BRIEF REPORTS

'Archaeologically dated Palaeolithic rock art' at Fariseu, Côa valley

In early December 1999, due to construction work at the site of the new Barca d'Alva international bridge, EDP (Electricidade de Portugal) lowered the water level of the Pocinho dam lake by about three metres. Taking advantage of the situation, teams from the Côa Valley Archaeological Park (PAVC) and the National Rock Art Research Centre (CNART) surveyed the margins of the Douro and the Côa exposed upstream of Pocinho. On September 7, archaeological testing of a small fluviatile beach under the direction of Thierry Aubry revealed a richly decorated panel at the locality of Fariseu. Situated a few hundred metres downstream from the mouth of the Piscos stream, this place was already part of the National Monument of Côa rock art sites because decorated rocks had been found there in 1995.

The panel is perpendicular to the river, and was executed on an outcrop that represents the downstream limit of a sequence of Quaternary deposits where sterile fluviatile levels alternate with colluvial deposits containing remains of Upper Palaeolithic settlements. The 3-m-deep trench also shows that this sequence is capped by Holocene deposits (recent lake-bottom silts and Historical, probably medieval, colluvium) of varying thickness. The 3-m-deep trench also shows that this sequence is capped by Holocene deposits (recent lake-bottom silts and historical, probably medieval, colluvium) of varying thickness.

At the top, the Quaternary sequence contains a Final Magdalenian of 'Carneira type' with thick, curved-backed points featuring *sur enclume* retouch. This industrial facies has been dated to circa 10 000 BP, by ^{14}C as well as by TL, at sites in the littoral of Portugal such as Carneira and Bocas. It is also known in the Côa valley as well, particularly at the site of Quinta da Barca Sul, where it has been TL dated to that same period. At Fariseu, the corresponding level contained the first mobiliary art item found in the region: a flat schist pebble engraved on both sides with geometrical stylised animal motifs that have parallels in the Azilian of France.

The lower section of the deposits contains Proto-Solutrean or Gravettian levels which cover the decorated panel, making it possible to date the execution of the rock art to c. 21 000 BP, or earlier. The abraded grooves and the pecking negatives present the white colour characteristic of recent, experimentally induced impacts on surfaces of the same kind of rock. The fact that they are so fresh suggests that the accumulation of the deposits was relatively rapid and, consequently, that all the motifs that make up this complex palimpsest date from a single period.

The lithic sample collected in the small area tested is not big enough to allow a more precise diagnostic of the assemblage. Norbert Mercier, from the Gif-sur-Yvette Laboratory, collected samples of sediments and burnt quartzites and made the environmental radiation measurements necessary for TL and OSL dating.

The observations already undertaken by the CNART team working at the site under the direction of António Martinho Baptista suggest that, stylistically, the motifs are entirely compatible with the chronology estimated on the basis of the archaeological material. The species represented are those commonly found in the Côa Palaeolithic art, with bovines and equines dominating. The technique of representing the movement through the depiction of two heads on a single body is documented by two excellent figures of horse, one in each of the two sectors of the panel.

The water will rise again to the normal Pocinho level on 22 December 1999, submerging the panel and profiles, which are being adequately protected in the meantime. Archaeological work in this locality will begin again next Summer, in the framework of programmed lowerings of the water level agreed between IPA and EDP.

[This report was released by the IPA in 1999; no results of the dating analyses have been reported since.]

Fariseu rock art not archaeologically dated

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The above unsigned announcement, believed to be by João Zilhão, Director of the Institute Portugués de Arqueologia (IPA), claims that a panel of petroglyphs at Fariseu has been minimum dated to the 'Proto-Solutrean' or Gravettian by virtue of having been found covered by sediments containing occupation evidence of such industries. On that basis the rock art concerned would be substantially older than 20 000 years:

Figure 1. *Petroglyphs at Fariseu, Côa valley, northern Portugal.*

> 'Until now the dating of the stylistically Palaeolithic Côa valley rock art to the Palaeolithic was supported only by indirect evidence. This was very strong evidence, but, in the language of the courts, only circumstantial. Now we have the strongest possible evidence: stratigraphy. After the Fariseu finds, no one in good faith can question the Palaeolithic chronology of the Côa valley rock art.' (J. Zilhão, quoted in Himelfarb 2000)

Close examination of the photograph accompanying this report suggests that there are two types of petroglyphs present on the Fariseu panel: impact-produced figures of very slight grey patination, and more recent, superimposed abrasion-produced figures of very light, practically white colour. Both types have been cut into a grey to dark-grey (Munsell 10YR4/1 to 10YR6/1) patina, which thus predates all of the rock art. The very recent appearance of the petroglyphs is acknowledged in the IPA report.

The Fariseu site is close to the inflow of the Côa river into the Pocinho reservoir and has therefore experienced significant sediment deposition for the past 17 years, during which time it was submerged. Even much further downstream, at Canada do Inferno, three metres of sediment has accumulated as a result of the Pocinho dam. Beneath that very recent deposit, dated inscriptions of the 17th century were excavated in 1995, centring around A.D. 1620. There have been several instances in the Côa valley (e.g. at Barca and Penascosa) where petroglyphs were found covered by sediment, but in all cases so far this was either dam sediment of the last 17 years, or recent fluvial sand deposit. It is to be noted that most of the Côa rock art sites are still flooded frequently.

Concerning the purported dating of the Fariseu deposit, we question several points:

1. The dating of the Ribatejo sites referred to, such as Carneira, is not at all secure according to Portuguese archaeologists. It provides no supporting evidence for the reputed implements at Fariseu.
2. Microliths from a Côa site have before been labelled as Gravettian, even though they were found together with pottery (Zilhão et al. 1997). These typological 'identifications' and cultural attributions must be regarded as suspect.
3. The presence of stone tools or charcoal in a fluvial deposit does not establish the time when the sediment in question was deposited. If as we suggest the Fariseu sediment has been formed in the last 17 years, the age of any component found in it has no bearing whatsoever on the age of the petroglyphs.
4. The purported stone implements are clearly described as occurring in a colluvium, i.e. a deposit formed by gravity from material originating from the hill slope above. A colluvium is of necessity younger than its

components, and may for all practical purposes have formed only last year. If there were stone tools in the Fariseu deposit, which has yet to be established, they would have no bearing whatsoever on the age of the *petroglyphs. Their presence in the colluvium is* purely fortuitous and of no immediate dating relevance.

5. The data presented in the IPA report would not constitute 'direct dating' even if the alleged tools were found in situ, i.e. in an occupation deposit. None of the factors provided comply even remotely with the requirements of direct dating which have been enunciated on many occasions (e.g. Bednarik 1996). Conversely, if dating evidence had been presented on the age of the grey patina truncated by the petroglyphs, this would constitute direct dating.

The IPA report does acknowledge, however, that direct dating of the rock art is desirable, which so far had consistently been rejected by the IPA team. It also concedes, indirectly, that the purported stone tools cannot be used for dating the rock art, by reporting that they are of *colluvial origin*. While this renders their dating potential for the rock art entirely worthless, the Fariseu researchers nevertheless claim to have provided secure 'archaeological dating'. This is clearly premature even as a claim of archaeological rather than scientific dating. Until analytical evidence has been provided for the Fariseu sediment deposit, in the form of carbon isotope, TL or OSL analysis, that deposit has not been dated at all. Even if the presumed stone tools were of the Gravettien, which remains to be demonstrated, this would clearly be of no relevance to the age of the colluvium in which they were found. Even after the radiocarbon results from that deposit are available it must be cautioned that they may not refer to the event of sediment formation at all, but may be from material predating that event (e.g. slope wash).

All of this should be self-evident, which raises once again the question of the calibre of the work conducted by the IPA since the Côa valley rock art came under its jurisdiction. This work amounts to a catalogue of unsubstantiated claims, usually trumpeted through the mass media and presented without any adequate scientific data; and to a series of admitted failures in site management. The wholesale scrubbing of engraved panels 'with wooden tools and river water' to remove all lichens (thus eliminating the possibility of lichenometry) and accretionary mineral deposits (eliminating the possibility of using them for direct dating) 'for political expediency' (Zilhão 1996), the banning from the project of all researchers considered sceptical and the related xenophobia (Swartz 1997a, 1997b), and the surreptitious procedures of research and reporting of results have become the hallmarks of this work, the financial costs of which have been enormous to the Portuguese taxpayer. It needs to be emphasised that the Côa research project has cost millions of dollars already, and has so far not produced much credible scientific evidence. Its initial claims that the Penascosa terrace was Pleistocene and would yield Palaeolithic occupation evidence was abandoned after Zilhão et al. (1997) conceded that Watchman's preliminary TL dates were correct, and that the terrace was of recent millennia. The IPA team has even discovered a *remnant of a genuine* Late Pleistocene terrace at the *Penascosa site, but it is 40 m above the river, clearly* indicating that the river was then 40 m above its present elevation. This only confirms the predictions of earlier researchers that the prospects of discovering any Pleistocene sediments at or near the floor of the lower Côa valley are very discouraging, because this is a very young valley experiencing rapid downcutting. It is perfectly possible that Pleistocene occupation evidence exists on the steep hill slopes high above the present river, perhaps in pockets of surviving terrace deposits. It is equally possible that debris from such deposits have found their way into colluvial (secondary) sediments on the valley floor. But what is becoming increasingly clear from the desperate IPA campaign to locate in situ Palaeolithic occupation evidence near the valley floor is that there is none to be found. A most intensive search conducted over several years has not yielded any such evidence. Nor should we expect to find in situ Palaeolithic material in what are, apparently without exception, late Holocene sediments. The obvious corollary is of course that most of the rock panels on which the Côa petroglyphs occur, particularly those near the present river's elevation, could therefore not have existed prior to the Holocene, because the river was at a higher level in the Pleistocene.

It follows that, despite huge and very costly research efforts, no archaeological evidence has been recovered in the course of the IPA Côa campaign that can be linked securely to the rock art. Since this was the exclusive purpose of this massive campaign it can only be described as an unqualified failure. We remind the Director of IPA that he has a moral obligation to contribute credible data concerning the age of the Côa petroglyphs, because it was due to his decision that the Côa petroglyph panels were systematically denuded of all their lichens and accretions (Jaffe 1996). We remind him that in so doing he has effectively eliminated most direct dating approaches, particularly lichenometry (which would have almost certainly provided highly accurate and reliable estimates of rock art age) and analyses of accretionary mineral skins. So far he has pursued only unproductive strategies to make good his mistake, and the Fariseu project is merely the latest fiasco in a disastrous campaign.

If we were genuinely interested in the possible age of the Fariseu petroglyphs, several avenues could be explored. For instance, the pictures themselves provide clues. The uppermost 'horse head' in the above image includes a line carved across the animal's muzzle, right at the base of the mouth. This marking seems to indicate the presence of a bridle which connects in a neat curve to where the bit would be located. This detail seems to imply that the animal was domesticated. Most archaeologists reject Bahn's (1980, 1981) suggestion that horses

were domesticated in the Pleistocene, in fact domestic horses are not thought to appear in Portugal before mid-Holocene times. Until we have solid evidence for domesticated horses in the Gravettian, this image is not likely to be of that period.

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