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Cantabrian Spain – 2012-2014

Middle-Upper Paleolithic Transition

An important recent article by Maroto *et al.* (2012; see also Santamaría and Rasilla 2013) publishes new radiocarbon dates done with ultrafiltration of samples from several Mousterian sites in Vasco-Cantabria and Catalonia and presents a critical analysis of earlier-reported dates. The conclusion is that the Mousterian technology did not survive late in these regions (notably at the site of Esquilleu in /Cantabria) as some had earlier argued. It now seems that it ended around 38-39 uncal. BP (ca. 43-44 cal BP). Thus the story of Mousterian replacement by the early Aurignacian in northern Spain was quite different from that of southern Iberia, where the idea of late Mousterian (and Neandertal) survival remains plausible, though disputed by some. The new dates generally support the ages for the end of the Mousterian and beginning of the Aurignacian at ca. 39-40 uncal. kya in El Castillo (Bernaldo de Quirós and Maíllo 2009). The earliest cave art in Cantabria (at El Castillo) is greater than ca. 41 kya (U-series) (Pike *et al.* 2012)--probably the work of people who made the Aurignacian artifacts of Level 18. We continue not to know who the makers of the last Mousterian and the first Aurignacian (*Homo sapiens neanderthalensis* or *H.s.sapiens*) in this region might have been, for lack of diagostic, well-provenienced human remains associated with unambiguous Middle or Early Upper Paleolithic cultural materials.

An open-air site (Aranbaltza) with lithic artifacts of Châtelperronian aspect was recently discovered at the famous flint outcrop of Barrika on the coast north of Bilbao (Ríos-Garaizar *et al.* 2012). An extensive, albeit partial preliminary report on the promising late Middle and early Upper Paleolithic site of Sopeña Cave (eastern Asturias) was published by A.Pinto *et al.* (2012), with a particularly detailed description of the Mousterian, Aurignacian and Gravettian lithic assemblages by G.A.Clark. An ephemeral Aurignacian occupation in Ekain Cave (best known for its Magdalenian living site and paintings) in Guipúzcoa was published by J.Ríos-Garaizar (2011).

Gravettian

In the last few years and on the heels of a major Société Préhistorique Française symposium on the subject of the Gravettian (Goutas *et al.*. 2011), there has been an explosion of discoveries, excavations and publications on the Gravettian of the Cantabrian region—especially its eastern (Basque) sector. Indeed, together with results from the ongoing work of P. Foucher and C. San Juan (San Juan 2011; Foucher *et al.* 2011) in the classic site of Gargas and a critical review by J. Lacarrière *et al.* (2011) of the Gravettian evidence from the old excavations in Isturitz in the neighboring French Pyrenees, the French volume contains a chapter by A. Arrizabalaga and M.J. Iriarte (2011) on the phenomenon of open-air sites in the Spanish Basque region (including Navarra). There are now five of these: Mugarduia-Sur (Navarra), Pelbarte and Prado (Alava), Irikaitz and Ametzagaina (Guipúzkoa—the latter actually found in an old fort in the city of San Sebastian). Mugarduia, a flint-knapping workshop site near the source of Urbasa flint on the south face of the Cantabrian Cordillera, is the suject of a massive monograph by I. Barandiarán, A. Cava and M. Aguirre (2013a). In addition to these relatively recent discoveries at open-air localities (a real and promising novelty in the Cantabrian context with its neaír-totally cave-dominated Upper Paleolithic record), the excavations of Gravettian occupations in the cave of Aitzbitarte III, near San Sebastián, has also recently been monographically published by J. Altuna, K. Mariezkurrena

and J. Ríos (2011). Combined with work directed by M.J. Iriarte to recuperate information from the montane Gravettian (and Solutrean and Magdalenian) site of Bolinkoba Cave (Vizcaya), all this research is beginning to paint a more balanced picture of the Gravettian settlement system in the Basque-Western Pyrenees sector. Much of this work confirms the extraordinary imporatnce of Noailles burins in this region---and hence the possible reality of a Noaillan "facies" or semi-geographic variant. Indeed, the continued presence of these small, multiple, truncation burins alongside Solutrean points after ca. 21 uncal. kya in the eastern Cantabrian region (connfirmed in modern-quality excavations) emphasizes the technological continuity between the normative Gravettian and Solutrean archeological constructs and the cultural identity of this region. A recent article by Arrizabalaga *et al.* (2014) reconstructs the network of human movement and exchange based on the evidence of flint transport from known sources on the Basque coast, in the transcordilleran Basque sector and in SW France (Chalosse and lowland Béarn) to the new site of Ametzgaina.

More generally, the renewal of Gravettian studies in Cantabrian Spain (and beyond) was recently marked by the publication of the proceedings of a symposium dedicated to this subject at the Altamira Museum (Heras *et al.* 2013). The core Vasco-Cantabrian chapters include reports on the sites of Isturitz (Normand *et al.* 2013), Aitzbitarte III (Altuna *et al.* 2013), Bolinkoba (Iriarte and Arrizabalaga 2013), Antoliñako (Aguirre 2013), Ametzagaina (Calvo *et al.* 2013), El Cuco (Rasines and Muñoz 2013), El Castillo (Bernaldo de Quirós *et al.* 2013), La Viña and Llonín (Martínez and Rasilla 2013) and El Mirón (González Morales and Straus 2013a). Reports on recent research at specific sites are followed by sections on studies of Gravettian environments, faunas and subsistence, lithic and osseous technologies, human teeth, rupestral and portable art, and personal ornaments by a large number of specialists. Of particular note are regional markers of the Gravettian among certain antler artifacts (e.g., *sagaies d'Isturitz*, notched ribs—the latter a type that continues into the Solutrean, like the Noailles burins)(San Juan 2013). This 650-page volume also includes an article by Pike *et al.* (2013; see also 2012) that reports on Uranium-series dates done on flowstones covering cave paintings in El Castillo, Altamira and Tito Bustillo that suggest Aurignacian and early Gravettian artistic activity. There are now even two radiocarbon dates of ca. 22 uncal. kya from the basal level of the recent cleaning of stratigraphic section of the old excavation trench in the Altamira vestibule that suggests the existence of at least a late Gravettian occupation (Lasheras *et al.* 2012), lending some support to the Abbé Breuil's diagnosis of Early Upper Paleolithic art in the cave. The recently discovered painted and engraved cave of Askondo in the mountains of Vizcaya, not far from Bolinkoba, yielded a radiocarbon date of 23.8 uncal. kya on a bone stuck into a crack in the wall (like those of Gargas), another of 31.4 uncal. kya from a cultural layer in a test pit and a *sagaie d'Isturitz* from looter backdirt from the surface (Gárate and Ríos-Garaizar 2013). This may be a largely or entirely Gravettian site.

Solutrean

New discoveries of Solutrean materials with radiocarbon dates were reported in Arlanpe Cave (Vizcaya) (Ríos-Garaizar *et al.* 2013) and in El Mirón Cave (Straus *et al.* 2011a, 2014)—both montane-zone sites. A gradual transition (process of "desolutreanization") between the Solutrean and the early Magalenian is documented at these sites (as it earlier was at other sites such as La Riera and Las Caldas in Asturias) around 17 uncal. kya, with the replacement over time of foliate and shouldered stone points by antler *sagaies* sometimes barbed oró edged with backed bladelets (including microlithic triangles in the classic Cantabrian Lower Magdalenian). A congress on the Solutrean held in Velez Blanco (Almería, Andalucía) in 2012 included a number of papers on the Cantabrian Solutrean (including ones on the on-going analyses of materials from Las Caldas by M.S.Corchón and her team). Also reported on was the discovery of a possible Solutrean site in Lugo (Galicia)—Valverde Cave, which, if verified, would help close the geographical gap in Solutrean site distribution between the Cantabrian coast and the sites of the Côa Valley in northern Portugal, just as the site of Val Boi at Cape Saint Vincent in the Algarve has closed the gap between the Solutrean sites of Andalucía and those of Portuguese Estremadura. The publication of this congress is

currently in press (Avezuela and Jordá 2014); it contains an overview of the Cantabrian Solutrean in its broader Southwest European and Last Glacial Maximum contexts by L.G. Straus (2014, see also Straus 2013). Just published is a remarkable technological and spatial study of the numerous quartzite concave base points from Las Caldas I, Level 9 (Corchón *et al.* 2013). Lacking good flint in large nodules, Solutrean hunters produced these points on large blades knapped with little preparation from local quartzite river cobbles procured in the nearby bed of the Nalón and brought them to the site for finishing and use. Two discrete concentrations of knapping debris were defined (with lithic and bone refits). The site is interepreted as having basically been a camp for the hunting of red deer at this time (21.5 cal kya)—not surprising given its location on a blind side-valley leading back from the major Nalón corridor below a narrow gorge along that valley. The situation is like that of El Mirón in the Solutrean, with evidence (many broken projectile points, but few cores; faunal remains; no constructed hearths) suggestive of visits to the cave for warm season ibex and red deer hunting. Notable in the case of Las Caldas is the frequent presence of splintering (presumably bipolar) removal of quartzite blanks.

Magdalenian

Excavations continued in 2011 and 2013 in the Initial and Lower Magdalenian levels in the vestibule rear of El Mirón Cave under the direction of M.R. González Morales and L.G. Straus. A monograph on the site's excavation, culture-stratigraphic sequence, sedimentology and Holocene occupation levels has been published (Straus and González Morales 2012a). The Initial Magdalenian, poorly known in the Cantabrian region (the only modern-quality excavations thereof in recent decades having been in a very small remnant area of intact deposits in El Rascaño Cave in the nearby Miera Valley in 1974 and in Las Caldas far to the west in central Asturias, but with new cases such as Coimbre Cave in eastern Asturias under current study) does not correspond to the French Badegoulian, either in artifact content or in radiometric age. It lacks *raclettes*, transversal burins or flaked (i.e., non-groove-and-splinter) antler tool blanks and it dates to about a millennium after the French Badegoulian. The Initial Magdalenian lithic assemblages are rich in macroliths (large flakes and flake tools such as sidescrapers, denticulates and notches) generally made on local non-flint raw materials (mudstone and quartzite cobbles, limestone), but they also contain objects made on non-local flints of excellent quality that were used to produced bladelets including backed bladelets and other classic Upper Paleolithic tool types. Most of the flints probably came from known Upper Cretaceous sources some 40-60 km to the northwest and northeast along the present shore of the Cantabrian Sea, although some might have come from trans-Cordilleran sources in the interior part of the Basque Country (A. Tarriño, personal communication July 2013). Unlike the underlying Solutean levels, these are massive, organically- and artifactually-rich palimpsests attesting to frequent, large-scale human uses of the cave during early Oldest Dryas. (late Greenland Stadial 2c). Such a bi-focal lithic industry is typical of many Cantabrian assemblages throughout the mid-late Upper Paleolithic, although it is the case that many early (i.e., Initial and Lower) Magdalenian assemblages have long been characterized as having a particularly "archaic" appearance. There are a few Solutrean point fragments in these levels (as was the case in La Riera), suggesting either some mixing of the levels (such as by the digging of fire pits), "curiosity" collecting by early Magdalenian people, or a gradual abandonment of such projectiles in favor of more *sagaies* and backed bladelets (see Straus and González Morales 2012b; Straus *et al.* n.d.).

In a stratigraphically higher deposit in El Mirón, located between the large engraved block and the angle of the rear cave vestibule, was uncovered in 2010, 2011 and 2013 about 100 bones from one adult human individual that had been collected (with the hands and feet apparently still held together by tendons), stained red with ochre and deposited in a natural or artificial hollow partially dug into pre-existing Lower Magdalenian fill, and finally covered over with abundant red ochre (including hematite crystals that serve to mark the burial layer)(Straus *et al.* 2011b). The (directly dated) human, animal bone from the surrounding fill and charcoal from the immediately underlying level into which the hollow had been "dug" all date to about 15,500 uncal.

BP—the same as the main Lower Magdalenian level (17) in the Outer Vestibule area as well as some of the corresponding layers in the adjacent Vestibule Rear excavation area. Full-scale multidiscipinary analyses of the burial (including osteology, dental [striation and residue studies], archeological and faunal studies, stable isotopes,, palynology and DNA) are currently being completed for a projected special issue of a major international journal dedicated to the Mirón burial. Macro- and micromammalian faunas associated with the long Magdalenian sequence in El Mirón were the subject of a study of subsistence and paleoenvironments during the Late Glacial by G. Cuenca-Bescós *et al.* (2012) and the engravings on the vestibule rear walls and on the block adjacent to the burial were studied by M. García Díez *et al.* (2012). L. Fontes is presently analyzing Lower Magdalenian lithic assemblages from El Mirón and other Cantabrian sites for her doctoral dissertation at the University of New Mexico, while J-M. Geiling is studying large samples of faunal remains from the same levels for her doctorate at the Universidad de Cantabria. The Initial and Lower Magdalenian and Solutrean will be the subjects of presentations at the UISPP Congress in Burgos.

Another cave (this one long-known for its Upper Paleolithic and post-Paleolithic site and its rupestral paintings)—Santimamiñe (near Guernica on a mountainside dominating the Urdabai coastal plain of central Vizcaya—has been yielded major Magdalenian occupation evidence during on-going excavations directed and monographically published by J.C.López Quintana (2011). Particularly impressive are the dense Lower Magdalenian living floors, similar to those of the classic sites in central Cantabria and now El Mirón. A long-overdue, thorough re-study of Santimamiñe art has recently been published by C. González Sainz and R. Ruíz Idarraga (2010). A signal publication on Paleolithic art of the world (including northern Spain) during this period was the proceedings of the IFRAO Congress in Tarascon-sur-Ariège edited by J. Clottes (2012). An excavation at the current mouth of Altamira Cave (which has much retreated with successive rockfalls over the millennia) yielded evidence of Lower Magdalenian occupation that must correspond to the classic site in the vestibule of this iconic site. Among the finds are a striation-engraved red deer scapula with the image of a red deer hind head, like those long-known from this site, as well as from El Castillo, El Juyo, El Pendo, El Rascaño (all in central Cantabria), El Mirón and El Cierro (the latter a outlier in eastern Asturias)(Heras *et al.* 2012). The new Altamira find is directly dated to c. 14.5 uncal. kya, several centuries more recent that the earlier-reported whole engraved scapula from El Mirón, suggesting that this regional stylistic marker (also represented as engravings on the walls of such caves as Altamira) represented a long-lived cultural identity. On the other hand, the widespread distribution of presumably French Pyrenees-originating Middle Magdalenian markers in Cantabrian Spain received further support with the publication by J.Altuna and K. Mariezkurrena (2012) of a *contour découpé* (albeit of a totally new subject—a bird) from their new excavations in the decorated cave of Ekain in Guipúzcoa—heretofor along, with the rest of the Spanish Basque Country, an area that had represented a geographical gap in the distribution of such distinctive items, whose production seems—ironically—to have been centered on Isturitz, the great site in the French Basque Country. Other new portable art works of Middle Magdalenian age from La Garma (Cantabria) and Las Caldas were reported by R. Ontañón and P. Arias (2012) and by M.S. Corchón and O. Rivero (2012) respectively. A very interesting multivariate statistical analysis of design attributes of portable art horse head representations from nearly 60 Cantabrian, Pyrenean, Aquitainian and a few other French Magdalenian sites by O.Rivero and G. Sauvet (2014) points to differences between the Middle and Upper phases in terms of regional style distinctions. Increasingly (as with the striated engraved hind images on red deer scapulae of the Cantabrian Lower Magdalenian) we are getting closer to being able to define regional band territories.

A pilot microwear study of three fragmentary Upper Magdalenian antler harpoons from El Horno Cave (below El Mirón in eastern Cantabria) failed to find evidence that they were used exclusively for fishing (Fano *et al.* 2013). Another article by Corchón

and D. Garrido (2012) analyzes the manufacture, use and technological development of harpoons at Las Caldas.

Two *"Homenajes"* and a General Symposium Volume

Regrettably several major figures in the study of the Cantabrian Upper Paleolithic passed away during this period: Juan Fernández -Tresguerres (specialized in the Azilian, as well as in Jordanian archeology), Javier Fortea (Upper Paleolithic archeology and cave art), Joaquín González Echegaray (Upper Paleolithic archeology and cave art, Cantabrian ethnography and history, as well as Near Eastern Epipaleolithic), and Leslie G. Freeman (Mousterian, Magalenian, cave art, Iberian Lower Paleolithic). *Festschriften* had been published during the lifetimes of the latter two (my mentors), but memorial books for the former two have been published soon after the untimely deaths of the former two (edited by J. Muñiz [2012] and M. de la Rasilla [2013], respectively). In the book in memory of Fernández-Tresguerres there are several chapters that analyze materials from his major Azilian site of Los Azules Cave (eastern Asturias). Among the other chapters is one that reflects on taphonomic and cultural issues that may have skewed the apparent distribution of Azilian sites in this period that straddles the environmental dynamic Pleistocene-Holocene boundary (Rasilla *et al.* 2012) and another on the Terminal Magdalenian and Azilian of El Mirón (González Morales and Straus 2012).

The *homenaje* for Fortea includes announcement of a heretofor unknown (and quite localized) flint source in central Asturias—important for the Upper Paleolithic of this generally flint-poor region (Tarriño *et al.* 2013). González Morales and Straus (2013b) report on a failed slate pendant with an engraved horse head image from the Initial Magdalenian of El Mirón. I. Barandiarán *et al.* (2013) discuss the theme of the "alert ibex"as a regional cultural marker of the Cantabrian Upper Magdalenian, while P. Utrilla *et al.* (2013) descirbe a bone polisher decorated with a bison head image from the Middle Magdalenian of Abauntz Cave (Navarra) and its similarities to contemporaneous pieces from Isturitz and other Pyrenean sites. The book also includes a few articles on particular cave art sites, plus an especially interesting article on Early Upper Paleolithic art in Cantabrian Spain by G. Sauvet *et al.* (2013).

In 2012 the proceedings of a symposium on the Cantabrian Upper Paleolithic held near the painted cave of Peña de Candamo in Asturias was published under the editorship of P.Arias *et al.* (2012). Too numerous to name them all, the contributions include two significant discussions of territories and hunter-gatherer mobility and social contacts by M. Menéndez (2012) and M.S. Corchón (2012)—themes that are clearly at the forefront of Cantabrian (and French) Upper Paleolithic studies at this time. The particular importance of extra-Cantabrian contacts in the Middle Magdalenian (*contours découpés,* cut reindeer incisors, certain works of portable art) at the far-western site of Las Caldas is discussed by Corchón *et al.* (2012). The territorial theme is taken up in the case of the Deva Valley (Guipúzcoa) for the Lower Magdalenian by J.A. Mujika and X. Peñalver (2012). Reports on recent discoveries and analyses of aspects of individual sites include (among others) Tito Bustillo in Asturias (Balbín and Alcolea 2012), El Juyo (Quesada 2012), El Rascaño (Chauvin 2012), La Garma (Alvarez 2012), La Pila (Gutiérrez and Bernaldo de Quirós 2012)—all in Cantabria—Santa Catalina (Berganza *et al.* 2012). The great novelty of the last of these sites is the presence of a substantial number of reindeer remains (otherwise very rare in northern Spain—even in the Basque sector) in the Upper Magdalenian level, many in the Final Magdalenian and even a few (14) in the Azilian dated between 9.2-10.5 uncal. kya. This well-documented discovery lends support to the findings of reindeer remains in the Azilian levels of the Duruthy and Dufaure rockshelters in Chalosse by R. Arambourou and L.G. Straus respectively. The Candamo symposium volume also includes several useful paleoenvironmental, modeling and cave art articles. All these and many other developments augur well for the vitality of Upper Paleolithic research in Cantabrian Spain.

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