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The View From Across the Pyrenees: Changing Perspectives on the Middle-Upper Paleolithic Transition in Spanish Prehistory

FRANCIS B. HARROLD *

RESUMEN

La comprensión de la transición del Paleolítico Medio al Superior ha cambiado entre los prehistoriadores que han trabajado en España durante el último siglo. Muchos investigadores han asociado esta transición con el reemplazamiento de los Neandertales por los humanos anatómicamente modernos, aunque en el contexto de las persistentes diferencias sobre la naturaleza y extensión de los movimientos poblacionales y las influencias culturales en España desde el Norte de África o desde Francia. La información arqueológica es de una calidad y cantidad sin precedentes. Sin embargo entre las indicaciones de una temprana aparición del Auriñaciense en el Norte de España y la persistencia, hasta fechas muy tardías del Musteriense en el Sur, existe un considerable desacuerdo sobre la naturaleza de la transición Paleolítico Medio-Superior en la península

ABSTRACT

Understandings of the Middle-Upper Paleolithic transition by prehistorians working in Spain have changed in the course of the last century. Most workers have associated this transition with the replacement of Neanderthals by anatomically modern humans, although in the context of persistent disagreements over the nature and extent of movements of populations and cultural influences into Spain from North Africa and from France. The current relevant archaeological database is of unprecedented quality and quantity. However, in the wake of indications of an early appearance of the Aurignacian in northern Spain, and the late persistence of the Mousterian and Neanderthals in southern Spain and Portugal, there is currently considerable disagreement over the nature of the Middle-Upper Paleolithic transition in the peninsula.

* College of Nature and Social Sciences, University of Nebraska at Kearney, Kearney, NE 68849 USA.

PALABRAS CLAVE
Transición Paleolítico Medio-Superior, Musteriense, Chatelperroniense, Auriñaciense, Neandertales, Humanos modernos, España.

KEY WORDS
Middle-Upper Paleolithic transition, Mousterian, Chatelperronian, Aurignacian, Neanderthals, modern humans, Spain.

The Spanish Paleolithic record has long played a significant role in the study of the industrial transformation that we now call the Middle-Upper Paleolithic transition-as we shall see, never more so than today. The study of this transition also exemplifies several important and persistent issues in Spanish Paleolithic prehistory. These include:

1. The role of cultural influence and human movements across the Strait of Gibraltar from North Africa into Iberia during the Pleistocene;

2. The analogous issue of the role of such influences and movements across the Pyrenees from France, and the linked question of how closely the culture-stratigraphic units that structure the Spanish Paleolithic parallel those in France and elsewhere in Europe.

3. The extent to which the Paleolithic industries of various Spanish regions, especially Vasco-Cantabrian Spain and Mediterranean Spain, followed similar or distinctively different trajectories though time.

I will organize this discussion according to the periodization of the study of the Spanish Paleolithic proposed by González Echegaray and Freeman (1998:17-18). Their *First Period,* from the mid-nineteenth to the early twentieth century, saw the first excavations of Paleolithic sites in Spain, as well as the discovery of Paleolithic art, culminating in the excavation of Castillo by Obermaier and Breuil. Siret (1893) proposed a pioneering synthesis based not only on his work in the southeast, but also on reports from elsewhere in Spain. Relying on de Mortillet's French scheme, he suggested a tripartite division of the Paleolithic: a Chellean-Mousterian period (he claimed that though the two industries were sequent in France, they were contemporary in Spain); a Solutrean period, and a Magdalenian period. He perceived the main discontinuity in the Paleolithic occurring at the beginning of the Solutrean, suggesting that it marked a major change in technology and lifeways, perhaps due to the coming of new peoples.

The Second Period (ca. 1914-1939). This period was dominated by attempts to place Paleolithic industries chronologically in the scheme of

Pleistocene glacial and interglacial periods. It saw the first thoroughgoing attempt to synthesize the Spanish Paleolithic in a European and circum-Mediterranean context, in Hugo Obermaier's *El Hombre Fósil* (1916, 1924, 1925). Obermaier adopted Breuil's French-based framework, in which Paleolithic «cultures» were identified with ethnic groups and sometimes with human races. Like most authors before mid-century, he conceived of the Mousterian as the final phase of the Lower Paleolithic (rather than as the Middle Paleolithic), but certainly saw the transition to the Upper Paleolithic as a major rupture. For him, as for Breuil, the early Upper Paleolithic comprised the Lower Aurignacian (later called the Lower Perigordian or Chatelperronian), the Middle Aurignacian (today's Aurignacian *sensu stricto*), and the Upper Aurignacian (now the Gravettian or Upper Perigordian). For Obermaier, the Upper Paleolithic in Spain began with the Lower Aurignacian, when anatomically modern humans (AMH) crossed from North Africa to replace the Neanderthal race and their Mousterian culture, in a wave that would cross the Pyrenees and bring the Upper Paleolithic to France and elsewhere in Europe. Later, people of the Cro-Magnon race brought the Middle Aurignacian from France to Spain. Then another wave of immigrants from North Africa carried the Upper Aurignacian to Europe. Breuil and Obermaier alike believed that the origins of the backed-blade traditions («Lower» and «Upper Aurignacian») of Europe could be found in the Capsian of northwest Africa, whose earliest stage they believed to lack microliths and to be as old as the late Mousterian in Europe-though the Capsian was later recognized as Epipaleolithic in age (Sheppard 1987).

Typically for his time, Obermaier saw Paleolithic artifacts as markers for the movements of cultures and peoples, which were believed to account for most temporal change in the Paleolithic record. Though it was based on scanty evidence, none of which confirmed even the existence of the «Lower Aurignacian» in Spain, Obermaier's scheme had the imprimatur of Breuil and was highly influential in the yet-small community of Spanish Paleolithic researchers.

Obermaier's scheme was not accepted universally. For example, Bosch Gimpera (1922) did not accept a Capsian link to the Aurignacian, and saw Cro-Magnon people from the north as the bearers of the initial Upper Paleolithic in Spain. Working in Cantabria, Carballo (1923) viewed the evolution of Upper Paleolithic industries in his region as largely independent of that in France. He did admit that the initial Upper Paleolithic had seen modern humans and the Aurignacian arrive from the north to replace the Neanderthals and the Mousterian. His excavations at Cueva Morín suggested to him that an «Aurignaco-Mousterian» culture indicated a transitional period of cultural mixture before the final triumph of modern people.

Thereafter, though, in his view, the glaciated passes of the Pyrenees usually minimized contacts with the north.

The Third Period (ca. 1939 to the 1960s). This period saw heightened concern with analysis of lithic morphology, typology, and interassemblage comparison, latterly under the influence of Bordesian systematics. Lithic industries were still predominantly interpreted in terms of cultures and ethnic groups. There was also still broad agreement that the Middle-Upper Paleolithic transition involved the replacement of Neanderthals and the Mousterian by AMH and the Aurignacian (in Breuil's sense). However, there was a strong reaction against Obermaier's Capsian thesis. This thesis had been undermined by Vaufrey's North African fieldwork in the 1930s demonstrating that there was no early stage of the Capsian lacking microliths, as Breuil and Obermaier had thought (Vaufrey 1933). Authors such as Almagro (1941) and Martinez Santa-Ollala (1946) argued that *el mito africano* had to be laid to rest: North African influence had occurred only near the end of the Spanish Paleolithic, and was far outweighed by that from north of the Pyrenees. The Spanish Middle and Upper Paleolithic, at least, were European, and their development broadly paralleled the French sequence. Rather than Africa beginning at the Pyrenees, Europe began at Gibraltar.

The revision of Early Upper Paleolithic systematics by Denis Peyrony, in which Breuil's Aurignacian was divided into separate Aurignacian and Perigordian cultural «phyla», was championed by Bordes and Sonneville-Bordes, and was certainly influential in Spain. Its terminology was often adopted (e.g., Almagro 1960), but with reservations. These reservations, and their relevance to the understanding of the Middle-Upper Paleolithic transition, were perhaps most cogently stated by Jordá Cerdá (1955). He criticized the two-phylum scheme of Peyrony as being based strictly on regional data (indeed, on a small number of key sites) and then dubiously generalized to other regions where it did not fit well. For instance, he reiterated that the existence of the Lower Perigordian (i.e., the Chatelperronian, Breuil's old Lower Aurignacian) had still not been verified in any Spanish site. Jordá favored Dorothy Garrod's scheme of sequent Chatelperronian, Aurignacian, and Gravettian cultures as better suited to Spain than Peyrony's dual phyla. Jordá also suggested, following Pericot (1950), among others, that the period contemporary with that of the Lower Perigordian in France had seen the late persistence of the Mousterian in Spain. He proposed that the presence of elements like keeled scrapers and retouched blades in final Mousterian assemblages from Cova Negra and the Cueva del Conde reflected Aurignacian-Mousterian contact after the Aurignacian finally did penetrate the peninsula. Finally, he suggested

that the Aurignacian might have arisen regionally in Europe, rather than tracing back to western or central Asia. However, since he clearly referred to the Aurignacian penetration of Spain, a peninsular origin of the Upper Paleolithic (or, presumably, of AMH) was not indicated.

The Fourth Period (1960s to present). This period has seen great changes in the theory and practice of Spanish Paleolithic prehistory. There is much more concern than before with reconstruction of paleoenvironments and human subsistence-settlement patterns, with chronometric dating to calibrate temporal change in these systems, and with functional analysis of artifacts and features There has also been considerable growth in the number of Paleolithic archaeologists working in Spain, and in the size and quality of the available archaeological database.

These developments have had complex impacts on the issue of the Middle-Upper Paleolithic transition. The first of these was the discovery of a Chatelperronian level at Cueva Morín by González Echegaray and Freeman (1971, 1973). This was followed by the publication of earlier excavations at El Pendo (González Echegaray, ed., 1980) reporting a Chatelperronian level overlying Archaic Aurignacian deposits (but see Laville and Hoyos [1983] for an argument that the stratigraphic sequence at El Pendo is actually disturbed). Further Chatelperronian occurrences have been reported subsequently at Labeko Koba (Guipuzcoa) (Arrizabalaga Valbuena 1993) and Cova de Valiña (Lugo) (Morales Grajera 1998). In the wake of these finds, and the 1979 discovery of a Neanderthal in a Chatelperronian level at Saint-Césaire in France, it became widely accepted that Neanderthals had been the manufacturers of the Chatelperronian and had co-existed for a time with AMH (represented by the Aurignacian) before their extinction or absorption (see Harrold 2000). Bernaldo de Quirós (1982) inferred a Middle-Upper Paleolithic transition in Cantabrian Spain that followed these broad lines.

Two developments in the 1980s and 1990s have brought Spain to the center of debates about the Middle-Upper Paleolithic transition as well as the evolution of modern humans:

- The announcement of surprisingly early radiocarbon and uranium-series dates for archaic Aurignacian components at El Castillo, l'Arbreda, Romaní, and Reclau Viver (Cabrera and Bischoff 1989; Bischoff et al. 1989; Bischoff et al. 1994; Maroto, Soler and Fullola 1996) in the vicinity of 37,000-39,000+ radiocarbon years BP. These dates were older by several millennia than any then reported for the Aurignacian in France, or for the Chatelperronian anywhere. They offered both support and difficulties to those who saw the Aurignacian as betokening the replacement of

Neanderthals by AMH moving into Western Europe from the east, and the Chatelperronian as the rather short-lived result of acculturation of indigenous Neanderthals. On one hand, the dates supported temporal priority of the Aurignacian over the Chatelperronian, and thus the possibility that the Chatelperronian was the result of acculturation of Neanderthals by AMH. On the other hand, they disrupted an apparent east-west gradient in dates for the earliest Aurignacian, thus weakening the case that both AMH and the Aurignacian had gradually moved across Europe from east to west.

- Evidence accumulated from such sites south of the Ebro as Carihuela and Zafarraya, as well as several Portuguese sites (see Villaverde, Aura and Barton 1998; d'Errico et al. 1998) that Mousterian occupations persisted until 30,000 BP or later. At Zafarraya, Neanderthal remains, probably the most recent known, were found in such a Mousterian context (however, see Villar Calvo 1998 for a skeptical view of the thesis of late persistence). Thus, earlier suggestions of Jordá and others have been supported by finds that stand in curious counterpart to the very early dates for the Aurignacian in Cantabria and northern Cataluña.

In the wake of these developments, interpretations of the transition and its relation to modern human evolution vary widely. A replacement model, with its intellectual pedigree in some ways traceable to Obermaier, is still judged by some to best explain the increasingly complex record (Freeman 1993; Villaverde, Aura and Barton 1998; Hublin 1998; Mellars in Mellars et al. 1999; Maroto, Soler and Fullola 1996). Others do not see a cultural or biological Rubicon at the Middle-Upper Paleolithic transition, stressing instead the idea of a complex mosaic of biological and cultural evolution, of continuity and independent development, diffusion and gene flow (e.g., Clark 1997; Straus 1996; Carbonell and Vaquero 1998). Cabrera and Bernaldo de Quirós (1990, 1997) have proposed an in situ transition from Mousterian to Aurignacian at El Castillo, based on the typological continuities between the two industries that they found in their excavations there.

Finally, a group led by d'Erico and Zilhão (and interestingly, including no Spanish workers) has launched a new «Battle of the Aurignacian» (d'Errico et al. 1998; Zilhão and d'Errico 1999) with a position that has something, so to speak, to displease almost everyone. They critically interpret Spanish and French chronometric and site formation data to argue that the claims of an early occurrence of Aurignacian in northern Spain, and of a long temporal overlap between the Aurignacian and Chatelperronian, are illusory. On one hand, they agree with replacement advocates that AMH and the Aurignacian replaced Neanderthals and the Chatelperronian. On the other hand, they argue that the Chatelperronian

antedates the Aurignacian by several millennia, representing, not acculturation, but an independent development of Upper Paleolithic adaptations by Neanderthals, who were equal to AMH in cognitive abilities. They also advocate the existence of an «Ebro frontier» in Iberia for several millennia between AMH and Neanderthal populations, with minimal indication of interaction across it, before the final disappearance of the latter group after 30,000 years ago.

One might be tempted to interpret the current situation in Kuhnian terms as a paradigm crisis, with a dominant conceptual framework failing and a new paradigm developing. However, for reasons Shelley Smith and I have detailed elsewhere (Smith and Harrold 1997), I doubt this. There are too many «paradigms» or, better, theoretical orientations, here, and they share too many elements with each other, to fit Kuhn's scenario. Rather, satisfactory resolution of the issues raised here will require not only advances in interpretive models, but also more and better data. For instance, the scanty human fossil record of the earlier Aurignacian in France and Spain as yet contributes little to the resolution of the issues discussed here (Gambier 1997; Garralda 1997). And contradictory dating frameworks must be resolved if the succession and significance of succeeding culture-stratigraphic units are ever to make sense. Toward that end, Brooks Ellwood and I are currently engaged in a program of sampling several key Iberian sites for magnetic susceptibility analysis, which promises to be useful in intersite correlation (Ellwood et al. 1998).

As Richard Klein (2000) has stressed, the archaeological and fossil record of the time range relevant to the transitions of interest here is coarse-grained and noisy. Clear, repetitive patterning in human fossils, artifacts, and dates will be needed before confident generalizations about this record, and explanations of it, can be widely accepted. The Spanish Paleolithic record will play a central role in this process.

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