RAR DEBATE

The contested Meenamatta petroglyphs, Tasmania

By R. G. BEDNARIK, G. ANDREWS, S. CAMERON, P. C. SIMS and E. BEDNARIK

In *RAR* 24(2) we presented our findings concerning the nature, significance and possible antiquity of a series of petroglyphs in the Meenamatta mountains (Blue Tier) of north-eastern Tasmania (Bednarik et al. 2007). Concerned purely with the scientific aspects of this rock art, we failed to provide a political background to the issue. Meenamatta is the centre of a dispute between environmentalists, who seek protection for the mountains, and the Tasmanian logging industry, which has control over their forests. The latter party feels that our findings affect this dispute, because of the need to consider pre-colonisation cultural sites in addition to the natural values of the region. Moreover, our paper has prompted a request from local Traditional Custodians to protect the two petroglyph concentrations as 'sacred sites'. This has led to the direction to relocate a tourist walking track planned by Jo Field, at the time a consultant for Forestry Tasmania. Now an advisor to the Forest Practices Authority, Field has in response teamed up with Peter McIntosh, from that same agency, to attempt a refutation of our paper by rejecting our identification of petroglyphs. However, rather than requesting its publication in *RAR*, they submitted their work to another journal (Field and McIntosh 2009).

We object to this circuitous mode of debate, which we regard as bad form, and we are surprised the editors of the alternative journal did not direct the authors to *RAR*. After all, *RAR* has a strongly established and long-standing practice of open scientific debate, and its editor welcomes discussion explicitly. Moreover, most of the ten-page paper by Field and McIntosh had no relevance to our work, yet when we requested the right of reply, we were only allowed a maximum of 1000 words including references (Bednarik et al. 2010). We were therefore unable to respond as fully as their paper deserved, and since we also feel that the discussion should have taken place in *RAR* we take the liberty of requesting that this debate be accommodated in that journal.

Before being able to respond fully to Field and McIntosh (henceforth 'the authors'), we need to briefly repeat their critique for the benefit of *RAR* readers. The authors' paper deals at length with irrelevant issues, such as the vegetation of the area, and it repeats our introduction to its geology. It also repeats our description of natural groove markings occurring at various places — although their explanation differs significantly from ours. The authors distinguish eight types of rock markings in the area we referred to:

1. 'Rills' are >30 cm long and c. 10 cm wide, and defined as karren. While these large grooves probably are the result of solution by flowing rainwater, we reject their description as a typical karst phenomenon. All forms of karren (*Rillenkarren*, *Rinnenkarren*, *Spitzkarren*, *Kluftkarren*, *Rundkarren*, *Flachkarren* etc.) occur as multiple, sub-parallel grooves on carbonate or sulphate rock. Thus extending the term to *single* grooves on *igneous* rock is inappropriate.
2. 'Long Linear Grooves' are >20 cm long and defined as the result of solution along pre-existing structural weaknesses. Since that possibility is not excluded for the first type, a significant difference is not demonstrated.
3. 'Circular Holes' are 4 cm diameter and extend deeply into the rock. They were indisputable made with steel tools, very probably by miners.
4. 'Inscriptions', in one case dated, had already been described by us.
5. 'Oval Depressions' are >10 cm and they are correctly defined as gnammas or weathering pits. It would be preferable, however, to call them solution pans (cf. Spate and Wray 2008; Bednarik 2008a: 216–218); since the authors call single solution grooves on plutonic rock 'karren', they would need to be consistent and call solution pans 'kamenitsa', the term for solution pans on carbonate rock.
6. 'Regularly Spaced Circular Depressions' are 10–12 cm diameter and are correctly defined as having been made with metal tools.
7. 'Short Linear Grooves', 5–20 cm long.
8. 'Small Circular Depressions', 2–4 cm diameter.

The principal disagreement between the authors and us, apart from their misunderstanding of our position on their type 6 markings, concerns a few of their type 7 marks, and probably all of those they list as number 8. There are three major problems and numerous minor ones with their paper. We will first explain the former and then turn to the latter.

Misunderstandings

The long alignment at BT1

The authors (Field and McIntosh 2009: 16) assert unambiguously that we 'determined a minimum age for the BT1 petroglyphs of about 1000 years', and that we had stated that this particular site's 'linear arrangement of cupules appears to be a distinctive feature of Tasmanian rock art'. These two statements contain several consequential errors. First of all, we had not only clearly and prominently explained that '[s]o far we have not had the opportunity to examine these markings' (Bednarik et al. 2007: 163), we had then even listed three possible explanations for them, two of which attributed these markings to 'tin miners a century ago'. No rock art specialist would define these large and vertical-walled holes as cupules — cupules are inevitably hemispherical, having been made with hammerstones, and are almost always under 10 cm diameter (Bednarik 2008b).

Secondly, if we have not examined these large holes, it is obvious that we could not have considered their age analytically. Here it is obvious that the authors confused sites BT1 and BT2: we analysed the latter site in some detail. But it is here that the magnitude of the authors' difficulties begins to become apparent: they have searched for site BT2 and failed to find it.

Thirdly, the second quoted statement by us appeared at the end of our conclusions, and it made no reference whatsoever to BT1. We listed aligned cupules at Cape Grim, Preminghana, Bond Bay, Sundown Point and an unnamed sandstone cave on the south-west coast, and then generalised that cupules are the most common form of rock art found in Tasmania, but linear alignments of them seemed to be a distinctive feature on the island (in contrast to the Australian mainland). Nowhere on this page, nor on the previous four pages, is site BT1 even mentioned by us.

It is our impression that the authors have written a response based on many misunderstandings. We do not believe that our text was unduly complex or demanding, but here we will, once more, attempt to present our view as simply and succinctly as we can. Site BT1, with the apparent miners' holes alignment (Bednarik et al. 2007: Fig. 2), has not been investigated in any detail by us so far. We have no opinion on the origins of these holes or their age, and we would be tempted to accept the authors' view if it were not for the unreliability of most of their other statements. We will form a view on these holes after we have examined them, but it appears likely that the authors are correct on this issue.

The BT2 petroglyphs

It is most unfortunate that the authors failed to locate site BT2, because it would have assisted them greatly in learning to distinguish between cupules, rock drill marks and natural features. That site comprises several alignments of typical cupules on a sloping panel (Bednarik et al. 2007: Figs 3 and 4) as well as a few convergent lines motifs. In one of these latter quartz grains occur, bearing several 'clear conchoidal fractures, which indicate that the grooves were made by percussion at a time when the feldspar surface had been about 2 mm higher than at present' (Bednarik et al. 2007: 164). The authors chide us twice (Field and McIntosh 2009: 12, 16) for not explaining how to distinguish anthropogenic and natural grooves, because in their superficial reading they failed to notice that we have presented the answer to that key question. Percussion petroglyphs are recognised by traces of impact, such as cracked, fractured or bruised mineral grains or crystals, whenever traces of the surface created at the time of production still remain available for microscopy.

This leads to another crucial issue. The lithology at BT2 is highly variable, dominated by alkali feldspar, with localised schlieren of quartz crystals of up to a few millimetres size. The one impact petroglyph extending into such a zone, a convergent lines motif, reveals that the retreat (cf. Bednarik 2001: 143) of the feldspar matrix relative to the quartz grains that occurred since the production of the groove is uniformly about 2 mm. The authors have failed to appreciate the significance of this factor: such a significant retreat of the relatively soluble component demands a minimum age of one millennium, therefore our attempt to extract some microerosion data from fractured quartz merely confirms what is already evident from a cursory examination of site BT2.

Microerosion analysis

The authors' critical discussion of the microerosion age estimation attempt at BT2 (the site they failed to find) illustrates such a profound lack of understanding of both theory and method that it would require a major paper just to unravel their misunderstandings. Here we will only briefly respond to the most obvious errors or misunderstandings.

Micro-wane development, which is the variable measured by the principal application of the method (there are others), is not by abrasion, as the authors state twice; it is a result of unequal solution rates which are determined by the microscopic geometry of the mineral surface (usually, but not necessarily, quartz). This already shows that they lack any understanding of the method's theory or justification, as is equally obvious from their assumption that 'the broadness of the fractured quartz' is measured. We have no idea what they mean with this phrase, and it certainly has no relevance to the method, which has been explained in considerable detail on numerous occasions. Similarly, they object that 'the angle of the broken faces will vary from acute to >90°', when it has been emphasized repeatedly that angles α compared within a specific analysis must always be closely similar, and for ease of comparison between different projects it is preferred to use only edges of ~90°.

The authors' view that angle β is used in age estimation illustrates again that they do not understand the method: this angle, a hypothetical expression of the rate of retreat, merely establishes why dimensions *x, h, y, z, r* and consequently *A* must all be proportionally equivalent (Fig. 1). Therefore, contrary to their interpretation, equation 4 (Bednarik 1992) is not used in dating; it merely demonstrates linearity of the process. Moreover, contra Field and McIntosh (2009: 18), β cannot possibly be a constant proportion of α, except at the same locality and on a surface of the same antiquity. Their comment that we 'dispensed with trying to predict β' (p. 18) shows again that the authors failed to understand the theory. What is in fact measured is wane width *A*, which escaped them because they had not grasped the principles of the method. Their inability of understanding the concept of micro-wane formation also prevented them from appreciating why Černohouz and Solč's (1966) theory (from which microerosion analysis was in fact developed; Bednarik 1992) would only apply if erosion were limited to the edge, which it is not. Apical retreat *h* by itself is therefore irrelevant to age (and it cannot in any case be effectively measured under the microscope), because retreat *h+x* is what would need to be measured, being proportionally equivalent to *z*. Other errors in their discussion of the method include their assumption that Grosio is a valley; it is a village in Valtellina, which as the name says is a valley. The calibration curve established for Rupe Magna near Grosio is also incorrectly interpreted. The authors assume that an age claim of 12 000 years BP was made for the oldest petroglyphs, when in fact it would have been impossible to gain access to the rock at that time: it was presumably covered by a glacier, as explained in the paper cited.

The authors seem to agree with us that the engraved date at site BT4 probably dates from 1961, and we have determined that micro-wanes on fractured quartz crystals offering edges of about 90° in that date imply a minimum age of 1000 years for the petroglyph analysed at BT2. Finally, as already mentioned, such a minimum age is also implied by the 2 mm retreat in the feldspar at BT2. We have produced an age estimate for the BT2 petroglyph of about 1700 BP, which is again in agreement with preliminary indicators. How the authors have attributed this dating attempt at a site they have in fact not even seen to another site with apparent modern mining markings is in need of clarification.

The microerosion method does in fact have several weaknesses, which have been discussed in some detail (e.g. Bednarik 2002), yet the authors seem unaware of them, or surely they would have mentioned them:

1. Results do not constitute secure and precise datings. Substantial tolerances are attached to each age, reflecting the spread of the primary data. The true ages of the motifs dated do not necessarily lie within the tolerance values, although this is highly probable.
2. The reliability of each result is largely dependent on the number of micro-wane measurements made.
3. The calibration curves for securing age estimates may be in need of refinement.
4. To obtain much more reliable ages by microerosion analysis, two or more calibration curves from two or more minerals are desirable.
5. Crystalline quartz occurs in different forms. While their solution characteristics are unlikely to differ sufficiently to affect the rather coarse resolution of the method described above, this assumption should be tested by analysing surfaces of known age but different quartz types.
6. Much rock art occurs on plutonic or extrusive igneous rocks such as gabbro, dolerite and basalt, rendering analysis of the microerosion behaviour of pyroxene, augite and olivine very useful for expanding the applicability of the method.

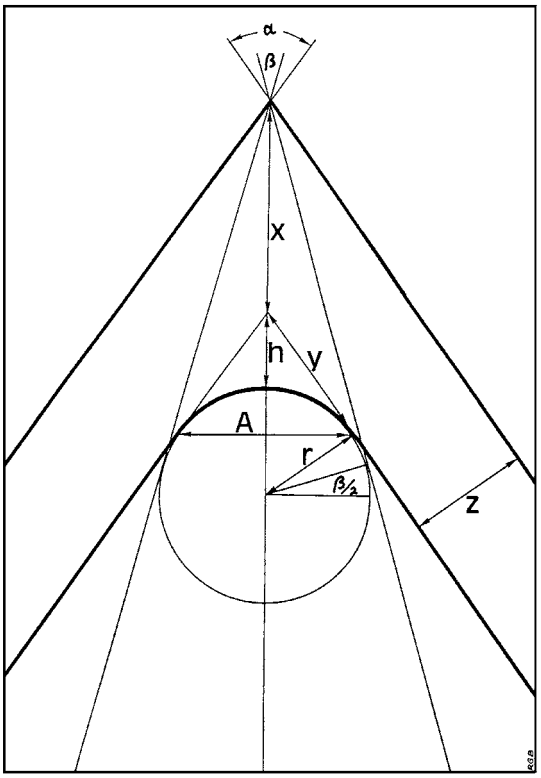

Figure 1. *Diagram depicting the laws of wane formation in a simplified fashion.*

We would keenly welcome any genuine endeavour by Field and McIntosh to test or improve microerosion analysis, for which there are many possibilities. For instance they might determine how much the solubility of alpha quartz differs from that of beta quartz. Their clumsy attempt to refute the efficacy of microerosion analysis is a low point in rock art research.

Minor matters

The authors appear to be in full agreement with our finding that nearly all the linear grooves at the

Figure 2. *Some of the hundreds of cupules at Site BT3, which occasionally occur in alignment and evenly spaced, and are found on variously orientated surfaces.*

four sites we mentioned were caused by tree roots, but even here, their views are in need of correction. They believe that 'acidic dissolution of granite associated with the presence of tree roots' caused these grooves (Field and McIntosh 2009: 19). We disagree and repeat that the process is as described in Bednarik (1994: 34–35; the authors would benefit greatly from this paper as it deals entirely with the discrimination of natural and anthropogenic rock markings), therein defined as kinetic marks caused by minute movements in the surface-near roots of trees hugging the rock for support and swaying in the wind, in which fine sediment acts as abrasive. In this respect we are therefore in agreement with Luckman (1957).

Chemical degradation of feldspars occurs essentially by hydrolysis (Berner and Holdren 1977), and while the Ca^{2+}, Na^{+} and K^{+} cations are soluble at normal soil pH range (4.0 – 9.0), the major structural element Al^{3+} is not. Its solubility is facilitated by chelation, in which the formation of complexes between metals and organic ions renders the metal mobile at any normal soil pH. Thus the presence of humic and fulvic acids significantly increases the rate of dissolution in all types of feldspar. Nevertheless, under identical ambient conditions, plagioclase tends to succumb faster than any of the potassium feldspars, because of the high mobility of the Ca^{2+}. The authors' emphasis on soil pH and their vague notion of 'chemical root action' suggests that they have in mind a mycorrhizal process (Bednarik 1992). Despite the symbiotic associations of the mycelium of fungi with the roots of many plants (Bednarik 2001: 185), respiratory carbon dioxide of the mycorrhizal micro-organisms is effective on carbonates, but not on aluminium silicates. We reject this interpretation until the authors provide a detailed explanation of it.

Nevertheless, this is of no significant consequence, because we are in agreement with the authors that these grooves are natural. In fact we agree with them in most respects, other than errors and misinterpretations in their paper, and principally the issue of their type 8 markings, the small cup-marks at site BT3. These are in fact the only petroglyphs the authors have seen. They correctly recognise that water ponding is not a viable explanation for them, because these pits occur on sloping and even vertical surfaces as well as on horizontal. Their discussion suggests that the authors are unfamiliar with tafoni (Dragovich 1969; Martini 1978; Cooke et al. 1993). In the end they offer only the vague guess that these hemispherical pits formed by 'slow dissolution of the softer minerals of the granite'. This simplistic explanation is offered without any examination of the lithology or microscopic condition of the surface, and it fails to illuminate why this process should occur only in one locality, why some of the pits form alignments (Fig. 2), and why some of them contain quartz grains with percussion traces. More directly, what do they mean with 'the softer minerals' of the host rock? They seem to imagine a rock mass with equally shaped and sized pockets of some mysterious, more soluble mineral that is spatially distributed over the present surface of the bedrock. Since this mineral has been dissolved, we cannot know its identity, but if it was distributed like the raisins in a cake, why does its distribution match the shape of the present surfaces?

We request that the authors re-think this matter properly, focus on these pits (preferably using microscopy in lieu of biased opinion) rather than on rock markings we have already identified as either natural or Historical, and then present a properly argued hypothesis about the origin of these pits at site BT3. By this we mean a scientifically grounded, testable hypothesis, like ours that these are humanly

created pits, i.e. cupules. Since we have demonstrated that at another, nearby site (BT2), which the authors have not seen, numerous cupules do occur, and since stone artefacts can be found in the vicinity, and since we present testable evidence in our paper, we expect that this evidence be tested properly, not be explained away by an emotive but unsubstantiated dismissal.

One of us (PCS) also objects to the authors' outdated selection of cited literature, such as his paper written decades before the main petroglyphs were found, thus misrepresenting his views (cf. Sims 2007). Site BT2 was re-discovered only in 2005, as pointed out in our paper; he could not have considered it in 1977. Since 2007 he has himself re-discovered and reported yet another montane cupule site in Tasmania (Sims 2008).

The political aspects

The authors' vehement denial that there are cupules at sites BT2 and BT3 — when they have not even examined the first site — prompts the question: why they are so keen to prove the absence at Meenamatta of phenomena of a kind they have not before encountered? They note that, as a consequence of our 'study, there has been an initiative to set aside an area of Blue Tier as a "sacred site", and to redirect a public walking track'. Jo Field, who designed that walking track for her employer at the time, Forestry Tasmania, objects to such a political act, and has in the past denied the local Indigenous Noiheener Group's connection to this area. However, our paper had no political intent, and needs to be separated from any political action it may have prompted subsequent to its publication. On the other hand, attempting to explain away the cupules at BT3 as some kind of mysterious solution phenomena might well constitute a political act.

We find entirely absurd the notion of the authors that two rock art neophytes could effectively refute the findings of experienced rock art researchers *without* actually having seen the key site in question. This would seem to be obvious, but apparently it was not to the editor of *Australian Archaeology*, who would seem to be complicit in allowing that journal to be used for these purely political purposes. He accepted the paper apparently without refereeing it (it seems impossible to us that the five referees stipulated by that journal could have all lacked the competence to detect the errors and self-contradictions in the paper), without offering the paper to us for comment, and without suggesting to the authors that the debate of a paper might best be held in the same journal that published that paper.

While we find it difficult to understand the motivation of the authors in submitting their critique of a paper in an international journal to an alternative, local journal, we can ascribe this to their lack of experience, as they are neither rock art researchers nor archaeologists. It is obvious that if not one of us were a subscriber of *Australian Archaeology*, we might never have become aware of their paper. So perhaps the authors merely wanted their work to be published in a place where we might not respond, i.e. where it was possible to mislead the readers. The motivation of such a scheme could have been an attempt to curry favour with the authors' employers, the logging industry's lobby, which is keenly eying the remaining forests of Meenamatta. Both Forestry Tasmania and the Forest Practices Authority have an exceptionally poor record in Indigenous issues, and are apparently very irritated by our report of rock art from the bitterly contested mountains. On the other hand, the authors do agree with us that the area does have cultural values that may be worthy of preservation — even if they prefer to emphasise those of non-indigenous nature (mining evidence) over the indigenous heritage values. We would argue that both the pre- and post-invasion cultural heritage features deserve protection and preservation, as indeed does the splendid natural heritage of the area.

Here it helps to place the issue into its context: in Tasmania, Indigenous cultural heritage remains greatly undervalued. For instance, the maximum fine for damaging post-invasion heritage is 500 times greater than for pre-invasion heritage. This incredible disparity is enshrined in legislation and has had some very direct effects. About half the rock art sites of Tasmania have been vandalised (Sims 2006), which greatly exceeds the corresponding proportions of all other states of Australia, and most of the rest of the world. This state of extreme cultural apartheid in Tasmania finds expression in many ways, for instance in the habitual denial of the presence of Aboriginal occupation sites in logging assessment reports. It appears to us that the 'refutation attempt' of Field and McIntosh is merely another political stunt to deny the Indigenes their cultural heritage. Whilst we thank them for the opportunity of elaborating on our findings — and science does thrive through the testing of propositions — we believe that such testing needs to be done of the data presented or the claims made, not on the basis of misunderstandings or political agendas.

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Endnote: J. Field and P. McIntosh have been given the opportunity to respond to this article in January 2010. They have not responded by the time this issue went to press.

BRIEF REPORT

Recent excavation and recording program at the Llwydiarth Esgob Stone, Llandyfrydog, Anglesey, north Wales

By GEORGE NASH, ABBY GEORGE, ADAM STANFORD and THOMAS WELLICOME

Introduction

As part of ongoing research, the authors report and discuss the recent excavation and rock art recording program of megalithic rock art on a stone at Llwydiarth Esgob Farm in Anglesey, north Wales (NGR SH 4360 8440). This project formed part of a much wider research agenda — the Anglesey Rock art Project (ARAP), which has made a number of significant rock art discoveries in north Wales between 2004–2009 (Nash et al. 2005; Nash and Stanford 2009), organised by the Welsh Rock Art Organisation (*www.rock-art-in-wales.co.uk*). The Llwydiarth Esgob Stone, made from a distinctive localised hornblende picrite, stands within the garden of the Llwydiarth Esgob Farm farmhouse and was moved there by the noted antiquary Thomas Pritchard (1846–1920) sometime at the beginning of the 20th century (see Lynch 1974: 118) (Fig. 1).

In terms of rock art regions elsewhere in Europe, the Welsh assemblage can be considered relatively insignificant, numbering around 45 sites; of these, 35% are directly associated with Neolithic burial monuments, the rest are located on isolated standing stones (menhirs) or occur as *portable* stones (Sharkey 2004; the term is discussed in Watson 2009). The repertoire of motifs comprises mainly of single and multiple cupules which are usually arranged haphazardly or sometimes forming linear patterns on standing stones or rarely on exposed rock-outcropping (e.g. Bryn Celli Ddu). However, in the case of the Llwydiarth Esgob stone, one side is decorated with three concentric circles, cup-and-rings, cupules and intersecting grooves. The rear face has no obvious petroglyph but is covered by pitting; it is not clear if this is the result of human agency or not. This stone is the only isolated monolith in Anglesey that has megalithic symbols that are arranged in such a complex manner.

Figure 1. *The Llwydiarth Esgob Stone photographed using controlled light conditions.*

History and context

The primary function and location of this stone is unknown. It is probable that it originally lay close to the present farm, maybe occupying a slightly elevated part of the surrounding landscape. The immediate topography around the farm is undulating with an altitude ranging between c. 50 and 75m AOD.

The excavation undertaken by the authors in June 2009 revealed that the lower section of the stone was embedded in gravel beneath a lawn area of the farmhouse garden. The excavation revealed that only around 5 cm of the stone lay beneath the current soil line. Several of the petroglyph motifs appeared to extend to the edge of the broken base, confirming that this stone had been damaged and probably once formed part of a much larger boulder. Lynch (1974: 118) suggests that the broken base may have been a relatively recent break. Thomas Pritchard, who acquired the stone, was locally known as a collector of curious stone objects. Indeed, prior to excavation the team undertook the careful removal and recording of a number of stone objects that were partially-buried around the area of the stone.

Assuming that the Llwydiarth Esgob Stone was sited locally and forming part of a larger monument, it would have shared a landscape with two surviving standing stones and a Neolithic burial-ritual chambered monument; indeed, it may have been the original location of the stone.

One of the standing stones is sited near the hamlet of Clorach and is locally known as the Thief Stone (SH 446 843), standing at c. 60 m AOD. The petrography of this stone is identical to the Llwydiarth Esgob Farm stone. A second standing stone, the Llys Einion stone,

located 1.2 km north-west at c. 58 m AOD, is sited near a possible Neolithic chambered tomb known as Maen Chwyf (SH 4326 8574). This badly damaged burial-ritual monument is incorporated into a mature field boundary and may have an association with the Alter Stone, a single monolith that stands 50 m to the east and within the curtilage of Llwydiarth Fawr Farm.

Intervisible and to the east of this fragmented monument group are the ridges of Mynydd Bodafon. The two standing stones, along with a third, located c. 1.9 km to the south-east of Llwydiarth Esgob Farm, near the settlement of Capel Coch, form a clear NW-SE alignment or what we would term a *procession way* whereby pre-Historic people would have been guided from one monument to another through this landscape. In addition to the three standing stones, the Maen Chwyf burial chamber appears to form part of this alignment.

Within the immediate area of the Llwydiarth Esgob Farm stone are a number of archaeological find-spots, including the discovery places of three Neolithic axes (CARN Refs 3587 and 3588, and PAS 39.579/1). Two of these axes originate from the axe factories of Langdale in Cumbria and Penmaenmawr (Graig Lwyd) in north Wales. The other axe originates from the Mynydd Rhiw axe factory, on the Lleyn Peninsula, Caernarvonshire (Group XXI) (Lynch 1970: 77; Clough and Cummins 1988: 246). (Both axes are in the possession of the current landowner.) The presence of high status items such as axes and the location of the three standing stones and a ruined Neolithic chambered tomb, as well as the Llwydiarth Esgob Farm stone, suggest that the landscape around Llwydiarth Esgob Farm during the Neolithic and probably the Early Bronze Age was ritually significant. A Group XII axe hammer from Cwm Mawr, Shropshire, dating to the Early Bronze age was also found within the vicinity of the farm (Lynch 1970: 107).

The research history of this stone is surprisingly short. The stone was brought to attention of Frances Lynch by the then owners of Llwydiarth Esgob Farm (1974). Lynch noted that the stone possessed two cup-and-ring marks connected by linear grooves and cupules. The description was accompanied by a reasonably accurate sketch plan of the stone. Although this boulder has not been designated a Scheduled Monument (SM), it is registered with the regional archaeology authority, Gwynedd Archaeological Trust, and is on the Royal Commission of Ancient and Historic Monuments for Wales (RCAHMW) CARN database (Ref: 3592).

Methods and dissemination

As well as conducting a small excavation around the stone, the authors recorded the motifs using photography and tracing methods. Based on our recent survey there appears to be much more rock art than previously recorded. The rock art is pecked on one side of the stone and comprises a number of generic megalithic art-type motifs, including two irregular concentric circles, lines that are both internal and external to the two concentric circles, up to four cupules and a series of curvilinear grooves that may or may not have been produced via human agencies. Initial inspection of the stone was hampered by extensive lichen and moss growth across most of the surface, in particular in those areas where the rock art is present. Careful and systematic removal of this growth by hand was undertaken prior to recording, as well as the clearance of undergrowth that lay around the stone.

The rock art was recorded using tracing techniques previously employed by the team at Barclodiad y Gawres; tracing with permanent black marker pens onto acetate film. Much of what had been sketched by Lynch was also recorded during this project (Lynch 1974). However, there were a number of inconsistencies concerning the accuracy of Lynch's plan. Furthermore, absent from the original plan were additional sections to known motifs as well as pecked lines (Fig. 2). The tracing exercise was supported by the photographic survey, which was undertaken using oblique controlled light conditions (Fig. 1). The combination of both techniques plus the overlay of several tracings of the same surface resulted in what we believe is an accurate plan of the stone (Fig. 2). The data taken during the tracing exercise and the controlled lighting session was later used to produce a digital plan. The method for producing the definitive illustration was to combine the photographs taken with the 'painting with light' technique with digitally drawn representations of the art. This technique involves taking several photographic exposures at night, with artificial light directed from different angles to bring out the definition of the art. The image with the highest definition was used to redraw the primary image, using computer graphics, and then repeated on five of the next clearest of these images in turn, making sure only clear pecking or engraving was recorded. The resulting images were superimposed and areas that were vague or suspect were taken out, leaving a clear, reliable drawing. This was then compared with the tracings taken by members of the group and again, a further judgment was made on the accuracy of the final image. The resulting illustration, Figure 2, is an accurate representation of the art as it stands today.

The motif repertoire included the following elements: two concentric circles that were interconnected by a single grooved line, up to six cupules (ranging between 68 mm and 10 mm in diameter) and a series of interconnecting linear and curvilinear (pecked) grooved lines. The left-hand concentric circle motif comprised four decreasing circles. A single cupule had been gouged to form the central element. It is probable that the concentric circle and the cupule were the result of a single production event. However, a further cupule, roughly similar in size to the central appears to be a later addition. By adding this addi-

tional cupule the symmetry of the concentric circle has been broken. The act of adding additional cupules to an earlier petroglyph is not uncommon within the Irish Sea province. The right-hand concentric circle is constructed from two rings, the inner ring encircling a centrally gouged cupule. A diagonal groove extends from the cupule to the outer circle. We believe the elements of this motif constitute a single production event, but it is not contemporary with the left-hand concentric circle. This assumption is based purely on that each concentric circle is pecked differently. The right-hand concentric circle has been pecked deeper and wider. It is probable that both concentric circles were produced by different artists using different pecking tools. The same deeper and wider pecking technique has been employed to the linear and curvilinear lines that extend around each of the concentric circles and therefore, they may be contemporary with the right-hand concentric circle. With regards to phasing, we suggest that there are two production phases, the earliest being the left-handed concentric circle. It is from this initial design that other motifs are, arguably, symmetrically added. However, we are not confident how this surviving section relates to any missing rock art that once formed the lower section of a much larger piece of stone, nor are we clear of its original provenance, although Lynch suggests that because of its weight it was unlikely to have travelled far (Lynch 1974: 118).

Figure 2. *The 2009 recording of the Llwydiarth Esgob Stone, produced from an amalgam of four tracings undertaken by the team (final image by Abby George).*

Validation and discussion

There are a number of issues concerning the design intentionality that require consideration. Firstly, a section of the Llwydiarth Esgob Stone is missing. This missing section may have possessed a plethora of motifs which would have placed what has survived into context. Secondly, the authors are unsure of the orientation of the stone. For example, was the section that survives buried or did it form the upper part of a much larger stone. We say buried as there is evidence of rock art being buried or 'in-turned' into the mounds of Neolithic burial monuments and therefore away from public view — e.g. a number of kerbstones at Newgrange and Knowth in the Boyne Valley, Ireland (Eogan 1986). An early 20th century excavation at the Robin Hood's Stone, a large monolith in Liverpool, revealed a well-formed cup-and-ring mark which was surrounded by up to nine cupules. If we are to assume that the Robin Hood's Stone stood with the rock art buried below the surface, we beg the question, who is seeing the art? Nash (2007) has suggested that rock art within a passage grave context is restricted visually to social elites and the dead. If one is to assume that the mound is a house for the dead then any form of in-turning the art towards the mound restricts the visibility of the art to supernatural beings.

The Llwydiarth Esgob Stone is one of a limited number of free-standing decorated stones that are found some distance from Neolithic and Bronze Age burial sites; most of these possess mainly single and multiple cupules (Beckensall 1999; Sharkey 2004). Based on the wealth of later pre-Historic sites that are located within the vicinity of Llwydiarth Esgob Farm and that the petrography of the stone originates from within the locality, it is probable that the stone would have formed part of the local cultural landscape. With regards to its function there are several possibilities. The stone, now broken may have once formed an upright to, say a passage grave or even the burial chamber of nearby Maen Chwyf. Scholars are aware that on Anglesey there are two surviving fully formed passage graves: Barclodiad y Gawres and Byrn Cell Ddu; both monuments contain a significant rock art assemblage.

The style of art is comparable to that of rock art found on megalithic structures located either side of the Irish Sea, in particular the double spiral design on Stone 6 within the chamber of Barclodiad y Gawres and on Stones C and E of the Calderstones monument in Liverpool (Forde-Johnson 1957; Cowell and Warhurst 1984; Nash and Stanford 2009). We will stress though that both examples are double spirals rather than concentric circles, or what Lynch terms as cup-and-rings (1974: 118). Despite the wealth of rock art on the two Anglesey passage grave monuments of Barclodiad y Gawres and Bryn Celli Ddu, concentric circles and cup-and-rings are absent. However, recent discoveries by Nash and Stanford (forthcoming) on Stone C1 at Barclodiad y Gawres may reveal two concentric circles that are located within the central and upper sections of this stone. Furthermore, concentric circles produced with up to five rings and cup-and-ring marks are present on Stones A to E of the Calderstones.

The motifs present on the Llwydiarth Esgob Stone are unique in as much as they form a design sequence that is not repeated anywhere else. However, individual motifs form part of a much wider artistic repertoire that is found within the Irish Sea province (Herity 1970), usually ascribed to the pas-

sage grave tradition (Nash 2006). It is probable that the Llwydiarth Esgob Stone originated from a burial-ritual monument, possibly as a passage or chamber upright or stood maybe as a standalone monolith, closely associated with the Neolithic burial tradition in western Britain.

Acknowledgments

The authors would like to thank Cadw and Gwynedd Archaeological Trust for providing the necessary background information to this intriguing monument, in particular David Longley. We would also like to thank the team who through sometimes-adverse weather conditions but in good spirits worked bravely onwards. The team included Jacqueline Anderson, Trish Booker, Andrea Byrnes, Irene Carroll, Maura Farrell, Jessica Heupel, Philip Langley, Francis Lankester, Kate Mees, Norman Meddle, Andrea Phipps, Peter Style, Una Tregaskis and Margaret Williams. All mistakes of course are our responsibility. Special thanks go to Jane Brown and her family for their permission to work on the farm and for their wonderful hospitality.

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RAR 27-981

Destruction of Dampier rock art site at Holden Point on 7 February 2007; photograph taken secretly.

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!

RAR REVIEW

Rock carvings in Hong Kong, by WILLIAM MEACHAM. 2009. Published by the author, Hong Kong, 168+7 pages, 170 photographs and figures, 6 maps, mostly in colour, paperbound and printed on thick glossy art paper in 7″ × 10″ format, US$24, *www.paddyfield.com*. Presented bilingually in English and Chinese.

Rock art is a global phenomenon, found in all parts of the world except in Antarctica. It represents one of the earliest creative manifestations of hominins that could survive to the present. However, literature on this important human heritage, particularly that of Asia, is limited. In this regard the book under review is a welcome addition to the discipline of rock art research.

The book has been presented in four parts, covering respectively Hong Kong petroglyphs, petroglyphs in neighbouring regions, the setting, dating and style of the rock art, and its religious significance. Part I is preceded by an introduction and Part IV is followed by an epilogue and reflections. An appendix on the conservation of Hong Kong's petroglyphs, followed by references, is given at the end.

The book provides a good idea of the petroglyphs in Hong Kong, for which the author has wrongly used the term 'carvings'. Rock art includes both rock paintings and petroglyphs. Rock paintings or pictograms were made by an additive technique, i.e. by applying pigment or another substance on the rock surface, while petroglyphs were executed by a reductive process, i.e. the removal of something from the rock surface by employing such techniques as pecking, engraving, abrasion etc.

What about the rock paintings of the region? Is their absence a taphonomic phenomenon or has the region not been properly explored? This issue needs to be resolved. The chances of survival and finding rock paintings in inland regions are as good as compared to coastal areas. The significance of the petroglyphs of Hong Kong lies in the fact that they form the major known evidence of Hong Kong's cultural history, besides some pre-Historic objects and Historic monuments.

The introduction provides a brief cultural history of Hong Kong. After the terminal glacial age when the sea level stabilised, people of Neolithic and Bronze Age technologies established their settlements on elevated (4 to 6 m) sand deposits in the coastal regions, mostly facing the bay and lagoons. Most of the Neolithic and Bronze Age rock art sites are also located in the coastal region, except Wong Chuk Hang site, which is located on a stream in the uplands, nearly one km from the present shore and at an elevation of 35 m above the present sea level. The author thinks that the rock art site is to mark the freshwater stream, and before 3000 years ago the sea level must have been much higher and the site might have been no more than 500 m from the shore. All early petroglyphs of the coastal group, including that of Wong Chuk Hang, appear to have been made by those early communities and have complex and abstract designs.

In the Historic period humans also explored uplands in interior regions and established their settlements in them in addition to the coastal regions. In the fifth-fourth century BCE literature, the aboriginals of southern China were known to the Chinese as 'Yueh', who were skilled in navigation and savagery in the battlefield. Those living in Lower Yangtse practised wet-rice cultivation and were engaged in trade along the seacoast. The Yueh, in later texts referred to as the 'Hundred Yueh', were certainly a diverse population consisting of many ethnic and linguistic groups, says the author. That diversity is also reflected in the rock art of the Historic period. Now the complex and abstract designs were replaced by the meandering single lines, simple square and asterisk patterns. The author observes that they bear no similarity to the early designs and are certainly later.

For understanding the rock art of Hong Kong in a wider regional perspective the author has also discussed the rock art in the neighbouring regions of Guangdong, Fujian, Taiwan and Vietnam. From the figures presented in the book it appears that the rock art of Hong Kong consists mostly of complex and abstract designs and geometrical patterns. Animals and human forms and other objects are rare and they, too, are in abstracted forms, while occurring in considerable numbers in neighbouring regions. Why it is so needs to be explained.

In Part IV the author tries to understand the meaning of rock art and reaches the conclusion that we probably cannot understand the exact meaning of it. But on the following pages he contradicts himself and thinks that petroglyphs are monuments to the particular religious response of an ancient people,

like and unlike us, living in this area. But it is true that some of the rock art sites continued to acquire an important place in the life of the people in one way or other, through time.

Conservation of Hong Kong's rock art is an important issue discussed as an appendix of the book. It highlights the efforts made by the author in this direction, the irresponsible behaviour of the state authorities and blundering mistakes of destroying rock art by state authorities in the name of protecting the rock art and the sites. That could have been minimised if the scholars working in the field for years on rock art conservation had been consulted. That did not happen, the result was irreparable damage of the rock art and the sites, a sort of organised human vandalism by the people in authority.

The situation is more or less the same throughout the world. Mila Simões de Abreu and Robert G. Bednarik have had to launch powerful public movements to awaken irresponsible and inept state authorities in order to save rock art in the Côa Valley in Portugal and that of the Dampier Cultural Precinct in Australia, respectively. It appears that similar mass movements are necessary in every part of the world to protect the rock art heritage for posterity, from those appointed to protect it.

The book under review is an improved version of the book by the same author with the same title, published in 1976. Hence, he used most of the photographs taken in 1970s. The photographs were taken by filling the grooves of petroglyphs with chalk to enhance the visibility of the figures. Application of chalk to the petroglyphs greatly reduces the chances of scientific study of the rock art in future; it is unethical. Any sort of physical interference with rock art is considered unscientific, hence condemned. Nowadays such practices have been almost universally abandoned. Fortunately the author is aware of this, and I trust that he will make such a statement in future publications if these photographs are used again.

The book has been presented in flawless English, together with its translation in Chinese. It presents the wealth of rock art heritage of Hong Kong in a simple but interesting way, easily understandable by general readers. It is a book worth reading for understanding the archaic creative heritage and culture of Hong Kong and neighbouring regions. I also recommend it for libraries.

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Lascaux — a work of memory, by JEAN-MICHEL GENESTE, TRISTAN HORDÉ and CHANTAL TANET. 2004. Translated by David and Nicolle Ball, preface by Philippe Dagen. FANLAC, Périgueux, 143 pages, 50 illustrations. ISBN 2-86577-237-3.

Lascaux fascinates! Much ink has been spilled about this cave over the years and as a result sinking one's teeth in that subject matter has become a 'terrifying exercise', as Philippe Dagen notes in the preface of the book. Indeed, one terrifying aspect inherent to writing about Lascaux is to find something new to say. Add to this the fact that this book was published the same year as the seminal work by Norbert Aujoulat — *Lascaux: movement, space, and time* (2004) — and you might think that the stream of innovative thinking would have gone dry by now. Well, think again. Lascaux — a work of memory is not only a copiously illustrated series of engaging think-pieces, but is also a dynamic dialogue between 'a prehistorian specializing in the Paleolithic and the curator of Lascaux cave (Jean-Michel Geneste), and two historians of language and authors of dictionaries (Tristan Hordé and Chantal Tanet)' (5). This phenomenological conversation about memory and perception is synthesised into one solid and coherent voice. What these authors have in common is a shared interest in the complexities of cultural mechanisms, such as the dissemination and retention of information.

The book begins with a short introduction dedicated to the rehabilitation of the 'savage mind'. It is followed by the first chapter, titled 'From myth to prehistory'. In this thought-provoking collage of pertinent reflections, the authors provide a brief but effective discussion about the motivations for the establishment of a concept such as 'prehistory' and how this concept was met with either great enthusiasm or blind rejection. The authors carefully and effectively expose some of the schisms and inconsistencies that have weakened the field of pre-History and its claim for integrity since its inception. These layered discussions about pre-History are engaging. In my mind, they clearly establish that the paradigms manufactured under dogmatic duress in the early phase of investigations are still relevant in that they are still in need of reforms, and that iconocentrism (even if not defined as such) is the paralysing by-product of a fixation on the image at the expense of context.

The second chapter of the book, titled 'The Lascaux Cave', carefully ushers the reader into the depth of this most revered repository of anthropic activities from an as-yet-to-be comprehensively dated past. The authors provide brief but accurate descriptions about the discovery; the potential motivations for the selection of this particular cave; the dating; the faunal remains; the architectonics; the syntactic potential of the combined or isolated images; the topographical *mise-en-scène* of the iconography, section by section;

the consistency in material culture; the complexities observed in the various modes of manufacture of the images; the question of lighting, visibility, and strategies involved in positioning the figures to increase or prohibit the gaze; to finish with a powerful discussion on cultural stability, appropriation factors, and how engravings and monumental images seem to have been manufactured at different times and yet were strategically integrated into one coherent layout.

For the third chapter, titled 'The work of time and memory', the reader is projected into a whirlpool of innovative analyses and propositions. In 'Neglected engravings' we learn that potentially 'engravings did not have the same status as the paintings and were not meant to be looked at' (95). This question of the monumental versus the intimate is key. When one studies the spatial positioning of these manifestations, one quickly realises that their occurrences seem to be dictated by the palaeo-speleological progressions, the level of traffic, and the nature of the wall. In 'Animals and man', the reader is confronted with an interesting and still unresolved problematic: '[...] no depiction of reindeer can be found in the cave, whereas this animal was the favorite game of the people of Lascaux' (96). Also explored is the important realisation that beyond the customary cultural projections, what is objectively observed are interesting hybrid transitions in the representation of animals into animals and animals into man. It is difficult to discriminate between zoomorphised anthropomorphs and anthropomorphised animals. Whatever it is, naturalistically rendered man is absent from the repertoire. This leaves us with the following question: 'Did Paleolithic man represent himself by metaphor in the form of hybrid creatures, or was he forbidden to represent himself?' (98).

In 'The shaft: the hidden images', the reader slowly descends the hermeneutic pit. The celebrated 'scene', which we know now had to be manufactured using two different pigments and with motifs that are not necessarily contemporaneous, somehow manages to remain the most cohesive narrative in the parietal imagery of pre-History. It is 'as if' the narrative was not forgotten and was strategically increased to add another predatory element. This transposition of what could easily have been oral material onto the cave wall is, in my mind, the signature of the limitation of retention and the emergence of mnemonics (on the way to alphabet, syntax, and ultimately writing! See page 109 for the authors' positions on the question of whether or not this is 'writing'). What is undeniable is the performative nature of this 'narrative'. It is an aesthetically staged pleasing 'death scene', the mythogenic roots of which have yet to be fully understood.

'The quest of signs' starts with a critique of the semiotic frenzy used to apply formal criteria to what appears to be a cohesive system. That it is a system, everybody agrees; but that it is a system of signs with a coherent syntactic and paradigmatic structure is unsupported and often 'leads to incoherence' (106). These clusters of images need to be approached as evolving systems of representations with their specific mythogenic bases and ways of oral transmission. These signs need to be approached as the punctuations not of a grammatical and coherent system, but of a transitional phase between what in French could be defined as '*dire*' and '*lire*' ('tell' and 'read'). Whatever the nature of these manifestations, they were purposefully inscribed into a space that was turned into a functional place — a cultural reservoir.

In 'The cave, a symbolic place', the authors briefly discuss the notion of a place that is intermediary between 'us' and 'them' (alterity); between 'the visible' and the 'invisible' (perception); between the 'familiar' and the 'unknown' (cognition). It is where the palaeo-speleologists of yesterday progressed carefully into a world they portrayed as being a melting pot of hybridised creatures somewhere between a wounded man and a dying animal; a peaceful grazer and a lethal predator; a sinking deer and an ithyphallic shaman. But is it art? In 'Lascaux and the origin of art', the authors question the defining criteria for 'art'. 'We may ask ourselves if the need and demand for art, which appeared before they were conceptualized, are not constituent elements of the human species' (115). Art is technique (*techné*) and technique is the by-product of a successful response to 'need'. Could it be as simple as that?

In the last section of the fourth part, 'Lascaux, time and memory', the authors discuss the problematic of linearity and time constructs in the context of our appreciation and interpretation of this iconography. Chronology flattens the details. Furthermore, when one considers that archaeology is about context and context is about details, and how reliant archaeology is to the notion of chronology, then a problem emerges: 'It is a difficult problem in archaeology: events contemporary to each other are never studied separately, and even cultural diversity is erased' (117) which then forces us '[...] in the end to reconstitute an evolution, and anything tangled, any non-linear structures, is flattened out in this scale of long duration' (117). So let us pay more attention to details.

In the fifth and final part of the book, titled 'Lascaux today', the authors provide a brief assessment of the problems with the fungi and other contaminating agencies in Lascaux. Since the publication of this book, this problem has reached some unhealthy heights which, interestingly enough, was more about political manoeuvring from uninformed parties than it was about trying to identify and potentially treat a bacterial world which we still know very little about. Bacteria are not necessarily the enemy, ignorance is! So we need to let the experts do their work without further interferences.

In this commendable work, no conclusions were

reached, no grand paradigms were proposed, and no a priori were endorsed — only facts and suggestions. And, in the words of Philippe Dagen, this conversation was really 'to show how impossible it is to reach a conclusion, how preferable to let these images retain their elusive polysemy, their enigmas' (11). There is nothing definitive when it comes to Lascaux!

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RAR 27-983

RECENT ROCK ART JOURNALS

International Newsletter of Rock Art. Newsletter of the Association pour Rayonnement de l'Art Pariétal Européen (ARAPE). Edited by JEAN CLOTTES. Bilingual newsletter (French and English). Recent issues include these research articles:

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MGUNI, S.: Ecotourism and conservation preserving our rich rock art patrimony in South Africa.
VIÑAS, R. and R. SOSPEDRA: Centennial exhibition marking the discovery of the Roca dels Moros del Cogul (Lleida, Catalonia, Spain).
BEDNARIK, R. G.: 'Natural cupules' in caves.
PINÇON, G. and C. BOURDIER: A new interpretation of a parietal sculpture at La Chaire-à-Calvin (Charente, France): the contribution of 3D technology.
LIMA, P.: Argentine rock art — rich and varied but difficult to preserve.
SVOBODA, J. A.: Observing anthropomorphs in the Swimmers' Cave, Gilf el-Kebir, Egypt.
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CHAZINE, J.-M.: The location of new paintings in the east of the archipelago (Misool) and identification of the generic parameters of their presence.
CLOTTES, J.: The problems of the Lascaux Cave (continuation).
PICHLER, W.: LBI: Libyco-Berber inscriptions on-line-database.

Number 56 (2010):
PIGEAUD, R., S. HINGUANT, J. RODET, J.-P. BETTON and P. BONIC: Something new in the west: the cave habitat of Rochefort and the decorated cave of Margot (Mayenne).
BAFFIER, D., M. GIRARD and E. GUILLAMET: Four black-painted fish at the Grande Grotte of Arcy-sur-Cure (Yonne).
EWAGUE, A. and B. HOARAU: Quaoufnoute: a new rock art site in the Telouet region (western High Atlas, Morocco).
CAMPMAJO, R.: The rock engravings of Cerdagne (eastern Pyrenees, France).

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MARK, R. and E. BILLO: Recientes aplicaciones del mejoramiento digital de imagines en la documentación de arte rupestre de Bolivia.
STRECKER, M., F. TABOADA, C. RIVERA and P. LIMA: El Parque Arqueológico de Lajasmayu, Betanzos – avances de proyecto.
ELIZAGA, J. and R. HOSTNIG: Grabados de manos en la Meseta Tutacachi, Departamento de Oruro, Bolivia. Primera aproximación.

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VAN HOEK, M.: Egyptian temple petroglyphs.
HALLIER, B. C.: The warriors of Wadi Oumashi (western central Tassili-n-Ajjer, south Algeria).
HALLIER, U. W. and B. C. HALLIER: Grossesse et naissance au Néolithique.
BORDA, M.: Survey of an unnamed plain in Egypt's Western Desert.
LE QUELLEC, J.-L., B. POISSONNIER and A. LIVINGSTONE-SMITH: Une nouvelle meule ornée au Messak (Libye).

Almogaren. Journal of the Institutum Canarium. Edited by HANS-JOACHIM ULBRICH. The most recent issue includes these articles:

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PICHLER, W. and A. RODRIGUE: Oued Rheris II: a new site of rock paintings in the south of Morocco.
RODRIGUE, A.: Les gravures rupestres de Smara (Sahara occidental) — note complémentaire.
GAUTHIER, Y., B. VENEUR, N. DESAPHY and P. SEURIEL: Nouvelles gravures en style de Tazina: figurations du nord de l'Immidir, Algérie.
BERGER, F.: Felskunst westlich von Dakhla (Ägypten) — Beispiele für Darstellungen von Naturphänomenen, insbesondere von Wasser.

TARA Newsletter. Newsletter of the Trust for African Rock Art (TARA). Edited by DAVID COULSON. The most recent issue contains these research and review articles:

Issue 11 (2009):
COULSON, D.: TARA shares experiences with Azerbaijan.
COULSON, D.: Syrvey and conservation: Libya, Uganda, Morocco.
CAMPBELL, A.: Cupules, bowls and kettles.
BORONA, G.: Community projects: Tanzania, Kenya.

RECENT BOOKS OF INTEREST

Rock carvings in Hong Kong, by WILLIAM MEACHAM. 2009. Self-published by the author, paperback with glossy art paper, in English and Chinese, 176 pages containing 182 illustrations (93 in colour). Available from *www.paddyfield.com* at US$24 plus shipping. ISBN 978-988-17324-2-2.

The oldest art of central Europe, edited by KAREL VALOCH and MARTINA LÁZNIČKOVÁ-GALETOVÁ. 2009. The Moravian Museum and The Archaeological Institute of the Czech Academy of Sciences, Brno, exhibition catalogue of 126 pages, numerous colour plates, with contributions by Karel Valoch, Martin Oliva, Jiří Svoboda and Martina Lázničková-Galetová. ISBN 978-80-7028-343-1.

Tierra de Hechiceros: arte indígena de Patagonia Septentrional Argentina, by MARÍA TERESA BOSCHIN. 2009. Ediciones Universidad de Salamanca, Servicio de Publicaciones de la Universidad de Córdoba, Spain; 435 pages, extensively illustrated with colour and monochrome images, maps and drawings, paperback. ISBN 978-84-7800-249-8.

Crónicas sobre la piedra. Arte rupestre de las Américas, edited by MARCELA SEPÚLVEDA R., LUIS BRIONES M. and JUAN CHACAMA R. 2009. Ediciones Universidad de Tarapacá, Arica, Chile, 456 pages, with 28 contributions presented in three sections, profusely illustrated with monochrome plates, drawings and maps, paperback. ISBN 978-956-7021-28-4.

Vols de vaches à Christol Cave. Histoire critique d'une image rupestre d'Afrique du Sud, by JEAN-LOÏC LE QUELLEC, FRANÇOIS-XAVIER FAUVELLE-AYMAR and FRANÇOIS BON. 2009. Publications de la Sorbonne, Paris; 176 pages, extensively illustrated with colour and monochrome images, recordings and maps, paperback. ISBN 978-2-85944-633-8.

RECENT PAPERS OF INTEREST

Intentionality of rock-art placement deduced from acoustical measurements and echo myths, by STEVEN J. WALLER. 2006. Chapter 4 in C. Scarre and G. Lawson (eds), *Archaeoacoustics*, pp. 31–39. McDonald Institute Monograph, McDonald Institute for Archaeological Research, Cambridge.

The divine echo twin depicted at echoing rock art sites: acoustic testing to substantiate interpretations, by STEVEN J. WALLER. 2006. *American Indian Rock Art*, Volume 32, pp. 63–74.

Acoustical characteristics of North American rock art sites, by STEVEN J. WALLER. 2006. *American Indian Rock Art*, Volume 21, pp. 237–240.

Le Gravettien de Pyrénées, by P. FOUCHER, C. SAN JUAN-FOUCHER, D. SACCHI and Á. ARRIZABALAGA. 2008. *Paleo*, Volume 20, pp. 331–356.

L'Art pariétal Gravettien en France: éléments pour un bilan chronologique, by JACQUES JAUBERT. 2008. *Paleo*, Volume 20, pp. 439–474.

La frise sculptée de l'abri Reverdit (Sergeac, Dordogne): première approche analytique des œuvres, by CAMILLE BOURDIER. 2008. *Paleo*, Volume 20, pp. 331–356.

The Lower Palaeolithic rock art of India, by R. G. BEDNARIK. 2008. In R. G. Bednarik and D. Hodgson (eds), *Pleistocene palaeoart of the world*, pp. 33–39. Proceedings of the XVth UISPP World Congress, Lisbon 2006, BAR International Series 1804, Archaeopress, Oxford.

The origins of 'modern humans' and palaeoart reconsidered, by R. G. BEDNARIK and G. KUMAR. 2008. In R. G. Bednarik and D. Hodgson (eds), *Pleistocene palaeoart of the world*, pp. 41–48. Proceedings of the XVth UISPP World Congress, Lisbon 2006, BAR International Series 1804, Archaeopress, Oxford.

Paleolithic cognitive inheritance in aesthetic behavior of the Jarawas of the Andaman Islands, by M. SREENATHAN, V. R. RAO and R. G. BEDNARIK. 2008. *Anthropos* 103: 367–392.

Echo spirits who paint rocks: Memegwashio dwell within echoing rock art site EiGf-2, by STEVEN J. WALLER and DANIEL ARSENAULT. 2008. *American Indian Rock Art*, Volume 34, pp. 191–201.

Pedogenetic dating of loess strata, by ROBERT G. BEDNARIK. 2008. *Journal of Archaeological Science*, Volume 35, Number 12, pp. 3124–3129.

The mythical Moderns, by ROBERT G. BEDNARIK. 2008. *Journal of World Prehistory*, Volume 21, Number 2, pp. 85–102.

Access to rock art sites: a right or a qualification?, by NDUKUYAKHE NDLOVU. 2009. *South African Archaeological Bulletin*, Volume 64, Number 189, pp. 61–68.

The main problems in rock art research, by ROBERT G. BEDNARIK. 2008. *Man in India*, Volume 88, Numbers 2–3, pp. 199–213.

An update on Hensler, by JACK STEINBRING. 2009. *MAGF Newsletter*, Volume 14, Number 3, pp. 2–4.

Pictographs at Hunters Shelter: possible extension of the red linear style into the Guadalupe Mountains of southern New Mexico, by ROBERT MARK and EVELYN BILLO. 2009. *Plains Anthropologist*, Volume 54, Number 211, pp. 201–210.

Thinking with animals in Upper Palaeolithic rock art, by GEORGES SAUVET, ROBERT LAYTON, TILMAN LENSSEN-ERZ, PAUL TAÇON and ANDRÉ WLODARCZYK. 2009. *Cambridge Archaeological Journal*, Volume 19, Number 3, pp. 319–336.

Direct dating indicates a mid-Holocene age for archaic rock engravings in arid central Australia, by M. A. SMITH, A. WATCHMAN and J. ROSS. 2009. *Geoarchaeology*, Volume 24, Number 2, pp. 191–203.

Emu Dreaming: an introduction to Australian Aboriginal astronomy, by RAY NORRIS and CILLA NORRIS. 2009. Published by Emu Dreaming, P.O. Box 149, Winston Hills, NSW 2153, Australia, 30 pages, illustrated with colour plates.

Who is interested in the Wildebeest Kuil Rock Art Centre? Preliminary results from a visitor's questionnaire, by DAVID MORRIS, BAFANA NDEBELE and PETRUS WILSON. 2009. *The Digging Stick*, Volume 26, Number 2, pp. 17–18, 23.

Hensler Site antiquity confirmed, by JACK STEINBRING. 2009. *E.S.R.A.R.A. Newsletter*, Volume 14, Numbers 2–3, pp. 4–6.

Rock art and religion: the site of Pedra do Feitiço, Angola, by MANUEL GUTIERREZ. 2009. *South African Archaeological Bulletin*, Volume 64, Number 189, pp. 51–60.

El Encanto: retorno de un conjunto rupestre (Costa Rica), by ANAYENSY HERRERA and DOMINIQUE BALLEREAU. 2010. *VII Simposio Internacional de Arte Rupestre*, Capítulo 4, pp. 313–330.

The origins of Chinese writing: the Neolithic evidence, by PAOLA DEMATTÈ. 2010. *Cambridge Archaeological Journal*, Volume 20, Number 2, pp. 211–228.

A context analysis of Neolithic *Cygnus* petroglyphs at Lake Onega, by VINCENT VIEIRA. 2010. *Cambridge Archaeological Journal*, Volume 20, Number 2, pp. 255–261.

ORIENTATION

Rock art consultants register

AURA is establishing a Register of rock art consultants to operate within Australia. For this purpose, a Supervising Board has been established, consisting of Gloria Andrews, Robert G. Bednarik, Associate Professor Josephine Flood, Professor Elery Hamilton-Smith, Professor Masaru Ogawa, Professor Roy Querejazu Lewis and Professor Jack Steinbring, who are excluded from being listed in the Register and who will assess all applications for listing in the Register. After a transitional period and as management control is progressively becoming the responsibility of local Indigenous communities, only rock art specialists listed in the Register will be eligible to act as rock art consultants. The Register will be affiliated with AURA, incorporated in the State of Victoria, and its operational costs will be borne by AURA.

Prospective registrants need not necessarily be Australian residents. Their applications will be assessed on the basis of the following considerations:

1. Candidates will demonstrate substantial familiarity with rock art, especially modern conservation (*Burra Charter*), protection and recording practices (max. 25 points).
2. Candidates will have worked successfully with Indigenous Australian site custodians before, and will respect the ownership of all Australian rock art by them (max. 25 points).
3. Prospective registrants will submit a brief submission to the Supervising Board, outlining their previous work with rock art and its duration, their particular specialisations, any relevant publications or previous reports they have produced, and their personal history of having worked with site custodians (max. 50 points).
4. Candidates will submit the name and address of at least one Aboriginal site custodian they have worked with in the past, but are encouraged to list as many as they can.
5. Listing will require that the candidate to be a member of a registered (IFRAO-affiliated) rock art research organisation.

Prospective registrants are encouraged to submit their applications with any supporting documentation, electronically or as hard copy, to either:
The AURA Secretary, *auraweb@hotmail.com*
or:
The AURA Secretary
P.O. Box 216
Caulfield South, VIC 3162
Australia

Thanks to *RAR* referees

Articles in *RAR* undergo two levels of peer review: open academic debate, to which all readers are invited to contribute (every signed contribution in this journal may be responded to); and pre-publication refereeing. All major and many shorter contributions to *RAR* are refereed, by between two and eight specialist readers, before they are considered for publication. It is the task of referees to preserve and safeguard the high scholarly standard this journal has long established in rock art and palaeoart studies. This may involve a great deal of work for them, in terms of studying submitted work, suggesting improvements, detecting errors of fact, logic or data; writing referee reports (that may in some cases be longer than the paper in question), and assisting the editor in reaching decisions. This work receives no public recognition; authors are often not even aware who their referees are (because referees have the option of remaining anonymous). It is a thankless task, but one without which we would not have a scientific discipline.

The referees of *RAR* are drawn from the Board of Editorial Advisors; from a register of AURA members who are internationally recognised scholars of outstanding calibre; and sometimes from among the ranks of related disciplines (where warranted by the particular nature of a submitted paper). It is obviously not possible to disclose their identity in most specific cases, but in order to thank them collectively we believe that it is more than appropriate that their enormous contribution be acknowledged once in a while. Those who have contributed to recent volumes are listed here, and we take this opportunity to thank each and every one of these scholars for their selfless and gracious dedication to maintaining the scientific standard of the world's foremost journal in rock art studies — a standard that would not have been achievable without their altruistic help:
Dr Ahmed Achrati, U.S.A.
Dr Felipe Armstrong Bruzzone, Chile

AURA Honour List

Individuals who have continuously been members of AURA for more than twenty years deserve to be distinguished for their loyalty and dedication. We have therefore established a special Honour List of them, which reveals a most encouraging trend in the demography of the AURA membership. The Australian Rock Art Research Association Inc. has a significant proportion of long-term loyal members. The following founding members of AURA, who joined us between November 1989 and October 1990, have remained members continuously for over twenty years. I ask you to join me in honouring them; the long-term members are the major source of core strength of AURA, which has been an inspiration to all of us who have worked to make this organisation what it is. As the founder of AURA, I thank each and every one of the following members personally, and from the bottom of my heart. They, and those previously listed (*RAR* 21: 204; 22: 222–3; 23: 282; 24: 271; 25: 241; 26: 241), have made my work worthwhile.

R. G. Bednarik

McGregor Museum, Kimberley, South Africa
Dr Christian Zuechner, Erlangen, Germany
Bata Library, Trent University, Peterborough, ON, Canada
Institute of Archaeology Library, Hebrew University of Jerusalem, Mt Scopus, Jerusalem, Israel
Borchardt Library, La Trobe University, Bundoora,

VIC, Australia
Margaret Opie, Cobargo, NSW, Australia
John N. Dickson, Shepton Beauchamp, Ilminster, England, U.K.
Deccan College Post Graduate and Research Institute, Yerawada, Pune, India
Ross Brown, Cairns, QLD, Australia
Warren Day, Blaxland, NSW, Australia
Michael A. Clark, Red Cliffs, VIC, Australia
Mary Gorden, Lemoncove, CA, U.S.A.
Professor Marvin W. Rowe, Santa Fe, NM, U.S.A.

Rock Art Preservation Fund

Further to previous donations to RAPF, the only such fund in the world specifically set up to combat the destruction of rock art, the fighting fund has received a donation of $24 000.00 from Robert G. Bednarik.

In December 2009, RAPF was established as a recipient for online donations by *Give.Now*, an agency of *Our Community*. Donations to RAPF can now be made online at

http://www.givenow.com.au/rockartpreservation

All funds received by RAPF will be used exclusively for just one purpose: to secure better preservation of world rock art. At present, the Fund's main function is to conduct the Dampier Campaign, which we believe needs to succeed if we are to tackle other issues effectively.

Routledge bid

The major U.K.-based publisher Routledge, part of the Taylor & Francis group, has made a bid to publish *Rock Art Research*. After meetings with their representatives and considering their proposal, the *RAR* Editor decided that this change would involve significant increases in subscription fees, would not be in the best interest of the subscribers, and consequently rejected the offer.

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!

Academic ranking of *RAR*

In *RAR* 26: 242 we reported last year that *RAR* has been awarded A rating in the Australian Research Council's ranking of about 10 000 international journals. This ranking has recently been challenged by the current President of the Australian Archaeological Association, Lynley Wallis, who wrote to the ARC to demand the downgrading of *RAR* to B rating. This would deprive the discipline of rock art research of a high-ranking refereed journal, and thus relegate that field to an inferior status.

Readers are invited to send their views on this matter to Lynley Wallis at *lynley.wallis@uq.edu.au* or University of Queensland, P.O. Box 6114, St Lucia, QLD 4072, Australia.

Forthcoming events

Rock Art in Modern Society, Kemerovo, Siberia, Russia, 22–26 August 2011. For details see IFRAO Report No. 45, p. 271.

ICOM-CC 2011 Conference, Lisbon, Portugal, 19–23 September 2011. Web-site at *http://www.icom-ccorg/6/triennial-conferences/* The Murals Stone and Rock Art page is at *http://www.icom-cc.org/22/working-groups/murals,-stone,-and-rock-art/* If you are already a member of ICOM-CC but yet to register do so by clicking on the yet to register tab or send your name, e-mail address and member number to Joan Riefsnyder at *secretariat@icom-cc.org*. This will generate a log-on code by return e-mail. Non-members can access and post to the Forum pages of each working group by registering for this function only. To do this click on *http://www.icom-cc.org/forums/* and follow the link to register at the top of the list.

Archaeology and Rock Art — 25 years SIARB. IFRAO Congress to be held in La Paz, Bolivia, in June 2012.

Fourth AURA Congress: *Thirty years of AURA*. Australia 2014.

Advertising

RAR accepts relevant advertising material. Rates for advertising in *RAR* are very competitive, currently at $A350.00 per full page, $A200.00 per half page.

New members

We have had the pleasure of welcoming the following new members of AURA recently:

Matthew F. Trezise, Laura, QLD, Australia
Lisa Roach, Cloyne, ON, Canada
Dr Ligia Manzano, Universidad de El Salvador, Republic of El Salvador
Laboratoire Departmental de Prehistoire du Lazaret, Nice, France
Dr Johan Jelsma, De Steekproef B.V., The Netherlands
Dr Leslie Van Gelder, Glenorchy, Central Otago, New Zealand
Dr Martin Porr, University of Western Australia, Crawley, WA, Australia
Dorothy Dellaway, Subiaco, WA, Australia
Noel Hidalgo Tan, Taman Tun Dr Ismail, Kuala Lumpur, Malaysia
Library, Dept of State Development, Perth, WA, Australia
Antropologicas, Birmingham, AL, U.S.A.
Carole Wiles, Glenside, SA, Australia
Préhistoire Anthropologie Méditerranéennes, Aix-en-Provence, France
Nicola Winn, Kuranda, QLD, Australia
Nathan Kelly, Cairns, QLD, Australia
John L. Pitts, Santa Fe, NM, U.S.A.
Eric Henderson, Glen Iris, VIC, Australia
Uniwersytet Wroclawski, Biblioteka Uniwersytecka, Wroclaw, Poland
Dr Valerie Magar, ICCROM, Rome, Italy
Victoria Wade, Mt Barker, SA, Australia
Tanja Harding, Marino, SA, Australia
David Hall, Kingston, ACT, Australia
Paul S. Jennings, Granville, NSW, Australia
Traudl Tan, Wanneroo, WA, Australia
Professor Maria Mercedes Podestá, Buenos Aires, Argentina
Robin Chapple MLC, West Perth, WA, Australia
Reto Zollinger, Hamilton, VIC, Australia
Reginaldo Teixeira, Praça da Liberdade, São Paulo, Brazil
Duane W. Hamacher, Macquarie University, NSW, Australia
Jörg Bednarik, Lyneham, ACT, Australia
Jeremy Ash, Flemington, VIC, Australia
Professor Andrzej Rozwadowski, Poznan, Poland
Raoni Valle, Manaus, AM, Brazil
John McGovern, Georgetown, SA, Australia
Professor Niède Guidon, Fundação Museu do Homem Americano, São Raimundo Nonato, PI, Brazil
Jill Carr, Brunswick, VIC, Australia
Michael Slizankiewicz, Christies Beach, SA, Australia
Jane Calthorpe, Stockton, NSW, Australia
Jillian Huntley, New Cambton, NSW, Australia
Heidi Pitman, Birkenhead, SA, Australia
Roger Halliday, Brooklyn Park, SA, Australia
Trevor C. Tisdall, Seacliff, SA, Australia
Jose A. Gonzalez Zarandona, North Melbourne, VIC, Australia
Matthew Ebbs, Hackham West, SA, Australia
Yvonne Ingeme, Hamilton, VIC, Australia
Victoria Waldock, University of Oxford, United Kingdom
Matthew Harder, Plympton, SA, Australia
Megan Berry, Bedford Park, SA, Australia
Matthew Hornsby, Plympton, SA, Australia
Professor Ulrich H. Luft, Budakeszi, Hungary
INIST-CNRS, Vandœuvre-lès-Nancy, France
Grupo Cubano de Investigacion de Arte Rupestre, La Habana, Cuba
Asociación Cultural Instituto de Estudios Prehistóricos, Mérida, Badajoz, Spain
Association de Sauvegarde, patrimoine du Centre-Var, Le Val, France
Barri Vell / Girona, Birmingham, AL, U.S.A
Mark Anderson, Canterbury, VIC, Australia
Cheryl Kinsey, Pymble, NSW, Australia
Michael Slizankiewicz, Christies Beach, SA, Australia
Camille Tanner, Cairns, QLD, Australia
Patricia Rovik, Kogarah, NSW, Australia
Dr Patricia Dobrez, Watson, ACT, Australia
Richard O'Neill, Neutral Bay, NSW, Australia
Alan Burns, Halls Gap, VIC, Australia
Ralph Jordan, Adelaide, SA, Australia
Natalie Bittner, Adelaide, SA, Australia
Sita Books & Periodicals, Govandi, Mumbai, India
Centro Europeu de Investigação da Pré-História do Alto Ribatejo, Tomar, Portugal
Bob Rau, Diggers Rest, VIC, Australia
Meu Livrinho, Sao Paulo, Brazil
Donald Austin, Culver City, CA, U.S.A.
Armando Lucena, Centro de Arte Rupestre, Moratalla (Murcia), Spain
Catherine C. Fitzgibbon, Bowral, NSW, Australia
Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Halle (Saale), Germany
Swets Information Services Ltd Pty, Melbourne, VIC, Australia
Yoko Miyamoto, Toshima-Ku, Tokyo, Japan
James Harrison III, Seattle, WA, U.S.A.
Dr Patricia A. Helvenston, Flagstaff, AZ, U.S.A.
Vanessa Cowell, Cairns, QLD, Australia
Kyle Davis, Opoho, Dunedin, New Zealand
Michael Field, Hawthorndene, SA, Australia
Mark Macpherson, Somers, VIC, Australia
Andrea Catacora, Reno, NV, U.S.A.
Sue Mitchell, Prince George, BC, Canada
ANISA, Haus i. E., Austria
Zulfiqar Ali Kalhoro, Islamabad, Pakistan
Diana Cowie, Redfern, NSW, Australia
Victoria Wade, Dampier, WA, Australia
Michael Jackson, Katoomba, NSW, Australia
Rosanne McInnes, Port Augusta, SA, Australia

IFRAO Report No. 45

ROCK ART IN MODERN SOCIETY

International conference celebrating the 290th anniversary of the discovery of Tomskaya Pisanitsa
Siberian Association of Prehistoric Art Researchers (SAPAR)

The Museum Reserve 'Tomskaya Pisanitsa', Kemerovo State University, the Siberian Association of Prehistoric Art Researchers (IFRAO member SAPAR), the Institute of History, Archaeology and Ethnography of the Siberian Branch of the Russian Academy of Sciences and the Institute of Human Ecology of the Siberian Branch of the Russian Academy of Sciences will hold an international conference,

ROCK ART IN MODERN SOCIETY
on **22–26 August 2011** in the city of **Kemerovo, southern Siberia.**

The conference program will include exhibitions, master classes, presentations of projects of preservation and management of rock art sites, video programs, and excursions to the Museum Reserve of Tomskaya Pisanitsa as well as to the other rock art sites on the river Tom'.

The academic program will comprise the following thematic sessions:

- Rock art of the Tom': history of discoveries, developments of ideas, results of research.
- Academic heritage of the foreign researchers on Siberian rock art.
- Chronology and interpretation of rock art.
- Documentation of rock art.
- Preservation and restoration of rock art sites.
- Actualisation of rock art sites in modern society.
- Ancient images in modern art.

The official languages of the conference will be Russian and English.

Those wishing to take part in the conference are kindly requested to send their preliminary applications to the e-mail address *mztp2011@yandex.ru*, providing the following data: first name, surname; organisation/affiliation; city, country; title of the paper or other form of participation; postal address, e-mail address. The same conference address can also be used to send questions and proposals regarding the conference.

Kemerovo is located on the Tom' River, near Novosibirsk, and has an international airport. The city of about half a million people is 1600 km east of the Ural mountains, i.e. in south-western Siberia. It is the headquarters of Siberian rock art research and has hosted an international rock art conference before.

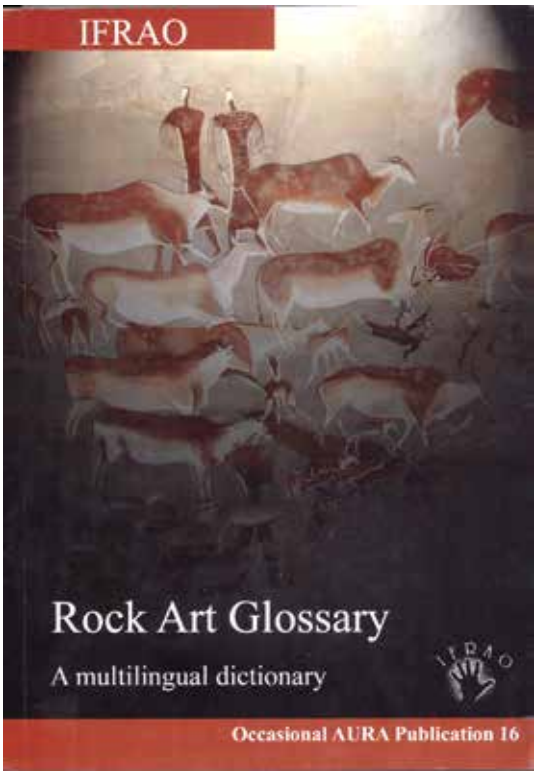
ROCK ART GLOSSARY: a multilingual dictionary

The second, significantly expanded edition of this crucially important volume to facilitate international standardisation in rock art research has just been published. The main disadvantage of the first edition, published seven years ago by Brepols of Belgium was its very high price. This prevented its wide adoption especially in those parts of the world where terminological standardisation would be especially welcomed, and in that sense it could not serve its underlying purpose effectively.

The 2010 edition is published by AURA, in its established monograph series *Occasional AURA Publications*, appearing as No. 16. Produced in-house, it is available for a small fraction of the cost of the first edition, yet it comprises ten major languages, whereas the first edition only contained six European languages. Three of the added languages are of particular importance, because of the vast rock art occurrences in regions where these languages are predominantly spoken: Arabic, Chinese (Mandarin) and Portuguese. Also added was Greek.

The *Rock Art Glossary* has been edited by leading specialists operating in major rock art regions and determines the international standard of scientific publishing in rock art studies. Its use is recommended by IFRAO, and to ensure its widest global distribution, it is now offered for an introductory price of

$A19.00



(c. US$16.15, depending on exchange rates at the time), plus postage. This price will be held until 75% of stocks are sold, and will then be increased for the remaining stocks.

Copies of this book are available from:

AURA Office, P.O. Box 216, Caulfield South, VIC 3162, Australia
E-mail: *auraweb@hotmail.com*
URL: *http://mc2.vicnet.net.au/home/aura/web/books.html*

AURA will provide free copies to developing countries, for payment of postal charges only.

The editors of the ten main chapters of the *Rock Art Glossary* are:

English: Robert G. Bednarik (Convener, IFRAO, and Editor, AURA, IFRAO and CARA)
Arabic: Dr Ahmed Achrati (University of Illinois at Chicago)
Chinese: Professor Tang Huisheng (Nanjing Normal University)
French: Dr Alfred Muzzolini †
German: Robert G. Bednarik
Greek: Professor George Dimitriadis (IFRAO Representative, HERAC)
Italian: Professor Dario Seglie (IFRAO Representative, CeSMAP)
Portuguese: Dr Fernando Coimbra (Politécnico de Tomar)
Russian: Professor Yakov A. Sher (IFRAO Representative, SAPAR)
Spanish: Professor Mario Consens (IFRAO Representative, CIARU)

The volume also includes direct translation tables of all terms listed from English to French, German, Italian, Arabic, Russian and Spanish.

This is the first dictionary compiled specifically for rock art research. In a discipline that has hitherto been without an agreed terminology, even communication within a single language has been difficult. The proliferation of idiosyncratic terminologies of often academically isolated researchers, many of which have been used by only one scholar, has not only retarded progress and the transference of knowledge, it has led to countless misunderstandings. The purpose of this dictionary is to create a single terminological standard as well as a cross-lingual uniformity of usage. It focuses particularly on scientific aspects, technical applications and epistemological rigour. It does not set out to create a terminological straitjacket for the discipline, but a common standard of reference, particularly in areas that have in the past been susceptible to greatly differing or idiosyncratic interpretations. The translation tables are organised alphabetically according to the English terms. The volume is indispensable for scientific translators, rock art scholars, archaeologists and others concerned with aspects of pre-Historic rock art, and is also intended for the guidance of students and authors working in this field. Just as the IFRAO Standard Scale has long become an 'industry standard' (now used by dozens of other disciplines), this dictionary sets a benchmark for the discipline of rock art research.

Palaeoart exhibition Moscow State Darwin Museum

This exhibition was held in the Moscow State Darwin Museum from 15 July to 22 August 2010. It was dedicated to the 310th anniversary of the first Russian decree concerning palaeoart, made by Peter the Great on 1 January 1699. The Moscow Centre of Palaeoart and Bioindication Research (IFRAO member since 1995) created the exhibit. It presented to the general public six representative materials from six continents of the world. They were:

- Lower Palaeolithic cupule sites in central India
- Ochre with engravings from Blombos Cave in South Africa
- Pedra Furada site at Sierra de Capivara National Park in Brazil
- New AMS dates for the cave art in Chauvet Cave in France
- Rock paintings from National Park Kakadu in Arnhem Land, Australia
- Portable Pleistocene palaeoart from Gault Site, Texas, U.S.A.