



Archaeology versus rock art science

By ROBERT G. BEDNARIK

Professor Argüello García's study of a series of Colombian petroglyph sites provides a valuable demonstration of traditional archaeology's quandary

in dealing with rock art effectively. Archaeologists have been digging holes around petroglyphs for well over a century, frequently with the specific purpose of 'dating' them — a futile quest always doomed to failure. Rock art cannot be dated by excavation; at the very best, and in a very small number of cases globally, such endeavours have resulted in credible *minimum* datings (e.g. for in situ rock art: Daleau 1896; Lalanne and Breuil 1911; Lemozi 1920; David 1934; Passemard 1944; Ampoulange and Pintaud 1955; de Saint Mathurin 1975; Anati 1976: 34, 41; Rosenfeld et al. 1981; Cannon and Ricks 1986; Steinbring et al. 1987; Crivelli et al. 1996; Pessis 1999; for exfoliated petroglyphs: Capitan et al. 1912; Hale and Tindale 1930; Mulvaney 1969: 176; Thackeray et al. 1981; Roberts et al. 1998; Bednarik et al. 2005). *The true age of rock art cannot be determined archaeologically*. But what has been the result of hundreds of excavations at petroglyph sites (many in just one valley in northern Portugal) is that most forensic evidence has been destroyed, leaving for the rock art scientist severely compromised sites. Some of the most important destroyed evidence is the frequent stratigraphic occurrence of mur-e (hammerstones), which actually can provide secure dating evidence for specific events of petroglyph production. The absence of mur-e in the reports of those hundreds of excavations, to which we can now add those of Argüello, speaks for itself: in the process of excavating petroglyph sites to determine the age of the art, the secure proof of age was discarded because the excavators lacked the relevant knowledge. Much the same applies to most other forensic evidence at these sites. Their research potential was destroyed in quests for 'archaeological data' that served little useful purpose other than to demonstrate that archaeology lacks the means of dealing effectively with the research demands petroglyph sites pose.

Argüello reports that Colombian archaeology has not considered rock art as an archaeological resource since it became a scientific practice. This statement prompts two observations. First, Colombian archaeology is no more a scientific enterprise than that of any other country; archaeology has no access to falsifiability without recourse to one of the sciences. Second, he implies that rock art should be an archaeological resource; it is not, as Argüello himself demonstrates. He has set out to obtain information about the production, function and dating of petroglyphs and, according to his report, has failed in all these tasks he had set himself. He observed no mur-e (Bednarik 1998, 2007: 37–54), which were very probably present in the trenches he dug around the perimeter of so many petroglyph rocks, so he probably missed this crucial evidence. He does mention the issue of the identification of tools used in the production of petroglyphs, and the need to understand their technology, but does not refer to the relevant literature and his Footnote 2 indicates his lack of familiarity with it. His section drawing (Fig. 4) lacks stratigraphical

details, which limits its archaeological value. But even if an excavation had been conducted impeccably, providing sedimentary details, section drawings of excavated (i.e. destroyed) deposits are not testable (i.e. scientific) information; they are merely artistic works reflecting the individual sedimentological abilities of the reporting archaeologist.

Effectively Argüello reports ceramics, stone tools, petroglyphs, fire evidence, buried rock art and rounded cobbles, and he suggests certain relationships among these items, primarily because they co-occur in proximity. He also correlates some of them with ethnographic entities. He has not demonstrated any of these relationships. His chronology is based on ceramics, but it is not indicated in what sense: concerning the shape of vessels, their decoration, or the derivation of their clay materials? Is the 'Herrera Period' another one of those thousands of archaeological constructs around the world that have no demonstrable real existence, that are simply results of etic archaeological taxonomisation or 'analogisms' (sensu Viveiros de Castro 1992)? We need a lot more information here before we can consider, let alone accept, his chronological postulates, which he presents to repudiate another model. There is little indication of the form of the petroglyphs or the stone tools at his sites; there is no proof that the evidence of fire refers to anthropic activity, no charcoal is reported, no attempt to date or even define the sediments, and no evidence that the sites have not been affected by intensive agricultural activities. Most key scientific information is lacking, such as the type of rock the rock art occurs on, or the material of the rounded cobbles.

The buried rock art of Argüello's sites is the main interest of his paper, but he has not succeeded in extracting any scientifically credible data from this fascinating circumstance. His notion that rock art should be treated as an archaeological resource needs to be seen in this light. For well over a century archaeologists have retarded the development of scientific practice in rock art research through their insistence that rock art is an artefact and needs to be studied with the same fundamentally flawed, etic methodology other 'artefacts' are subjected to (i.e. the creation of etic 'cultures' through 'institutional facts', sensu Searle 1995). The invention of categories and taxonomies (artefacts, cultures and their fetishism: beakers, genes or styles or whatever classes are perceived as somehow representing groups of people) has led to an endless litany of mythologies about the human past, to the inherently faulty dogmas being taught today. How much say do the Colombian descendants of the creators of rock art have in the way it is 'officially' interpreted by the dominant, colonial elite of technocrats? Archaeology, a primarily political pursuit, frequently amounts to an objectification, an academic appropriation of aspects of 'The Other', for the dominant state. Who or what benefits from the creation of more 'meanings', myths derived from sub-



standard research, with flawed epistemologies and garbled methodologies? Science certainly does not benefit from the operation of this hegemonic program to appropriate interpretation of the human past in the service of dominant society.

The purpose of insisting that rock art be included in archaeology is to exclude alternative views, such as those of indigenes, of scientific rock art researchers, of semioticians and so forth. Many archaeologists abhor the introduction of the vastly superior forensic methods of rock art science and attack those who advocate it as being 'anti-archaeology' (e.g. Taçon 2002). I find nothing in Argüello's paper to persuade me that archaeology is not a belief system that churns out ontological narratives about the human past to sustain its authority and then defends rather than tests them through refutation. His work serves as a demonstration that archaeological investigations of petroglyph sites often yield little of scientific or even archaeological relevance. Archaeology would have much to contribute to rock art research, but not by seeking to dominate that discipline or by blindly ransacking petroglyph sites. Argüello needs to secure the collaboration of rock art specialists, or abandon his plans to continue this form of investigation.

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