

ANTHROPOS

98.2003: 511-520

A Major Change in Archaeological Paradigm

Robert G. Bednarik

Abstract. – Using three examples of emerging incongruities in world archaeology, this theoretical paper explores systematic and underlying epistemological problems in orthodox archaeology. The examples analysed were chosen to illustrate three fundamental types of issues: the influence of a popular fad, the effects of overinterpretation of inevitably skewed and ideology-influenced data, and the consequences of employing an inadequate epistemological framework of processing data in deriving interpretations. These considerations lead to the proposition that a paradigmatic shift is essential, particularly in Pleistocene archaeology, to prevent the discipline from sliding into epistemological stagnation. [Archaeology and epistemology, archaeology and universal theory, metamorphology, taphonomy, Pleistocene]

Robert G. Bednarik, Chairperson of the International Federation of Rock Art Organizations (IFRAO), Chairperson of the AURA Congress, and Secretary of the Australian Rock Art Research Association (AURA). Editor of four scientific journals and two series of monographs. His recent publications include "Rock Art Science. The Scientific Study of Palaeoart" (Turnhout 2001) and numerous articles on archaeology in scientific journals; see also References Cited.

Introduction

There are a number of disciplines that deal with events and phenomena of the past. Some of these, when they are conducted within certain parameters, offer falsifiable and thus scientific propositions, others do not, even though they may be based on perhaps perfectly "sound" practices. The similarities and differences between astronomy and archaeology would be a case in point. Both deal with the past; no astronomer has ever observed an event or phenomenon of the present (for the sake of the argument, the question of linear versus nonlinear time is ignored here). He or she

can only witness the past in cosmic space, because cosmic present is only rendered accessible to us by becoming cosmic past. Some of the astronomical events we observe occurred some minutes before certain of their effects become detectable to us. others took place many millions of years ago and are chronologically more distant from us than the earliest hominid archaeology. But despite the similarity of dealing with events and phenomena of the past, there are significant differences between astronomy and archaeology. The astronomer can make predictions about the trajectories of all sorts of variables and then test them, the archaeologist can not. The astronomer uses universals from physics in explaining observations (e.g., spectral shift, properties of chemical elements, nuclear reactions), whereas those cited by the archaeologist refer to ethnographic analogy (cf. Huchet 1991), deductive uniformitarianism (cf. Cameron 1993), or similarities in the products of modern experimentation (e. g., microwear on implements). Many of these explanations may be valid, perhaps even most of them. This is not the issue; the issue is that there is no mechanism available to test them effectively. Moreover, it must remain debatable that uniformitarianism is an appropriate universal theory in the study of cultural systems.

To compensate for the discipline's weak scientific base, in terms of its lack of falsifiability, archaeologists have adopted stringent requirements of "proof": absence of evidence is taken to indicate nonexistence of the type of phenomenon such evidence is thought to refer to; if we find no evidence of it, it probably did not exist. For conventional archaeology, absence of evidence equals evidence