

TRADITIONAL ROCK ART RECORDING METHODS

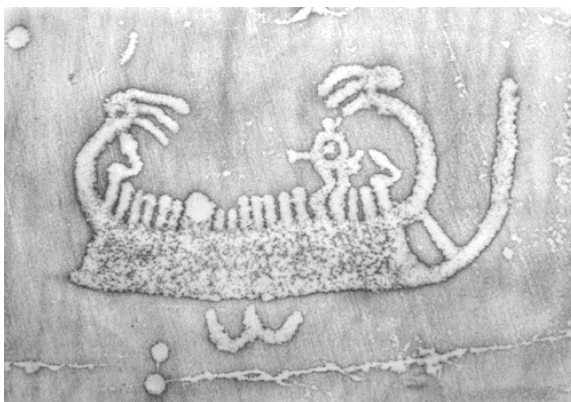
RUBBING

Rubbing is a technique that has several different forms. Two methods are considered here: firstly the *Tanum* method (used in Scandinavia) and secondly the *Wax Crayon* method (mainly used in the UK). Both of these techniques have been used for many years, and are the basis of many previous studies and archives. However they have now been superseded by more accurate and less subjective techniques, and they have also been shown to have flaws, due to their direct contact with the rock surface.

Tanum Method

The Tanum method of rubbing is heavily used in Scandinavian rock art studies. The panel of carvings is first divided into rectangles measuring 100 by 70 cm in a system of co-ordinates. (The sheets of paper are the same size). Rubbing is done using a soft sponge wrapped in carbon paper over the sheets of paper (110 gm) placed over the carving. Grass is then rubbed across the surface to 'fix' the carbon. This method is effective on the large flat rock surfaces on which Scandinavian rock art is often found, but since it captures only a single 'horizon' of carving it is less suitable for more irregular, curved surfaces, where it is difficult to capture the 3D nature of the carvings.

Many sheets of paper may be required to record the large areas of carving. For the Vitlycke carving 220 sheets were used, totalling 200 square meters of paper. For easier management, these sheets are usually photographed, reduced in size and combined digitally to reproduce entire panels.



a



b

Figure 1: The Tanum Method. Photograph a) provided by Jan Magnusson; photograph b) from Magnusson, J., C. Bertilsson and I.-M. Olsrud (2001).

Wax Crayon Method

The wax crayon method has been heavily used in recording rock art in the UK. It is accomplished by a user securing a piece of paper over the rock and then outlining the features on the surface following the contours of the rock surface with a wax crayon. The crayon is then used to rub over the surface of the rock. The resulting recording is used (along with photographs and direct observation) as the basis for scale drawings suitable for publication.

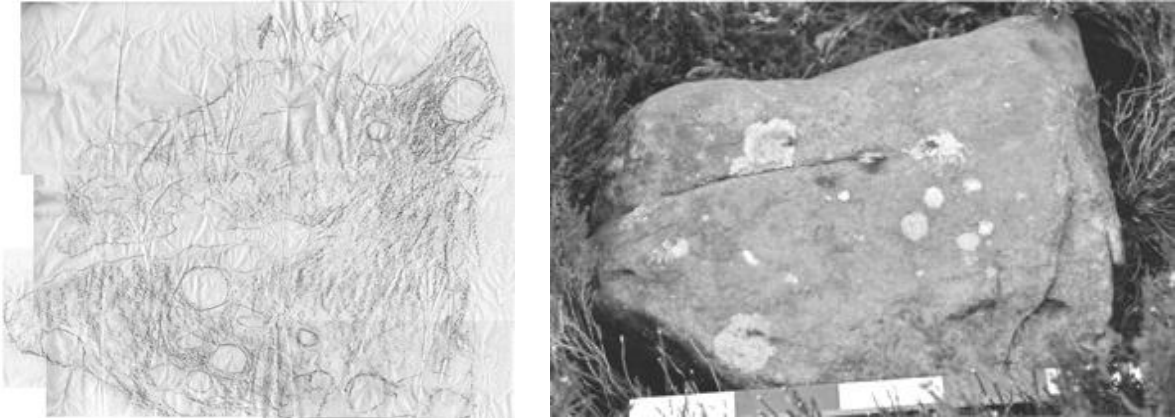


Figure 2: Wax Crayon Method.

Photographs by Andrew Blanshard, Dept of Archaeology, Durham University.

Issues

There are many reasons why rubbing methods are now considered unsuitable for British rock art, now that alternative approaches are possible. The direct contacts with the rock surface and use of carbon-containing materials have clear implications both for conservation and the C14 dating potential of the surface.

As with drawing and tracing, the process is hugely subjective, despite the best intentions of the recorder. Even the most experienced rock art researcher may interpret features in a different way on separate occasions, and the conversion of a 2D recording to 3D sketch inevitably increases this problem.

Both methods result in large volumes of paper which are difficult to store, manage and to manipulate. To create images suitable for publication the primary recordings must be further processed, either by photography and digital image processing or by using them to create drawings.

References

Magnusson, J., C. Bertilsson and I.-M. Olsrud (2001) Development of Documentation Standard and IT System. *Rock Carvings in the Borderlands. Bohuslän/Dalsland and Østfold - An INTERREGIIA project - Final Report*. K. Kallhovd and J. Magnusson. Göteborg and Sarpsborg, Länsstyrelsen Västra Götaland and Østfold County Council: 33-46.

TRACING AND DRAWING

Tracing and drawing are commonly used methods of recording rock art, particularly when more sophisticated techniques are not available. Both methods can be useful, although the quality and accuracy of the finished product depends largely on the skill and experience of the recorder. Neither is sufficient in itself for archival, research, or conservation purposes and both are usually supplemented by photography.

Scaled drawing is a cheap and fast method. A photograph and a “quick and dirty” scaled drawing may be all that is needed to document the extent of imagery present in a preliminary survey and provide a basis for further management decisions. Tracing is in some ways easier than scaled drawing. It is usually not necessary to establish a level reference, as the entire panel is reproduced at a 1:1 scale, eliminating the need for relative measurements. However, it is often necessary to use several sheets of the drawing material, in which case it is essential to note joins (using at least two marks). Tracings completed by a skilled person result in particularly clear and fairly accurate illustrations, which can be extremely useful for research and publication purposes. Tracing can be very useful in situations where conventional photographs do not show faint details, as the close proximity of the recorder to the panel allows for detailed examination.

Creating a scaled drawing

A scale or set of reference points is first established, against which the imagery will be measured. This may be a grid constructed of strings spaced an equal distance apart on a frame, or a tape measure stretched across a panel. A simple line level, such as that used by bricklayers, is used to create a level reference grid. The location of different points on an element is then measured relative to the grid, and plotted on graph paper at the appropriate scale. Essential information, such as a key to colors or techniques of manufacture, the name of the recorder, the date, site name or number, and the scale of the drawing, should always be included.

Issues with scaled drawing

It can be difficult to find a suitable place to attach a grid or string, especially if a panel is large, on a fragile rock surface, or has an awkward shape. In order to provide a consistent reference, the grid should be level and secure against the wind and mishaps. It should not touch the panel itself, and the means used to secure it should not damage the rock surface or any adjacent panels.

No matter how well-intentioned or skilled the recorder, drawing is inherently subjective. Changing light, viewing angle, visual acuity (including colour-blindness), the height of the recorder, and even an individual’s ability to recognize particular shapes can influence what is recorded. Any drawing is also distorted in the translation of a 3D object into a 2D representation. Information about the relative depth of pecked engravings, superimposition, colour changes, and the distance between elements can be lost. Additionally, it can be difficult to reproduce a sense of perspective, particularly if the recorder has little knowledge of artistic techniques. It can also be time consuming, and very frustrating, to create a scaled drawing. Weather conditions can make rock art sites uncomfortably hot or cold, obscure elements which can only be seen in certain lighting conditions and knock string grids and reference points down.

Creating a tracing

Most tracings are prepared on stable materials suitable for long term storage, such as Mylar or drafting film, although this may vary according to the purpose, weather conditions, and budget. The drawing medium is fitted over the rock art panel and secured using a low-tack tape, which does not leave a residue on the rock surface or pull pieces of it off. The underlying images are then drawn on with a permanent marker or drafting pens. The outlines of images are drawn, and sometimes individual peck marks and lines are included. Natural features, such as cracks and lichen, are usually drawn in a different color to the motifs. The completed field tracings are usually re-drafted in the lab on a clean sheet of drafting film. These are in turn drafted at a smaller scale in order to create illustrations for publication, or simply more manageable and accessible records.

Issues with tracing

Tracing requires more costly materials and is generally more time-consuming than drawing. Depending on the specific techniques used and the size and complexity of the panel, it can take several days to trace a panel. A 1:1 copy of a panel may be very large, and consequently difficult to store and access. Tracing can also be very physically demanding, involving holding uncomfortable positions for long periods of time, and eye strain. Tracing is also impractical in certain situations: the panel may be inaccessible, light conditions or the state of preservation may make it impossible to see through the recording medium, or there may be no suitable place to attach the tracing film.

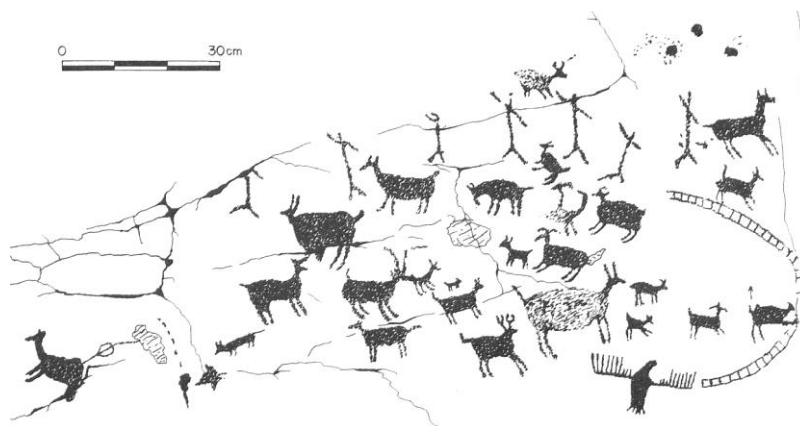


Figure 1. Comparison of tracing and photograph, site number 5LA5280, Colorado.
Tracing by L. Olson; Photograph by A. Wintcher.