### Gerhard Milstreu\*

# **Rock Art Research in Tanum (Sweden)**

Abstract: The rock carvings in Tanum, Sweden, constitute a priceless part of our cultural heritage of mankind and therefore have been entered up on the UNESCO's World Heritage List. Many panels weather due to the environmental pollution. An important step in preservation is to record the panels before it becomes too late. Tanums Hällristningsmuseum has throughout the years made important contributions to this task.

At the end of the nineteen-fifties, a systematic re-documentation of the rock art of Tanum was started at Tanums Hällristningsmuseum in Underslös as part of an annually recurrent seminar with the purpose of spreading the knowledge of and interest in the rock carvings in Tanum.

Until the end of the nineteen-eighties, the research consisted of thematic documentation of different types of figures, for instance female figures, types of boats, and of carvings with datable objects like types of weapons, types of ploughs etc.

This was an effective method for giving an idea of the frequency of the figures, which is in itself informative, and furthermore it might be used to form the basis of dating, because many datable objects such as axes, lures, and ploughs are depicted so precisely that they may be compared with other finds from that period and thus date the carvings.

The environmental debate in Sweden of the late 1980s influenced rock art research decisively. The attention was focused on the already established problem of weathering (fig. 1), and the museum decided to change its fieldwork and to employ the experience from many years of documentation work on a systematic re-documentation of entire areas of rock carvings.

The weathering situation is described as very serious, and it is a frightening thought that future research will have to be based on reproduced material such as rubbings, drawings, and photos.

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## Developing new methods

The degree of weathering of the rock surface varies a lot from one rock panel to the next, and even in the same panel.

Some surfaces are intact with undamaged carvings – others are totally weathered, so that figures have disappeared completely in places where we know they used to be.

This situation demands a lot from the method used and from the people using it. Naturally, an intact surface is relatively easy to document, and we can reproduce the figures almost 100 per cent correctly. Not so when the surface has been weathered.

The weathering makes it difficult to reproduce the original motif with absolute certainty, and we must either accept a certain amount of guesswork or omit those figures which we cannot reproduce correctly because of the weathering.

This is indeed an ethical issue, which has not yet been discussed in the field of rock art research. Which is why we do not have any generally accepted standards for the correctness of our documentation.

Tanums Hällristningsmuseum Underslös has many years of experience with documentation work, and the museum is all the time developing new methods for the various phases of the documentation and also continually assessing the suitability of the methods for different degrees of weathering.

The documentation must be seen as a total registration of the surface, that is figures, different types and degrees of weathering, plus fissures and areas with lichen or moss.

The complexity of the actual conditions calls for a differentiated method, which can reproduce the original shape of the carvings as precisely as possible.

The rubbing technique (fig. 2) is still the primary method, as no other method shows the surface of the rock including the carvings more precisely. Hardly visible figures are identified and photographed by night with lamps at an oblique angle.

The basis for research must be the documentation we provide in the rubbings, perhaps supplemented by night photos. This method is the closest you get to an objective reproduction.

The purpose of the painting (suspended quartz / SiO<sub>2</sub> which is one of the elements of the granite) of the figures is to make them visible and contrasting with the rock, so that the whole panel can be photographed for publication (fig.3).

But it should be realized that this method relies on interpretation: the person who performs the painting has to interpret, and this method can not be considered a one hundred per cent correct documentation — it has to be defined as an *illustration*.

Digital photography (fig. 4) makes it possible to emphasize and describe specific conditions on the rock panel and thus produce different photos of the same carving which supply different information.

# Electronic filing and communication.

The documentation project produces an enormous material consisting of thousands of sheets of paper (fig. 5), and this demands a cataloguing system which makes it possible to quickly identify a particular carving or figure, or the degree of weathering at the time of documentation.

Registration is part of the documentation and can be found in two systems of registration:

- HÄLLRIST a central database established in 1998 by Riksantik-varieämbetet (The Central Board of National Antiquities) with the purpose of collecting all data on documentation and registration in Sweden.
- HELIOS the database developed by Tanums Hällristningsmuseum Underslös, which has been in existence for some years and collects data from our own project: re-documentation in Tanum.

By using the newest electronic technology, rock art research has taken a great step forward. With the newest technology it is possible to collect old and new information, text as well as pictures, in a handy and clear form, and that opens new perspectives.

HELIOS is a data base which is especially designed for filing documentation of and research in rock art. Although the database has been designed for information on rock art regardless of geographic area, the museum has only used it for Tanum in Bohuslän, which is the geographical area on which we focus.

Traditionally, research and documentation results are published in books and periodicals. When information is published, it becomes static – new documentation and research has to be published in new books and periodicals. This creates a problem for those who use the information. They waste a lot of time locating the relevant information, as there are innumerable sources. A database minimizes this process and leaves you more time to produce results instead.

An even more serious problem arises when documentation and research results are not published in sources easily available to potential users. This may be due to insufficient exchange of knowledge across borders and continents, or caused by insufficient funding. Publishing books is expensive, and rock art research is a minor discipline, for which it is hard to attract publishers and funding.

The content of the database:

- all known information, basically drawn from the files of the Riksantik-varieämbetet, and all existing graphic material mainly Laurits Baltzer's pictures, which are about one hundred years old.
- new information and systematic graphic documentation of the redocumentation of recent years.
- a newly started archaeological part with pictures and descriptions of archaeological finds which are relevant for the understanding and dating of the rock carvings.

The database focuses on the categorization of figures and on graphic representation of entire rock art areas.

### Archaeological finds

Another perspective which is not directly connected with the documentation project, is a typological comparison of the figures on the rock with other archaeological finds (figs. 6, 7, 8).

The rock carvings are not our only relics from the past, but have to be seen in the context of our total knowledge of the past.

Research into the contents and age of the rock carvings is also dependent on data provided by other archaeological material.

That aspect has of course existed all the time and has also been included in the research.

But the handling of this material has been difficult and often confused. Electronic technology makes it possible to combine text and pictures in a much simpler way – for instance the pictures we know from bronze relics, and thus contribute to a greater clarity and establish contexts which can contribute to a better understanding of the rock carvings.

Several of the important areas of rock art, among these Tanum in Sweden, are on UNESCO's World Heritage List, and from 1997 to 1999, Tanum is under the auspices of an EU Interreg project, which supplies means for the preservation and documentation of our prehistoric cultural heritage – and that reflects an acknowledgement of the importance of the past for the people of today.

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#### References:

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Fig. 1 On this scene the left part of the rock surface is still intact. The weathering on the right part, however, is so bad that one of the ships has become almost invisible.



Fig. 2 The whole panel is covered with paper sheets, size  $70 \times 100$  cm and the carving is documented by rubbing.

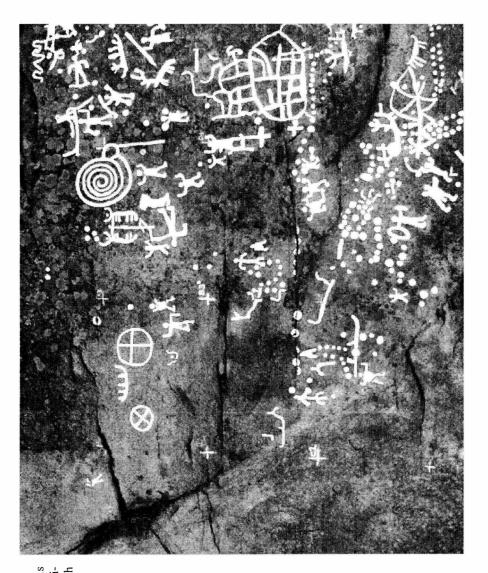


Fig. 3
After the rubbing has been completed, the figures are painted with suspended chalk.

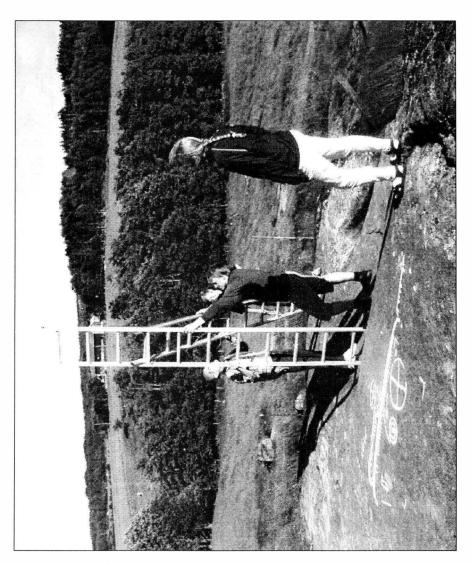


Fig. 4
Making ready for photography. The carving is traditionally placed, facing east towards the valley which was a fjord in the skerries in prehistoric times. Most of the panels are facing the fields as an integrated part of the peasant culture — today as well in the bronze age.

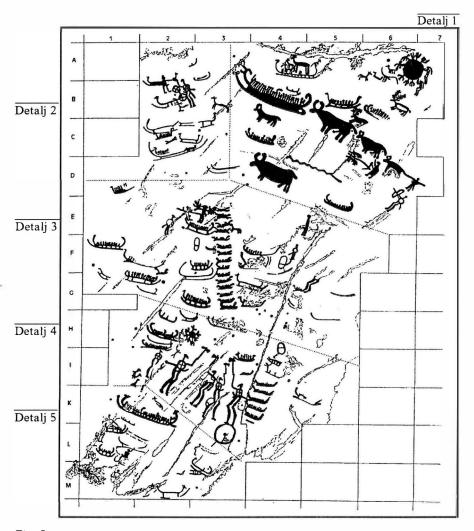


Fig. 5
The graphic form is based on the rubbing. A 1, etc. indicates the paper sheets from the rubbing documentation, and this panel is about 80 square metres.

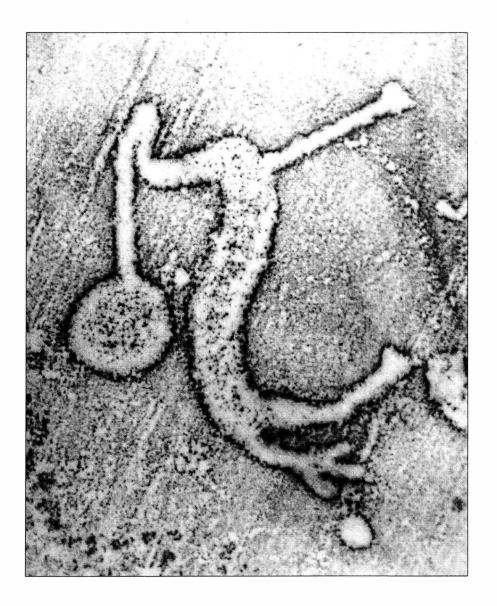


Fig. 6 Sun-horse from a rock carving in Tanum.

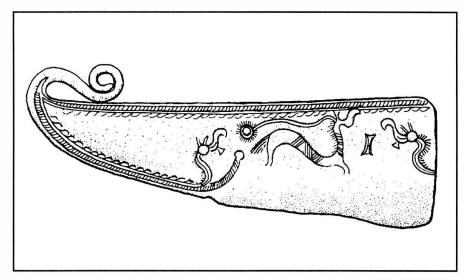


Fig. 7/8
A socalled archaeological part of the database is being constructed. These pictures show archaeological findings which give us extra information about the types of figures in the rock carvings. The sunhorses of the carvings (see fig. 6) have parallels on the razor from Neder Hvolris in the county of Viborg in Denmark from period 4 (fig. 7), and to "the Sun-horse from Trundholm" from the county of Holbæk in Denmark (fig. 8 below), which is from period 2. After Flemming Kaul.

