

## RECORDING AND DECIPHERING OF ROCK PAINTINGS IN LESOTHO

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Rock art confronts us with two fundamentally distinct sets of challenges concerning preservation and study.

Confusion between aspects of each has led to misunderstanding and because both require specialized expertise and different approaches, they should be considered distinctly.

### *The Care of Rock Art:*

Our first responsibility towards rock art is to ensure its survival: in the most complete and well preserved condition as possible within the techniques and funds available. The following steps need to be taken:

- 1) Systematic surveys in order to locate the sites.
- 2) Conservation techniques: concerned with problems of deterioration due to natural processes, the use of preservatives, removal to musea and the like.
- 3) Protection measures; to deal with human interference: vandalism, the use of sites for other purposes, tourist management, education, and publicity.
- 4) Recording: documentation in situ of all information still present, by means of exact and comprehensive recording techniques.
- 5) Archival storage of the results: written, photographic, and other records.

### *The Study of Rock Art:*

The overall aim of rock art studies is to contribute to a better understanding of the cultures that produced the art. What is depicted must be correctly deciphered before data can be extracted for description, analysis and interpretation.

## RECORDING

The ARAL project has opted for a combination of colour slide photography and site reports. Colour slide photography efficiently produces rather quickly an objective and comprehensive visual record of a great number of sites, which is at any time available for deciphering and analysis. It is thus especially suited for the recording of large concentrations of rock painting sites and in case of rescue operations. In addition, the image on a slide, while relatively permanent, can be projected, enlarged, printed, deciphered, and enhanced by means of computer programmes. It is suitable for digital storage and can be utilized in colour separation-techniques.

The systematic photographic recording of more than 600 rock art sites by the ARAL project in Lesotho proceeded as follows: initially a number of research areas were selected, to obtain a representative sample of rock art in the country.

- 1) The entire site should be thoroughly searched to locate all paintings.
- 2) The painted area is divided into panels: where groupings are obvious they form the content of the panel, otherwise natural rock features delineate the extent of each panel. If the panels are extensive and particularly densely painted, or if the painted surfaces are very irregular, they are subdivided into sections.

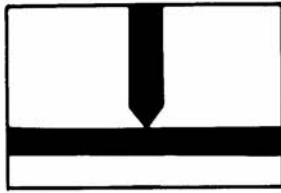
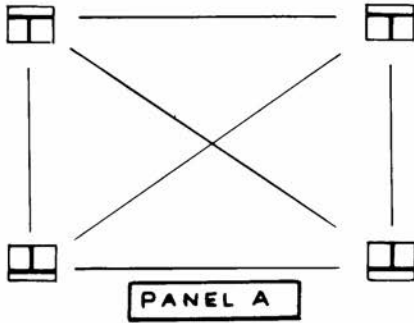


Fig. 68  
Sketch of panel contents towards the compilation of a site report.

Figs. 69/70  
Indian ink drawings made from colour slide projections.



3) At each site, and at the beginning of every roll of film, a standard 18% reflectance neutral grey card is photographed, on which is recorded the site and film number and the date. After the film has been developed, particular colour casts on the card indicate processing faults or the mishandling of the film before use. The slide may also be used for colour analysis in the production of colour plates.

4) The next slide is taken of the first panel as a whole. Five perspex markers are included for scale and measurement. The markers are: a) one 20 cm. x 20 cm. marker to record which specific panel is being photographed. This marker is placed below the panel; b) four 3 cm. x 4,1/2 cm. markers placed in the form of an approximate rectangle on the four corners of the panel. India ink lines on the marker indicate the exact point of the relevant corner. After the panel slide has been taken, the six distances between the four smaller markers are measured and noted on the Panel Drawing form. The measurements are used to establish the correct size of the panel when projected. In deciphering, the measurements of a specific triangle relevant at that moment are utilized. To photograph the next panel or section, the two right-hand markers are left in place while both left-hand markers are moved to their new position.

5) Within a panel, at least each group of paintings is photographed with a 10 x 1 cm. marker included for scale at the edge of each picture.

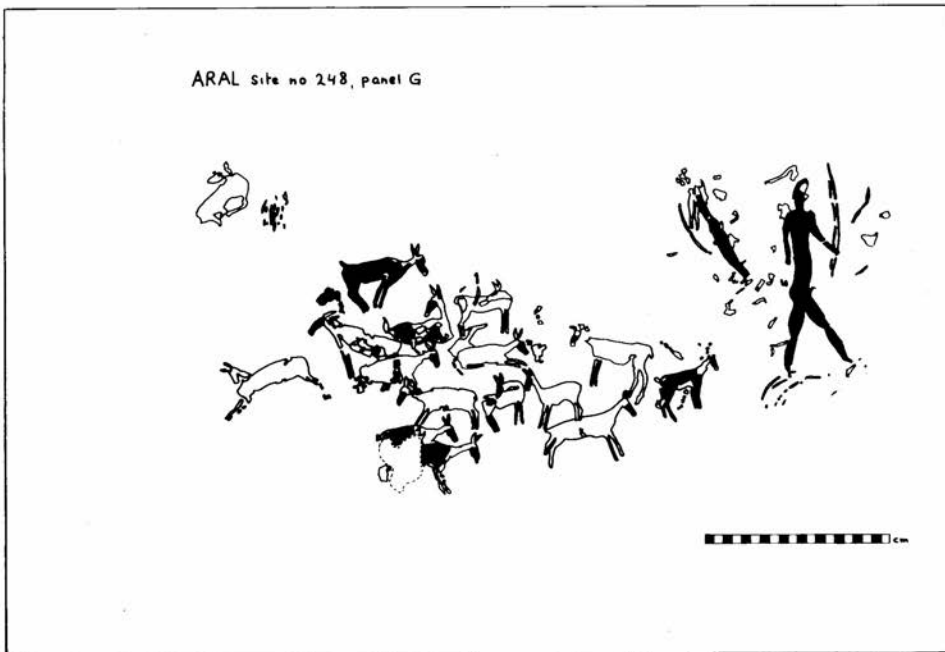
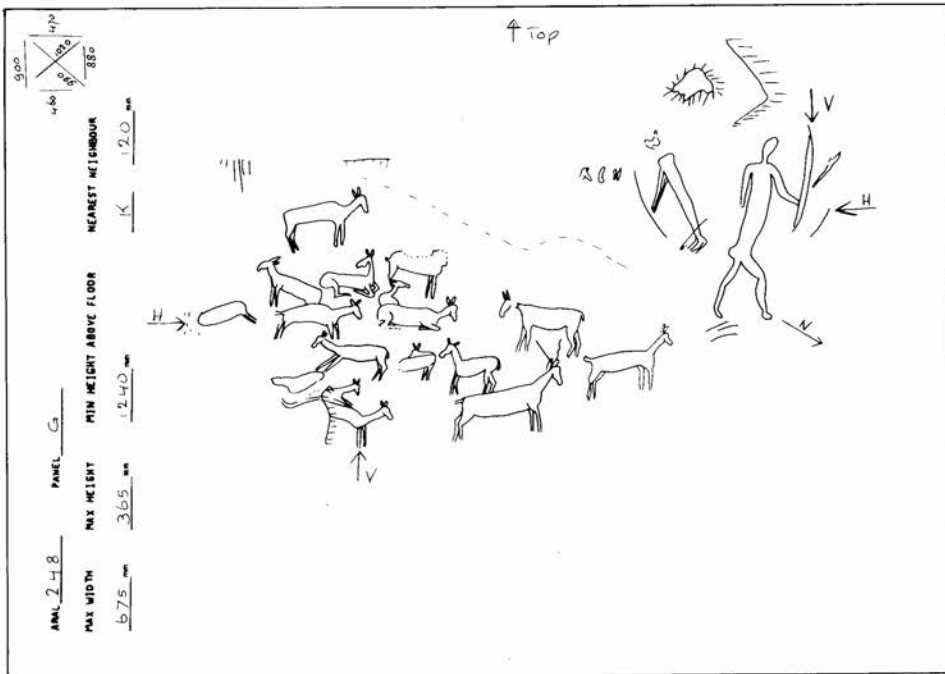
6) After a panel has been recorded, any area that separates this panel from the next panel is photographed, including the edges of both panels concerned. The two right-hand markers are still indicating the first panel, and both left-hand markers have already been moved to their new position. A wide-angle lens is used where necessary, and the distance separating the panels is noted on the Panel Drawing Form.

7) The above procedure is repeated for each panel until the entire site has been recorded.

8) The site is then photographed as a whole.

9) A photograph is taken from the view out of the site.

10) Finally, the site itself is photographed from some distance, whereby the exact location of the site is indicated in the landscape by a pointer, e.g. a person holding a stick, included in the picture.



When the site has been completely photographed, a site report is compiled. It includes any measurements that have been taken, free-hand sketches of the panel contents, site plans, the access route to the site and any other relevant information. The area selected and the location of the recorded sites are indicated on topographical maps (1:50000) and a brief diary of activities is kept. Slides returned from processing are numbered per site and filed in clear plastic sheets with metal file-hangers, 20 slides per sheet, which are stored in standard metal filing cabinets.

ARAL 389 SHEET 2927C DATE 17-6-81 TIME 055-1150 (SUN) OVERCAST RAIN

FILM/SLIDE No. 576/20 - 576/30

NAME OF SITE LEHAMA LA MOPHOKONG

CATCHMENT AREA NTHORONGE RIVER

TYPE OF SITE	EXPOSURE	ASPECT	GEOLOGICAL STRATA
(BOULDER)	EXPOSED	(N) NW	BASALT
DUTCHOP	(OVERHANG)	NE W	(CAVE SANDSTONE)
CLIFF	CAVE	E SW	TRANSITIONAL BEDS
OTHER:	OTHER:	SE S	RED BEDS
			MOLTEND BEDS
			UPPER BEAUFORT BEDS

CAVE DWELLINGS	STONE WALLING	SURFACE ARTIFACTS	DEPOSIT - TYPE
PRESENT	PRESENT	(PRESENT)	(PRESENT) - Gritty soil.
(ABSENT)	(ABSENT)	(ABSENT)	ABSENT
UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN

HEIGHT ABOVE/BELOW TERRAIN 75 m PAINT MAX VERT DIST 0.36 m

DISTANCE TO WATER 50 m MAX HOR DIST 0.7 m

WIDTH OF SITE 3 m PAINTED AREA 0.26 m<sup>2</sup>

DEPTH OF SITE 2 m No OF PANELS 1

HEIGHT OF CEILING 0.9 m No OF REMNANTS MANY (FEW) NONE

HABITABLE FLOOR AREA 4 m<sup>2</sup> AREA NOT UTILISED (PRESENT) ABSENT

VIEW FROM SITE Over lowland plain.

GENERAL TERRAIN Mountain side with sandstone cliffs at upper levels, outcrops and boulders lower.

SPECIAL CHARACTERISTICS AND REMARKS Single island with other figures

Fig. 71  
Gathering of information for the site report.

For recording the ARAL project uses Kodachrome 64 film and a 35 mm. camera, with a selection of lenses: 50 mm. f1.8; 50 mm. f3.5 macro-lens; 28 mm. f2; and a 70-120 mm. f3.5 zoom lens.

On either side of the camera identical electronic flash units with automatic exposure, zoom and diffuser facilities are mounted. They are employed with every exposure, to ensure standard recording conditions and to eliminate the various colour casts that can result under natural light conditions.

Films used are numbered continuously rather than per site. The number of the film used is noted on the site report, on the film spool and on the lid of the spool container.

## DECIPHERING

Unravelling the content of the rock art of a site is essential for, and an integral part of the study of rock paintings. Deciphering is a subjective process and various researchers employ different methods, e.g. tracings. The ARAL project uses free-hand sketches made in the field as well as indian ink drawings.

A colour slide showing the whole panel or section is projected onto the drawing material, at a 1:1 scale with the help of the distance between the four markers noted on the panel drawing form. Outlines of all paintings, of exfoliated areas, cracks, and other features of the rock surface are first drawn in pencil.

The individual paintings are then completed in ink, while projecting a slide that shows the relevant details on the drawing material. If the drawing is

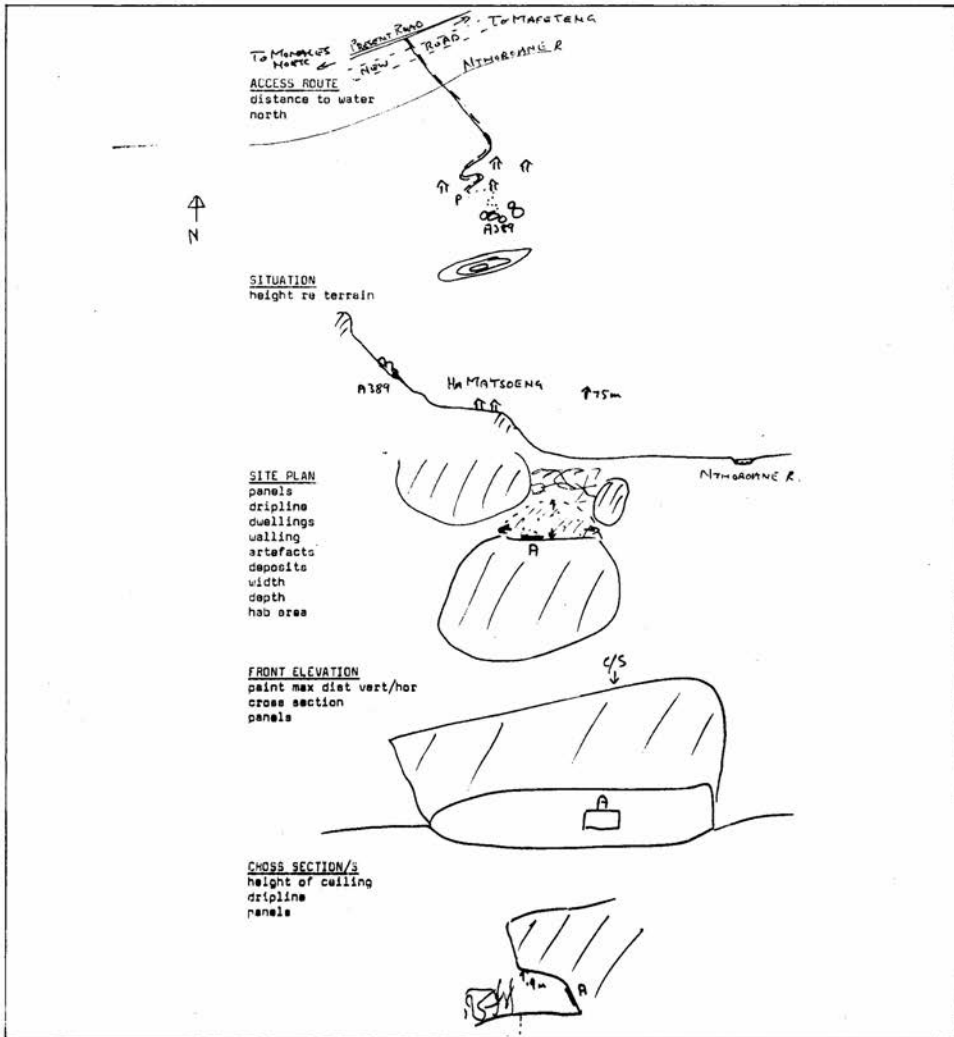


Fig. 72  
Gathering of information for the site report.

to be published, the areas in darker colours are filled in, while lighter colours are outlined only. Adjacent darker colours, e.g. in superposition, are separated by a thin blank line. When a drawing is complete, it is dated and initialled; the number of the site and panel, plus the scale are added, and a second sheet of tracing material slightly larger than the first, is superimposed and attached to one side of the drawing. On this protective sheet the individual paintings are numbered from top-left to bottom-right. The drawings are photographed for reference purposes, and then stored in cardboard tubes.

Every drawing should be checked against the original paintings at the site, wherever possible.

For deciphering, a normal slide-projector is mounted perpendicular to the horizontal drawing surface. It is attached to a vertical column and can, within limits, be raised and lowered to adjust the scale of the projected image. For this purpose, a range of lenses (65mm.-120 mm.) is also availa-

ble. If the panels are too large to be projected vertically at the required 1:1 scale, they are projected horizontally against a large wall by means of a projector with a zoom lens. The drawing material used is Reprolar D (1016 mm. x 20 m.). It is semi-transparent, and has the necessary qualities of strength and durability. Other equipment used includes Rotring drawing pens (0.18 mm.—1.2 mm.), paint brushes, black Pelikan drawing ink TT and Rotring TB20 erasers, suitable for indian ink and pencil on Reprolar D.

The method described has many advantages and allows the sites to be deciphered and studied even after the original paintings have disappeared. However, any shortcomings in the photography are critical: care has to be taken to keep the film-plane of the camera parallel to the surface being photographed, in order to minimize distortion, and particular problems occur where paintings are on shiny, highly polished surfaces. Also, once away from the site, there is no opportunity to have a closer look at the paintings from a different angle. Archival storage of colour slides still poses problems: with respect to the preservation of the original slides, it is recommended that duplicates be used for the deciphering process, as the fading of slides is accelerated by long periods of projection. The final drawings contain distortions and subjectivity, though this is not a problem peculiar to this method. It is also not possible to do full justice to shaded polychromes in simple black and white drawings, but these are not intended to be an end in themselves: they are only tools in the study of the information on the colour slides.

Whatever the advantages and shortcomings of the various recording systems, in making our choice we have to take into account that it often will produce the only record available — however incomplete and imperfect — of the rock art in a region, as the rock art itself, at least in Lesotho, is rapidly deteriorating and, with time, will have vanished completely.

*NOTE: Full-time research into the rock paintings of Lesotho began in 1979 at the National University of Lesotho. It was supported until the end of April 1982 by funding from WOTRO, the Netherlands Foundation for the Advancement of Tropical Research, and from the Directorate of Technical Assistance, Ministry of Development Cooperation, the Netherlands. Since 1982, it is supported by a grant from the Leverhulme Trust in the U.K. This assistance is gratefully acknowledged. I also wish to express my appreciation to J. Alferts and P.N. Bardill-January, past members of the ARAL team, for their invaluable contributions to an earlier version of this article.*

*Résumé: L'article décrit les méthodes employées par le project ARAL (Analysis Rock Art Lesotho) pour enregistrer et déchiffrer l'art rupestre du Lesotho. Les avantages et les inconvénients de cette approche sont analysés et l'équipement le plus utile, selon ARAL, a été examiné.*

*Riassunto: L'articolo descrive i metodi usati per il progetto ARAL (Analysis Rock Art Lesotho) per il rilievo e l'identificazione dell'arte rupestre del Lesotho. Vengono analizzati sia i vantaggi che gli inconvenienti e l'equipaggiamento più utile per questo tipo di studio.*

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