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The four material categories of Peruvian rock art

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Introduction

Seeing Peruvian rock studies in a historical perspective it is possible to conclude that, at the present time, the form in which this cultural evidence is considered in Peru is completely archaic, overvaluing some minimal material components of it and relegating the rest to a non-important status. This fragmentary appreciation is based on the ignorance of the material nature of the rock art and in the poor scientific interest in establishing a technical definition of the rock art on the basis of formal categories of epistemological value.

It will be attempted to show in this article that the incorporation of standardised categories of Peruvian rock art has, from an archaeological perspective, implications in how this material is understood, recorded and studied; being keys to its conservation, protection, and especially to endowing this cultural evidence with important social value.

Antecedents

The first definitions of the 'rock art' in the Peru have been taken from Europe, where *arte rupestre* or *arte parietal* was recorded and studied systematically from 19th century (Álvarez 2006). The terms associated with these definitions, as 'pictographs' or 'petroglyphs', included in the generic rock art concept have been used in the Peru since 20th century, although the first descriptions of this materials by intellectuals and interested travellers of the 19th century have frequently included related concepts like the term 'hieroglyphics' or simply 'inscriptions' (Rivero and Tschudi 1851 [1958]: 73; Hutchinson 1873: 174).

Despite this the Peruvian tradition had already recognised many marks on rocks as cultural signs, and their use during Historic times, especially during the Tahuantinsuyu (1470–1533), is testified by several colonial chroniclers, as Raúl Porras Barrenechea has concluded in his classical study '*Quipu and quilca*' of 1947 (Porras 1963). Porras identifies clearly, as an historical fact, the existence of the two symbolic graphic variations for the Andean societies individually expressed with the native words *quipu* and *quilca*.

For Rivero and Tschudi (op. cit.), but especially for Porras (op. cit.), the duality of this symbolic graphic record is very clear and it is expressed in many important related historical sources. Although it is quite evident that the *quipus* constitute until today an ethnographic variation of the Andean recording systems, the *quilcas* had not been considered seriously until the studies of Porras, who demonstrated that there is a direct relation between the meaning of the term and the fact that this implies: the pictography or the writing.

According to the studies of Porras, the references to pictographs, that are related to the words *quilca* or *quellca* from the Peruvian languages Quechua or Aymara respectively, are used in unequivocal and systematic form in the historical documents of the early Spanish colony, like the chronicles of Titu Cusi Yupanqui of 1560, that of Huaman Poma de Ayala (written probably between 1567 and 1615 [Porras 1999: 53]), or the chronicle of Montesinos (17th century); but especially in the linguistic vocabularies as the *Lexicon* of Fray Domingo de Santo Tomás of 1560, the *Doctrina Cristiana* of 1584, the dictionary of the Father Diego González de Holguín of 1608, the dictionary of Francisco del Canto of 1614, or the dictionary of Torres Rubio of 1619 (Porras 1963).

It is evident then that the term *quilca* relates technically to a certain type of activity and physical event, and Porras who concludes on the matter:

There is no doubt, then, that the pre-Hispanic Peruvian Indians had a special word to denominate the written signs and that this word was applied later by analogy, to the Spanish writing and to the paper that the Incans did not know. This does not mean that both writing systems were equal, but that used in Quechua used the similar or close linguistic term to qualify the Western invention. Also, one concludes that the word *quilca* was connected to the idea not only of graphical signs, but of coloured signs or drawings or paintings. The sound *quilca* brings in itself the idea of chromatic representation. To write, draw, paint are expressed by a single word: *quilca*, and this same word serves to express the canvas, the table or the painted object. It is correct, then, to use the word *quilca* as synonymous for

pictograph in the concept of modern ethnologists (Porras 1963: 112, my translation).

The pronouncement of Porras is without a doubt remarkable; nevertheless, this author did not associate directly the concept of *quilca* with that of the rock paintings (pictograms), although in his study he alludes indirectly to the petroglyphs suggesting a casual relation in respect to the existence of some kind of old 'writing' in Peru, by the conspicuous presence of this cultural material in the Andes. Although in Porras' work the *quilca* concept becomes abstract and is basically a literal and historical concept, it is clear that it constituted the first serious approach for the material and historical integration of this term. '*Quilcas*' therefore does not define rock art per se; it is just the name our ancestors bestowed on that phenomenon at the time the Spaniards arrived in Tahuantinsuyu (Peru). The Quechua or Aymara-speaking people called it *quilcas* even when they knew the paintings or petroglyphs were not of their own times. The use of the term was assigned to the rock art for many years, even before the Tahuantinsuyu kings (Incas) ruled our country. It is unknown when it was introduced, but the Quechua language originates at least 2000 years B.C.E. on the central coast of Peru (Shady 2000).

Beyond Porras, the first investigator who manages to recognise a direct relation between the concept *quilca* and rock paintings is Javier Pulgar Vidal. Unaware of any historical argument Pulgar Vidal established in the 1930s the first technical association between the term *quilca* and the existence of rock art. For this, Pulgar Vidal identified first the meaning of the compound word 'Quilla-Rumi' (the name of a rock on a hill in the basin of the Higuera river in Huanuco), discovering that the term *quilla* was a Spanish derivation of a native language word, *cauqui*, whose literal meaning is 'graph' or 'graphic sign'. This revelation was followed with the exploration of the rock in 1936, finding that it was the support of more than 'two hundred ideographic signs' (Pulgar 1946: 12); that is to say, rock paintings.

From this finding, Dr Javier Pulgar Vidal elaborated the most important hypothesis for the discovery of sites with rock art in Peru, setting down a direct relation between the *quilca* toponym, in all its linguistic variants, and the presence of paintings, pictograms or pictographs on rock. This is the first great direction of Peruvian rock art research, and the identification of archaeological sites with this material meant an extraordinary advance for the national archaeology. Pulgar Vidal recognised the value of the toponymical studies in the identification of '*quilcas* centres', and many of these archaeological sites were identified and recorded in systematic form, especially since the foundation of the Department of Toponymical Research in the National University of San Marcos in 1947 (Pulgar 1962–1963; UNMSM 1959–1960).

Although the physical identification and the finding of sites with rock art reached outstanding levels, the determination of the *quilcas* as a defined archaeological artefact remained a subordinate issue in Peruvian archaeology and this material, identified currently as 'rock art', was not considered fundamental in the archaeological national studies, whose related investigations regrettably never followed the tendencies of location and recognition initiated by Javier Pulgar Vidal and his students of San Marcos

University. It is important to notice that since the 1960s, rock art studies were neglected relative to the notable advances in Peruvian archaeology regarding other materials — ceramic or architectural, or in respect to other cultural issues (Echevarría 2008).

Despite this situation it is necessary to mention that several archaeological studies meant for the rock art a clear advance in acknowledging this material's role in establishing archaeological or cultural contexts, especially for the earliest times of Andean settlement. The studies of Cardich in Lauricocha (1964), Neyra in Sumbay (1968), Muelle in Toquepala (1969), or Linares Málaga in a general perspective for Arequipa (1973, 1988) are examples of this. It is also necessary to mention that direct approaches were made, and the most important contribution constitutes the comparative formal analysis of Toribio Mejía Xesspe (1968) who established cultural associations for the rock art of Chavín.

Although these studies are important we must recognise that the rock art — *quilcas* in the more extended meaning of Pulgar Vidal — has continued being a material without its own definition, whose particular attributes have been generally obviated in favour of the overvaluation of the figurative images on the rock. Very few researchers have recognised other relevant material attributes beyond the iconocentric, or have adopted a research approach that treats this material as a main variable in an archaeological conventional study, as Toribio Mejía Xesspe did. In this respect the most outstanding advance has been the ongoing work of Eloy Linares Málaga who, from the 1950s onwards, undertook archaeological studies using rock art like a dominant variable in sites such as Toro Muerto (Linares 1960, 1974), or evaluating technically the rock art near Arequipa (Linares 1973, 1988).

At the beginning of the 1970s, Eloy Linares Málaga established the systematic typology of the Peruvian rock art in its four variants (pictograms, petroglyphs, mobiliary rock art and geoglyphs) that until today constitutes the main divisions of this Peruvian archaeological material. The distinction, explicitly typological, with aims of material research, is a technical development in the understanding of the cultural value of the *quilcas* of Peru that constitutes an important contribution for Peruvian archaeology and that has allowed the development of derived investigations.

Nevertheless, although Eloy Linares Málaga treated the rock art like a regular archaeological object, including it in complex archaeological assemblages (Linares 1973, 1988, 1999), this material always remains subordinated to the author's technical criterion in respect to its intrinsic features, which are independent of its typological distinction or of the kind of consistent treatment as a scientific variable. This is interesting because, except Linares Málaga, very few researchers have managed to develop studies favouring variables from the intrinsic properties of the material or have considered rock art as an artefact in an explicit sense.

After Linares Málaga, contributions in rock studies have been very numerous, diversified and generic and it is difficult to evaluate them in detail here, although we have already noticed (Echevarría 2008) clear tendencies towards the scientific systematisation, using mainly different approaches

in methodology, in direct material variables (Morales 1993; Echevarría 2003, 2004) or in other related variables: ethnographic (Buena 2006), space and location (Nieves 2006) or visual (Campana 2007), among others. Instead of more focused investigation, the lack of a technical perspective in the identification of intrinsic properties of the rock art has generated fragmented records, in the best of the cases based on some particular properties of these materials, like the observable figuration, the technique or the petrological characteristics of the support; the register of Antonio Núñez Jiménez (1986) being a contribution of this type.

In the last twenty years deficiencies in the treatment of this archaeological material have produced irregular lists of rock art sites, based mainly on secondary references (Ravines 1986) and, in the worst of the cases, in false and doubtful references, in the use of nonexistent or not corroborated bibliography, and in the overvaluation of the image (Hostnig 2003). Even so, some of these documentations are apocryphally called 'inventories' by their authors.

The existence of fragmentary or doubtful documentation defines in part the level of technical deficiency in the recognition and treatment of Peruvian rock art. This is potentially dangerous for the material since it generates a negative estimation of the real value of the *quilcas*, as cultural objects and archaeological relics with complex particular properties that go beyond its figurative image. The lack of more standardised proposals on the technical treatment of the rock art indicates that the studies of this material have followed fundamentally generalised parameters of artistic and interpretative appreciation, continuing less conventional developments without scientific value.

In 2007, however, the recently founded 'Peruvian Rock Art Association' (APAR) proposed the first Code of Ethics for visits to archaeological sites with rock art that includes a specific definition of this material, in which it explicitly considers it an archaeological object. This Code of Ethics proposes conceptual premises endowing the rock art with its own particular characteristic among which the 'figuration', the 'support' and the 'landscape environment' are included; these characteristics altogether form the 'archaeological site of rock art'. This is probably the first time in the history of the studies of this cultural material in Peru that it is tried to establish an explicit material definition of rock art.

Despite this approach I consider that the APAR definition is still insufficient to adequately cover the particular properties of this artefact, though it is evident that most of its basic properties have generically been taken into account. At the present time it is urgent to develop a more explicit logical conceptualisation of these properties and justify their value in respect to some crucial aspects of their use in related cultural academic activities, like the recording, the conservation or the scientific research. I think that a definition of this kind will only result on the definitive inclusion of the *quilcas* or the rock art within the more important heritage goods of Peru, among which it was relegated through lack of clear technical perspectives as I mention above.

The categories

To say that rock art is an archaeological artefact in Peru is not an illusory definition or a nominal fantasy; the Peruvian

laws literally protect the rock art when considering it within their immovable archaeological goods (Law 28296). However, although the legal situation and the state protection regularises the inclusion of the rock art within their cultural heritage materials, the laws do not establish the particular characteristics of the archaeological objects due their extreme amplitude or material variability; therefore the establishment of the intrinsic particularities of the archaeological materials, like the *quilcas*, depends fundamentally on the investigators who propose these qualities for their own aims.

In this sense a consistent definition without subjective indications is necessary. According to Robert G. Bednarik,

A scientific definition of rock art (...) is that it consists of markings occurring on rock surfaces that were 'intentionally' produced by members of the genus *Homo* (i.e. anthropic markings), that are detectable by 'normal' human sensory faculties, and that are concept-mediated externalisations of a 'conscious' awareness of some form of perceived reality' (Bednarik 2007).

As one can see, the scientific technical criteria for the recognition of rock art pass more through the definition of its cultural physical nature — deliberate human facture — than through its implicit meaning at some level of socio-cultural apprehension, and this is crucial for its adequate understanding. The value of the rock art, as an object or cultural artefact, is independent of the value of the subjective appreciation that can be had on a particular quality of the same object, like the quality of the image that presents, since all cultural mark or figuration in the rock has its own social meaning that is intrinsic to it.

From here, and following the basic parameters of systematic identification of the archaeological object called rock art generically — *quilcas* — proposed by the Peruvian Rock Art Association (APAR 2007) I believe that we have to consider at least four intrinsic characteristics of the rock art for aims of its use and consistent treatment in Peru. As formal categories these features are: the motif (the figuration), the support, the immediate environment and the landscape.

The motif

The motif is probably the most important rock art property and constitutes the axis of the material recognition for this archaeological object. Independent of its manufacture, of its scale, or its location, the figurative image grants a cultural value to the physical material, the rock, when endowing it with graphic representation. The motif is a ruse of cultural imagery and necessarily it is made of deliberate form by the human being by means of physical resources, using reductive (petroglyphs) or additive (i.e. paintings) techniques; having to be recognised by humans in simple visual form (Fig. 1). For the existence of rock art must be a motif, and this recognition must be able to be described, quantified or be subject to measurement.

The support

The support is the base of the figuration; this must be necessarily rock, of any type, and it can be located in any geological exposure context (Fig. 2). Since the support serves as base for the representation it suffers the physical transformation of its structure when it is affected by this



Figure 1. The motif in a petroglyph of the site Checta, Lima, Peru (digitally emphasised).



Figure 2. The support in a petroglyph of the site Checta, Lima, Peru.

intervention; this conditions the rock art to the physical and chemical characteristics of the support, that is to say of the rock, which is why the support constitutes the physical substratum that gives material integrity to the archaeological object. Motif and support are conditional and necessarily implicate each other in respect to conforming to a physical unit. Being physical, the support must be quantifiable, that is to say subject of measurement.

Although the scale of the support can vary from small boulders to exposed formations of rock without evident discontinuity, the rock art must be identified within location parameters respecting its volumetric and space integrity; to which the estimation of its properties, beyond the scale, expressed in the physical variables that constitute it must be added, such as its mineralogical aspects, all being quantifiable.

The immediate environment

Independent of the motif and the support that form a physical unit, the immediate environment is an external property of the rock art because this serves as initial base of referential location of the archaeological material, with which it forms a primary contextual unit of archaeological correlation. This reference is related to the fact that the rock art production implicates a circumscribed environment that is transformed while the rock art is produced, as it happens with the environment of the production of any lithic instrument, with the difference that the rock art is generally immovable and occurs in a fixed location.

The estimation of the value of the immediate environment of the Peruvian rock art has already been attempted since the 1950s when Linares Málaga proposed the first controlled suggestion for the use of lithic artefacts in the production of

rock art in the site of Toro Muerto (Linares 1960); and this type of study has later taken place in other Andean regions like in Bolivia (Querejazu 2001), which confirms a direct relation between the rock art material, in the sense of the artefact, and the associated immediate environment.

The regular distance of the immediate environment must be considered according to the characteristic of location of the site with rock art and its archaeological potential. In another site, also called Toro Muerto but in the basin of the Mizque river (Bolivia), Robert Bednarik recovered artefacts used to make rock art ('mur-e'), associated with the petroglyphs immediate environment that served him later in dating these lithics (Bednarik 1998). Although the Toro Muerto cave is set within an external radius of more than fifty metres with associated archaeological material, other sites, such as Checta or Alto de las Guitarras, that contain stones in very small areas, must include radii of areas necessarily smaller. Their investigation must be evaluated adequately to be able to recognise the environment where significant cultural evidence can be found, for the rock art production or for the inference of activities or relevant cultural relations associated with this material.

The landscape

The landscape the rock art occurs in must be considered, like the previous category, as an external attribute but an intrinsic value of the object. It comprises its physical location support and implies the contexts of cultural and natural variables that condition the existence and the conservation of the same object. Among them are the anthropic agents and the physical and natural associated conditions, like the geological and environmental nature affecting the rock art. The landscape, like an external component of the

sites and archaeological materials, is therefore an element of its constitution with referential values and cultural implications

Like all the technical material attributes of the rock art, the landscape setting implies a quantifiable physical scale that in this case is conditioned by the historical formation of the site and its recognised general image. Therefore, the landscape aspect of the rock art is constituted by the surrounding features that affect the artefact, support, environment and culture, which have determined its formation like an archaeological site (taphonomic agents) and by the current 'natural' image of the site.

The implications

As it is possible to appreciate, the implications of the recognition of the four technical-material categories of Peruvian rock art affect immediately the form in which this object is perceived, especially for aims of material treatment and controlled studies. This is precisely the intention of the proposal, the change in the conceptual comprehension of Peruvian rock art from its primary material identification like a conventional archaeological artefact with quantifiable particular properties. Although I have already mentioned above that the particular attributes of the archaeological materials are generally proposed by the investigators that study materials, the definition of these basic properties would affect the development of the rock art studies in an express material sense. I am going to comment on some of these implications related to the recording, the conservation and the investigation of this resource.

Recording

The explicit consideration of the four material categories of rock art must definitively affect the recognition of this artefact, prompting the inclusion in recordings of aspects not traditionally taken into account in the identification of the particular components of this object, such as the support or the landscape, with the same normalised values for aims of basic documentation. A good recognition, at least of some relevant physical aspects of a cultural material, improves the utility and the importance of the register either for investigation or for more generic aims, as inventories, cadastres or maps, that are used currently in conventional archaeological studies. Although the technical record of the rock art presents potentially unlimited variables, the inclusion of these four material properties as standardised topics for a generic observation looks to identifying the object, in its own physical nature, as an indivisible corpus for its scientific consideration.

Conservation and protection

The recognition for the material properties of the rock art has a fundamental importance in the conservation and protection of this cultural evidence, since it allows to establish without ambiguity the limits and scope of any direct intervention in the object, for its study or its scientific treatment. This includes the conservation of the image, its support, the immediate environment and the landscape that frames the site. The designated qualities, independent

of their variability, are generic and force us to consider an integral preservation that does not overvalue any specific aspect of the artefacts or sites with rock art to the detriment of others. In this sense it is obvious that the conservation of a particular property of rock art can cause the destruction of other properties of the same importance. For example, the overvaluation of the image over the support can induce the mis-contextualisation of the same image by the neglect of the substrate supporting it.

When losing one of its properties by the overvaluation or the differentiated conservation of some other specific property (that generally is centred in the figurative image), the rock art is destroyed and loses probably all the cultural values with which it was created originally, in addition to its meaning and social sense. This is like preserving only a drawn copy of the original image of the rock art or like conserving solely the decorative painting of a ceramic vessel, and this relation is applied to the loss or destruction of the support, the immediate environment or the associated landscape. As I already noted, each property includes crucial values of the nature of the rock art that are essential to it and irreplaceable.

The integral conservation of the physical properties of the rock art allows establishing consistent parameters of preservation that can be scientifically used for understanding different related aspect of this evidence, as the taphonomic processes that affect the rock art, the production contexts of the rock art, the cultural meaning contexts, or any other associated contextual aspect as commonly studied by archaeology.

Research

The definition of the particular properties of rock art extends considerably the scope of the study in this archaeological material when including other physical aspects of the object not usually taken into account, like variables of a conventional investigation with scientific perspectives. In archaeology this allows to abstract the material to basic analytic aspects like the establishment of archaeological contexts, cultural association, chronology and location; which can be established without reducing the rock art to singular or unique variables. This inclusion, epistemologically controlled, essentially allows endowing rock art research with an extended scientific value when exploring new parameters of logical analyses in the processing of the obtained material information, and when allowing the inclusion of other sciences, like geomorphology, physics, chemistry etc., in these studies. This change in the logic and in the scientific collaboration is positive and irreversible and constitutes the biggest advance in contemporary rock art investigation (Bednarik 2007: 12).

The incorporation of more controlled variables in the scientific investigation of the rock art offers unlimited opportunities to improving the knowledge of this cultural artefact, conceding it a complex value that can be recognised by its own intrinsic qualities, like its location, support or motif, etc. Through the recognition of these properties the *quilcas* can be included, by the research, in the annals of historical correspondence, out of the superlative and

aesthetic simple appreciations, and linked positively to the social agents from whom they were derived.

Conclusions

I must stress that this is an initial proposal for the technical treatment of the Peruvian rock art whose implications reach related cultural aspects of these archaeological resources as the recording, the conservation and the investigation. I consider that the four proposed categories — image, support, immediate environment and landscape — constitute characteristics or minimum intrinsic properties of these materials whose use must be made from the explicit knowledge of these properties. The epistemological value of the knowledge is based on the exact understanding of the conceptual categories that are used to develop this knowledge from the facts of nature. These categories cannot be implicit if what is wanted is to orient the conscious and intellectual treatment of Peruvian heritage goods such as the *quilcas*.

Julio C. Tello stated in 1922 that: ‘The investigation or research consists in the systematic application of the methods of science in the control of the unknown, by whom it has scientific spirit’ (Tello 1965: 3, my translation). This spirit is clear in the pioneers in the study of the Peruvian rock art, like Porras Barrenechea, Pulgar Vidal, Mejía Xesspe and Linares Málaga; that have certainly followed clear scientific parameters in the treatment and analysis of these appreciated cultural goods. This is the spirit that must populate the minds of those that want to protect the national legacy of our history, and of those that want to understand the cognitive development of the old Peruvians recorded on stone; this is the spirit of those that want to read again the *quilcas* of Peru.

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Rock art and the archaeological octopus: a response to Echevarría

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This very original and innovative paper proposes that Peruvian rock art sites be studied at four basic empirical levels, but also offers a few fascinating subtexts: a brief history of the development of rock art research in Peru, a discussion of the relevance of the concept of *quilcas*, and a view that archaeology best serves the purposes of rock art research. I find myself in considerable agreement with Echevarría's main points and will briefly explain why, followed by a critique of some of his subtexts.

Echevarría's four categories of defining the object of rock art studies are so well chosen that it would be hard to disagree. Similarly, many of the observations he presents are inherently true: most research in this field has been so hopelessly biased in favour of the iconography that it is largely worthless. Children who visit rock art sites are avid interpreters of the motifs, and their interpretations and identifications are often more interesting than those of academic sophisticates who describe themselves as researchers. This 'iconocentric' approach, as Yann-Pierre Montelle rightly calls it, consists of such coarse abstracting for the sake of 'recording an image' that almost all relevant information is lost in the process. Echevarría, most pertinently, also reminds us that there are other dimensions to be considered.

In reviewing them I begin with the *landscape* the rock art is situated in. Most certainly rock art has not been created thoughtlessly in some random locations of geography. Whether it occurs in a canyon, on a mountaintop, in a deep cave, at a waterhole or in whatever other kind of setting, this setting is very much part of the cultural package. We can see this best by respecting the views of those who created most rock art, the indigenous or traditional peoples of the world. Wherever we have the relevant ethnographic information, rock art is closely connected to its geography, often relating to creation stories, to mythologies explaining the very landscape a site is situated in, and is very much a part of. This concept is not new; it is embodied in the enlightened instruments governing the management of sites, such as the *Burra Charter*

or the *IFRAO Code of Ethics*:

Setting: The area around a rock art site, its setting, may contain features associated with the rock art and other evidence of its history. The visual, historical and other relationships between a site and its setting which contribute to its significance shall be retained in all conservation or preservation work (*IFRAO Code of Ethics* Clause 6-1).

Similarly, Echevarría's second category is soundly based. The *immediate environment*, usually defined as 'the site', encompasses the area 'where evidence of past human behaviour has been found, or which is of significance to contemporary indigenes' (*Rock Art Glossary*). It also coincides with the area that would need to be imagined as being enclosed by the exclusion tape of the forensic rock art scientist investigating the rock art occurrence (Montelle 2009). In other words, this area, usually trampled on by contemporary visitors, is the area that is expected to provide scientific as well as archaeological clues to the rock art, and any other human activity that may have taken place there in the past. More than anyone else, the forensic scientist is acutely aware of the importance of preserving this area in the most pristine condition possible.

Then there is the level of the *rock panel* the rock art occurs on. Natural features on it (or in its vicinity) are likely to be integral to rock art motifs: cracks, protrusions, rock formations and so forth have all been included in designs, or have prompted them. The same can apply to the shape of the panel and various other properties, so these do form part of the image. I have seen this made very explicit in thousands of examples, in all continents other than Antarctica. But almost universally, rock art recordings include no such details, consisting purely of abstracted images from which most relevant or analytical information has in fact been omitted. There have been very few efforts to improve rock art recording practices by including morphological and other highly relevant information, such as those of François Soleilhavoup in France and Guillermo Muñoz in Colombia, but these have not been widely adopted. Another reason for needing to record the panel details is depicted in Echevarría's Figure 2: facets of a boulder may be of crucial importance to dating the rock art (Bednarik 2007[2001]: Fig. 28).

Even when we consider Echevarría's final category, the anthropic modifications we call *rock art*, there are perhaps unexpected complications. We can only record the rock art we see, but not that which may have weathered away and yet once formed part of the ensemble. Similarly, Alan Watchman has reported finding rock art under oxalate or silica skins at sites where no rock art at all is visible on the surface. Of course we cannot record rock art that is not visible, for whatever reason, taphonomy sees to that. We can reasonably assume that most rock art ever created is today not available to our recording zeal, so we are in any case only recording remnants — taphonomic residues. Which renders any statistical treatment irrelevant to interpreting a corpus, except in a simplistic inventorial sense.

Echevarría emphasises that his proposal is only an initial, preliminary endeavour to guide the technical treatment of Peruvian rock art, yet it is clearly universal, it applies to any occurrence in the world. Nevertheless, we must still remember that his four categories of assessment are somewhat arbitrary,

and they are interlinked in various ways. For instance the orientation or arrangement of one rock art panel might refer to another panel, or to another site altogether, or to the general setting or landscape. Thousands of possible variables apply to any rock art, and whichever selection we record it will always be an abstraction, a simplification. We will always play this game with an incomplete set of cards.

I disagree with Echevarría's depiction of rock art as an archaeological resource, or of the benefits of perceiving archaeology as 'allowing the inclusion of other sciences, like geomorphology, physics, chemistry etc., in these studies'. First, archaeology is not a science, so the statement is based on a false premise. Second, why should a troubled discipline such as archaeology 'allow' the sciences to conduct rock art science? One might argue that because the relevant protection laws acknowledge archaeology as the protecting agent, which is rather easily rebutted by the fact that the track record of Peruvian archaeology in preserving rock art is as pathetic as the track record of Peruvian law enforcement is in the same task. The only agencies that seem to be effective, even active, in the protection of rock art, are NGOs like APAR and individuals like Melissa Massat and Eloy Linares Málaga. I also note that it is in fact archaeologists who pose the greatest danger to rock art today. In other countries, some of them have discovered that the paid destruction of rock art can be very lucrative. If we add to this the fact that the scientific study of rock art, which Echevarría embraces as enthusiastically as I do, has not even begun in Peru, a different picture emerges. Like in much of the rest of the world, rock art science has been retarded by archaeological preoccupations (as Echevarría himself acknowledges is the case in Peru). Much less than 90% of archaeologists have any expertise with rock art, and after well over a century of archaeological research into rock art we only have the inadequate state that Echevarría quite correctly describes (and which, to various degrees, pertains in the rest of the world). We are no further

than we were a hundred years ago: empty speculations about meaning or age, countless misidentifications of rock art and natural markings, a complete lack of understanding the effects of taphonomic logic or of the technology of rock art and so forth remain the characteristics of archaeological work in rock art. In those circumstances it is not a matter of archaeology 'allowing' the sciences to participate; it is more appropriate that the 'archaeological octopus', as Lorblanchet (1992) once called it, should take a long hard look at its historical performance, especially with rock art. When we consider the shabby treatment archaeology has meted out to its dissenters over the past 170 years (Boucher de Perthes, Fuhlrott, Sautuola, Dubois, Dart, Fradin, Morley, Marshack and hundreds of others, all of whom turned out to be right when all archaeologists were collectively wrong); its objectification and academic appropriation of indigenous narratives for the dominant political hegemony and society; its sub-standard research, flawed epistemologies and garbled methodologies; then we have every reason to be wary of this troubled, neocolonialist discipline.

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- LORBLANCHET, M. 1992. Introduction. In M. Lorblanchet (ed.), *Rock art in the Old World*, pp. xv-xxxii. Indira Gandhi National Centre for the Arts, New Delhi
- MONTELLE, Y.-P. 2009. Application of forensic methods to rock art investigations — a proposal. *Rock Art Research* 26: 7-13.



'Does it strike anyone else as weird that none of the great painters have ever been men?'

AURA Executive Committee election

The AURA Executive Committee was elected in 2000, at the Third AURA Congress. According to the *AURA Constitution*, a new committee needed to be elected. Because the required quorum is not likely to be achieved physically until a full AURA Congress is held (which can only be planned so that it does not clash with any other major IFRAO congress, the next available slot being in 2014), this election is being conducted by postal ballot instead.

Full members of AURA have received a nomination form for the offices of President, Australian Vice-President, Overseas Vice-President, Secretary, Treasurer, and up to three committee members. Only a small number of completed nomination forms have been received by AURA since November 2008, from:

Dr Yann-Pierre Montelle: R. G. Bednarik as President, Prof. P. Taçon as Australian Vice-President, Prof. G. Kumar as Overseas Vice-President.
 R. G. Gunn: Lance Syme as Committee Member.
 Dr Ian D. MacLeod: R. G. Bednarik as President.
 Elfriede Bednarik: Prof. J. Campbell as President, R. G. Gunn as Australian Vice-President, Prof. G. Kumar as Overseas Vice-President, R. G. Bednarik as Secretary, Dr Yann-Pierre Montelle as Committee Member.
 Robert G. Bednarik: Prof. J. Campbell as President, R. G. Gunn as Australian Vice-President, Prof. G. Kumar as Overseas Vice-President, Elfriede Bednarik as Treasurer,

and Dr Yann-Pierre Montelle and Dr Graeme Ward as Committee Members.

R. G. Bednarik does not accept the two nominations as President, but wishes to retain the office of Secretary. Therefore Professor John Campbell is the only candidate for the office of AURA President. There are two candidates for the position of Australian Vice-Presidents, R. G. Gunn and Prof. P. Taçon. Professor Taçon has graciously withdrawn in favour of Mr Gunn. Only one candidate each has been nominated as Overseas Vice-President, Secretary, Treasurer, and three positions of Committee Members.

On that basis the Public Officer of AURA, R. G. Bednarik, declares the following new Executive Committee as elected unopposed:

President: Professor John Campbell, JCU, Cairns
 Australian Vice-President: R. G. (ben) Gunn, Lake Lonsdale, Victoria
 Overseas Vice-President: Professor Giriraj Kumar, Agra, India
 Secretary: Robert G. Bednarik, Melbourne
 Treasurer: Elfriede Bednarik, Melbourne
 Committee 1: Dr Yann-Pierre Montelle, Christchurch, New Zealand
 Committee 2: Lance Syme, Picton, NSW
 Committee 3: Dr Graeme Ward, AIATSIS, Canberra

AURA Inter-Congress Symposium 2009

17–18 October, Broken Hill, western New South Wales

As announced previously (e.g. *RAR* 26: 115–116), this event will be held at the Barrier Social Democratic Club in Argent Street, Broken Hill (near the post office, see town map, next page) on the weekend of 17 and 18 October 2009.

Preliminary academic program

Welcome to the traditional lands of the Wilyakali.

Note: all papers will be a maximum of 20 minutes in length followed by 10 minutes of question time. The exceptions are a one-hour special presentation by Ekkehart Malotki and a final one-hour open discussion led by Claire Smith.

SATURDAY, 17 October 2009

0800 *Introduction*

Gunn, ben: Welcome

O'Donnell, Maureen: Welcome to Country

Gunn, ben: Brief remarks on the state of the art

The past 25 years

Ward, Graeme: Twenty-five years of AIATSIS rock art
 1000 MORNING TEA

Mulvaney, Ken: Twenty-five years on the Burrup (W.A.)

Bednarik, Robert G.: Progress in saving the Dampier rock art

Donaldson, Mike: Understanding the rocks: rock art and the geology of Burrup Peninsula (W.A.)

1230 LUNCH

1330 *Fire and rock art*

Taçon, Paul S. C.: Fanning the flames: rock art, tourism, climate change and fire

Lambert, Dave and Brad Welch: Fire and rock art

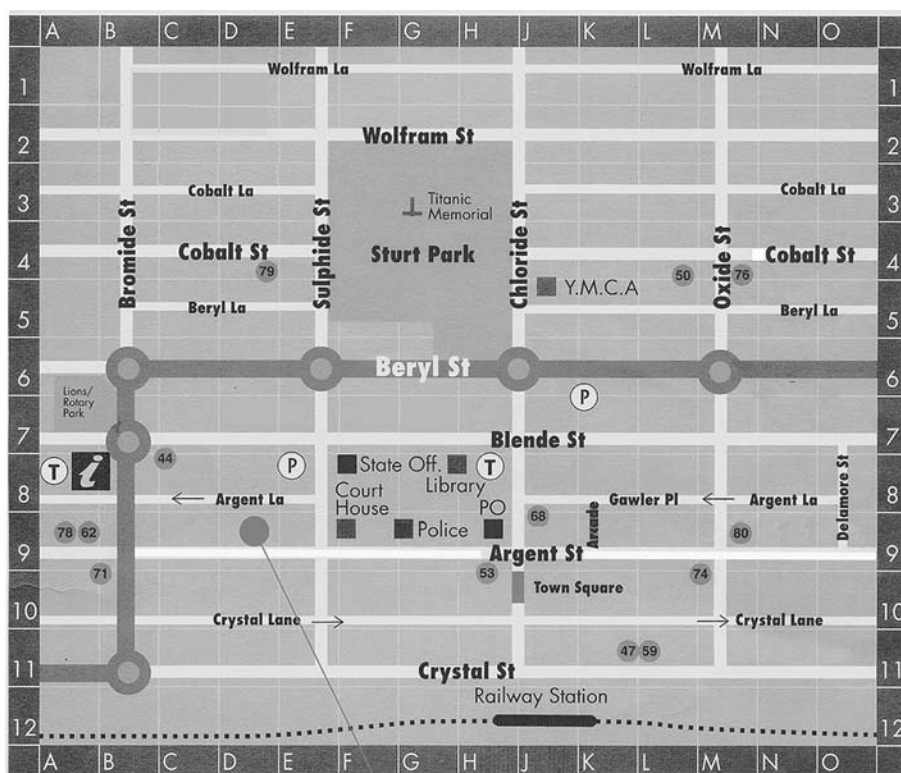
Sefton, Caryll: The effects of fire on the Woronora Plateau (Sydney, NSW)

Gunn, ben: The impact of fire on rockshelter art sites: Victoria and Arnhem Land

1530 AFTERNOON TEA

1600 *Regional studies*

Flood, Jo: Australia's earliest rock art — from the Top End



Social Democratic Club (Venue)

44 Black Lion Inn.....C-8	71 Silver Spade Motel.....B-10
47 Comfort Inn Crystal.....K-11	74 Astra Accommodation.....M-10
50 Desert Sands Motor Inn.....I-4	76 Imperial Fine Accom.....M-4
53 Grand Home Away frm Home..H-10	78 Tourist Lodge YHAA-9
59 Line of Load cottages.....L-11	79 Town House.....D-4
62 Mine Host Motel.....A-9	80 West Darling Hotel.....M-9
68 Royal Exchange Hotel.....J-9	

Map of the city centre of Broken Hill, indicating the location of the conference venue and the relative locations of some of the city's accommodation venues.

to Tasmania

Whear, Ray: The Jawoyn Cultural Heritage Program 2006–2008

Maynard, Lesley: Two-Toes, his Little Mate, and the Demon Dingoes of doom (Pilbara, W.A.)

Ross, June: Picturing change in the Central Desert (central Aust.)

1730 END DAY ONE

SUNDAY, 18 October 2009

0800 *Regional studies (contd)*

Webb, Esmée: Attempts to date some rock art sites in the Cue region, Western Australia

Morieson, John: The wells of Kooyoora (Vic)

Hardtke, Fred: Recording and rescuing the boats and fauna at Hierakonpolis, Egypt

Management

Rossi, Alana and Esmée Webb: The erosional impact of cultural tourism is a problem that needs to be considered when opening Aboriginal rock art sites to visitation (Wheatbelt, W.A.)

1000 MORNING TEA

Goldsmith, John: Innovative digital photography and 'full

dome' 360 degree panoramic images, for documentation of natural, cultural and heritage places of significance
Mallie, Troy and Glen MacLaren: Cultural site management systems: technology for recording and managing rock art

General

Dobrez, Livio: Rock art, perception and the subject-object binary

Watson, Ben: Recurrent rock art imagery: a neuroscientific perspective

1230 LUNCH

1330 *General (contd)*

* Malotki, Ekkehart: The 'deep structure' of non-iconic rock art: human universals

1530 AFTERNOON TEA

Bullen, Margaret: Culture and creativity

*Smith, Claire: Rock art research in Australia — where to from here? (Discussion)

1730 CLOSING THANKS

Due to the number of papers submitted and the limited time available, a number had to be removed from the program, including:

Sefton, Caryll: Then and now

Sefton, Caryll: Birds, birds and more birds

Gunn, R. G., J. Dortch, C. Ogleby and A. Thorn: The petroglyphs of the Kybra Aboriginal site, south-western Western Australia

These papers will be considered for publication in the proceedings volume.

Accommodation

There are numerous motels, accommodation houses, and B&B's within the city (see the map above for some of them), and a caravan park on the highways at the western (Adelaide) and eastern (Sydney) edge of the town. (The third caravan park is not recommended).

Fieldtrips

Monday, 19 October: fieldtrip 1 to Sturts Meadows and Euriovie. Travel in individual vehicles, hopefully rationalising the number of cars. Lunch will be self-catering, toilets are available at Sturts Meadows. Back to Broken Hill overnight.

Tuesday, 20 October: fieldtrip 2 to Mutawintji, full day, back to Broken Hill.

Wednesday, 21 October: start of fieldtrip 3, to South Australia, for a small number of hardy participants, to

extend for up to one week. The itinerary is not finalised because many sites are on private land and access must be negotiated with owners. This may involve access fees in some cases. The following provides only a guide to the expected itinerary: from Broken Hill west along the Barrier Highway to Mannahill, Karolta, Winininnie, then Yunta, Teetulpa, Panaramitee, Burra site, sites near Peterborough (Pitcairn?), then to Yourambulla, Wilpena Pound, Dingley Dell, Sacred Canyon, Moolooloo and end up at Red Canyon near Copley-Leigh Creek. Accommodation will be by motels, hotels and shearer's sheds.

AURA accepts no liability for accident cover of any fieldtrip participant, and participation in these excursions involves explicit exemption of AURA from any claims arising from misadventure or accident. Fieldtrips of AURA are not tourist excursions; AURA or the fieldtrip leaders receive no payment for them and have no contractual obligation whatsoever.

Registration

The AURA Registration Desk will open late on Friday, 16 October 2009, at the conference venue, and on the following day from 0800 hours. To pre-register for the AURA Inter-Congress Symposium in Broken Hill, please use the registration form provided.

Registration fees are \$A130.00 for members of AURA, \$A60.00 for student and retiree members of AURA, and \$A180.00 for non-members. Membership with AURA can be obtained at the Registration Desk. Registration covers a conference satchel and contents; coffee, tea, orange juice, biscuits and cakes during session breaks; refreshing buffet luncheons; conference dinner on Sunday evening; and field trip participation and literature. It excludes Saturday dinner, transport and accommodation. Student and retiree registrations are therefore subsidised by AURA, as they do not meet actual costs.

Please direct any queries to:
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Australia,
or to auraweb@hotmail.com

Please consult the conference web page at
<http://mc2.vicnet.net.au/home/congress/web/cairns.html>
for any updates.



Typical Mutawintji petroglyphs (photograph by R. G. Bednarik, 1971).



Some of the approximately 15 000 petroglyphs of Sturts Meadows (photograph by R. G. Bednarik, 1971).

AURA Treasurer's financial statement 2008/2009

ELFRIEDE BEDNARIK

Balance in hand on 30 June 2008: \$10 328.91

INCOME:	\$	EXPENDITURES:	\$
Sales of books	4585.78	Postage	1728.15
Bank interest	495.30	Business Affairs Registration	79.40
Registrations, Broken Hill	3030.00	Telephone and faxes	205.36
		Stationery	96.69
		Bank and merchant account fees	274.15
		Refund	96.10
		Broadband	42.55
		Payment to Broken Hill venue	150.00
TOTAL	8111.08	TOTAL	2672.40

Balance in hand on 30 June 2009: \$15 767.59

This financial position represents a good improvement on last year's, which, after considering the registrations for the Broken Hill Inter-Congress Symposium, is entirely due to book sales. These are led by the two volumes of R. G. Bednarik, notably the volume on the Dampier rock art issues, which is now close to being out of print. I have therefore determined that the last fifty copies of it will be sold at full price, i.e. no discounts will apply to them. Two of the volumes of the series Occasional AURA Publications

are also sold out: *Rock art and ethnography / Retouch: maintenance and conservation of Aboriginal rock imagery* (ed. Morwood and Hobbs / Ward); and *Time and space* (ed. Steinbring, Watchman, Faulstich and Taçon).

Overall, AURA holds book stocks of the approximate value of \$A15 000, and owns an archive nominally worth over twice that much.

Elfriede Bednarik, Treasurer of AURA

Please visit the Save the Dampier Rock Art site at
<http://mc2.vicnet.net.au/home/dampier/web/index.html>
 and sign the Dampier Petition. Thank you!

AURA Newsletter

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