

Upper Paleolithic and Mesolithic artifacts from Cantabrian Spain in the Museu Nacional de Arqueologia e Etnologia (Lisboa)

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Resumo

As reservas do Museu Nacional de Arqueologia (Lisboa) contêm uma pequena coleção de materiais arqueológicos provenientes de estações do Paleolítico Superior e do Epipaleolítico da região cantábrica, provavelmente doados pelo Conde de la Vega del Sella. Da gruta de La Franca, hoje chamada Mazacullos, e que foi ocupada apenas durante o Asturiense, provêm, além de seis picos, diversos vestígios faunísticos, principalmente conchas de *Patella* e de *Monodonta lineata*, mas também ossos e dentes de *Equus* e de *Cervus elaphus*. Da gruta de Balmori, cuja estratigrafia contém depósitos do Magdalenense Inferior cantábrico subjacentes a um concheiro asturiense, provêm fauna e materiais arqueológicos de ambos os níveis, sendo especialmente importante uma coleção de 18 zagaia e outros artefactos de osso ou haste de cervídeo. A elevada proporção de peças de secção quadrangular e a presença da decoração geométrica permitem atribuir estes materiais à referida ocupação magdalenense, também representada por utensílios e restos de debitage em sílex e quartzito. Da gruta de Collubil, um sítio de alta montanha especializado na caça à cabra e ocupado durante o Magdalenense Superior, provêm alguns utensílios e restos de talhe em sílex e quartzito, associados a cinco fragmentos de zagaia (não decorados, de secção circular ou oval e de base em bisel duplo), e a restos faunísticos (*Capra* e *Cervus*). De Altamira, finalmente, provêm utensílios e resíduos de talhe, bem como alguns restos faunísticos, que poderão ter pertencido a qualquer uma das ocupações — Solutrense ou Magdalenense — que a gruta conheceu durante o Paleolítico Superior.

Abstract

The reserves of the National Museum of Archaeology (Lisbon) contain a small collection of archaeological materials from Cantabrian Upper Paleolithic and

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Mesolithic cave sites, probably donated by the Conde de la Vega del Sella. From la Franca, nowadays known as Mazacullos, a site occupied during the Asturian, come six picks and several faunal remains, mostly *Patella* and *Monodonta lineata* shells, but also bones and teeth of *Equus* and *Cervus elaphus*. From Balmori, whose stratigraphy contains Lower Magdalenian deposits underlying an Asturian shell-midden, come archaeological materials and faunal remains from both levels. Most important are a collection of 18 sagaies and other antler/bone artifacts. The high frequency of pieces with quadrilateral sections and the presence of geometric decorations suggest an attribution of this collection to the Magdalenian occupation also represented by lithic (flint and quartzite) tools and debitage. From Collubil, an Upper Magdalenian mountain site specialized in ibex hunting, come flint and quartzite tools and debitage, associated with five sagaie fragments (undecorated, with a round or oval section, and double bevel based). From Altamira, come a few non-diagnostic lithics and faunal remains which may have belonged to either of the known Upper Paleolithic occupations of the cave (Solutrean and Magdalenian).

Resumo

As vestígios do último período de ocupação (Magdaleniense) em uma caverna localizada na Espanha arqueológica provêm de escavações do Paleolítico Superior e do Epipaleolítico da região costeira, provavelmente datadas pelo Conde de la Vega del Sella. De gruta de la Franca, hoje chamada Mazacullos e que foi ocupada apenas durante o Asturiano, provêm vários artefactos líticos e restos de conchas bivalves, principalmente conchas de *Patella* e de *Monodonta lineata*, mas também ossos e dentes de *Equus* e de *Cervus elaphus*. Da gruta de Balmori, cuja estratigrafia contém depósitos do Magdaleniense inferior e do Asturiano, vêm conjuntos de ferramentas, pontos de lança e materiais esportivos. As sagaies de ambas as épocas, sendo especialmente importante uma coleção de 18 sagaies e outros artefactos de antena de cervos. A elevada proporção de peças de secção quadrilátera e a presença de decorações geométricas permitem atribuir esta material a relativa ocupação magdaleniense, também representada por utensílios líticos e restos de debitage em sílex e quartzo. Da gruta de Collubil, um sítio de alta montanha especializado na caça a cabra e ao cervo durante o Magdaleniense superior, provêm alguns utensílios e restos de lítico em sílex e quartzo, associados a cinco fragmentos de sagaie (com secção redonda ou oval e de base em bevel duplo) e restos faunísticos de *Equus* e *Cervus*. Da Altamira (finalmente, período magdaleniense e restos de quartzo, bem como alguns restos faunísticos que poderão ter pertencido a qualquer uma das ocupações — Solutrean ou Magdaleniense — que a gruta conheceu durante o Paleolítico Superior.

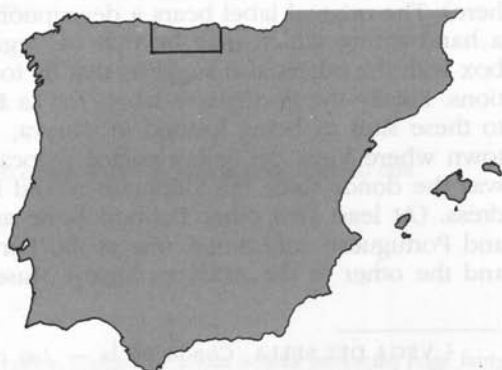
Abstract

The remains of the final phase of occupation (Magdaleniense) comes from a series of archaeological excavations from Cantabria (Spain) during the Paleolithic and Epipaleolithic periods. From the coastal region, probably dated by the Conde de la Vega del Sella, come several lithic artifacts and faunal remains, mostly shells of *Patella* and *Monodonta lineata*, but also bones and teeth of *Equus* and *Cervus elaphus*. From Balmori, whose stratigraphy contains Lower Magdalenian deposits underlying an Asturian shell-midden, come archaeological materials and faunal remains from both levels. Most important are a collection of 18 sagaies and other antler/bone artifacts. The high frequency of pieces with quadrilateral sections and the presence of geometric decorations suggest an attribution of this collection to the Magdalenian occupation also represented by lithic (flint and quartzite) tools and debitage. From Collubil, an Upper Magdalenian mountain site specialized in ibex hunting, come flint and quartzite tools and debitage, associated with five sagaie fragments (undecorated, with a round or oval section, and double bevel based). From Altamira, come a few non-diagnostic lithics and faunal remains which may have belonged to either of the known Upper Paleolithic occupations of the cave (Solutrean and Magdalenian).

1. Introduction

In August, 1986, while inspecting the reserves of the Museu Nacional de Arqueologia e Etnologia (MNAE), J. Zilhão and the present author encountered seven crates containing materials from well-known Upper Paleolithic and Mesolithic cave sites in northern Spain. These collections were inventoried, classified and studied in June, 1987, with the authorization of Dr. F. Alves, Director of the MNAE, and the assistance of Dr. F. Real, geologist of the MNAE¹.

The collections are from the caves of Altamira (Cantabria [= Santander]),



Balmori, La Franca (= Mazacullos) and Collubil (Asturias) (fig. 1). There were sufficient labels in the boxes to assure the site provenience of the artifacts, although only the pieces from Collubil bore old inventory numbers corresponding to notations in the museum's register. There were virtually no extraneous materials among the collections and the pieces themselves are utterly typical of

¹ Research supported by grants from the National Geographic Society (USA) and the University of New Mexico.

the sites and periods in question. The lithic raw materials used are absolutely characteristic of those found in eastern Asturias and central Santander. Thus there can be no doubt of the integrity of these small but valuable samples of the Late Stone Age prehistory of the famous Cantabrian region.

There is no direct record of how the MNAE came to possess these collections, except in the case of the pieces from Collubil where the old inventory notes indicate that they were turned over by the Serviços Geológicos de Portugal (at an unknown date and without indication of how the latter institution had procured these artifacts). Labels in some of the boxes indicate that the Balmori and La Franca pieces also came to the MNAE via the Serviços Geológicos. However, in the cases of the three Asturian sites and with less security in the case of Altamira, one can deduce that the original donor was the Conde de la Vega del Sella (1870-1941), one of the most important Spanish prehistorians in the early decades of the 20th century. He was the only early scientific excavator of Balmori ², La Franca ³ and Collubil ⁴. He also participated in the excavations of H. Obermaier at Altamira in 1924 or 1925 ⁵. It is a fact that collections of Vega del Sella's from Asturian caves were presented to at least the Museo Nacional de Ciencias Naturales and the Museo Arqueológico (Barcelona) and that in the early decades of prehistory it was common practice for archaeologists to exchange pieces from their excavations ⁶. Indeed, a personal gift from Vega del Sella to J. Leite de Vasconcelos is not out of the question as a hypothesis. In one of the crates there is a box containing only paleontological remains from the Cueva de Cordoleganes in Puertos de Vidiago (Asturias), located not far from Balmori and La Franca. The label in this box specified that the contents were a gift of the Conde de la Vega del Sella in September, 1925 (a date *after* the time at which he had excavated at all four sites in question here). The original label bears a description of Cordoleganes in Spanish and in a handwriting which may be that of Vega del Sella. The association of this box with the others also suggests that he too was the donor of the other collections. Finally the Portuguese labels for La Franca and Collubil mistakenly refer to these sites as being located in «Nueva, Asturias», which happens to be the town where Vega del Sella's palace is located, a confusion suggesting that he was the donor since the shipment would have born «Nueva» as its return address. (At least two other Balmori bone artifacts, both «awls», are in Galician and Portuguese collections, one at the Portuguese Jesuit College of Laguardia and the other in the Anthropological Museum of Porto ⁷). The source of the

² VEGA DEL SELLA, Conde de la — *Las cuevas de La Riera y Balmori*. Madrid, Comisión de Investigaciones Paleontológicas y Prehistóricas, 1930. (Memória, 38).

³ Id. — *El Asturiense. Nueva industria Pré-neolítica*. Madrid, Comisión de Investigaciones Paleontológicas y Prehistóricas, 1923. (Memória, 32).

⁴ GONZÁLEZ MORALES, M. — *La cueva de Collubil: Memória de licenciatura*. Universidad de Oviedo, 1974 (Unpublished). See also: OBERMAIER, H. — *Fossil man in Spain*. New Haven, Yale University Press, 1924; MARQUEZ URIA, M. — *Trabajos de campo realizados por el Conde de la Vega del Sella*. «Boletín del Instituto de Estudios Asturianos», 83, 1974, p. 811-835.

⁵ MARQUEZ URIA — *Op. cit.* (v. nota 4).

⁶ STRAUS, L. — *La collection Magnant: un témoin de la préhistoire charentaise*. «Buletin de la Société Archéologique et Historique de la Charente», 1, 1985, p. 21-34.

⁷ BARANDIARÁN, I. — *Arte mueble del Paleolítico cantábrico*. Zaragoza, 1972, p. 91 (Monografías Arqueológicas, XIV).

Altamira materials is more problematical, but it could also have been Vega del Sella due to the coincidence of the 1925 date.

2. Cave of La Franca

This probably is the same cave as the one now called Mazacullos II in the town of La Franca at the eastern end of Asturias. It has most recently been excavated by M. González Morales and colleagues⁸, but was earlier excavated by Vega del Sella, who never published more than a brief reference to it⁹. La Franca's only known archaeological deposits — a *conchero* at the mouth of the cave — pertain to the Asturian period (Mesolithic) and have been radiocarbon dated between 9290±440 and 7280±220 B.P.¹⁰. The cave interior, however, contains a few painted signs which could be of Upper Paleolithic age. In fact, the MNAE collection includes 6 typical Asturian picks made on cobbles and the label refers to the «Kjoekkenmoedding» at the entrance of the cave.

LF-987-81-1 (fig. 2, nº 2)

Complete, symmetrical, unifacial pick formed by about 12 flake removals, with the tip dulled. 86 x 55 x 30 mm. Tip length = 66 mm. 120 gms.

LF-987-81-2 (fig. 2, nº 4)

Complete, symmetrical, unifacial pick formed by about 13 flake removals, with the tip battered, dull and shiny in one spot. 81 x 57 x 28 mm. Tip length = 62 mm. 130 gms.

LF-987-81-3 (fig. 2, nº 7)

Complete, asymmetrical, unifacial pick formed by about 13 flake removals, with the tip battered dull. 89 x 53 x 35 mm. Tip length = 67 mm. 145 gms.

LF-987-81-4 (fig. 2, nº 3)

Base of an asymmetrical pick. (65) x 53 x 28 mm. N.B. (n) = fragment length.

LF-987-81-5 (fig. 2, nº 1)

Tip of a symmetrical pick on a flat (not round) cobble made by step flaking. Battered dull. (65) x 54 x 20 mm. Tip length = 65 mm.

LF-987-81-6 (fig. 2, nº 5)

Base of an asymmetrical pick. (62) x 55 x 40 mm.

LF-987-81-7 (fig. 2, nº 6)

Unifacial «chopper», about 3/4 covered with cortex, formed by about 6 flake removals. Edge fairly sharp and fresh with only minimal localized battering. Possibly a core. Red ochre stains on point of the lower cortical surface. 75 x 75 x 40 mm.

⁸ GONZÁLEZ MORALES, M., e outros — *El conchero asturiense de la cueva de Mazacullos II (La Franca, Asturias)*. «Noticario Arqueológico Hispanico», 9, 1980, p. 37-62.

⁹ VEGA DEL SELLA — *Op. cit.* (v. nota 3).

¹⁰ GONZÁLEZ MORALES, M. — *El Asturiense y otras culturas locales*. Santander, Centro de Investigación y Museo de Altamira, 1983. (Monografías, 7).

The measurements of the picks are completely in line with those reported by Clark ¹¹ for a large series of Asturian sites (N = 141; \bar{x} length = 82 mm.; \bar{x} width = 56 mm.). In addition there is a small, probably recent sherd or tile fragment, a few small pieces of red ochre, bits of wood charcoal, 4 oyster shells, 2 whelks, 1 large limpet, a fragment of concreted *conchero* including limpets, top shells and charcoal, 12 loose limpets, 24 loose topshells, a sea urchin shell, other shell fragments, a horse molar, a fossilized red deer hemi-mandible and an unfossilized red deer maxilla. The molluscan species (especially *Patella spp.* generally of small size [\bar{x} = 30.2 mm., N = 17] and *Monodonta lineata*) are generally those associated with Asturian *concheros*, and the presence of a horse tooth does not exclude Asturian age, since *Equus* remains are present in small numbers in other *conchero* collections ¹².

3. Cave of Balmori

The large cave of Balmori (also known as La Ería), in the village of Balmori in the district of Llanes (eastern Asturias), was excavated by Vega del Sella ¹³ in 1915-1917. It is part of the Llera complex of Upper Paleolithic and Mesolithic sites which includes Cueto de la Mina, La Riera, Tres Calabres, Fonfría and Bricia, among others. Unlike the first two sites, the stratigraphy observed at Balmori by Vega del Sella was somewhat unclear, probably in part because of disturbance by previous digging for fertilizer extractions. The principal deposits encountered by Vega del Sella were a «Lower Cantabrian Magdalenian» level (i.e., without harpoons) surmounted by remnants of an Asturian *conchero*. A series of supposed Azilian lithic artifacts was separated *ex post facto* from the collections, but there is no proof that an Azilian level ever actually existed here. The Asturian residues seem to have more or less directly overlain the Magdalenian but there clearly existed mixtures. The basal part of the stratigraphy was, however, more intact and there was indeed a poor, discontinuous Solutrean level. This was confirmed in 1969 when G. A. Clark ¹⁴ found an isolated Solutrean point in basal sands in a cut at the edge of the old excavation near the rear of the upper cave vestibule.

The MNAE collections reflect the stratigraphic confusions which afflicted Balmori. There are faunal remains with labels stating an Asturian or probable Asturian provenience, macrolithic artifacts (including a typical Asturian pick) labelled «Magdalo-Asturiense», other macrolithic artifacts labelled «Nivel Magdaleniense inferior» and several lots of lithic and osseous artifacts and faunal remains without any indication of level. With greater (the series of sagaies and other engraved antler pieces) or lesser (lithic and paleontological materials) degrees of certainty these lots can be assigned to Vega del Sella's Magdalenian unit. A problem with these collections (as well as with those from Collubil), is that there may have been a tendency to label macrolithic artifacts «Asturian» by

¹¹ CLARK, G. — *The Asturian of Cantabria*. Arizona, 1983, p. 103. (Anthropological Papers of the University of Arizona, 41).

¹² Id. — *Ibid.*

¹³ VEGA DEL SELLA — *Op. cit.* (v. nota 2).

¹⁴ CLARK, G.; CLARK, V. — *La cueva de Balmori: nuevas aportaciones*. «Trabajos de Prehistória», 32, 1975, p. 35-77.

convention, whereas we now know from modern excavations such as those at nearby La Riera¹⁵ that Upper Paleolithic assemblages can include pieces such as choppers or large core-scrapers, although not typical «Asturian» picks. The Balmori materials are described here in groups corresponding to their most likely provenience, but the disturbed nature of the stratigraphy makes distinction of the chronologically banal materials rather problematical.

3.1. *Asturian and probably/possibly Asturian*

BA-987.79.4 (fig. 3, n° 14)

Complete, unifacial cobble pick formed by at least 12 flake removals, with tip abraded dull. 78 x 57 x 33 mm. Tip length = 69 mm. 121 gms.

BA-987.79.5

Unifacial «chopper» on quartzite pebble formed by about 5 small flake removals. Edge is neither crushed nor battered, so this could in reality be a core. 63 x 54 x 37 mm. 144 gms.

BA-987.79.6

Large, flint, secondary decortication flake with deliberate or use-wear denticulations on edges. 47 x 50 x 15 mm.

BA-987.79.7

Same as BA-987.79.6. 52 x 29 x 10 mm.

BA-987.79.8

Whole, unretouched, quartzite, secondary decortication flake-blade. 50 x 39 x 8 mm.

BA-987.79. 71

Globular, quartzite pebble, flake core, partly cortically, with 15-20 flake removals. 67 x 58 x 47 mm. 253 gms.

BA-987.79.72

Same as BA-987.79.71. 62 x 54 x 53 mm. 245 gms.

BA-987.79.73

Same as BA-987.79.71. Radial removals from top, giving «turtleback» appearance. 52 x 44 x 28 mm. 53 gms.

BA-987.79.74

Flake core remnant of poor, tabular, grey-green flint without cortex. 62 x 58 38 mm.

BA-987.79.75 (fig. 3, n° 12)

Cobble core remnant («chunk») with small amount of cortex of dark grey igneous rock. One edge has steep, abrupt retouch (6-8 .pa removals plus edge nibbling); possibly a denticulate or scraper. 57 x 42 x 25 mm. 64 gms.

In addition, there are paleontological remains whose dimensions are not given here for lack of space: a horse upper molar, an ibex horn core fragment with attached frontlet fragment, 2 red deer antler fragments with traces of pounding or animal gnawing, a red deer incisor and 2 loose lower molars, 4 red deer hemi-mandible fragments with varying numbers of teeth, the phalange of a young, medium-sized mammal, a large fish vertebra and 9 top shells.

¹⁵ STRAUS, L. — *A comparison of La Riera assemblages with those from contemporary sites in Cantabrian Spain*, in STRAUS, L.; CLARK, G., eds. — *La Riera cave*, Arizona, 1986, p. 219-236

3.2. Magdalenian and probably Magdalenian

BA-987.79.76

Polished piece of red ochre. 27 gms.

BA-987.79.80

Denticulate on quartzite secondary decortication flake.

BA-987.79.84 (fig. 3, n° 1)

Burin on break on plain flint blade.

BA-987.79.85

Flint secondary decortication blade with continuous retouch on part of one edge.

BA-987.79.89

Denticulated flint bladelet.

BA-987.79.90 (fig. 3, n° 10)

Small nosed (beak-like) endscraper on flint secondary decortication flake. Edge angle = 60-65°.

BA-987.79.91 (fig. 3, n° 7)

Concave truncation on plain flint blade.

BA-987.79.92 (fig. 3, n° 9)

Perforator (formed by a concave retouched retouch and a straight nibbled edge) on a flint secondary decortication flake.

BA-987.79.94 (fig. 3, n° 6)

Plain flint blade with denticulation on both convergent edges (forming a -mini-Tayac point-).

BA-987.79.96 (fig. 3, n° 8)

Resharpener burin on break on flint plain blade.

BA-987.79.98 (fig. 3, n° 2)

Endscraper on retouched blade. Edge angle = 80°.

BA-987.79.102

Denticulated flint bladelet.

BA-987.79.103

Notch or denticulate on a secondary decortication flake.

BA-987.79.104 (fig. 3, n° 3)

Truncated flint backed bladelet.

BA-987.79.107 (fig. 3, n° 3)

Plain flint flake continuously retouched on one edge.

BA-987.79.111 (fig. 3, n° 13)

Sidescraper on limestone secondary decortication flake. Edge angle = 70°.

BA-987.79.113 (fig. 3, n° 16)

Nucleiform endscraper on flint bladelet core. Edge angle = 85-95°.

BA-987.79.115

Possible nucleiform endscraper on flint core remnant.

BA-987.79.116

Nucleiform endscraper on small flint pebble, mixed core. Edge angle = 85°.

BA-987.79.119

Atypical endscraper on limestone flake-blade. Edge angle = 65-70°.

BA-987.79.120 (fig. 3, nº 11)

Nucleiform endscraper on quartzite mixed core remnant. Edge angle = 90°.

BA-987.79.123 (fig. 3, nº 15)

Nucleiform endscraper on flint pyramidal bladelet core. Edge angle = 75-85°.

BA-987.79.126

Flint blade with continuous retouch on part of one edge.

BA-987.79.127 (fig. 3, nº 5)

Denticulate on flint flake-blade.

In addition there are the following items of lithic knapping debris: a bidirectional crested blade, 3 secondary decortication blades, 8 plain blades, 3 bladelets, 5 plain flakes, 7 secondary decortication flakes, 2 flake cores, a bladelet core and 3 chunks. Faunal remains of probable Magdalenian provenience include 2 bases of shed red deer antlers (maximum rosette dimensions = 77 and 62 mm. respectively), a third, huge, shed red deer antler forming part of a *conchero* block formed of concreted limpet shells, bones and stones (maximum rosette dimension = 81 mm.; average maximum dimension of 7 visible *Patellae* = 44.1 mm.), another fragment of *conchero* with 9 visible *Patellae* averaging 43.3 mm. in maximum dimension, a third small *conchero* fragment, 17 loose *Patellae* shells (average maximum dimension = 54.7 mm.), one large mammal rib fragment with possible transversal cut marks, two medium mammal long bone shaft fragments (one of which is burned and has cut marks), a red deer antler fragment, and a bovine lower molar. The limpet measurements are fully compatible with those of the Magdalenian of La Riera, but are much larger than those of the Asturian¹⁶.

3.3. *The sagaie series*

The gem of the MNAE collections from Cantabrian Spain is a series of 18 *sagaie* and other antler/bone artifacts from Balmori. Due to the relative interest and rarity of such pieces, they are described in somewhat greater detail than the lithics.

¹⁶ ORTEA, J. — *The malacology of La Riera cave*, in STRAUS, L.; CLARK, G., eds. — *La Riera cave*, Arizona, 1986, p. 289-298 (Anthropological Research Papers, 36).

- BA. 987.79.52 (fig. 4, n° 1)
Highly polished bone needle fragment broken across the eye. (39.0) x 3.5 x 2.1 mm.
- BA-987.79.53 (fig. 4, n° 10)
Cervus antler tine with about 37 short, subparallel, transversal, engraved lines across the distal 45 mm. of one face. (156) x 30 x 28 mm.
- BA-987.79.54 (fig. 4, n° 9)
Mesial fragment of a slightly curved, undecorated square section sagaie (or blank) with manufacturing (cut and polish) marks. (95) x 14 x 13 mm.
- BA-987.79.55
Bipointed, unfinished, undecorated, rectangular section sagaie blank. 80 x 15 x 9.5 mm.
- BA-987.79.56
Same as BA-987.79.55. Curved and eroded. 107 x 18 x 13 mm.
- BA-987.79.57 (fig. 4, n° 11)
Proximal and mesial fragment of round section sagaie with single bevel base. Oblique striae on bend; fine, parallel, longitudinal manufacturing striae on non-cancellous surface. (88) x 10.5 x 10 mm. Bevel length = 47 mm.
- BA-987.79.58 (fig. 4, n° 12)
Nearly complete, undecorated, oval section sagaie with single bevel at *both* ends. Fine polishing striae on shaft surfaces. 105 x 11 x 8 mm. Bevel lengths = 30 and 36.5 mm.
- BA-987.79.60 (fig. 4, n° 7)
Highly decorated proximal fragment of a square section sagaie with single bevel base. Fine, oblique, parallel lines on bevel, which has a longitudinal concavity formed by other engraved lines which continues along the non-cancellous shaft surface. Longitudinal and 7 subparallel oblique transversal lines on right face and 7 subparallel oblique lines on left face with two 'dimples.' Possibly bone. (82) x 10 x 11 mm. Bevel length = 43 mm.
- BA-987.79.61 (fig. 4, n° 6)
Antler tine tip with possible tectiform engraving. (59) x 17.5 x 15 mm.
- BA-987.79.62 (fig. 4, n° 8)
Proximal and mesial fragment of a rectangular section sagaie with single bevel base. One longitudinal line along contact with cancellous antler on one side; several parallel longitudinal lines on non-cancellous face. Bevel is concave with fine longitudinal and oblique striae. (84) x 14 x 9 mm. Bevel length = 41 mm.
- BA-987.79.63 (fig. 4, n° 2)
Complete oval section linkshaft with single bevel at one end and double bevel at other end. Shaft covered with longitudinal, parallel lines. Single bevel has parallel longitudinal lines over engraved with fine criss-crossed striae. Face of the double bevel on the same surface has both longitudinal striae and more chaotic oblique fine striae. The opposite level surface has faint, mostly oblique striae and some criss-crossed striae. 55 x 9 x 7 mm. Single bevel length = 18 mm.; double bevel lengths = 23 and 24 mm.
- BA-987.79.64 (fig. 4, n° 5)
Proximal fragment of a square section sagaie with single bevel base. Bevel is concave and the groove continues along the non-cancellous shaft face. Bevel has oblique and arcuate lines. Right side has four longitudinal striae; left side has one line (from groove and splinter process?). Very similar to No. 60, but decoration less complex. (72.5) x 11 x 11 mm. Bevel length = 31 mm. The groove may have been mounted with microlithic barbs or an edge.
- BA-987.79.65 (fig. 4, n° 13)
Probable proximal and mesial fragment of a svelte, square section sagaie with fine, parallel, longitudinal polishing striae on the bevel, right, left and non-cancellous shaft surfaces. (91.5) x 10 x 10 mm. Bevel length = 41 mm.

BA-987.76.66

Possible proximal fragment of a plano-convex section sagaie with a problematical curved, unmarked single bevel base. There is one deep longitudinal line along part of both sides (caused by the groove and splinter process?). (56) x 10 x 8 mm.

BA-987.79.67

Banal fragment of a plano-convex section sagaie with some parallel, longitudinal finishing striae. (39) x 9 x 7 mm.

BA-987.79.68

Banal, eroded distal fragment of an undecorated, rectangular section sagaie. (43) x 9 x 5 mm.

BA-987.79.69 (fig. 4, n° 3)

Proximal and mesial fragment of a square section sagaie with single bevel base bearing transverse, oblique, subparallel striae. There are deeper oblique lines across the same face of the shaft and faint polishing striae on the rest. (61) x 6 x 6.5 mm. Bevel length = 38 mm.

BA-987.79.70 (fig. 4, n° 4)

Proximal and mesial fragment of a square section sagaie with single bevel base. No marks except a few striae and one line along left side, resulting from manufacture. (64.5) x 7 x 6 mm. Bevel length = 31 mm.

This ensemble of sagaies — particularly because of the high frequency of quadrilateral section pieces and the presence of geometric engraved decorations — fits well with an assignment to the «Cantabrian Lower Magdalenian,» *sensu lato* dating between 17,000 and 14,000 B.P.¹⁷ The MNAE sagaies are strictly comparable with the Balmori pieces published by Vega del Sella¹⁸; they are absolutely «typical» of pieces known for this time period at nearby sites (e.g., La Riera¹⁹ and throughout the region²⁰).

4. Cave of Collubil

Collubil is one of the highest known Upper Paleolithic sites in the Cantabrian region, being located at an elevation of 300m. on the edge of the Picos de Europa above the gorge of the upper Rio Sella in Amieva (eastern Asturias). This site, situated on a cliff side, was excavated in 1912 and 1915 by Vega del Sella, after having earlier been excavated in the 19th century by Justo del Castillo and disturbed by peasants, presumably removing organic cave earth for fertilizer. Vega del Sella never published the results of his excavations²¹, although he left a substantial text and numerous illustrations at the time of his death, suggesting that he had been preparing a publication (perhaps interrupted by the 1934 Asturian Commune and the 1936-39 Civil War). These documents and the collections housed in Oviedo were studied by M. González Morales²² in an exhaustive «Memoria de licenciatura» on the site. There was

¹⁷ UTRILLA, P. — *El Magdaleniense Inferior y Medio en la costa Cantábrica*. Santander, Centro de Investigación y Museo de Altamira, 1981 (Monografías, 7); GONZÁLEZ MORALES, M. — *La Riera bone and antler artifact assemblages*, in STRAUS, L.; CLARK, G., eds. — *La Riera cave* Arizona, 1986, p. 385-419 (Anthropological Research Papers, 36).

¹⁸ VEGA DEL SELLA — *Op. cit.*, p. 65-70 (v. nota 2).

¹⁹ GONZÁLEZ MORALES — *Op. cit.* (v. nota 17).

²⁰ BARANDIARÁN — *Op. cit.* (v. nota 7).

²¹ OBERMAIER — *Op. cit.*, p. 177 (v. nota 4).

²² GONZÁLEZ MORALES — *Op. cit.* (v. nota 4).

some confusion about the cultural attribution of the deposits, due to the fact that the lithic industry is dominated by quartzite and contains many macrolithic pieces. This fact may be behind the obviously erroneous labelling of part of the MNAE collections as «Asturian» and the rest as «Magdalenian.» The whole should be considered Magdalenian, as demonstrated by González Morales. (The site is too far inland and too high to be Asturian.) It is worth noting that the pieces labelled as «Asturian» include all the quartzite, macrolithic artifacts in the MNAE collection, while the sagaies, faunal materials and bladelets are labelled «Magdalenian» — a clear example of the application of preconceived archeological «norms» to the chrono-cultural classification of artifact series. In fact, most of the pieces labelled as «Asturian» are quartzite.

Collubil is significant as a highly specialized ibex-hunting site, one of several in the late Upper Paleolithic/Epipaleolithic of the Cantabrian Cordillera and Pyrenees ²³. This is reflected even in the small MNAE collection, which includes two large *Capra ibex* horn cores broken off at the frontlet (maximum basal dimensions = 68 mm. for each), a left hemi-mandible of *Capra*, plus a possible cranial fragment, a right hemi-mandible of a young *Cervus*, and an antler tine of a small cervid.

Lumping the pieces incorrectly labelled «Asturian» with those labelled «Magdalenian,» the lithic collection consists of the following artifacts:

CO-987.80.11 (fig. 5, n° 9)

A distal backed bladelet fragment.

CO-987.80.16 (fig. 5, n° 13)

A nucleiform scraper on a quartzite flake core. Edge angle = 75°.

CO-987.80.17 (fig. 5, n° 11)

A sidescraper on a limestone secondary decortication flake.

CO-987.80.19 (fig. 5, n° 12)

A denticulate on a large quartzite «sausage-slice» flake-blade.

CO-987.80.20 (fig. 5, n° 10)

A denticulate on a quartzite plain blade.

CO-987.80.27 (fig. 5, n° 7)

A flint unidirectional crested blade with continuous retouch on one edge and a possible oblique truncation at one end.

CO-987.80.29 (fig. 5, n° 6)

A poor nucleiform endscraper on a thick plain flake of Griotte flint.

CO-987.80.37 (fig. 5, n° 8)

A small nucleiform endscraper on a flint bladelet core. Edge angle = 70°.

In addition, there are the following items of knapping debris: 2 bladelets, a burin spall, a plain blade, 6 plain flakes, 2 secondary decortication flakes, a platform removal flake, a mixed core, 2 flake cores and 5 chunks/core remnants.

²³ STRAUS, L. — *Upper Paleolithic ibex hunting in Southwest Europe*. *Journal of Archaeological Science*, 14, 1987, p. 163-178.

The MNAE collection from Collubil is crowned by 5 sagaie fragments which add significantly to the known repertoire of worked antler objects from this important but little-known site.

CO-987.80.1 (fig. 5, nº 4)

Proximal fragment of a round section sagaie with double bevel base. Oblique «anti-skid» lines across both bevels and fine longitudinal polishing striae on all non-cancellous shaft surfaces. 92 x 11 x 11 mm. Bevel lengths = 25 mm. each.

CO-987.80.2 (fig. 5, nº 5)

Same as CO-987.80.1, but only one bevel has faint, eroded, oblique lines. 120 x 10 x 9 mm. Bevel lengths = 17 and 20 mm. respectively.

CO-987.80.3 (fig. 5, nº 3)

Mesial fragment of a round section sagaie with longitudinal polishing striae on non-cancellous surfaces and short transverse lines on both right and left sides. 86 x 12 x 11 mm.

CO-987.80.4 (fig. 5, nº 1)

Proximal fragment of a gracile sagaie with double bevel base. Fine longitudinal polishing striae on all surfaces. 76 x 8 x 7 mm. Bevel lengths = 25 and 27 mm. respectively.

CO-987.80.39 (fig. 5, nº 2)

Mesial fragment of an oval section of a sagaie with no marks except a few longitudinal polishing striae. 67 x 10 x 8 mm.

These pieces — undecorated, round/oval section and double bevel based — fit well with what is known from Collubil, and suggest an Upper Magdalenian attribution of the cultural deposits in this cave²⁴. Regrettably we lack dates and faunal analyses from this specialized site which has many apparent similarities with the recently reexcavated ibex-hunting site of Rascaño in Santander²⁵.

5. Cave of Altamira

Altamira, located in Santillana-del-Mar (Santander) needs no introduction. The vestibule of the cave was excavated in 1876-79 by its discoverer, M. Sanz de Santuola, in 1904 by H. Alcalde del Rio and in 1924-25 by H. Obermaier. The deposits pertain to the Solutrean and «Lower Cantabrian Magdalenian», the latter having produced radiocarbon dates of 13,900±700, 15,500±700 and 15,910±230 B.P.²⁶

The materials from Altamira in the MNAE reserves, unlike those from La Franca, Balmori and Collubil, contain no «belles pièces» and could well be «discards» picked up after screening and sorting operations. (There is a famous photograph of Obermaier, Count R. Bégouën, the Abbé H. Breuil and Vega del Sella picking through a screen in front of Altamira.) Other pieces from Altamira have ended up in foreign museums (e.g., 17 in the Field Museum of Chicago),

²⁴ GONZÁLEZ MORALES — *Op. cit.* (v. nota 4).

²⁵ GONZÁLEZ ECHEGARAY, J.; BARANDIARÁN, I. — *El Paleolítico Superior de la cueva del Rascaño*. Santander, Centro de Investigación y Museo de Altamira, 1981. (Monografías, 3).

²⁶ BREUIL, H.; OBERMAIER, H. — *The cave of Altamira at Santillana del Mar*. Madrid, Tipografía de Archivos, 1935; STRAUS, L. — *The Upper Paleolithic cave site of Altamira*. «Quaternaria», 19, 1977, p. 135-148; *Id.* — *Op. cit.* (v. nota 15).

so the presence of these rather banal items in Lisbon is not surprising. The collection consists of the following lithics:

AL-987.78.6 (fig. 6)

A pointed, flint blade with dorsal retouch on both edges of the tip and base. 51 x 12 x 4 mm.

AL-987.78.10

An angular, flint, secondary decortication flake-blade with micro denticulations on one edge. 15 x 10 x 4.5 mm.

AL-987.78.11

A curved, flint bladelet with fine (use?) retouch on curved edge. 24 x 9 x 2.5 mm.

In addition, there are 2 quartzite flakes, 2 flakes and 1 shatter of crystal quartz, 8 small blades, 2 burin spalls, 4 bladelets and 39 flakes of diverse kinds of flint — all typical of Santander. Associated faunal remains include a whelk shell to which are concretioned a limpet (36 mm. across) and charcoal, a bovine right hemi-mandible fragment with teeth, a bovine left upper molar, a red deer right maxilla fragment with teeth, a red deer astragalus and three incisors (2 of red deer and 1 possibly of a bovine). There is no way of determining to which (or both?) of the two Upper Paleolithic cultural units at Altamira these materials pertain. All these materials could easily belong to either the Solutrean or Magdalenian.

6. Conclusions

While relatively small, the MNAE collections from Cantabrian Spain are of high quality and contain pieces very characteristic of the Magdalenian and Asturian periods. Their description adds to the inventory of artifacts from historic excavations at classic sites. Hopefully this note has served to bring these pieces to light and to underline the importance of the collections curated in Belém.



Fig. 1 — Map of Western Santander (Cantabria) and Eastern Asturias, (Spain), with locations of Altamira, La Franca (Mazaculos), Balmori, Collubil and other Upper Paleolithic and Mesolithic sites (adapted from *Op. cit.*, v. note 15).

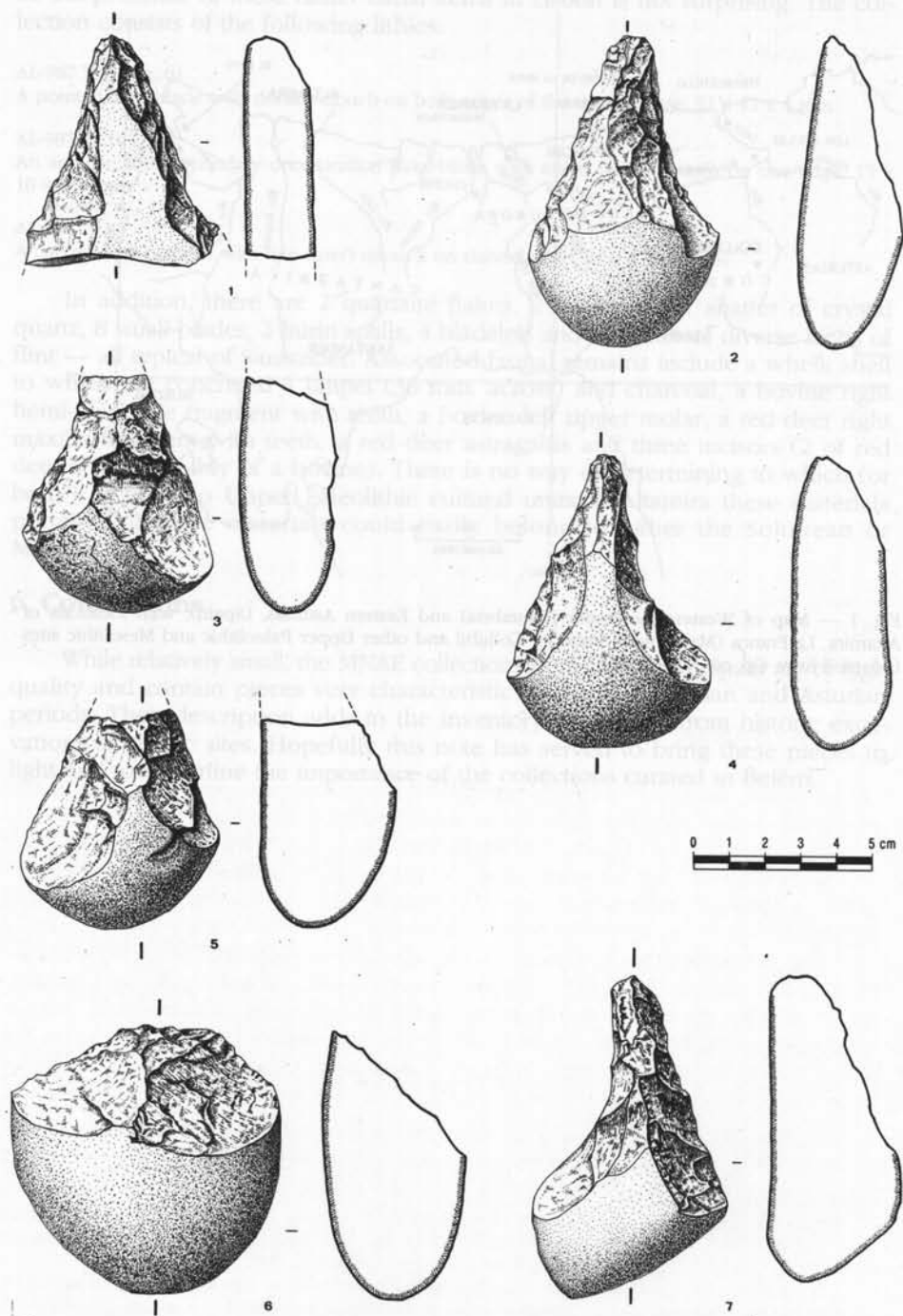


Fig. 2 — La Franca (Asturias). 1-5, 7 — Asturian picks; 6 — chopper.

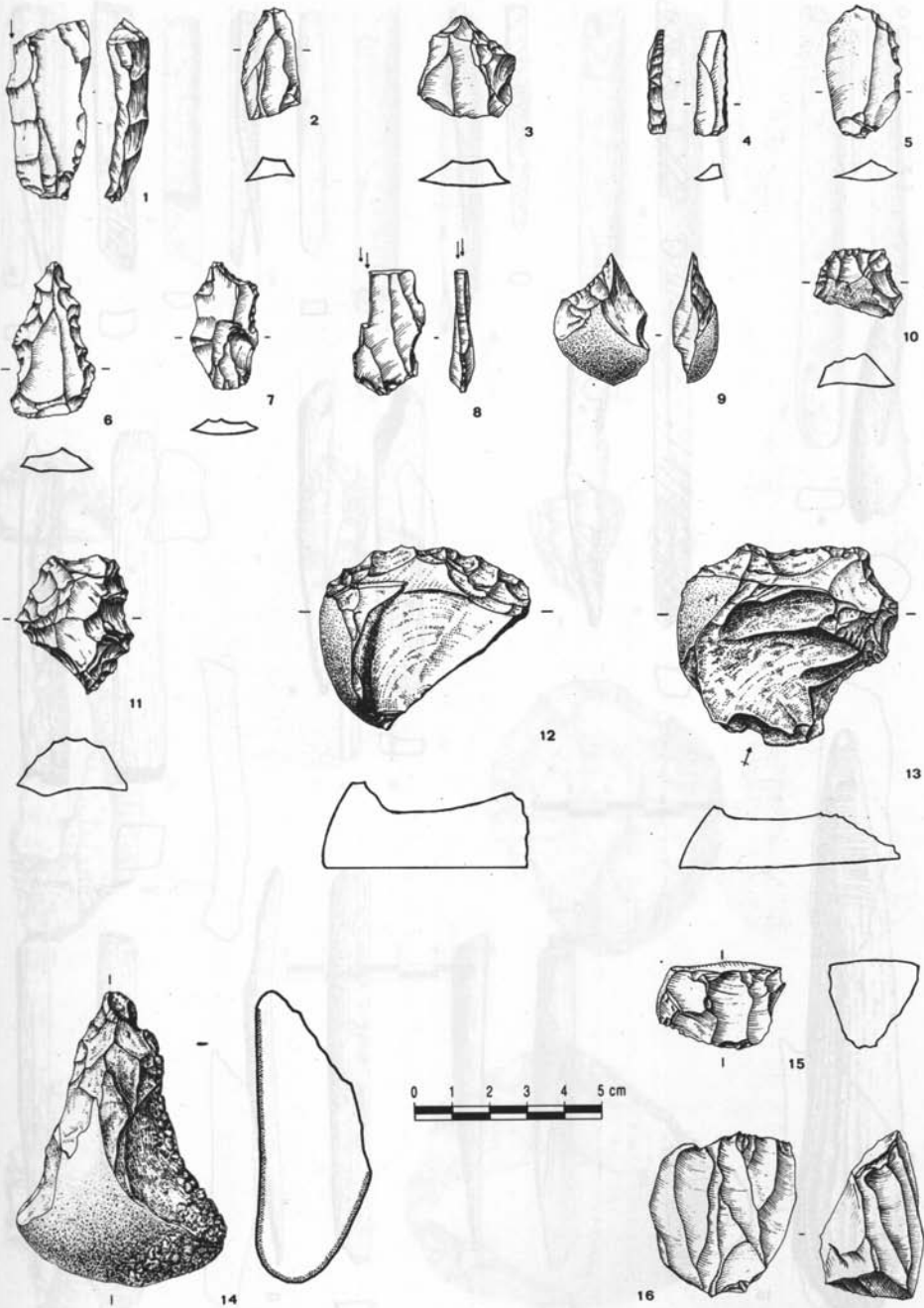


Fig. 3 — Balmori (Asturias). 1, 8 — burins; 2, 10, 11, 15; 16 — endscrapers; 3 — retouched flake; 4 — truncated backed bladelet; 5, 6 — denticulates; 7 — truncated blade; 9 — perforator; 12 — core; 13 — sidescraper;

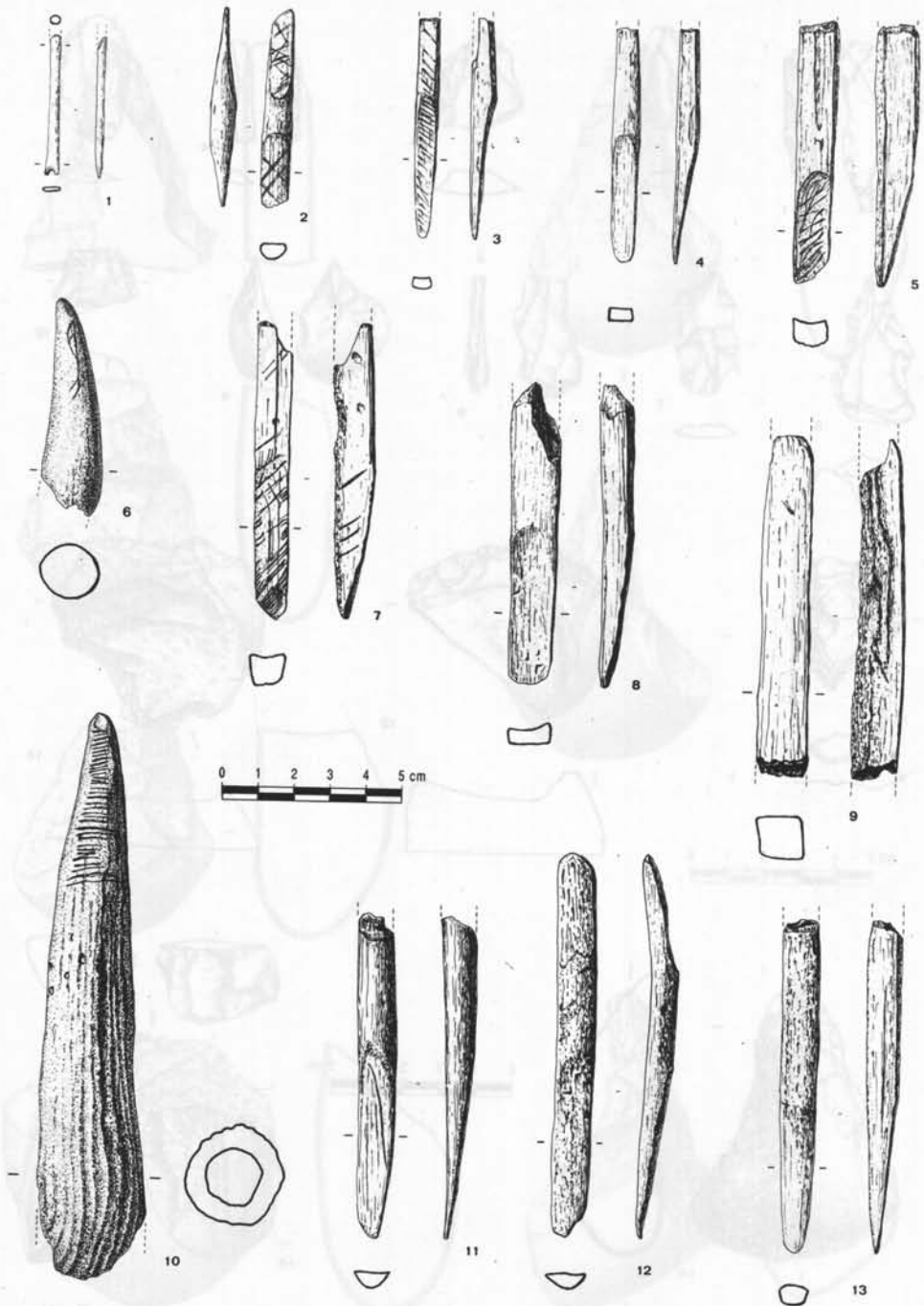


Fig. 4 — Balmori. 1 — needle; 2 — linkshaft; 3-5, 7-9, 11-13 — sagaies; 6, 10 — antler tines with engravings.

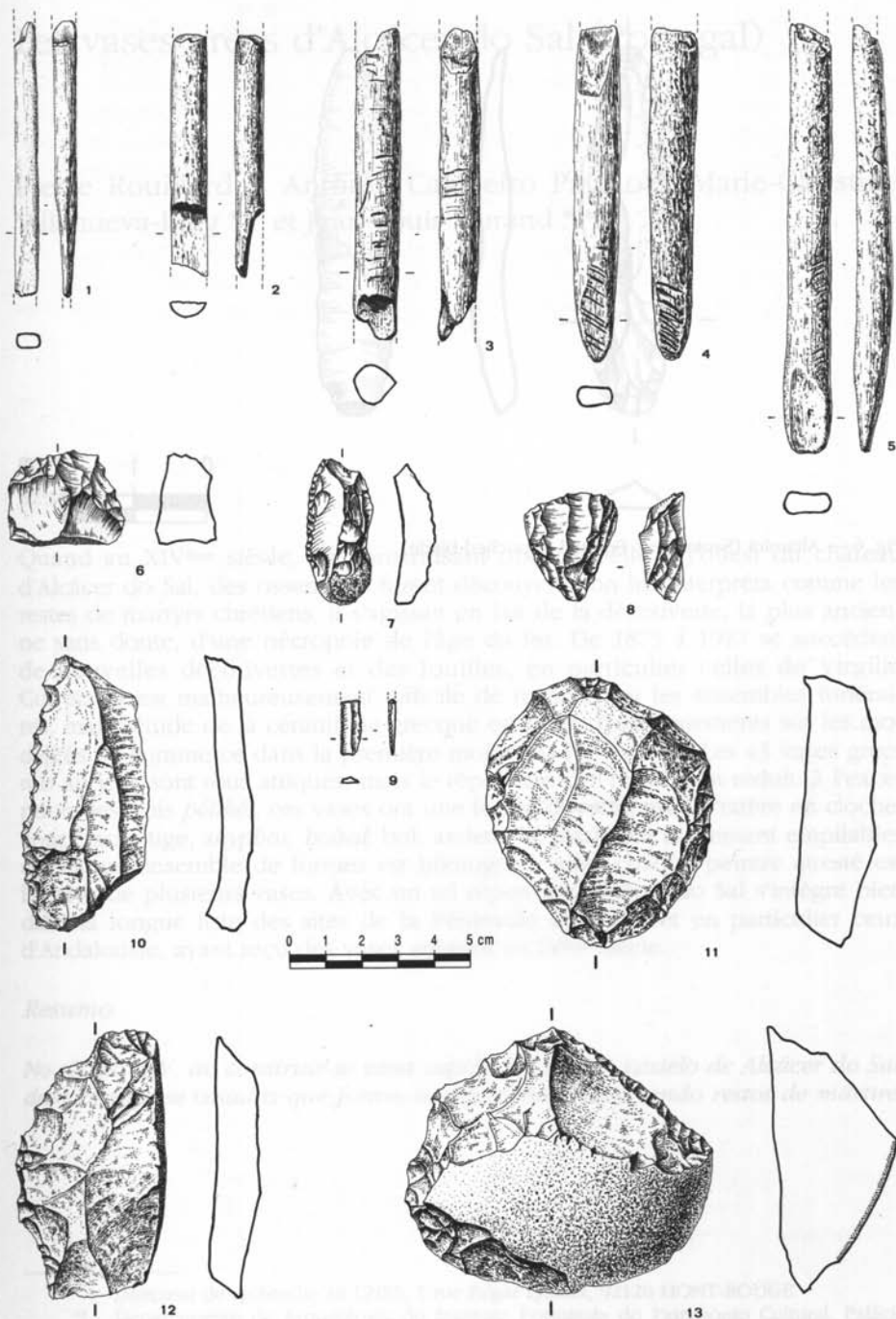


Fig. 5 — Collubil (Asturias). 1-5 — sagaies; 6 — endscraper; 7 — retouched truncated blade; 8, 13 — scrapers on cores; 9 — backed bladelet;

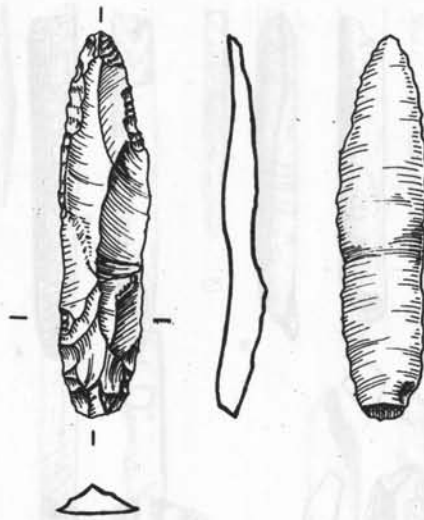


Fig. 6 — Altamira (Santander). Pointed retouched blade.