

ROCK-ART IN MID NORWAY: RECENT DISCOVERIES AND RESEARCH

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Introduction

For almost one century Norway has been divided into five regions in which a regional archaeological museum has been in charge of excavations, preservation of artefacts, heritage management etc.

In mid Norway, that is, between around 62° 30' and 66° 30' northern latitude, the Museum of Natural history and archaeology at the Norwegian University of Science and Technology (NTNU) in Trondheim (before 1984 the museum of the Royal Norwegian Society of Sciences and Letters - DKNVS) acts as regional archaeological museum. The museum staff has conducted systematic rock-art research since 1870 when the department of archaeology got its first curator.

Mid Norway is one of Scandinavia's major rock-art regions. For almost one century this rock-art has been divided into two complexes or traditions: the Arctic hunter-gatherer tradition of the Stone Age and the South Scandinavian agrarian tradition of the Bronze Age.

More than 200 rock-art localities are known at present, most of which are found along the central and inner parts of the Trondheim fjord. Engravings belonging to both traditions may be found at the same sites, occasionally even at the same panels. This is most unusual and, since mid Norway is the only Scandinavian region which can be claimed to be a major region for both traditions, the Trondheim fjord basin is of utmost importance for the study of the relationship between the two Scandinavian rock-art traditions. Except for some smaller studies by Gutorm Gjessing (1935; 1936; see however, Hagen, 1969) little work of this kind has, however, been conducted. The main reason for this is insufficient publishing of the South Scandinavian engravings, yet some localities have been brought into the general discourse in comparative studies based of rock-art from other parts of Norway.

In 1936 Gjessing published all localities with Arctic rock-art -engravings and paintings- which were known at that time.

Today the corpus has been tripled but later discoveries have only been published in smaller reports and papers (Lund, 1941; Møllenus, 1968; Bakka, 1988; Bakka & Gaustad, 1975; Sognnes, 1981; 1996).

The South Scandinavian engravings in mid Norway have not been studied or published in a similar way. Until recently only a limited numbers of small papers and existed (Rygh, 1908; Marstrander, 1953; 1970; Petersen, 1926). At present, the South Scandinavian rock-art is being studied by G. Grønnesby (1993) and K. Sognnes (1983; 1983; 1990; 1993). The study of the relationship between the two rock-art traditions has started (Sognnes, 1995), while further studies of the Arctic rock-art at the moment are virtually non-existing.

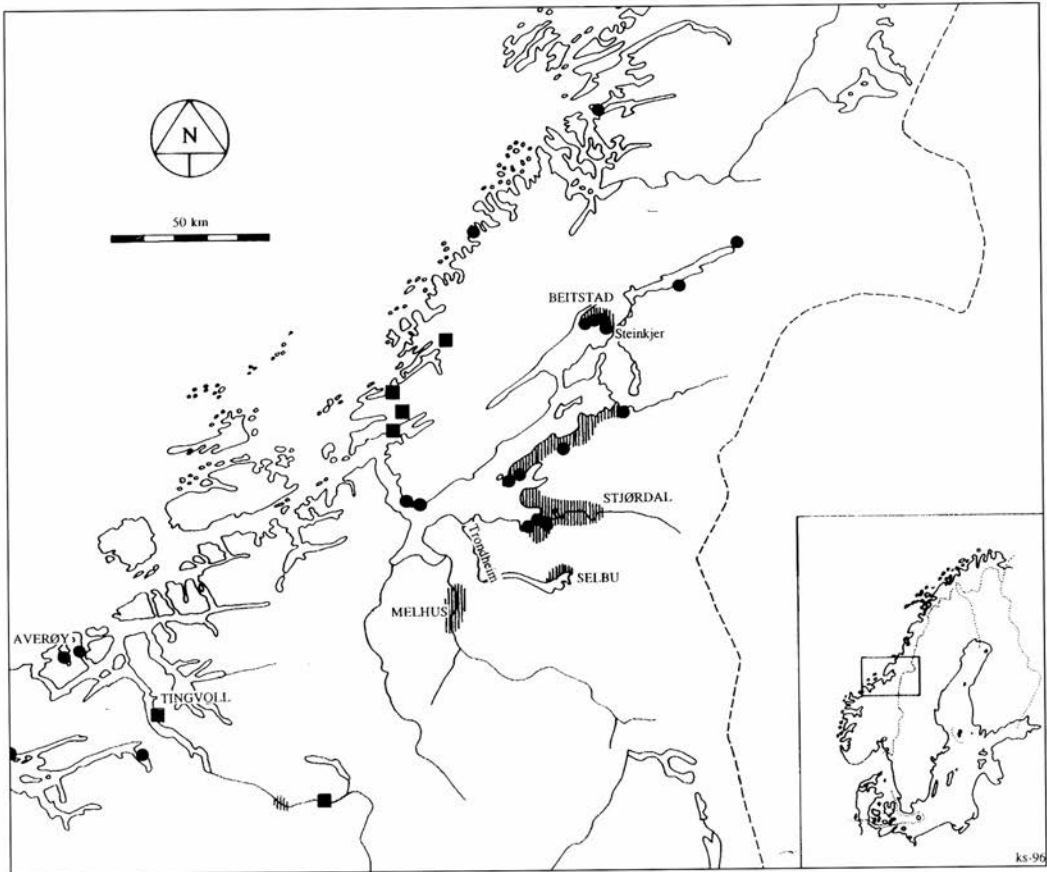


Fig. 16. The distribution of rock-art in mid Norway. Circles; Arctic engravings, squares; Arctic paintings, hatched areas; South Scandinavian engravings.

This paper consists of two parts. First, I will present some of the more recently discovered Arctic localities. In the second part I will present parts of my own work on the South Scandinavian engravings.

New Discoveries of Arctic Rock-Art

The map presented here (fig. 16) does not show all known Arctic rock-art localities but, rather, the farms where such localities are found. The dots represent engravings while squares represent paintings. Today around sixty localities are known, most of which contain engraved images.

Most of the Arctic rock-art is found in the central and inner part of the Trondheim fjord basin but some localities are found at the coast and in other fjord basins. The most important cluster is found in Beitstad parish in the municipality of Steinkjer. Further south, at the mouth of the Stjørdal valley, another important cluster recently has emerged.

Most of the images are engravings but some paintings are found too. A cluster of paintings are found on the Fosen peninsula to the west of the Trondheim fjord. Two new localities have recently been found, but at the same time one of the other localities now is considered to represent a natural phenomenon. At Tingvoll southeast of the city of Kristiansund another cluster of paintings are found. During the last decade several new localities have been found here, too (Sognes, 1995b).

Paintings found in three caves in the northern part of mid Norway are of special importance (Sognes, 1983b). (The location of these caves are not indicated on fig. 16, since they are found to the north of the map presented). These paintings comprise only simple and schematic, mostly anthropomorphic but also some zoomorphic, images.

They now appear to be no paintings at all. Studies by Kristen Michelsen at the University of Bergen have shown that rock-paintings in southern Norway consist of natural iron oxide deposits, where the superfluous colour has been scratched off, thus leaving only the image still red (Michelsen, 1983). Michelsen (1992) later has studied also some of the paintings in mid Norway and reached the same conclusions here.

The most important of the more recently discovered engravings are those found at Hammer in Beitstad, Steinkjer. Some of these images are of special importance, because they have been covered by marine deposits, which may provide a close dating for the covered engravings. Most of the Hammer localities have been published by Egil Bakka (Bakka, 1988; Bakka & Gaustad, 1975), who unfortunately died before his studies of these images were completed.

Images belonging to the Hammer stylistic stage now dominate the mid Norwegian record. These images are drawn in strict outline. They are naturalistic (for further discussion of these stages, see Gjessing 1936), and medium sized, often with line patterns within the bodies. These inner line patterns vary; most noticeable are lengthwise lines from the mouth or the muzzle into the body, usually ending in an oval. Sometimes these patterns seem to depict entrails of the animals, sometimes they look like strict geometrical ornaments only.

The identification and interpretation of these internal lines and patterns are difficult and have raised some discussion (Bakka, 1975). A bird image from Lånke in Stjørdal leaves no doubt, however (fig. 17). Here, the internal lines clearly depict the bird's intestines as well as gullet, craw, and gizzard -probably heart and liver too.



Fig. 17. Bird with entrails from Lånke in Stjørdal, Nord-Trøndelag. (Photo: K. Sognes).

The style stage older than the Hammer stage is characterised by large, almost life-size naturalistic animals drawn in strict outline. From before, figures of this style are known from Bardal and Bøla (Gjessing, 1936). Only a few new localities have been found; here is presented a large (around 3 m) long, unfortunately unfinished, elk image from Stykket in Rissa on the Fosen peninsula (fig. 18).

Both at Stykket and at other localities smaller and less naturalistic animals are found too. This does not necessarily imply that they differ from the larger ones in style and age. At Reppa in Fosnes there are some excellent examples of naturalistically drawn whales not larger than 40 cm (fig. 20). An elk image at the same boulder, however, gives a less naturalistic impression. This may be a direct result of the size chosen. When large animals (especially quadropeds) are drawn in such a reduced scale, otherwise characteristic details have to be omitted.

Anthropomorphic pictures are rare. An almost 150 cm long male image is found at Lånke, Stjørdal together with a possible beaver and a little elk. Again, both large and small outlined images are found together. The size of the figures apparently no longer should be used as a style criterion.

Internal body patterns also represent characteristic features of the stylistic stage younger than the Hammer stage. In this stage, the animals are further schematised and stylised. A large and important locality with animals in this late style is found at Holte in Levanger (Møllenus, 1968).

Recent Research in South Scandinavian Rock-Art

Figure 16 also shows the distribution (by means of hatching) of the South Scandinavian engravings. The total number of localities belonging to this tradition is around 150. Although these localities are found in the same area as the Arctic ones, some differences in spatial distribution can be demonstrated. While the majority of the Arctic localities are found near Steinkjer, most of the Bronze Age engravings are found further south, in the municipalities of Stjørdal, Selbu and Melhus.



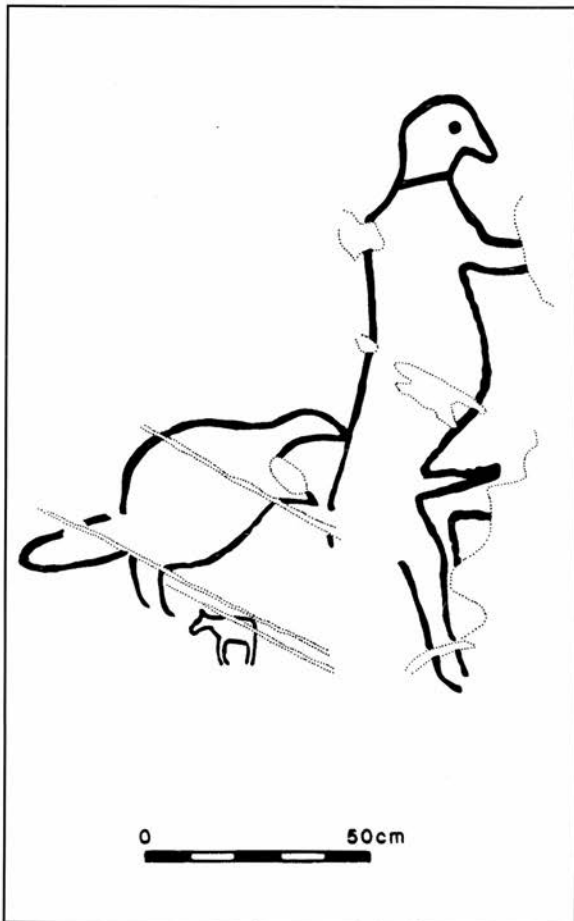
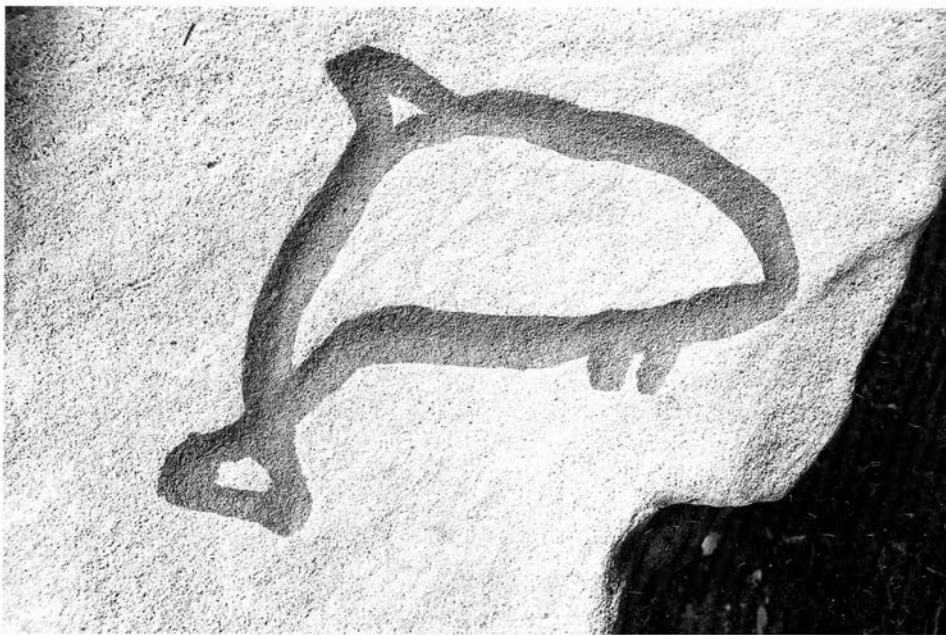


Fig. 18. Large, incomplete elk from Stykket in Rissa, Sør-Trøndelag. (Photo: K. Sognnes).

Fig. 19. Large antropomorphic figure found at Lånke, Stjørdal, Nord-Trøndelag. (Tracing: K. Sognnes).

Fig. 20. Whale from Reppen in Fosnes, Nord-Trøndelag. (Photo: K. Sognnes).



As abovementioned, the South Scandinavian tradition in mid Norway until recently hardly has been studied and many localities have never been fully investigated. General surveys were presented by K. Rygh (1908) and Th. Petersen (1926), but these surveys now are outdated and they included little documentary evidence. Some localities were published by Gjessing (1936) due to the fact that they were found at the same panels as some of the Arctic engravings. Localities discovered in the 1940s and 1950s have been published by S. Marstrander (1953; 1970).

My own investigations have been concentrated on the Stjørdal engravings (Sognnes, 1983; 1987; 1990). In the present municipality of Stjørdal around one hundred localities with South Scandinavian rock-art are found, which is around half the total number known from mid Norway. The Stjørdal valley is almost 70 km long, reaching from the Trondheim fjord to the Norwegian/Swedish border. The engravings are found in the lower part of the valley, in the parishes Hegra, Lånke and Stjørdal and on the Skatval promontory (and parish) to the northwest of the valley mouth. From the westernmost (Bremset in Skatval) to the easternmost (Kil in Hegra) locality, the distance is 24 km as the crow flies.

Two large concentrations of localities are found, one in Hegra and one in Skatval. The parishes in between have fewer but not less interesting localities. Gazetteers have been compiled for Skatval (Sognnes, 1982), Stjørdal and Lånke (Sognnes, 1983c).

The majority of these localities most likely should be dated to the Late Bronze Age, at the end of which (around 500 BC), the land was situated 13-14 lower than today. Since then the land has been lifted with subsequent river erosion and land slides, transforming the lower part of the Stjørdal valley into an archaeologically «black hole» (Sognnes, 1983). Thus, only small part of the Bronze Age landscape has been preserved until today and rock-art has become the virtually sole source for the study of the valley's Bronze Age. The situation is far better for the Skatval promontory.

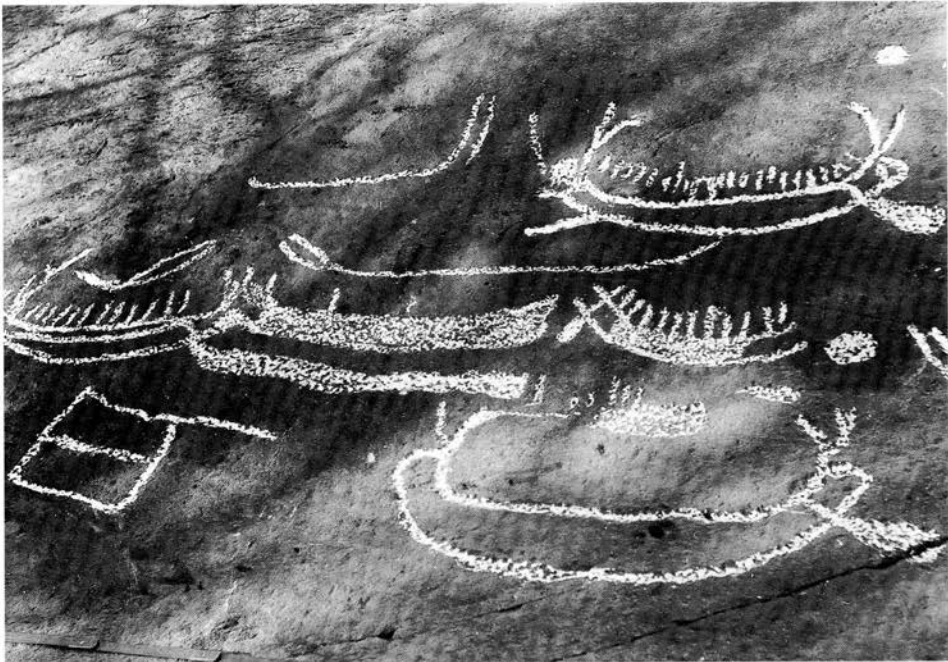


Fig. 21. Boat images from Bjørngård in Stjørdal, Nord-Trøndelag. (Photo: Th. Petersen).

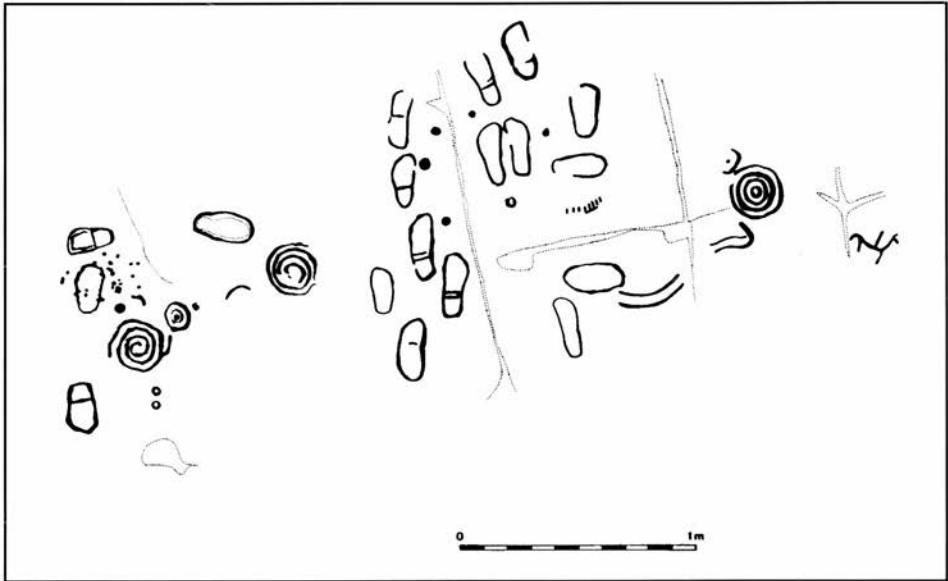


Fig. 22. Foot-prints from Bremset in Stjørdal, Nord-Trøndelag.

Except for a few localities with cup-marks only, three types of localities are found. They are either dominated by boats (fig. 21), foot-prints (fig. 22) or by horses. Although one motif only is found at some small localities, these three main motifs do not seem to be mutually excluding.

I have also studied the preferred rock-surfaces. Figure 23 is a diagram based on around 140 measurements of sloping directions and inclinations at 50 localities. This diagram shows a broad belt of measurements from northeast through to southwest, with a major concentration of surfaces facing south and southeast. The inclinations generally are moderate.

Looking further into the spatial distribution of the localities, I found a strong tendency towards clustering. This was confirmed mathematically by a nearest neighbour analysis (Sognnes, 1983). Geographical coordinates were known for around 50 image localities. (Localities with cup-marks only were not included in the analysis). The 66% out of these localities lie less than 130 m away from their nearest neighbour locality. No locality lies more than 4000 m away from its nearest neighbour.

The localities were found to be clustered in 18 sites (in 1996 the number of sites has increased to 20). Around 1000 m seemed to be a fairly correct minimum distance between the two neighbour sites. These sites (=clusters of localities are supposed to represent separate social units. Thereby the distribution of the rock-art also should mirror the settlement pattern in the Stjørdal area at the end of the Bronze Age.

Within the two large concentrations of localities (Skatval and Hegra) the mean distances between the centres of neighbour sites are around 2200 and 2000 m respectively. Compared with the estimated minimum distance between separate sites (around 1000 m), there should be no space for any more rock-art sites or settlement units here. The central parts of these two parishes should be considered as filled cultural landscapes -based on the technological level at that time (Welinder, 1977). Theoretically this gives an average territory around each site formed as a circle with radius 1 km, which gives an area of 3-3,5 km².

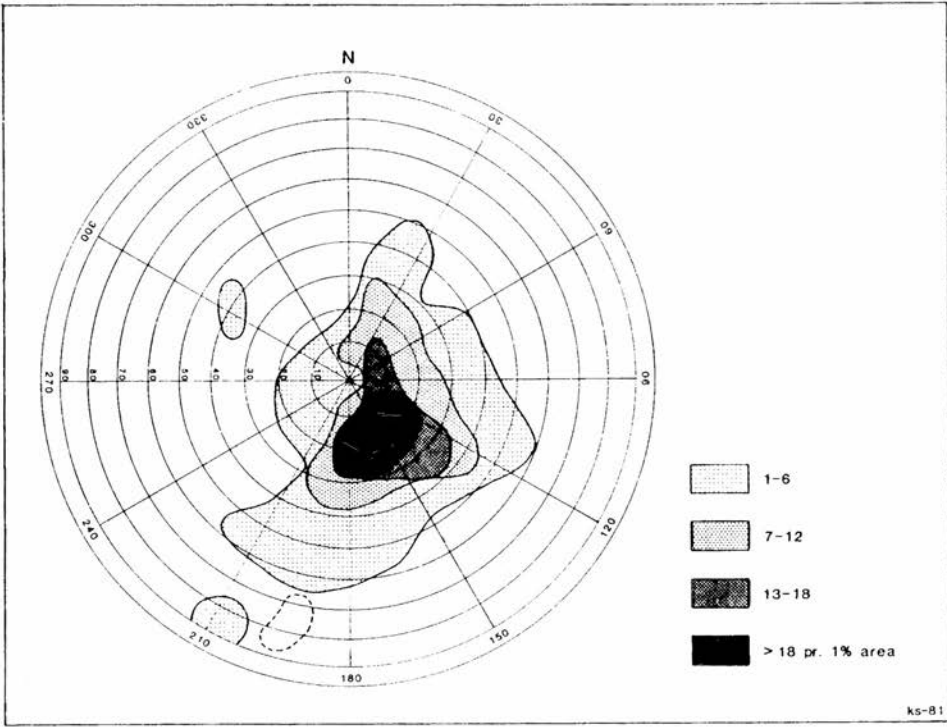


Fig. 23. Contour stereogram showing inclinations and orientations of engraved rock surfaces in Stjørdal, Nord-Trøndelag.

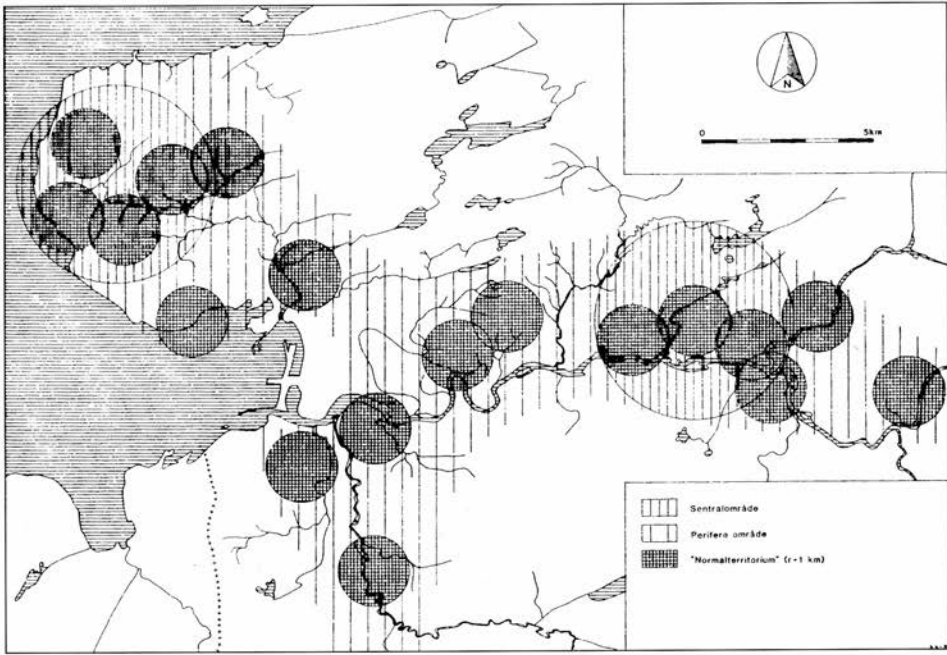


Fig. 24. Possible territories ($r=1000$ m) surrounding rock art sites in Stjørdal, Nord-Trøndelag at the end of the Bronze Age, 500 BC.

Figure 24 shows a theoretical situation based on these average territories. The landscape was «filled» in the central parts of Hegra and Skatval. Between these two probably initially settled areas, the settlement at the end of the Bronze Age was secondary and still scattered.

P.S: This paper was presented at the Valcamonica Symposium 1984. It was updated and corrected by the author in 1997.

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Riassunto

Recenti scoperte rivelano una ricchezza di arte rupestre in Norvegia centrale, superiore al previsto. In questa zona s'incontrano incisioni del ciclo caratteristico della Scandinavia meridionale ed incisioni di tipo nordico. Un'analisi della distribuzione nel territorio, fornisce alcune indicazioni sull'uso del territorio stesso nei periodi in cui l'arte rupestre fu istoriata.

Summary

Recent discoveries show an unexpected richness of rock art in Central Norway. In this region are found engravings characteristic of southern Scandinavia and rock engravings of nordic type. An analysis of distribution in the territory, supply some orientations concerning the use of the territory in the periods in which rock art was produced.

Résumé

Des découvertes récentes révèlent une richesse d'art rupestre en Norvège centrale supérieure aux prévisions. Dans cette zone se trouvent des gravures du cycle caractéristique de la Scandinavie méridionale et des gravures de type nordique. Une analyse de la distribution dans le territoire fournit quelques indications sur l'utilisation du territoire même dans les périodes où l'art rupestre fut produite.