

## **IFRAO Report No. 12**

### **NOTES FROM INFORMAL IFRAO MEETING**

New Delhi, India, 7 December 1993

This meeting was held as part of the Global Specialists Conference on Rock Art, at 3 pm on 7 December 1993. Present were:

P. Bahn (AURA), D. Seglie (CeSMAP), O. Odak (EARARA), A. Fossati (Le Orme dell'Uomo), Chen Zhao Fu (RARAC) and R. Querejazu Lewis (SIARB).

Dario Seglie presented the announcement and preliminary list of symposia for the 'NEWS 95' congress to be held in Pinerolo, Italy, in 1995 (30 August - 8 September). The IFRAO business meeting will also be held at this event. There will be 'working field-trips' during the congress, and numerous excursions afterwards. One new symposium title was added to the fourteen already listed: 15D, Christian manifestations in rock art.

Osaga Odak raised objections to the title of symposium 13D, Rock art and the Sahara, on the grounds that rock art exists in other parts of Africa. It was provisionally agreed that the symposium's title might be changed to 'African rock art', depending on the papers submitted.

Paul Bahn reminded the meeting that 1996 would feature the Third AURA Congress in Australia, venue still to be announced.

Roy Querejazu Lewis issued an official announcement of, and invitation to, SIARB's IVth International Rock Art Symposium which, together with the annual IFRAO meeting, will be held at Sucre, Bolivia, in March or April 1997. Its main theme will be rock art dating, but there will also be two or three other major themes. One possible theme that emerged from discussions at the meeting is a focus on research involving local ethnic groups. The Northern Hemisphere no longer has any native cultures practising rock art, whereas the southern one does, together with ethnic groups who still interact with rock art sites, even though the motivations may have changed over time. Rock art scholars should be encouraged to carry out research programs  $\frac{3}{4}$  whether postgraduate studies or specific projects  $\frac{3}{4}$  in countries housing such ethnic groups, and in combination with them.

Roy Querejazu also announced a World Exhibition of Rock Art Posters to be held in Bolivia in 1994. It will open for three weeks at the National Museum of Art in La Paz next September, and will then tour other Bolivian cities. Rock art specialists are invited to send in posters for the exhibit.

One recommendation emerged for the next IFRAO meeting: any country staging a conference that is to host an IFRAO meeting needs to obtain  $\frac{3}{4}$  at least three months in advance  $\frac{3}{4}$  some firm indication from the various IFRAO Representatives as to whether or not they are going to attend, so that it will be clear from the outset whether the meeting is to be a formal or informal one.

Paul G. Bahn  
Vice President, AURA  
RAR 11-305

### **INTRODUCING THE IFRAO STANDARD SCALE**

R. G. BEDNARIK

#### **Preamble**

The IFRAO Standard Scale was first proposed in IFRAO Report No. 6 (Bednarik 1991). Consultation of researchers and various specialists in the three years since then has led to progressive evolution of the design (cf. RAR 8: 156) until it was finalised in 1993. The Australian Institute of Aboriginal and Torres Strait Islander Studies then made available a grant to meet the cost of producing the Scale, through its Rock Art Protection Program. The Institute realised the enormous advantages of such a measure  $\frac{3}{4}$  in documentation, computerisation, and the study of rock art and patination.

#### **Purpose of the Scale**

We know that there are many millions of photographs and colour transparencies of rock art in existence world-wide: in my estimation at least twenty million. Many archives have in the order of hundreds of thousands of images, while thousands of individual researchers each possess collections of many thousands of colour slides or photographs. We also know that this enormous collective record is irreplaceable, and yet it is doomed to eventual destruction. No

known photographic dye is fade-proof, and we still lack any form of permanent photographic or digitised storage of imagery; even optical discs have limited life-spans (Dickman 1984). In short, this enormous effort of creating a visual record of world rock art is ultimately in vain. Even with rapid rock art deterioration it will be survived by most rock art, fortunately. But there is a simple way of rendering this massive record permanently useful, and we will come to this later. First, some basic considerations.

In scientific photography it is essential to know the size of an image, and while it can be indicated quite effectively by such ubiquitous objects as matchboxes, hats, sunglasses and wrist watches, it seems more desirable and is certainly more precise to include a metric scale on pictures. For this purpose, Taylor et al. (1979) designed a simple ten-centimetre scale. One would have thought that the idea was welcomed and widely applied, but not so: still today, most photographs of rock art bear no scale to indicate the size of the image.

A scale has other roles too. It serves as a general indication of a photograph's sharpness, by showing how well it was focused and processed. Manual focusing is often difficult with rock art, because of the typical lack of straight or well-defined lines, and the operation of a camera with viewfinder focusing is much easier by selecting one of the lines on a scale.

More important than the black and white scale markings are the colour blots. The colour properties of an object are always distorted in a photograph, by such factors as optics, film type, paper type, temperature and, most particularly, lighting conditions. Therefore a colour photograph cannot be expected to be a true record of chroma, value and hue. However, by checking the colour distortion on the photographed scale, we can obtain an indication of its severity. Some rock art researchers (a very tiny minority, I must add) have been using a variety of colour scales, including the Munsell Soil Colour Chart, the Kodak Colour Separation Guide, the Letraset Pantone colour chart and a surprising variety of others. These colour standard charts have one feature in common: they are expensive. Other than that they are all different, and standardisation would obviously be desirable here.

The main reason for needing a standard photographic scale, however, is considerably more important than what has been mentioned so far. It is its function as a colour calibration device for a variety of computer-supported uses. Colour enhancement methods have been used in rock art studies for over a decade (Rip 1983). It would be comparatively easy to develop software that would re-constitute the colour of photographed objects from colour-distorted, and even from faded, photographs. The only precondition is that the photograph must bear a colour standard against which the computer can calibrate. The greatest advantage is that a computer would then not recover the colour properties of the original photograph, before it faded, but would go beyond that  $\frac{3}{4}$  all the way back to the true colour of the rock art image at the moment it was photographed! It would re-constitute the actual colour properties of the subject at the time, even if this was several decades earlier. Colour re-constitution thus compensates for photographic distortion as well as for the subsequent fading of dyes. This will open enormous possibilities in research, recording, documentation storage, computer manipulation and conservation studies. For instance, such techniques will facilitate precise monitoring of deterioration of rock art and patinae over very long periods (Pager 1992; Ward and Maggs 1994). They will permit the recovery of objective colour information, free of the 'technical subjectivity' of conventional photography. They will facilitate the digitisation of real colour information, which can then be used in many ways: it can be permanently stored, it can be used as the basis of enhancement procedures (Rip 1989), or it can be cross-checked in intra- and inter-site studies for various purposes by engaging computer search functions. Such information can also be used in conservation, retouch, graffiti and lacunae repair, comparative pigment studies, sourcing studies, dating work, recovery of very faint images, and so forth. It provides a reliable base for numerous applications, and while many of the technologies required may not yet have been developed, it is most reasonable to expect that they will be available within twenty years or so. All that is required at this stage is that every photograph taken of rock art for scientific purposes must bear the same colour calibration standard scale.

The long-term effect of the use of the IFRAO Standard Scale will be a standardisation of the photographic record of world rock art. The colour information in this record will remain fully recoverable despite being distorted or suffering from deterioration. Progressively, our archival record will become a permanent record, by virtue of its eventual retrievability. The greatest fear of all rock art students, that the art will deteriorate beyond archival recovery, can be met by the knowledge that the susceptibility of our photographic record to colour calibration will lead to an 'ultimate conservation method'. We will have the means of preserving rock art in pristine condition forever. The photograph you take today may be of great value to researchers of future centuries; it may be the only remaining record then. Without the scale your photograph will have become useless before these researchers will have even been born.

#### Use of the IFRAO Standard Scale

One specimen of the IFRAO Standard Scale has been inserted in this issue of your journal. It bears the printing date, and I anticipate that it will remain sufficiently accurate for five years, provided that it is correctly stored: in a dark, dry and cool place, exposed to direct sun light or photographic flash only when actually used. Consequently it should be stored in a suitable protective case when it is not in use. The Scale has been printed on matt stock to minimise reflection, in light-resistant dyes. It includes a grey scale for comparing tone values. The patches correspond with reflection densities of 0.0, 0.70 and 1.60 respectively.

The Scale must never be placed over rock art, or very close to a motif. Preferably it should not be attached to the rock face. In vertical or over-head locations, the Scale should be hand held. Only where definitely undecorated and structurally sound rock surface is available may the use of small double-sided adhesive pads be considered, or the insertion of small metal pins through the Scale to affix it to soft rock surfaces (in limestone caves); but this is to be avoided whenever possible. It is suggested that the Scale be so positioned that it will appear near the margin of the photograph, either in horizontal or vertical position. It must receive the same photographic exposure as the rock art motif, and not be obscured by the date if a camera with electronic time display is used. The small scale on the left-hand end of the IFRAO Scale is intended for close-up photographs.

The IFRAO Standard Scale will be distributed free to all rock art researchers of the world (the members of all IFRAO-affiliated organisations) once every five years. Additional specimens are available from the IFRAO Convener's office (P.O. Box 216, Caulfield South, Vic. 3162, Australia), at US\$2.00 each (\$A2.00 in Australia), for air mail postage and handling. The sale of the IFRAO Scale for profit is not permitted. The Scale is not subject to copyright within IFRAO and may be reproduced by any organisation affiliated with IFRAO  $\frac{3}{4}$  but again, not for profit.

#### Acknowledgment

I express my gratitude to the sponsor who underwrote the production costs of the IFRAO Standard Scale  $\frac{3}{4}$  the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra, Australia.

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- RAR 11-306

The next IFRAO Report will include the progress reports received from IFRAO Members.

#### **INTERNATIONAL ROCK ART CONGRESS**

Including 1995 IFRAO Business Meeting  
30 August to 8 September 1995  
Pinerolo and Turin, Italy

#### Program

This major event is organised by the Centro Studi e Museo d'Arte Preistorica (CeSMAP). Fifteen academic symposia will be held over a period of ten days. There will be field trips to rock art sites, debates, films and displays, exhibitions (e.g. rock art in the Alps, rock art in Europe, rock art in the Sahara etc.), museum visits, plus several special events, including the 1995 IFRAO Meeting, opening plenary session, cocktail party, concert, farewell dinner etc. Other rock art organisations are welcome to hold their meetings at this congress.

Intending participants are encouraged to submit abstracts in English. Please request names and addresses of symposium chairs from CeSMAP. All abstracts will appear in pre-congress publications and NEWS 95 Congress Program. All papers suitable for publication will appear in post-congress volumes. The symposia are grouped into four thematic areas.

#### Thematic areas and symposia

Thematic area A: Rock art studies

1A - New approaches

2A - Semiotics, signs and symbols

3A - Rock art and music-archaeology

Thematic area B: Rock art and presentation

4B - Mass media

5B - Museology and museography

6B - Management

Thematic area C: Rock art and conservation

7C - Ethics

8C - Preservation and restoration

9C - Rock art and archaeological excavation

10C - Dating, recording and computer science

Thematic area D: Rock art in the world

11D - Rock art and Arctic Circle

12D - Rock art and Mediterranean Sea

13D - Rock art and the Sahara

14D - News from the world (pref. posters)

15D - Christian manifestations in rock art

Field trips: numerous field trips will be conducted, both during and after the academic program: to post-Palaeolithic rock art sites in the Alps, Mount Bego, the Rock Cavour Park, western Alps, Savoy, Val d'Aosta stelae, Val Camonica, Carchenna etc. Tours will be conducted on the subjects of prehistory, ethnography and history in Italy, to Turin, Milan, Venice, Florence, Naples, Rome. There is an international airport at Turin.

Support: Italian Central Office, regional government agencies, EEC, European Authority.

Information about CeSMAP: The Centro was established in 1964. Research of the CeSMAP has considered two different fields: the pre-Historic spiritual sphere through the millennia, as expressed in rock art, and the evolution of pre- and proto-Historic material culture in the climatic and environmental context of the western Alps. CeSMAP produces Survey, an annual international journal, sent to many countries (500 exchanges); its contents are listed by the Unesco-ICOM Documentation Centre. CeSMAP has been decorated with the EEC European Culture Award 1991. CeSMAP promotes exhibitions on rock art, didactic aids, and educational and museum activities. CeSMAP is involved in international projects and activities. Membership with CeSMAP is open to all persons and institutions. CeSMAP is a founding member of IFRAO, and is the Italian Representative of IFRAO.

Pre-registrations and enquiries to: CeSMAP, Viale Giolitti 1, 10064 Pinerolo (TO), Italy  
Telephone 121-794382, FAX 121-76550

Professor Dario Seglie (Director, CeSMAP)

Dr Piero Ricchiardi (President, CeSMAP)

ROCK ART STUDIES:

NEW APPROACHES

Rationale for Symposium 1A of the

1995 International Rock Art Congress

in Pinerolo, Italy

Among the topics likely to be covered in this symposium are technological studies and physico-chemical analyses; the identification of various types of residues; computerised programs of image analysis and manipulation; nano-stratigraphy of paints; direct dating of rock art; microscopic study and 'internal analysis' of tool marks in rock art and portable art; discrimination of anthropic and non-anthropic marks on rock and portable objects, and relevant ethology; replication studies; erosion and micro-erosion studies; relationships between phylogenetic and ontogenic development of logic and symbolism; the psychology of iconicity and its decipherment; concepts of type and typicalness in prehistoric art, symbolism and psychology; distinction between mental and artistic representations; the application of taphonomic logic; epistemology in the formulation of theories and in the interpretation of palaeoart; valid applications of statistics in the discipline; sound utilisation of universals in palaeoart studies. Contributions are invited from many disciplines. An integral component will be an exhibition of specialised scientific equipment and technologies which are envisaged to play a role in the new research directions in palaeoart studies.

Papers from Africa, the Americas, Asia and Australia can be submitted to Robert G. Bednarik, AURA, P.O. Box 216, Caulfield South, Vic. 3162, Australia. Papers from Europe, including Russia, can be submitted to Francesco d'Errico, Department of Archaeology, Downing Street, CB2 3DZ Cambridge, United Kingdom.