter-gatherers during periods of changing ideology during this period. The investigations in Vingen are still being carried out, the results presented in this paper are therefore of a preliminary character.

THE AREA OF INVESTIGATION

Vingen (Fig. 1) is located in the municipality of Bremanger in the north western part of the County of Sogn og Fjordane, in a narrow steep sided fjord, surrounded by mountains (Fig. 2). The area is covered with scree and numerous fans of debris, but the bedrock is regularly exposed by the many smooth rock panels. Some more level areas exist, covered with thin layers of vegetated soil. Large boulders and small piles

Fig. 1. Picture from the central area of Vingen where most carvings are located (Photo by Trond Klungseth Lødøen).

Fig. 2. Illustration covering the western part of the Nordfjord area with the location of the Vingen and the Skattestraumen area. (Illustration by Knut Andreas Bergsvik).
marks. The dominating motif is red-deer (Fig. 3) but other animals (Fig. 4), anthropomorphic elements (Fig. 5) and abstract-geometric figures (Fig. 6) occur frequently. The depictions occur alone, as single motifs (Fig. 3–6), or in groups, as visualized scenes from the past (Fig. 7). The carvings are scattered around the fjord in what must be characterized as a barren landscape today. They are found, on sloping rock faces, on large boulders and on smaller stones. The majority of the carvings and the main area of focus in this paper is a 400 meter long terrace between the shoreline and the steep mountainside on the southern side of the fjord (Fig. 2).

**DATING THE ROCK ART IN VINGEN**

The question of chronology and dating the rock art in Vingen has been a central issue for many years. One of the most commendable attempts at dating the rock art was made by Egil Bakka in the 1970s. This was done on the basis of stylistic comparison of the variations in the animal depictions, the presence of stylistic similarity with other archaeological material and the relation to shorelines (Bakka 1973:156ff, 1979:115ff). He suggested a possible dating of the depictions from the Late Mesolithic/Early Neolithic transition until the beginning of the Late Neolithic. In addition he developed a relative typological-chronological sequence from detailed studies of several hundred depictions on the basis of their superpositions. This work resulted in the separation of four different categories of deer depictions (Fig. 8). At the time when he was working with these questions there was little excavated or collected material known from the Vingen area.

**ARCHAEOLOGICAL INVESTIGATIONS**

More recently there has been a greater interest in incorporating rock art studies into general culture historical approaches. The archaeological material present from Vingen today is therefore the result of investigations where the purpose of relating the rock art to its prehistoric chronological and cultural context was central. The investigations have had the character of general test pitting surveys, test excavations and systematic examinations of brooks, exposed soil, debree etc. Some of these investigations have been initiated by the National Project for the Curation of Rock art, because it has been necessary to remove the abrasive turf and soil that partly cover surfaces with rock art in order to reduce further weathering of the rock and the depictions. During these investiga-
Fig. 5. Depictions of anthropomorphic figures from the Hardbakken locality (a) and the Brattebakken locality (b) (Photo by Trond Klungseth Lødøen).

Fig. 6. Depiction of abstract-geometric figure (Tracing by Egil Bakka).

tions different stratigraphic situations have been documented and artefacts collected which have provided important information for interpreting the depictions and their context.

Test excavations have been undertaken in the immediate vicinity of some of the rock art panels, that is, immediately below or adjacent to the carvings. These have not however resulted in any clear pattern of regular depositions of archaeological material linked to the different rock art localities, since some investigations led to the discovery of stone artefacts and some did not. But this of course, does not rule out the possibility for the deposition of perishable artefacts of wood or bone etc. What is striking with all these test excavations, including the test pit surveys, is that all the archaeological material collected dates to the Late Mesolithic.
STRUCTURES

What is of specific interest in this area, apart from the rock art and the other collected archaeological material, is the presence of circular- or oval shaped depressions, surrounded by stone and gravel walls. These are interpreted as houses or other such dwelling structures. They have an average diameter of 4–5 meters and the solid construction of their surrounding walls have a permanent character. Nine such structures have been documented so far (Fig. 9). Some of these are grouped together in clusters of two or more whereas others are more isolated (Fig. 10a, 10b). None of these have yet been completely excavated but test excavations reveal substantial amounts of archaeological material and the presence of a thin distinct cultural layer. The material from these structures are highly homogenous in character which is in accordance with the material previously mentioned. Waste flakes dominate but diagnostic elements such as microblades, conical cores and microblades struck from conical cores are common. Based on typological studies it is clear that this material dates to the Late Mesolithic. This is also supported by the raw material composition which is dominated by quartz, quartzite, rock crystal, mylonite and flint, which is the characteristic Late Mesolithic raw material compositions as documented elsewhere in western Norway (Bergsvik 1999; Olsen 1992:84ff; Nærvø 1988:209, 1993:89ff). So far only a limited number of radiocarbon dates exist. They, however, indicate that these structures were used during a relatively short period of time in the latter part of the Late Mesolithic period, as shown in table 1.

Table 1. Radiocarbon dating results of charcoal samples collected from dwelling structures.

<table>
<thead>
<tr>
<th>Dwelling feature</th>
<th>Dating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardbakken 1</td>
<td>5825±75 B.P</td>
</tr>
<tr>
<td>Hardbakken 2</td>
<td>5530±70 B.P</td>
</tr>
<tr>
<td>Vindbakken A</td>
<td>5870±80 B.P</td>
</tr>
<tr>
<td>Vindbakken A</td>
<td>5665±125 B.P</td>
</tr>
</tbody>
</table>

ROCK ART AND ARCHAEOLOGICAL MATERIAL

There are of course many problems involved in the process of relating the artefacts to the rock-art in the Vingen area as it is at most sites. However, judging from a detailed examination of all excavated, surveyed
and collected artefacts, and the radiocarbon datings, it is clear that the area was mainly used in the Late Mesolithic. It could of course be argued that the circular- or oval shaped depressions and the deposited artefacts predate the period of rock-art production, that the major period of depictions was the early and middle Neolithic as argued by Egil Bakka (1973:170ff, 1979:118). If one is to accept such an interpretation it is difficult to understand that there is a total lack of deposited artefacts, such as cylindrical cores and tanged points made from blades struck from cylindrical cores and a total lack of raw-material categories related to these periods, such as rhyolite and slate.

Several of these dwelling structures have carvings in their immediate surroundings (Fig. 11), on the stones and boulders that are part of their walls or foundations. This indicates that these structures and the rock art are parts of an integrated unity. Dating of the rock art to the Late Mesolithic is also strengthened by the discovery of an artefact which might have been used for rock art production (Fig. 12). This was found in close vicinity to some of these dwelling structures, in a brook which had partly eroded through a cultural layer in the close vicinity of one of the dwelling features. It was found together with several flakes similar in character to that documented from the dwelling structures. The artefact is therefore most likely related to these structures and also to the Late Mesolithic. It is made of rock which is not natural in Vingen and has an elongated shape with chopped sides and a pointed end. It has a strong resemblance with a rough-out for a ground or pecked Mesolithic stone axe which

Fig. 10 a,b. Pictures showing two dwelling features from the locality Teigen and the locality Bakkane respectively (Photo by Trond Klungseth Lødøen).
tern Norway in relation to any of the rock art sites, but its form and character is in accordance with suggestions made by Bakka, after studying the pecking technique at several rock art sites (Bakka 1975:15f). Geological thin-section analyses and further classification have concluded that the artefact is made from diabase and that its provenience is the site Stakaneset site in the municipality of Flora where a quarry from the Mesolithic is located (Skjerlie 1999; Olsen & Alsaker 1984:71ff).

It has previously been argued for a close cultural relation between Vingen and the Stakaneset quarry (Olsen & Alsaker 1984:99f), but few direct evidences for such a contact have been found. The discovery of the above presented provenience determined artefact has now strengthened this hypothesis. The Stakaneset quarry has also been regarded as a sacred site by several authors (ibid; Løðøen 1995). It is interesting to note that hardly any flakes or chipped pieces of diabase have been found in Vingen as opposed to the vast amount of flakes on other contemporaneous sites elsewhere. It is also striking that no Mesolithic diabase axes have been found here. This might indicate that the use of diabase in Vingen was strongly regulated and only used in the process of pecking rock art – thus implying that sacred rock were used for sacred pictures. These matters will be dealt more detailed with in the future.

Recent test excavations in the vicinity of some of the dwelling structures have in addition recently revealed a considerably thick midden with a lot of charcoal and fire-cracked rocks (Fig. 14). The artefacts from this midden is similar to that of the dwelling structures and there is reason to believe that the midden deposits originates from the structures. The percentage of arte-

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**Fig. 11.** Drawing of a concentration of four dwelling features. Names with numbers refer to different rock art panels (Drawing by Gro Mandt and Trond Klungseth Løðøen).

**Fig. 12.** Diabase artefact. Probable pecking tool (Photo by Svein Skare).

is common on many Late Mesolithic sites elsewhere. What is of special interest is the relationship between the width of the point of this tool and the width of the pecking marks which most of the rock art depictions in Vingen are made up of (Fig. 13). It is therefore likely that it is a hammer for the pecking of rock art. No such tool has been documented elsewhere in wes-

**Fig. 13.** Tracing showing lines of pecking marks (Tracing by Gro Mandt).

**Fig. 14.** Profile of midden with high amount of fire-cracked rocks (Photo by Trond Klungseth Løðøen).
facts however seems a little low compared to other Late Mesolithic middens, but based on the stratigraphy it appears that the structures and the midden have been used during a relatively continuous and contemporary timespan.

ACTIVITY

The material from the midden differs from Late Mesolithic middens found elsewhere in coastal Western Norway, with its high content of fire-cracked rocks and the low frequency of artefacts thus indicating special activity. While most excavated middens in western Norway from this period contain a high amount of axes, chisels or fragments of these tools (e.g. Bjørk 1981: 50ff; Bjerck 1983:20; Nygaard 1989:83ff, 1990:230ff; Olsen 1992:89ff) the investigations in Vingen have not provided us with any such material. The permanent character of the dwelling structures also indicates special activity as these traits are unknown elsewhere from the Late Mesolithic of coastal western Norway. This leaves us with several questions about the duration and use of the dwelling structures. It is not clear whether these represents more permanent dwelling or only occasional occupation. It seems clear from the absence of stratified cultural layers that these features were used relatively continuously, probably during the latter part of the Late Mesolithic. They may be the result of a series of short repeated occupations which leaves no stratigraphic evidence or they may have been more permanent. Samples for radiocarbon dating have been collected from the top and the bottom of the cultural layer but these results are not yet ready. The results may provide answers to the above presented questions and support the process of delimiting the possible time frame for the midden and the nearby dwelling features.

Not only the production of rock art shows that a special activity was performed in this area but also the character of the dwelling structures and the midden indicate this. A detailed analyses of this archaeological material is not yet completed but more information for the further examination of these questions might be provided.

IDEOLOGY

On the basis of the previous discussion I will argue that the activity in Vingen must be seen in relation to changes of a more general character during the Late Mesolithic period. It has been argued recently that a change from a mobile to a more sedentary social structure occurred towards the end of the Late Mesolithic (Warren 1994:89ff). This is among other places documented in the Skaterraumen area a few kilometers north of Vingen (Fig. 2, 15) (Bergsvik and Olsen in press). Here, on both sides of a strong tidal current more than 120 Stone age sites have been documented, and more than 40 of these sites are from the Late Mesolithic period (Fig. 16). It is highly relevant to compare this material with the material documented in Vingen, because apart from the chronological similarities, the two areas are linked together by the use of identical lithic raw material in the Late Mesolithic. The question of sedentism is however a difficult subject, but excavated and surveyed sites seem to indicate that the camps were used more frequently or

Fig 15. The Skaterraumen tidal current. Photo facing west. Vingen is located immediate to the south. On both sides of the current more than 120 sites from the Stone Age have been documented (Photo by Trond Klungsøyr Lødøen).

during longer periods of time in the Late Mesolithic than before (Bergsvik in press). In addition the use of raw material sources and the restrictive spread of different tools indicate that people had closer connections to regions and places than before (ibid; Olsen & Alsaker 1994:94ff).

What is interesting to investigate is the possible ideological implications of a change from a mobile to a sedentary settlement pattern. While the mobile Mesolithic society had its culture protecting mechanisms, social strategies and ritual activity, a change from a mobile to a sedentary structure must have demanded transformations of rules and restrictions, rituals and religion. The gathering of more and more people in a restricted area such as Skaterraumen made the possibilities of conflicts more likely and demanded negotiations at many different levels. In addition if most of the time was spent in one area a stronger sense of place was created and a stronger historical, mythological and religious attachment to the area was deve-
Fig. 16. The Skatestraumen area with location of Stone Age sites (Illustration by Knut Andreas Bergsvik).

It might have resulted in the need for more permanent sacred or ritual sites, and there is reason to believe that the Vingen area was adopted as such a sacred site. Topographically the high mountains round the Vingen fjord made it the perfect secular location for hidden ceremonies or rituals of a restricted character.

Because ideology influences all levels of society, important information concerning social practice is recorded in religious manifestations. It is therefore interesting to see the depictions of rock art in Vingen as a manipulating strategy or the result of necessary negotiations between individuals, groups or sexes due to changes in the society, related to a more sedentary structure in the Late Mesolithic. The dating of the dwelling structures to a relatively short time span before the transition to the Neolithic, which is associated with the consolidation of sedentism, seems to support this hypothesis. General studies of figurative art have shown that images have the power of conviction and persuasion by the use of space and the use of represented subjects (Arsenault 1991:324). The way the images look real and natural makes people believe it represents the only possible reality even though the different rock art images only reflect one aspect or even a distorted aspect of reality. Depictions in solid rock locked in time and space therefore had its clear power to control and manipulate groups or members of society. I will therefore suggest that the rock art depictions in Vingen were part of negotiations related to a growing sedentary structure. The many depicted scenes in Vingen might therefore express different strategies for the control and solving of conflicts (Fig. 7, 17).

Fig. 17. Panel with anthropomorphic figures in interaction with animal figures (Tracing by Egil Bakka).
Even though Bakka’s dating (Bakka 1973) of the Vingen rock art is disputed in this paper his four stage typological-chronological sequence (Fig. 8) might still be valid only pushed further back in time to the Late Mesolithic. An interesting future goal will be to try to relate his four phases to stages, changes or events in the Late Mesolithic society documented by analysis of archaeological material in the Skatistraumen area and other related areas in Western Norway. This might support Bakka’s interpretation of the four typological phases as a chronological sequence, but it might also reveal other possibilities. It might be that these phases represent different manifestations from the past, that they express different attitudes or meanings made by different Late Mesolithic groups in this area.

THE TRANSITION

It is interesting to see, according to the above discussion, that the activity in Vingen predate the transition to the Neolithic of Western Norway. Earlier works on the datings of the activity in Vingen (that is, the production of the carvings), basically to the Early and Middle Neolithic with a possible origin in the Late Mesolithic, makes it rather hard to understand that the carving activity continued seemingly in the same undisturbed manner, despite the thorough changes that appear during the transition. The transition is among others associated with an abrupt change in technology, a change in the use of raw materials, and marks a fundamental change in the settlement pattern, implying several changes in the society.

Dating of the activity in Vingen exclusively to the latter part of the Late Mesolithic gives us a more understandable explanation to the question of why the site was abandoned. This explanation might be further developed in future research and understanding of the triggering of the transition to, and the character of, the Neolithic in Western Norway.

THE NEOLITHIC

The only area where sites with Neolithic artefacts have been documented in the vicinity of Vingen is on the point Vingesenet (Fig. 15) where some carvings are located. Here two small Neolithic sites have been found, but these sites and the carvings show no concurrent pattern, and besides, the number of artefacts is extremely limited. The material consists predominately of flakes of quartz and flint and some slate points. On the basis of the points’ rhombic cross-section and on the background of typological-chronological studies it is strongly indicated that these sites date from the Middle Neolithic period.

The sites are similar in character, and the number of finds and the location have a close resemblance to several of the small Neolithic sites documented immediate north of the Vingesenet at the tidal current channel in the area of Skatistraumen. The many small sites there are believed to be short term hunting camps connected to the optimal resource situation at the current. The Vingesenet has a location in many respects similar to many of the sites at the tidal current and the Vingesenet area is also affected by both the Skatistraumen current and similar currents in several nearby sounds, thus forming a related resource situation as the one in Skatistraumen. On the background of this I will argue that the Neolithic sites found at Vingesenet are connected to short term occupation, probably related to hunting, in a period much later than the production of rock art in the Vingen area.

CONCLUSION

The main focus of this paper is both to present recently documented archaeological material from the Vingen area and to discuss the possible chronological and cultural implications for the rock art. In the process of narrowing down the chronological dating framework and more directly linking the rock art to its contemporary cultural and chronological context a new foundation and a stronger point of departure for a better insight in the different meanings of the rock art depictions are created. The results are preliminary as more work with these questions are under progress.


UOLŲ RAIŽINIŲ DATAVIMAS IR AKMENS AMŽIAUS ŽMONIŲ PASAULĖŽIŪROS INTERPRETACIJA

Trond Klungseth Lodøen

Santrauka


Pirmieji Vingeno uolų raizinių datavimo bandymai buvo paremti vien stilistine figūrų analize, nes trūko archeologinių duomenų. Pastaraisiais metais prie uolų raizinių atlikti nedidelį žvalgomejė archеologieių kasinėjimai suteikė galimybę susieti juos su konkretiems laikotarpiai – vėlyvajam mezolitui – būdingais radiniais ir archeologinius objektus.

Palyginti su gausiomis mezolito stovyklių ežerėmis Skatestraumenos apylinkėse, prie Vingeno uolų raizinių iššaukti aktyvios ukinės veiklos pėdsakų neaptikta. Pagausėjęs gyventojų skaičių prie Skatestraumeni ir gyvenimo būdu tampant vis sėklesniam, reikėjo nuošalesnės vietas ritualinėmis apeigoms atlikti. Vingeno uolose išražytos pavienės figūros ir scenos atspindi žmonių pasaulėžiūrą sudėtingu įvairiam ežeram, iš merginos muzikos istorijoje.
ДАТИРОВКА НАСКАЛЬНЫХ ИЗОБРАЖЕНИЙ И ИНТЕРПРЕТАЦИЯ МИРОВОЗЗРЕНИЯ ЛЮДЕЙ КАМЕННОГО ВЕКА

Тронд Клунгсет Ледоен

Резюме

В окрестностях Вингена в Западной Норвегии концентрируется одна из самых известных групп наясальных изображений каменного века. На скалистом побережье небольшого фиорда насчитывается более 2000 наясальных изображений. Основной мотив — северный олень. Также обнаружены изображения других зверей, антропоморфных и абстрактных геометрических фигур.

Первые попытки датировки наясальных изображений были основаны на стилистическом анализе, так как не хватало археологических данных. В настоящее годы проведенные разведовательные раскопки позволили отнести наясальные изображения к конкретным находкам и археологическим находкам и объектам, характерным для позднегезолита.

По сравнению с многочисленными стоянками мезолита в окрестностях Скатстраумен, вблизи Вингена, следует особо активной хозяйственной деятельности не обнаружено. При повышении численности жителей у Скатстраумен, понадобилось стходное место для проведения ритуальных обрядов.

Наясальные изображения одиночных фигур и сцен отражают мировоззрение людей в сложном периоде перехода из мезолита в неолит.

СПИСОК ТАБЛИЦ

Таблица 1. Результаты датирования образцов древесного угля, собранных на следах поселений, радиоугольным методом.

СПИСОК ИЛЛЮСТРАЦИЙ

Рис. 1. Вид центральной части Вингена, где было найдено большинство деревянных гравюр (Фото Трonda Клунгсета Ледоена).
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Рис. 10, а, б. Остатки двух поселений в Тейгене и Бакке соответственно (Фото Трonda Клунгсета Ледоена).
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