Saudi Arabian rock art complexes inscribed on World Heritage List

Robert G. Bednarik

On 3 July UNESCO’s World Heritage Committee decided unanimously to add two major Saudi petroglyph properties to the World Heritage List. They are the massive rock art complexes of Jubbah and Shuwaymis in the Hail region of northern Saudi Arabia. The first includes the numerous sites on Jabal Umm Sinman and some adjacent sites next to the oasis town Jubbah; the second area covers Jabal al-Raat and Jabal al-Manjor, two rocky escarpments about 40 km from the village of Shuwaymis, 300 km south of Jubbah. Both sites are surrounded by highly arid landscapes.

Until 2001, the massive site complex at Shuwaymis was unknown except to some local Bedouins. In that year it was

Figure 1. Neolithic petroglyphs at Jabal al-Raat, Shuwaymis, Saudi Arabia: World Heritage.
It is accepted that the World Heritage List is currently not reflective of the Islamic world properly. Various Moslem states would follow the Islamic culture and religion, so if that

Therefore focusing my attention on Saudi Arabia in the past fifteen years has been a calculated stratagem, and it has achieved the changes hoped for. Today, the Kingdom of Saudi Arabia has one of the world’s best rock art protection systems in place. Numerous sites in very remote desert locations have extensive physical protection, in many cases amounting to solid steel fences many kilometres long (Fig 2). Local caretakers have been appointed at selected sites, responsible for controlling access to them, and the Ministry of Antiquities and Museums has long established a register of rock art sites. The Saudi Commission for Tourism and Antiquities (SCTA) has recently been established and taken over the responsibilities for the Kingdom’s rock art heritage.

Since these changes began, which will hopefully become reflected in a greater awareness and appreciation of rock art in the rest of the Islamic world, other developments have taken place. As the number of properties listed as World Heritage began approaching one thousand, UNESCO has begun to tighten the submission criteria in the face of increasing numbers of proposals, and the standards required have been significantly upgraded. During 2008 and 2009, I attended several consultation meetings with UNESCO, three in Paris and one in Johannesburg. During these deliberations I presented a strong viewpoint on behalf of IFRAO, in one instance with the support of IFRAO Representatives Dr Jean Clottes and Prof. Giriraj Kumar. My outspoken position as Convener of IFRAO was that the World Heritage List (WHL) is seriously impaired, in that it is Eurocentric and does not credibly represent the cultural heritage of the world. Secondly, I argued, that its emphasis on monuments of History (the arbitrary period so named) was counterproductive to the underlying goals of UNESCO, the unification of humanity. Historical monuments, I argued, were often subjects to disputes between political, ethnic and religious factions, and that some of these disputes had led to bloodshed. Pre-Historic monuments, on the other hand, were not hostage to political, ethnic or religious views, they were elements likely to unify rather than divide. I argued that dozens of European rock art sites have been inscribed on the WHL because they are thought to be of the Pleistocene. Most Pleistocene rock art clearly resides in the remaining continents, and not a single one of such sites has ever been nominated for the WHL. This is not just an oversight, it is an important factor in shaping the ideas of where advanced cognition of humans first developed — and it is the basis of a Eurocentric cult of Palaeolithicity. The severe imbalance evident in the WHL thus supports distorted and Eurocentric notions about humanity’s origins, and yet some of this European rock art on the WHL for being Palaeolithitic is not even of the Pleistocene. It is salutary to note that the subsequent report (UNESCO 2008: 29) states:

It is accepted that the World Heritage List is currently not

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**Figure 2.** Jabal Umm Sinman, Jubarah, section of 8 km long fence protecting rock art sites.
representative or balanced, because historical and European properties are greatly over-represented. Some regions, such as the Arab states, Asia and Australia, are severely under-represented. The example of Asia, the largest continent, demonstrates the point.

The same report also recommends that in future inscriptions on the WHL, preference will be given to three kinds of properties: rock art sites, important pre-Historic places and hominin find sites. This decision has a direct bearing on the prospects of rock art properties, especially those from continents other than Europe, to secure WHL in this climate of very stringent requirements for nominations.

The two Saudi petroglyph complexes were placed on the Tentative List two years after these developments, and then Prof. Majeed Khan from the SCTA drafted an initial submission. It was not acceptable and I wrote the submission document in 2013. Dr Janette Deacon assisted with the final draft, and Dr Aylin Orbasli authored the required Management Plan. The submission was made by the Saudi Ambassador to UNESCO in January 2014. Following the required site inspection there were requests relating to minor aesthetic issues at the Jubbah property, which are being complied with. The nomination was unanimously accepted by UNESCO on 3 July 2015.

What are the immediate and long-term implications of this listing? Saudi Arabia has expressed limited interest in international tourism at the sites; the principal motivation for seeking WH listing is to raise the status of rock art among the public of the Kingdom, and to cater for domestic and educational tourism. The government is committed to completing the installation of visitors’ facilities. A 40 km long sealed road through the desert to Shuwaymis has been completed, as have visitors’ centres at both complexes. Both the core zones and buffer zones have been secured at the two properties. Climate monitoring stations supplied from Australia will be installed at both Jubbah and Shuwaymis. A detailed rock art monitoring program is to commence shortly to act as an early warning system in case increased visitation of the sites has a deteriorating effect on the rock art. The protocol for this was submitted to UNESCO only a month before inscription took place.

In the long term the inscription of the two Saudi properties on the WHL will significantly raise the awareness and appreciation of rock art in the Kingdom of Saudi Arabia, and predictably also in all other Moslem nations. Hopefully it will help redefining cultural heritage in the region, drawing attention to the unifying patrimony of all humanity — and away from the bloody divisions created by History. Obviously such changes to attitudes will be slow, but in the case of Saudi Arabia, these developments can certainly be expected to facilitate the establishment of rock art conservation and condition monitoring practices as routine government policies. Already there are early signs of the establishment of a rock art research tradition in another major Moslem nation, Iran, to which a spate of recent papers in RAR bears witness. Hopefully such developments will have a flow-on effect in other countries of northern Africa, the Middle East and beyond.

REFERENCES


The Cochabamba Manifest mobilises scientists and indigenous experts concerning the preservation of rock art and indigenous sacred places in South America

GORI TUMI ECHEVARRIA LOPEZ and RAONI VALLE

Between September and October of 2014, in the city of Cochabamba, Bolivia, a meeting took place between researchers of rock art from different countries (trained in Western scientific tradition) and Quechua researchers of Peru and Bolivia, specialists in indigenous epistemology of quilcas (indigenous graphic expressions in Quechua language and cognition). It was the First International Congress of Rock Art and Ethnography that has extended and consolidated the foundation for the development of dialogues between indigenous and Western cognitive systems around the theme of rock art in a South American scale.

One of the main points discussed was that indigenous people can no longer be considered just as informants for Western science, but rather as relevant cultural and scientific research authors in a broader epistemological, intercultural and decolonising perspective. That is, the ethnography of rock art, or the informed method of rock art study, can no longer be regarded as the compilation of indigenous interpretations that may or may not have usefulness to the Western researcher in his final analytical and scientific world. New and more symmetric research strategies must be put into practice in what could be characterised as an inter-epistemological approach of rock art research, or an indigenous rupestrian archaeology.

From this intense and fruitful debate, that lasted for over fifteen days in Cochabamba, Mizque and other parts of the Bolivian mesothermal valleys, emerged an urgent and consensual concern: the protection of indigenous sacred places with quilcas in all South American countries. These places are subject to direct and severe threats and some have effectively been destroyed by the expansion of major infrastructure work like mega-dams and massive, industrial extractive exploitation of finite natural resources. A process that has been intensified with the acceleration of a certain type of economic growth observed in several Latin American countries.

The disturbing realisation is that as much as South American biomes, the rock art and indigenous knowledge attached to them (people and societies that provide social and cognitive life to rock art, being simultaneously part and builders of these landscapes) are equally vulnerable and can also be considered as ‘finite resources’. They are at the brink of extinction as phenomena of South American socio-environmental diversity.

Propelled by these concerns, a group of seven organisations that congregates rock art researchers from South America and the rest of the world have decided to make public their apprehensions through the document entitled The Cochabamba Manifest. Added to this document are the conclusions of the congress, a list of recommendations and a specific report which addresses a sacred Quechua and Aymara landscape threatened by real estate speculation in the vicinity of Cochabamba. To access all the conclusions achieved at the First International Congress of Rock Art and Ethnography (Cochabamba, Bolivia 2014), in addition to the Manifest, the recommendations and the report about the Kalantrancani site with quilcas (in English and Spanish) please visit: https://sites.google.com/site/aparperu1/home/artesrupestre-etnografia

The discussions around this thematic should be amplified to include indigenous experts from the Amazon and other regions in South America and the rest of the world. Archaeologists, anthropologists and other researchers interested in this matter are also relevant to integrate and collaborate in the development of this reflection and in the creation of direct actions.

The next meeting around this subject will take place in the city of Tacna, Peru, between 30 November and 3 December 2015, during the VI National Symposium on Rock Art (SINAR - PERU) in the thematic session No. 8 - Arte rupestre y problemas de desarrollo y sustentabilidad (Rock art and problems of development and sustainability). We invite the interested and relevant social protagonists to this discussion to join us on this occasion with the aim of deepening the debate and to plan action strategies that are in urgent need to be carried out. For more information about this next event visit: https://sites.google.com/site/aparperu1/home/vi-sinar

Finally, The Cochabamba Manifest, although only recently released, addresses the protection of sites with quilcas, or rock art and sacred landscapes in South America. Therefore, it is an intellectual and committed deportment with the preservation of an irreplaceable ancestral legacy that we are morally and intellectually obliged to conserve.

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THE COCHABAMBA MANIFEST
Rock art protection and policies of development in South American countries: concerns from the First International Congress of Rock Art and Ethnography held in Cochabamba, Bolivia, between 23 and 26 September 2014

In the past twenty years South American countries have speeded up considerably their process of economic growth. One of the outcomes of this process is the acceleration of the destruction of very specific, diverse and fragile ecosystems like Amazonian forests, rivers and savannahs in South American lowlands for the sake of massive constructions of mega-dams, roads and industrial mining projects, for example. But, all around South American countries several other areas of ecological importance and singularity have been destroyed, damaged or are still under considerably menace by the expansion of such intra-continental economies attached to global trends in political and economic development.

What concerns us here is the fact that this process is violently attacking not only faunal and floral contents of the biota, but also several people’s traditional lifestyles and indigenous ways of relating society and finite natural resources in highly complex manners. A cultural heritage that represents more than twelve thousand years of human occupation and accumulated knowledge on how nature works and how people could take adaptive advantage on this, respecting its intrinsic limitations and possibilities, enhancing, indeed, those possibilities. Rock art sites are a fundamental part of these knowledge traditions and millennial processes of landscape domestication and, together with other archaeological sites and all sorts of sacred indigenous landscapes, are prime targets, due to their location, of the aggressive expansion of projects such those mentioned above.

Not a single legislative proposition has been made in South America to increase the legal protection of this heritage in the face of this considerably unequal and questionably planned process of economic growth. On the contrary, what have been observed over the major policies of development on countries such as Brazil, Peru and Bolivia, are the systematic disapplication of already extant protective legislation bodies concerning the cultural and historical heritage, including rock art, substituted by more flexible political dispositions taken by the governments of these countries violating and/or contradicting their own constitutional laws. They also fail to implement previously signed international treaties such as the Convention 169 of the International Labour Organization of the United Nations that, among other aspects, demands previous, freely consented and culturally adequate process of consultation to the human communities that will be affected by projects such as mega-dams.

This constitutes a very serious menace not only to indigenous South American history and present lifestyle of indigenes, but represents a menace to every living creature in this part of the planet and elsewhere, considering the climatological interconnections between the Amazonian biome and the rest of the world, still very poorly understood by the scientific community. In this regard, of utmost importance is obedience to the Precautionary Principle stated by the Rio Declaration in 1992 and Kyoto Protocol in 1997 and other previous international treaties, which constitute fundamental legal artefacts that seem not effective in those countries.

Rock art sites and Sacred Indigenous Landscapes related to them in South America have recently been destroyed by hydroelectric and mining projects. These include the Sete Quedas Rapids on the Teles Pires River, in Brazilian Amazonia (this site has already been dynamited and subsequently flooded with the construction of the Teles Pires mega-dam); Toro Muerto in Peru; El Mauro in Chile; Ilha das Cobras on the Madeira River, Brazilian Amazon (also submerged by a mega-dam); Santa Luzia and Pedro do Ó on the Volta Grande of the Xingú River, also in Brazilian Amazonia (affected by a massive combination of Belo Monte mega-dam and industrial gold mining), to state but a few. Unlike Foz Côa in Portugal and Dampier in Western Australia, where rock art was accorded a decisive role in the protection of the cultural heritage of humanity and of important socio-environmental landscapes, the aforementioned sites have been destroyed, or are threatened with annihilation.

In view of these considerations, AEARC (Association of Rock Art Investigation of Cochabamba, Bolivia), APAR (Rock Art Association of Peru), IFRAO (International Federation of Rock Art Organisations) and rock art investigators from Brazil and other countries, gathered together in the First International Congress of Rock Art and Ethnography, that took place in the city of Cochabamba, Bolivia, between 23rd and 26th September 2014, and decided to express through this letter their alarm and discontentment regarding the construction of mega-dams, industrial mining projects such as gas, oil and bauxite exploitation, agro-industrial expansion, opening of extensive roads across natural areas (like in the case of Tipnis in Bolivia), and all sorts of massive-scale extractive initiatives in Amazonia and elsewhere in South America.

Furthermore, we have produced this document in order to express our support to the struggle of indigenous and traditional South American societies, such as the Munduruku ethnic group from the Tapajos River in Brazilian Amazonia, against the construction of mega-dams and industrial mining projects in their traditional territories and sacred landscapes. By the same token, we recommend and demand from the heritage institutions and from the political representatives of these countries, clear and responsible propositions and actions concerning the protection of cultural, historical
and archaeological sites. We expressly emphasise rock art sites and the indigenous knowledge attached to them, both cultural expressions and finite cultural-environmental resources, severely threatened by what seems to be an uncontrolled, misconstrued and politically biased process of economic growth of South American countries.

Cochabamba, Bolivia, 4 October 2014
AEARC – Asociación de Estudios del Arte Rupestre de Cochabamba, Bolivia
APAR – Asociación Peruana de Arte Rupestre, Peru
ABAR – Associação Brasileira de Arte Rupestre, Brazil
GIPRI – Grupo de Investigación de Arte Rupestre Indígena, Colombia
ANAR – Archivo Nacional de Arte Rupestre, Venezuela
CIAR-SAA – Comité de Investigación del Arte Rupestre de la Sociedad Argentina de Antropología, Argentina
IFRAO – International Federation of Rock Art Organisations

Dating rock art in Xinjiang Province, China

R. G. BEDNARIK

During June 2015, the relevant authorities of Xinjiang Uygur Autonomous Region, the north-westernmost state of the People’s Republic of China, invited a mission of Chinese and Australian rock art dating specialists to assess the potential of a series of rock art sites to yield direct dating results. The sites and site complexes examined during this expedition were Tanblatas, Dunde Bulake, Duogarte, Tou Gan Bai and Kangjiashimenzi, all located in the far north of the Province, close to the Russian and Kazakhstan borders, in the vicinity of Altay City and the Altay Mountains. The following is an extract from my 6000-word report to the Region’s authorities, presented here because many of the points made can be applied universally to issues of rock art age estimation.

Dating of the rock art

After thirty-five years of direct dating of rock art, this subject still remains ferociously complex (Bednarik 2007). Although almost thirty different methods have been used in the quest of estimating the age of rock art, none of them has been standardised adequately to provide simplistic procedures or results. All involve specific qualifications, all can only be applied under very specific local conditions. Therefore the simple answer to the question, can the rock art sites of northern Xinjiang be readily dated, is that no such method exists. Most particularly there is a danger of assuming that a technologically sophisticated approach involving advanced laboratory equipment might likely yield credible results. The opposite may be a better approximation of reality: basic methodology, while not offering any great precision, is likely to be more reliable and more epistemologically sound.

For instance the importance of understanding the significance and nature of mineral (and other) accretions at rock art sites is fundamental to comprehending the context of rock art, as are the exfoliation processes and events the rock art panels have been subjected to. An understanding of these factors is not beyond the means of any serious rock art researcher, and without it the rock art cannot be placed into a chronological context. This is far more important to do than any application of a specific physical or chemical method. The principles of this approach are as follows.

A rock art site needs to be subjected to a forensic approach: a number of geomorphological and geochemical events and processes have occurred at the site. They form a sequence through time, and many of them left traces that can be read like the pages of a book. Somewhere within this sequence the event of rock art production is located, called the ‘target event’ (Dunnel and Readhead 1988). Its relative position within the local sequence of weathering, exfoliation and deposition of accretionary deposits provides a relative chronology, some of the components of which may be datable by specific means. For instance the silica laminae at Dunde Bulake Site 1 (Fig. 1) precede the rock art, and they represent a climatic phase that was much wetter than today. Its age may well be known or can be determined by alternative means. Similarly, the exfoliation scars at Kangjiashimenzi show progressive rounding with increasing age, providing reliable information about the relevant sequence of events and the position of each exfoliation within a relative chronological framework. Once such a relative sequence is established, it needs to be provided with time depth, applying specific analytical methods as determined by the local circumstances of location, orientation, site morphology, petrology, climate and other climatic variables. For many of these methods other circumstances are of significance, such as for example exposure to cosmogenic radiation, hydrology, ambient pH environment, microorganic environment, evaporation regime and many more. Unless the analyst understands these qualifications, reservations and interdependencies, he or she is not in a position to decide which specific analytical method should


be applied or what the expected credibility of their results might be. Therefore this choice is not a matter of simplistic selection of one or the other method, perhaps because it has been credibly applied in some other context. The person making the decision about the analytical course to take needs to have an understanding of all the alternatives that are currently available. Since close to thirty such methods have now been developed or applied to rock art, this obviously involves a broad knowledge of the discipline of rock art age estimation.

Clearly a researcher who is unable to confidently identify accretionary mineral deposits in the field, or who lacks comprehension of exfoliation, weathering and patination processes is not in a position to make decisions about complex and very possibly expensive analytical methods targeting specific substances or phenomena. It is not recommended that samples of paint residues or accretions be removed by untrained personnel, as such samples involve either unnecessary intervention or they are unsuitable for age estimation. Sample removal is a last resort approach, because various age estimation techniques involve no such interventionist method and are preferable for that reason alone. Some methods are purely optical, or for other reasons exclude physical intervention in the rock art or its environmental fabric.

Another factor to be considered is that most methods of direct rock art dating target substances or traces that are either younger or older than the rock art; perhaps they ‘bracket’ the target date, the age of the rock art, but they cannot provide the actual target date. Obviously methods that provide the target date are preferable. It is also very desirable to apply not one single analytical method to a given referent, but to apply two or even more different approaches in tandem. For instance, if seeking to determine the age of reprecipitated calcite (e.g. flowstone) by uranium-series radiometric methods, it is strongly advisable to subject the same deposit also to radiocarbon analysis. The results may be in disagreement (Bednarik 1984), but this kind of information helps in understanding the greater context of the isotopic scenario. Much the same applies to other methods: their results should be checked against those of alternative methods. Finally, it needs to be remembered that today’s rock art dating technology is relatively primitive, with its history of only 35 years. In a century or two, vastly superior methods will have become available, which is precisely why the precipitate removal of samples is to be avoided at all cost. Those who will follow in our footsteps, in generations to come, will be grateful if we preserved the rock art sites in the best-possible pristine conditions.

The way forward

The previous chapter already implies much of the basis on which recommendations for the future need to be grounded. In a young discipline like that of dating rock art it is essential to keep options open, to provide only testable claims and propositions, and to avoid getting too focused on one method or approach. This much-needed flexibility requires a good understanding of the many options available, of their relative advantages as well as their limitations, and the usually very intricate qualifications that apply to these many approaches. Foremost of all is a thorough appreciation of the geomorphological and geochemical processes that form the historical context of the rock art, i.e. that place it in a relative chronological framework. The way forward in improving understanding the rock art of northern Xinjiang, and indeed of any corpus of rock art in the world, is to secure a thorough appreciation of this context of the rock art: how it fits into the fabric of the site. Not only does this create the conditions necessary for designing better targeted dating approaches, in many ways such information also has a bearing on the conservation issues a site faces.

The compounds which mineral accretions are made up of are generally salts, such as carbonates, chlorides, nitrates, silicas, oxalates, sulphates, sulphides, as well as iron oxides and hydroxides, manganese oxide and so forth. All of them have implications for conservation and dating, and most of these compounds can be identified in the field. Similarly, the modifications rock art panels have experienced, both before and after the execution of the rock art, can be identified and appreciated on site, and a variety of basic measurements can be made with the appropriate experience. This is not a ‘high-tech’ approach, it is basic science, and it needs to be incorporated in the traditional site description, together with the identification of the petrological composition of the rock mass forming the site. If the site occurs in a shelter or limestone cave, it is essential that the reporting rock art researcher understands the formation processes of the shelter or cave, or avails himself of the expertise of someone who does appreciate these processes, and their effects on questions of rock art age and conservation. So the way forward in the study of Chinese rock art, or in fact rock art anywhere, is to acquire the abilities implied by these needs, and to do so before considering the application of more sophisticated methodologies.

Selection of such methods as radiometric analyses, microerosion analysis and others is contingent upon an understanding of the context of the rock art as described, and it is
As evident from this year’s financial statement, there is very little change from last year. Book sales have slowed down considerably. AURA’s archive and stocks of publications are currently valued at $24,218.00. This does not include back issues of *RAR* which are not included on AURA’s books.

**AURA Treasurer’s financial statement 2013/2014**

**ROBERT G. BEDNARIK**

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**Balance in hand on 30 June 2013:** $9093.60  
**Balance in hand on 30 June 2014:** $8605.95

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**REFERENCES**

