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Origins of speech: a matter of communication

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The question of speech or language origins is not only one of the most important in archaeology, particularly in cognitive archaeology, it has also become one of the greatest schisms within the discipline. The *Cambridge Archaeological Journal* is to be applauded for recently taking up this issue in debate form, and for showing the remarkable differences of opinion between the long-range and the short-range schools of thought, which are indeed massive (Trask et al. 1998). It is unfortunate that my present response to Davidson and Noble, who contributed to this debate (1998), could not be published by *CAJ*, because Davidson declined to respond to me—unfortunate because the following information is crucial to the topic. The extreme polarisation in this field is remarkable enough, with apparently no-one taking an intermediate position, but the most incredible aspect is surely that this polarisation is quite unnecessary.

Davidson and Noble, who have perhaps argued more forcefully than anyone else in favour of the short-range theory, have always fully accepted that maritime colonisation indicates essentially 'modern' language faculties. Indeed, they have championed the idea that the first landfall in Australia is the first solid evidence we have for skilled language use (Davidson and Noble 1992). Yet maritime colonisation by *Homo erectus* has been implied for almost forty years, so if we accept Davidson and Noble's reasonable criterion for assuming language availability archaeologically, we have no choice but to reject their own short-range hypothesis outright.

The Dutch archaeologist Theodor Verhoeven first found stegodontidae bones and archaic stone tools eroding together on Flores in March 1957. Henri Breuil recognised the latter as Lower Palaeolithic (Verhoeven 1958a: 265), and Koenigswald (1958: 44-46) proposed a Middle Pleistocene antiquity for the fossiliferous deposit. In 1963, Verhoeven (1968) excavated similar stone tools directly in the thin *Stegodon*-bearing layer, together with the megafaunal remains, and as both types of finds showed negligible post-depositional wear, he thus demonstrated that these animals and hominids coexisted in

Flores. His key pronouncements have been checked by many scholars, and have in all instances been confirmed entirely. For instance, Professor Johannes Maringer began excavating with Dr Verhoeven in 1968, and their collaboration led to a series of publications (Maringer and Verhoeven 1970a, 1970b, 1970c, 1972, 1975, 1977; Maringer 1978). Koenigswald and Ghosh (1973: 3-4) estimated the age of their finds at up to 830 ka, on the basis of geology, palaeontology and the presence of tektites. Sondaar et al. (1994) arrived at a palaeomagnetic age of around 730 ka, providing also an apparent *terminus post quem* for human presence of 900 ka. Morwood et al.'s (1999) comprehensive fission track dates for clear human presence at several of the Flores sites indicate that hominids were well established by 800 ka BP, but may not have been present by 900 ka. A Lower Palaeolithic stone tool and fire traces have been recovered together with *Stegodon* in Timor (Bednarik 1999a), and archaic lithic artefacts have been located in Middle Pleistocene deposits on the smaller island of Roti (Bednarik 1999b).

Wallace (1890) demonstrated long ago that the deep-water islands of Indonesia were never connected to the Sunda landmass, and Wallace's Line, between Bali and Lombok, is the most important biogeographical demarcation line in the world. The highly endemic and insular fauna and flora of Nusa Tenggara demonstrate that sea crossings were always required to reach them, from either the Asian or the Australian plates. In fact 800 ka ago, the Lombok Strait was probably wider than today, irrespective of sea level, because of the rapid uplift during the Pleistocene. It is therefore difficult to escape the conclusion that *Homo erectus* possessed watercraft of maritime capability at that time (Bednarik 1995, 1997a, 1997b).

Davidson and Noble have made much of their view that seafaring is the principal criterion for detecting language use archaeologically, yet nowhere in their work

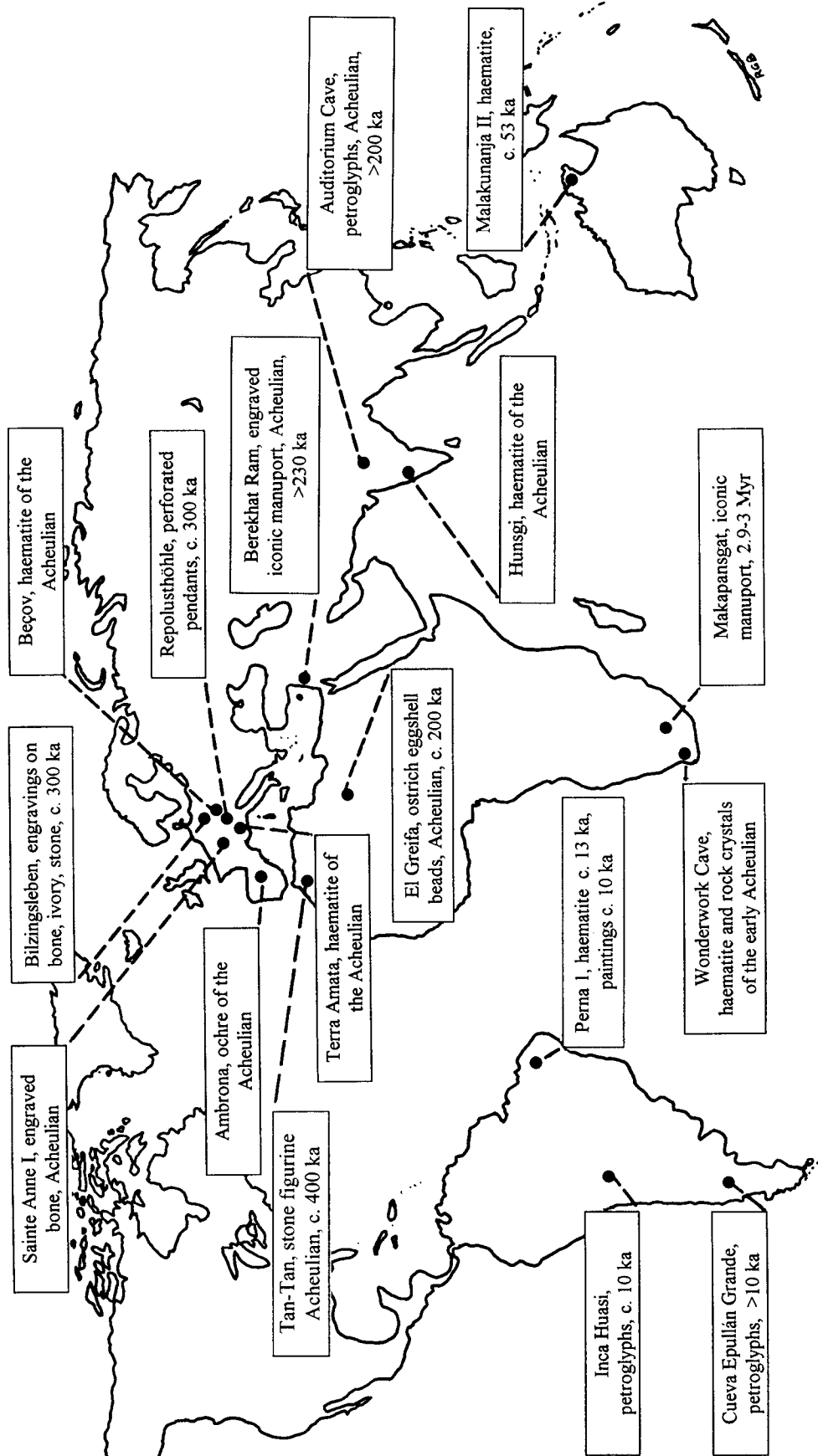


Figure 1. Early evidence for use of apparently symbolic material around the world.

are the numerous publications of Verhoeven on the Flores archaeology discussed, or even mentioned (Verhoeven 1952, 1953, 1956, 1958a, 1958b, 1958c, 1959, 1964, 1968; Verhoeven and Fuchs 1959; Verhoeven and Heine-Geldern 1954), nor have they acknowledged the work of anyone else who has written about the early colonisation of Indonesia. Until a few years ago, the reason for the frequent neglect of this work in English-language publications was simply that nearly all of it had appeared in German. Most certainly the question of language origins is intimately connected with *communication*, or the lack of it. Hindering the publication of my present comments does not improve communication either, it merely deprives the *CAJ* readers of the most important relevant information.

It also saddles them with an unfortunate concoction of misinformation, concerning Figure 6 of the *CAJ* debate (Trask et al. 1998: 87), Davidson's world map of early use of purported symbols. The inconsistencies and shortcomings of this map are so numerous that only the major ones are mentioned here (see my Figure 1 for comparison). Malakunanja in Australia is shown as the earliest occurrence of ochre or haematite, at 53 ka. Davidson and Noble should be well aware that such pigments have been found extensively in the Lower Palaeolithic of three continents, in contexts of up to 800 ka, because I have pointed it out to them in *CAJ* years ago (Bednarik 1992). As the oldest beads, they list those of Mandu Mandu at 30 ka, again in Australia. We have older beads even of the Upper Palaeolithic, e.g. in Russia and France, and we have beads from Middle Palaeolithic contexts, but most importantly, we have ostrich eggshell and other disc beads from the Acheulian of three continents and perforated pendants from a handaxe-free Lower Palaeolithic (Bednarik 1997c). The cave art in Koonalda Cave is listed at 20 ka, when in fact it remains undated, whereas that of another Australian site, Malangine Cave, minimum dated to 28 ka by U/Th, is omitted. The map lists symbolic evidence from Pedra Furada at 32 ka; there is none of that age. It lists a questionable portable engraving from Klasies River Mouth as 50 ka, but omits the ostrich eggshell fragments from the MSA of Diepkloof Cave, not to mention numerous engravings on bone, ivory and stone from Bilzingsleben and elsewhere, of the Lower Palaeolithic. La Ferrassie is shown as 32 ka, although the stone slab with cupules from that site belongs to an undated Neanderthal burial. The map lists the engraved ostrich eggshell from Patne in central India as 25 ka, but not the significantly older Acheulian petroglyphs of Auditorium Cave in the same region. As a map of early evidence for the use of symbols, it is about as deficient as it possible could be. Almost none of the many hundreds of pre-Upper Palaeolithic palaeoart finds I have listed in various publications are considered.

Until Davidson and Noble explain why we should ignore the seafaring evidence from Indonesia, which they have completely ignored themselves, their model of language origins is not worthy of consideration. Moreover, that model is internally inconsistent: it demands on the

one hand that figurative depiction preceded language (Davidson and Noble 1989), but accepts at the same time a much earlier use of language in Australia (c. 60 ka). We have no figurative graphic depiction prior to 30-35 ka anywhere in the world, and none demonstrated in Australia prior to the Final Pleistocene. Even the one 18-ka-claim from the Kimberley is based on a single, doubtful determination. There is a great deal of Pleistocene rock art in Australia, but we perceive nearly all of it as nonfigurative. Until we have evidence for 60-ka-old figurative art, Davidson and Noble's model lacks any evidence. Until they acknowledge that evidence has been presented that *Homo erectus* was a seafarer in Indonesia and the Mediterranean hundreds of millennia ago, and explain why we should disregard this evidence, their hypothesis of language origins needs to be disregarded.

In short, there is no evidence in favour of the short-range model, but there is adequate evidence to indicate that competent use of complex communication, which is likely to have been verbal, existed a million years ago. As the only researcher in the world who has first-hand experience in building maritime watercraft with replicate stone implements and sailing them, I assure the readers that such feats are only possible under conditions of great cultural complexity. The knowledge, technology and material variety to be harnessed in such achievements are significantly greater than most archaeologists are capable of imagining. The study of palaeoart (proto-sculptures such as the Acheulian figurines of Tan-Tan and Berekhat Ram, beads, fossil cast and other manu-ports, ochreous substances and crayons) of the Lower Palaeolithic, which remains almost unknown in archaeology, provides a wealth of evidence for the cognitive, cultural and technological sophistication of the hominids in question.

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REQUEST FOR HELP

Dear fellow members of AURA,

I am currently researching the Australian 'Pygmy Negritos' of Atherton, north Queensland, and have found little information regarding their rock art, if any exists. Papers written of this small group by noted anthropologists Dr. J. B Birdsell and N. B. Tindale mention a great deal of information regarding their families, their customs, traditions, songs and dances. Sadly I have found nothing of their art. I find it inconceivable that these wonderful people left nothing to

say to 'We have been here'. Art of some form must exist somewhere. Can anyone help me in my research? Pre-History of small groups, such as the north Queensland 'Pygmy Negritos', must be studied in depth now. We must not allow this rich minor culture to slip into the great void of lost knowledge as has happened, and will continue to happen.

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