

branches using recordings made in the cell body is difficult, and it is possible that dendritic receptors are different from the more accessible somatic receptors. Because of their thinness, most processes, even when clean and visible, may remain beyond the grasp of even the most

experienced patcher. This could be the next challenge, perhaps awaiting another technical breakthrough. □

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PREHISTORIC ART

Hunting for farmers?

Paul G. Bahn

THE levantine rock art of eastern Spain, renowned for its depictions of game, animated human figures and hunting scenes, has traditionally been assigned to the middle Stone Age, and therefore to a culture based exclusively on hunting and gathering. New discoveries in Alicante province by Hernández *et al.*¹ provide the first clear evidence for the date of these drawings, suggesting that they began in the new Stone Age (neolithic) period, and were therefore contemporaneous with the first farmers.

Levantine art^{2,3} has long been something of a problem; it is mainly located in rock shelters and has no association with occupied sites. Breuil assigned it to the end of the last Ice Age, but recently it has been assumed to date from the mesolithic (about 8,000–5,000 BC), apparently because it often depicts hunting scenes and species such as deer and ibex drawn in a naturalistic style. It therefore served as a convenient link between the realistic animal figures of the last ice age (up to about 11,000 years ago) and the schematic and often abstract art of the neolithic and Bronze Age.

In the 1970s, Javier Fortea claimed⁴, on the basis of some engraved stones from Cueva de la Cocina dating to the epipalaeolithic (before 4,770 BC), that a 'linear-geometric' art occurred between the palaeolithic and levantine styles, and that the levantine style arose in the mid-fifth millennium BC.

More recently, a group of small, shallow, painted shelters has been found in Alicante province containing key superpositions of different styles. According to Hernández and his colleagues¹, a comparison with similar motifs on many objects found stratified (and hence well dated) in nearby sites produces a completely new sequence for the region's prehistoric art. It comprises a series of distinct styles, four of which are encountered in the province — palaeolithic, levantine, schematic and macroschematic,

the last being new and unique to the area.

The palaeolithic art of the last ice age is the earliest phase, found in the animal and non-figurative engravings of the Cova Fosca. The newly discovered macroschematic style is characterized by large



Macroschematic humans and meanders found in shelter V, Plá de Petracos (from ref. 1). Bar, 25cm.

human figures and by vertical and horizontal serpentiforms and meanders (see figure), all in a dense, pasty, dark-red pigment. The most striking humans have their arms raised, a pose which many assume to be one of prayer or supplication.

The only known examples of macroschematic art occur in a part of Alicante province, but the style is definitely pre-levantine because in two sites (shelter I at La Sarga and shelter IV at Barranc de Benialf) it is found under levantine figures. A study of potsherds from nearby sites (mainly old excavations at Cova de

l'Or), which bear strikingly similar depictions of human figures, assigns macroschematic art to the early neolithic and hence to the earliest communities of farmers and herders in Valencia.

Levantine art, the liveliest rock art of prehistoric Europe, occurs in shallow shelters and overhangs, and comprises mostly red (rarely black) figures: it is dominated by animals and people, either singly or in scenes. Many humans carry bows and arrows, and some goats and deer have arrows in them. Hernández and his colleagues point to analogies between this art and the goat and deer figures on potsherds at Cova de l'Or, but others find that there is little resemblance between the graceful levantine figures and the very stiff depictions seen at Cova de l'Or.

The final style, schematic art, has always been difficult to separate from levantine, especially as both tend to occur at the same sites. Figures on potsherds suggest that the former also originated in Alicante in the early neolithic, although schematic art reached its zenith in the late neolithic and Copper Age, and lasted until the Bronze Age. Figures on the wall at two sites (Abric de les Torrudanes and Abric del Barranc de la Palla) indicate that the levantine and schematic styles are at least partly contemporary.

The new findings vindicate the early work of Francisco Jordá, who first claimed⁵ that levantine art represents an agricultural and herding community which also practised hunting, rather than a pure epipalaeolithic hunting and gathering way of life. He suggested that it originated in parallel with schematic art, starting in the neolithic and developing during the Copper and Bronze Ages, but his scheme was rejected at that time.

Jordá now suggests⁶ that levantine and schematic art both arose from the macroschematic style: the former being naturalistic and narrative, the latter being more complex and elaborate, closer in style to the macroschematic, and with a far wider distribution not only in Iberia but in other parts of the Mediterranean. It is clear, nevertheless, that the startling macroschematic style dates to the early neolithic, and hence the overlying levantine art must also now be assigned to that period. The epitome of hunting art in Europe therefore began in the time of the first farmers. □

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