

IFRAO Report No. 6

IFRAO KEYWORDS

International standardisation of keywords for rock art
DARIO SEGLIE

The use of keywords (4-5 words that frame and synthesise a paper) is already widely accepted and frequently adopted by most of the scientific periodicals dealing specifically with rock art as a general subject (e.g. Purakala, RAR, Survey).

The use of keywords can take place at different levels:

- (a) To assist a reader who manually skims through a publication or library file.
- (b) To enable computerised research on bibliographical files contained in data banks using a specific computer program.

The major application obviously resides in point (b). With a computer system it is possible to formulate specific and exhaustive enquiries. The possibility of nominating between one and five keywords would enable a researcher to obtain a complete list, as far as the data bank is complete, of the accessible relevant literature at the library or bibliographic documentation centre concerned.

The keywords are therefore of basic utility in bibliographic research. To optimise their potential it is necessary for all the principal rock art organisations to use the same common language, i.e. it is vital to have only one standard keyword list for rock art research.

IFRAO, which unites all the major institutions for rock art in the world, has the opportunity of introducing a project of standardisation and of computerised management, through the standardisation of keywords in future bibliographies and the progressive re-classification of the existing literature.

To obtain a standard list of keywords it is first of all necessary to have the co-operation of every relevant organisation (such as institutes, research centres, museums, societies etc.) and member of IFRAO, as well as the contributions of individual researchers in the field of rock art studies. Each institution or researcher should complete and suggest a list of keywords being used, or believed to be useful.

It is proposed that the CeSMAP (Centro Studi e Museo

To: IFRAO Keywords Project
Centro Studi e Museo d'Arte Preistorica (CeSMAP)
Viale Giolitti, 1
10064 Pinerolo
Italy

From: (Name, position held, institute, address, country, Telephone No., Fax No.)

LIST

Suggestions for IFRAO Keywords (alphabetical order not necessary)

Keyword	Definition (brief explanation of the Keyword)	Similar words, synonyms included in the keyword
Petroglyph	Anthropic mark on rock produced by deductive process	Engraving, carving, pecking, pounding etc.

d'Arte Preistorica, Pinerolo, Italy) would carry out the standardisation project by consolidating all the suggested lists and compiling a unified draft list of IFRAO Keywords for Rock Art. This list should then be checked by those who have provided the initial suggestions.

Once all further suggestions of integration or modification have been considered, the first final standard list of IFRAO Keywords for Rock Art would be compiled, with a specific software for its computer-aided management.

Considering the global scope of this project, the correspondence, information exchange and submission of keywords should all be in one single language, English.

Suggestions for appropriate 'Keywords for Rock Art' are invited in accordance with the standard form shown below.

Comment by IFRAO Convener

The potential significance of this initiative by Professor Seglie of CeSMAP goes far beyond the utility of a bibliographical tool. Although ours is still a very young discipline, there are already tens of thousands of publications in rock art studies. But it is still feasible to standardise existing publications effectively, and all future publications could be added to this data bank. Once the program is complete and available world-wide, it would provide comprehensive access to the world's entire specialist literature in our discipline. Not only could future reference lists be comprehensive, unintended plagiarism and neglect of previous work could be eliminated.

There are many potential applications of the proposed program. At present, it is a lengthy and very time-consuming process to compile even a reasonably complete bibliography on a specific topic, and even after weeks of work one can never be certain how many relevant publications one has still missed. The IFRAO Keywords program would provide comprehensive bibliographical lists within seconds. In most cases one would only need to type in three keywords to obtain quite concise lists, and by entering a fourth keyword, the list would be reduced to just a few entries. One could then explore other possible directions, by selecting alternative keywords. Thus the number of potential applications is limited only by the user's willingness to explore them.

There are basically two types of rock art publications: those that are region-specific, and those that are not. I suggest that the keywords of the former should always include one geographic designation, and that those that deal with a specific site include the name of that site. Keywords should be either single words, or combinations of two words not exceeding 20-25 characters. Each keyword in a set should be distinctive, there is no point in including two similar terms: if one keyword is 'engraving' it would be pointless to use 'petroglyph' as another.

An obvious effect of the proposed program is its standardising influence on the discipline's literature in general. It would be readily available internationally, which means that all literature would be equally accessible, and this would safeguard against the development of specialist enclaves in different regions which are isolated by their lack of awareness of what is happening elsewhere in the world. Thus the proposal is a significant contribution to consistency within the global research community, and as such deserves the unqualified support of all IFRAO members.

RAR 8-200

THE IFRAO STANDARD SCALE

R. G. BEDNARIK

I have been concerned for many years that so much rock art photography is conducted throughout the world which is of limited research potential because there is no indication of size on the photographs. It is so simple to include a standard scale, such as that recommended by Taylor et al. (1979: 306), yet so many photographs are being taken without scales.

However, the need for colour scales on colour photographs may be far more fundamental. Not only are chroma, value and hue inevitably distorted by lighting, film type, optics and other factors, the fading of photographic film and prints is inevitable: the dyes of all films are unstable.

Recent developments in computer technology make it imperative that a colour standard be included in all future photographs of rock art. Colour enhancement methods are available already (Rip 1983, 1989) and it can be only a matter of time before programs of computerised colour correction of photographic material become widely available. But for this technology to be useful for future generations of researchers there must be an appropriate colour standard included on photographs, of known colour definitions (of the three basic colours, standard red, yellow and blue) which a scanner would use as reference points, and reconstitute the true colours of the image or rock surface at the time the photograph was taken.

Not only would this effectively compensate for the shift in colour in conventional photography, it seems only a matter of time before the conversion of colour images to digital format is generally used for permanent and immutable recording and storage. The facility of reconstituting, in future centuries, the past appearance of rock art would be of enormous value to our discipline.

Firstly, this would permit the monitoring, over long time spans, of colour changes in paints and patinae, for which an effective method has so far remained elusive. Secondly, it will facilitate the reconstitution of true colour at the time a photograph was taken, quite irrespective of whether colour was in fact faithfully recorded in the photograph. Thirdly, once the colour definitions have been digitised, they can be manipulated on computer in various ways: they can be compared, cross-checked, nearby other art can be searched for similar values etc. Fourthly, such digitised colour information would be an ideal basis for colour enhancement techniques to identify obscured images. Fifthly, it is obvious that digitised data is ideal for storage, in any form whatsoever.

In short, the anticipated technology would revolutionise rock art studies and conservation strategy. All that is needed at the present time is the placement of a colour standard on each photograph. After 50 years, a photograph will be faded and largely useless, but if it bears a colour standard it may render the art's appearance 'recoverable', with the technology that will no doubt be available then. And the rock art researchers of the year 2041 will praise our foresight in anticipating their capabilities, and in preparing the record for a technology we did not yet possess.

During my IFRAO tour of India last year I suggested that IFRAO might create and distribute a standard colour scale for this purpose. Indian researchers supported the idea enthusiastically. I propose that this project be proceeded with, and offer here for discussion a suggested design:

The black and white pattern on the top is intended to assist in focusing a camera, while serving as a scale of size, and the small pattern on the left is intended for close-up photography. I invite constructive comments on how to improve this design, and on how to finance the production of 5000 or 10 000 such cards. It is intended to distribute them through the IFRAO network (e.g. they can be posted out with journals). The cost of producing and distributing this IFRAO Standard Scale would be minimal in comparison to its very considerable long-term benefits. Comments are invited from readers with extensive experience in photography, colour physics or computer technology.

REFERENCES

- RIP, M. R. 1983. Digital recording and image processing of rock art by computer. *South African Archaeological Bulletin* 38: 77-9.
- RIP, M. R. 1989. Colour space transformations for the enhancement of rock art images by computer. *Rock Art Research* 6: 12-16.
- TAYLOR, J. M., W. BOKMAN and I. N. M. WAINWRIGHT 1979. Rock art conservation: some realities and practical considerations. In D. Lundy (ed.), *CRARA '77. Papers from the Fourth Biennial Conference of the Canadian Rock Art Research Associates*, pp. 293-323. *Heritage Record No. 8*, The British Columbia Provincial Museum, Victoria. RAR 8-201

CODE OF ETHICS FOR SAMPLE REMOVAL

ROBERT G. BEDNARIK

While archaeology has to obtain its stratigraphical information through the systematic destruction of archaeological deposits, rock art research prides itself in being a non-destructive discipline. Apart from certain recording practices (Bednarik 1990a, b) which have now been abandoned in most parts of the world, this is generally true, but there are some exceptions.

It is clear from the recent specialist literature that there has been a burgeoning of rock art dating techniques and projects during the 1980s. Methods of direct rock art dating involve the removal of samples, however tiny they may be. As long as they are used only on rare occasions, the extremely small quantities of accretionary deposit or paint sacrificed as samples can reasonably be disregarded. For instance, at the time of writing, only nine AMS-dated pigment samples have been published world-wide (e.g. Lorblanchet et al. 1990; McDonald et al. 1990). But as this new technology will become very popular among researchers, methods will proliferate, and further analytical techniques are also used or being contemplated, such as extender analysis (Clottes et al. 1990), animal proteins (Li 1991), and most recently, the spectacular work of Watchman (1991, publications in progress) has signalled an entirely new phase in analytical rock art studies.

In view of these very recent developments it is essential that an internationally acceptable code of ethics regulating sample removal be created which can provide guidance to the relevant agencies in the various countries. While the flurry of research activity in the field of direct rock art dating is to be welcomed, it should be regulated by appropriate standards that, without stifling research needlessly, prevent unrestrained proliferation of sampling. Such a code must consider many aspects, including the views and rights of indigenous owners of art (where they exist), cultural

heritage protection standards, specialist opinions, research directions and priorities, realistic conservation targets, and others. Non-interfering analytical methods of rock art dating (Bednarik 1991) should obviously be favoured where they exist, and will predictably be exempt from many restrictions that may be imposed on other methods.

To this end I propose that preliminary discussions should take place during the forthcoming IFRAO Meeting in South Africa, with the aim of acquainting Federation members with the issues and requesting appropriate feedback. Relevant specific proposals, from any rock art researcher in the world, should be sent to the current IFRAO Chairperson, the President of SARARA (Shirley-Ann Pager, P.O. Box 81292, Parkhurst 2120, South Africa), before the end of July 1991.

The recommendations and suggestions resulting from the SARARA conference should be debated by the community of researchers for one year, and at the Second AURA Congress in Cairns (August/September 1992), a symposium and workshop should be held with the aim of formulating an appropriate code of ethics.

REFERENCES

- BEDNARIK, R. G. 1990a. Rock art researchers as rock art vandals. *Pictogram* 3(1): 4-6.
BEDNARIK, R. G. 1990b. About professional rock art vandals. *Rock Art Quarterly* 1(1+2): 11-16.
BEDNARIK, R. G. 1991. A new method to date petroglyphs (in press).
CLOTTE, J., M. MENU and P. WALTER 1990. New light on the Niaux paintings. *Rock Art Research* 7: 21-6.
LI FUSHUN 1991. Rock art at Huashan, Guangxi Province, China. *Rock Art Research* 8: 29-32 (this issue).
LORBLANCHET, M., M. LABEAU, J. L. VERNET, P. FITTE, H. VALLADAS, H. CACHIER and M. ARNOLD 1990. Palaeolithic pigments in the Quercy, France. *Rock Art Research* 7: 4-20.
McDONALD, J., K. OFFICER, T. JULL, D. DONAHUE, J. HEAD and B. FORD 1990. Investigating 14C AMS: dating prehistoric rock art in the Sydney Sandstone Basin, Australia. *Rock Art Research* 7: 83-92.
WATCHMAN, A. 1991. Recent analytical work on Australian rock paintings. Paper presented at the Annual AURA Meeting 1991, 23 March, Halls Gap, Australia.
RAR 8-202

DESTRUCTION OF ROCK ART SITES

IFRAO emergency plan

ROBERT G. BEDNARIK

The IFRAO action to avert the threatened destruction of the Cuevas de Borb n, Dominican Republic (RAR 7: 154-5) appears to have been a success. Rock art researcher and speleologist Domingo Abr, u Collado, Santo Domingo, reports:

On 7 March we will be in the area of Borb n to start to develop a plan against contamination and damage caused by mining companies. That plan has been suggested by the Direcci n Nacional de Foresta, whose director, Pedro de Jesus Candelier, has been informed about the situation of the caves and their importance for our natural and cultural heritage.

Your letter, and the letters of persons and organisations you have prompted to write, have contributed to stop the destruction of Borb n Caves. We can consider that in this case, the community of rock art associations in the whole world has won another battle in the defence of threatened rock art sites.

I thank the many IFRAO organisations and individuals who contributed to this result. It shows the value of a speedy international response to such a threat, and as this is the third such case within a couple of years I perceive a need to establish a system of dealing effectively with similar threats in the future. This is to be discussed at the next IFRAO Meeting, and suggestions should be submitted to Chairperson Shirley-Ann Pager, SARARA President, P.O. Box 81292, Parkhurst 2120, South Africa.

RAR 8-203

ROCK ART RESEARCH ASSOCIATION OF CHINA FORMED

CHEN ZHAO FU

A meeting was held at Beijing on 12 March 1991, to form a society for promoting the cause of China's rock art studies. The potential of China's rock art as an important source material for the study of Chinese prehistory has been well recognised recently. To co-ordinate the studies and preserve the precious cultural heritage, the need for an

organisational structure had been felt for some time, and I had advised the founding meeting of IFRAO in Darwin (3 September 1988) of the preparations to establish a Chinese rock art research association.

The Rock Art Research Association of China (RARAC) has now been founded, and was immediately affiliated with IFRAO as its seventeenth member. It has a committee of nine, comprising Professor Chen Zhao Fu (President), Professor Li Fushun (Vice-President), Li Yu Chang (Secretary General), and Permanent Council Members Zhang Bo, Yang Geng sheng, Deng Lin, Jiang Zhen ming, Lou Yu Dong and Lu Hua Tang.

RARAC will hold an international rock art conference at Yinchuan, from 5 to 10 October 1991. The main objective of the conference will be to establish a world-wide awareness of the importance of China's rock art within global prehistoric cultures.

The contact address of RARAC is:

Rock Art Research Association of China
Prof. Chen Zhao Fu (President)
Central Institute for Nationalities
100081 Beijing
China
RAR 8-204

*

Notices

The sixteenth member of IFRAO is the Societ... Cooperativa Archeologica Le Orme dell'Uomo. This was decided by ballot (Questionnaire No. 3), the result of which was 11 'for', none 'against', 3 abstentions. The Societ... 's aims are the research, publication, promotion, preservation and conservation of rupestrian imagery, focusing on Val Camonica, north Italy. It operates from Cerverno, Brescia. Its committee includes Ludwig Jaffe, Angelo Fossati and Mila Simoes de Abreu. The contact address is:

Societ... Cooperativa Archeologica Le Orme dell'Uomo
Ludwig Jaffe (President)
Piazzale Donatori di Sangue, 1
25040 Cerverno (Brescia)
Italy

*

Official IFRAO letterheads have now been issued to all member organisations. In line with our policy, IFRAO does not possess a 'head office' or a 'president', executive power is equally shared by all 17 offices of IFRAO, and all should therefore be entitled to use the official letterhead.

*

ROCK ART - THE WAY AHEAD. The International conference on rock art conservation, recording and study to be held in Natal, South Africa (25-31 August 1991) will include one more field trip in addition to those announced earlier. This will be a safari to meet Kalahari San and learn about their way of life. This post-conference field trip will be from 5 to 10 September 1991.

Participants will see various aspects of traditional San culture: the building of huts, manufacture of rope, setting of traps, use of arrow poison, the gathering of food, the extraction of water from tubers. San artists, too, can be met, and traditional songs and dances will be seen. Safari participants will sleep in tents or under the stars on camp stretchers around the camp fire.

The cost of the safari is R2 190.00, including economy class air fare Johannesburg/Gaborone/Johannesburg, all equipment, vehicles and meals.

For all details regarding the SARARA conference write to:
Shirley-Ann Pager, SARARA President, P.O. Box 81292, Parkhurst 2120, South Africa.

It is to be noted that ... is against all forms of discrimination, whether racial, political, religious or sexual, and unequivocally condemns the practice of apartheid. Not only is this set out in SARARA's constitution, it has been reaffirmed in various conference announcements, and during the opening session of the conference a statement to that effect will be made, followed by a call for support of a resolution to condemn apartheid!