
Which Aurignacians were at Abri Blanchard (Sergeac, Dordogne, France)? Data from bone and antler artifacts in American collections and from new field operations

Quel(s) Aurignacien(s) à l'abri Blanchard (Sergeac, Dordogne, France) ? Données des collections d'industrie osseuse conservées aux États-Unis et retour sur le terrain

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members of the team led by R. White leading research since 2005 in the valley of Castelmerle and without which this article would not have been possible.

1 - Introduction

- 1 Abri Blanchard is one of the numerous sites of the Castelmerle valley in the municipality of Sergeac (Dordogne). Excavated between 1910 and 1912 by M. Castanet under the direction of L. Didon who recognized two Aurignacian levels, it is one of two or three sites that yielded the richest assemblages in osseous material for that period. Mr. Castanet collected a rich industry in flint and osseous materials including tools and weapons, but also a significant amount of manufacturing waste, attesting to intense on-site tool production. The deposits also yielded a large number of ornaments, made in different materials (Atlantic and Mediterranean shells, soapstone, etc.), whose origin reflects contacts or travels over very long distances (up to 600 km). In addition, the site has added numerous art objects, especially blocks and engraved plaquettes, to the Aurignacian corpus. The uniqueness of the site also lies in its location in the heart of the Castelmerle valley, and in the immediate vicinity of the rock shelters of La Souquette and Abri Castanet, also occupied in the Aurignacian, which yielded similar industries and artistic evidence. But for over 50 years serious doubts have been hanging over the chronocultural attribution by L. Didon, several authors having hypothesized that the upper level reflects a more recent Aurignacian occupation. Unfortunately, the excavations were carried out according to concerns and practices that produced incomplete archaeological material lacking in stratigraphic and spatial precision. Moreover, L. Didon grouped the material from both levels (without indication of origin) and sold it divided into variable size batches to about fifteen French and foreign buyers. Of those batches, those sent to the United States are particularly overlooked. The industry made of osseous material being particularly well-represented, we have undertaken a typo-technological analysis to try to infer a chronocultural attribution for the collections. This article proposes a detailed description of the remains made of osseous material, which are for the most part unpublished. It also presents the data collected during recent fieldwork that enabled the discovery of fragments of preserved layers.

2 - The Blanchard rock shelter and L. Didon's excavations

- 2 Opening on the left bank of the Vézère, the Castelmerle valley is bordered by two cliff lines whose base forms an almost uninterrupted succession of archaeological sites (fig. 1). Abri Blanchard, on the eastern slope of the valley, is now a collapsed rock-shelter. Located at the foot of cliffs, it has a long rocky terrace, the same that, a few meters above, allowed the discovery of Abri Castanet⁶. La Souquette shelter⁷, also settled in the Aurignacian, is located on the opposite side, to the north.
- 3 In 1909, the discovery of a bead on the surface encouraged M. Castanet to undertake a test-pit. He then convinced L. Didon to rent the land and excavate (Didon 1911). Between 1910 and 1912, M. Castanet excavated the site on behalf of L. Didon. The latter visited the site regularly to monitor the progress of the excavations, give directions and

recover the unearthed material. The two men maintained an almost daily⁸ correspondence. Two archaeological levels (B and D), separated by a sterile layer (C), were individualized and both attributed to the Aurignacian with split-based points (fig. 2). That is why L. Didon, unfortunately, did not isolate the material from the two levels: he grouped items (without indication of origin) and described them without distinguishing between the two assemblages (Didon 1911). However, the section he gave of the shelter is close to that published by D. Peyrony for Abri Castanet, located on the same rocky terrace, only a few meters further to the south (fig. 1), while D. Peyrony recognized an Aurignacian I level and an Aurignacian II level (Peyrony 1935). The remains collected in Abri Blanchard also present strong similarities with the material collected in the nearby shelter. This is certainly the opinion of D. de Sonneville-Bordes who noted that the comparison of cumulative graphs of both shelters "confirms the similarities of these virtually identical toolkits" (Sonneville-Bordes 1960 - p. 105). C. Leroy-Prost, who studied the osseous industry of the National Museum of Archaeology, the Musée de l'Homme and the Human Paleontology Institute notes that, like Abri Castanet, Abri Blanchard "reflects two consecutive stages of early and middle Aurignacian occupation" (Leroy-Prost 1979 - p. 351). According to B. and G. Delluc, "it is likely that if the two sites had been studied by the same author [...] they would have been published as one assemblage" (Delluc and Delluc 1978 - p. 221).

Figure 1 - Location of the site. In the top right: The vallon de Castelmerle and its sites. 1. abri des Merveilles, 2. abri Blanchard II, 3. abri Sous-le-Roc, 4. abri Blanchard, 5. abri Castanet, 6. abri Reverdit, 7. abri du Roc d'Acier, 8. abri Labattut, 9. La Souquette. At the bottom: view of the east slope of the vallon.



3 – The Blanchard collections: a dispersed archaeological material

- 4 As early as 1910, L. Didon sold the product of his excavations in batches of variable size to French and foreign buyers (White 2006a). As explained by B. and G. Delluc, it was common and even encouraged practice at the time: "From 1910 and every time he was asked, L. DIDON sold small collections of varying importance depending on the financial means of the buyers, thereby following the customs of his time. He was also encouraged in this direction by official prehistorians who believed, given the limited financial resources of museums in France, that this was the only way for voluntary researchers to provide for the material needs of their excavation campaigns, as well as giving the French museums the opportunity to acquire the most representative objects {...} Louis Didon however seems to have actively sought a single buyer for the Abri Blanchard collection {...} but he finally agreed with the arguments H. BREUIL wrote to him on January 23, 1911: "I think you are mistaken in thinking you could find a buyer for the entire collection {...} To me, there is no use, not to divide this collection and I am sure that there would be significant material benefit in dividing it. Naturally, you are free to think otherwise... As for the museum susceptible to acquire the whole collection, it does not exist" (Delluc and Delluc 1981 - p. 2).
- 5 If one relies on the valuable inventory by B. and G. Delluc (1981) supplemented by the information gathered by R. White (2006a), the products from the excavations of Abri Blanchard would be dispersed in at least five different places in France and abroad (tab. 1). Consequently, the material has never been inventoried and comprehensively studied. Among the collections, those sent to the United States are the least studied. The four collections are those kept at the American Museum of Natural History of New York (New York), the Wilson Museum in Castine (Maine), the Field Museum of National History in Chicago (Illinois) and the Logan Museum of Anthropology in Beloit (Wisconsin). Thanks to the Didon⁹ archives, it is possible to know the circumstances in which these collections were acquired.
- 6 Of the four American museums, the American Museum of Natural History of New York (AMNH) was the first to acquire a batch of objects from Abri Blanchard. In July 1912, E. Cartailhac told L. Didon about the forthcoming visit of G.G. Mac Curdy accompanied by H. Fairfield Osborn, then director of the museum (White 2006c): "It is especially with him that we must find an agreement both in his interest as in ours." A letter from H. Fairfield Osborn, addressed to L. Didon that year, shows that the director of the AMNH did buy a batch of artifacts from Blanchard. G.G. Mac Curdy announced the purchase of the collection two years later in the bulletin of the Museum (Mac McCurdy 1914). The collection currently includes 201 stone artifacts, 59 bone and antler artifacts, 18 ornaments, 51 faunal remains and one decorated block.
- 7 In 1916, L. Didon agreed to send a batch of remains to J. Howard Wilson, a wealthy collector who set out to create his own Anthropology museum in Castine (Maine), the Wilson Museum (WM). The collection was shipped by sea from Bordeaux in August of the same year, with 126 stone artifacts, 27 bone and antler artifacts, 18 ornaments, a few pieces of ochre and breccia.
- 8 The purchase of the Blanchard collection by the Logan Museum of Anthropology (LMA) followed the creation of a Department of Anthropology in the Beloit College (White

2002). G. Collie, head of the department, sent one of his students, A. Pond, in Europe to proceed with the purchase of various collections with the financial support of a wealthy businessman from Chicago, F.G. Logan. In September 1924, A. Pond agreed with L. Didon to purchase the famous necklace from Abri Blanchard, consisting of nearly 150 ornaments. Later, A. Pond also purchased lithic and osseous pieces. At present, the number of objects is respectively 44 and 22.

- 9 Finally, for an exhibition on European prehistory at the Field Museum of Natural History in Chicago (FMNH), H. Field undertook a trip to France and Spain to proceed with the purchase of collections assisted by H. Breuil who served as a guide and intermediary. It was on this occasion, during the summer of 1927, that H. Field bought from L. Didon a collection of artifacts from Abri Blanchard including 300 stone artifacts, 22 made of bone and antler, 11 ornaments and one decorated block.

Figure 2 - The abri Blanchard stratigraphy as presented in Didon 1911 (after figure p. 250, Didon 1911)

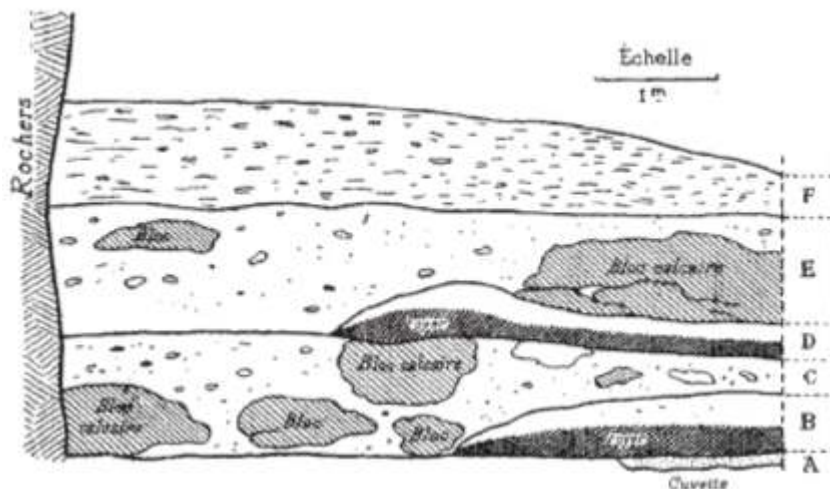


Table 1 - Location and contents of Blanchard collections in France and abroad (IL: lithic industry, IMO: osseous industry, P: ornament, BO: ornamented blocks, F: fauna).

Pays	Villes	Institutions	Contenu des collections				
			IL	IMO	P	BO	F
France	Sergeac Périgueux Paris St-Germain-en-Laye Chambéry	1 Musée de Castelmerle	x	x	x	x	?
		2 Musée du Périgord	x	x	x	x	?
		3 Musée de l'Homme	x	x	x		?
		4 Institut de Paléontologie Humaine	x	x	x	x	?
		5 Musée d'Archéologie Nationale	x	x	x	x	?
		6 Collection particulière	?	?	?	?	?
Suisse	Bâle	7 Museum Basel	x	x	x		
Pologne	Wrocław	8 Schlesisches Museum für Kunstgewerbe und altertümer	x	x	x		
Grande-Bretagne	Jersey Londres Cardiff	9 Musée de Jersey	x	x	x		
		10 British Museum	?	?	?	?	?
		11 National Museum of Wales					
États-Unis	New York, NY Castine, ME Beloit, WI Chicago, IL	12 American Museum of Natural History	x	x	x	x	x
		13 Wilson Museum	x	x	x		
		14 Logan Museum of Anthropology	x	x	x	x	
		15 Field Museum of Natural History	x	x	x		x

4 - The osseous material industry curated in the United States

Description of productions

- 10 The industry in osseous material from Abri Blanchard kept in American museums totals 130 items, 10 of which are illustrated in the publication of L. Didon (tab. 2, fig. 3, Didon 1911). Their total number corresponds to more than one third of the inventory published by the author. Note, however, that the excavations of the shelter continued after 1911 and that the amount of unearthed material is therefore much higher than the published figures. With the exception of the collection of the Logan Museum of Anthropology, studied by R. White (White 1992), no collection had yet been published. For convenience, the artifacts are presented by raw material (antler, bone) and typotechnological category, regardless of their place of conservation (for that information, refer to the inventory table, tabl. 3 – in the annex) .

The antler industry

The split-based points and related products

- 11 Of the 42 point fragments stored in the United States, 23 have a proximal portion sufficiently well preserved to describe them without doubt as split-based points (fig. 4.1 and 4.2). They have varying morphologies: a lozenge-shaped to globular contour, subquadrangular to elliptical sections and a straight profile (except 2 items with a slightly concave-convex profile). Only 4 are whole or nearly whole. The smallest, kept in FMNH, measures 49 mm long (No. 18¹⁰, fig. 4.2). The perforation of the distal part is recent as evidenced by the photograph of the object in L. Didon's publication where no perforation is visible (No. 18, fig. 3, plate II, n° 3 and fig. 4.2). The largest object, exhibited in the window displays of the AMNH, reaches 110 mm long (No. 10, fig. 3, Plate II, No. 1). As far as we can judge (external surface of the antler, cells of the spongy tissue), all the points were made from reindeer antler, of medium to large size.
- 12 Seven rough-outs complete the inventory. They are distinguished by the unfinished aspect of their fashioning. They have a quadrangular cross-section with sharp edges at the junction between the edges and the faces while the edges have been rounded on the points in a final shaping stage. However, what makes them especially recognizable is the fact that they still bear the scars of the IFC process used for the making of the basal split. As this process was the subject of a recent publication (Tartar and White 2013) we will not describe it in detail here. We simply note that it rests on the joint and complementary use of Incision and Flexion techniques, envisaged by D. Peyrony (Peyrony 1928, 1935), and of the technique of Cleavage, put forward by L. Henri-Martin and taken over later by H. Knecht (Henri-Martin 1931; Knecht 1991, 1993, 1997). A rough-out, stored at the AMNH, has wings with incised extremities, bent outwards and between which matter is lacking (N° 100, fig. 3.1, N°. 100, fig. 3, plate II, No. 5 and fig. 4.5). It is typical of stage 3 of the process (after incision and flexion but before extension of the split by cleavage). The other rough-outs belong to the same stage but result of failed attempts at splitting (No. 101-106). The lack of flexibility of the rods caused the fracturing of the bases during flexion.

- 13 To these objects, we can add eight tongued items (No. 115-122). As understood by D. Peyrony, the tongued items are the waste products from the making of the splits at the end of the incising and bending operations (Peyrony 1928, 1935) and not key cores as H. Knecht propose (Knecht 1991, 1993, 1997). Some are typical, with central tongue. Others are more atypical (N ° 118, fig. 4.2) or result from failed splitting attempts (N ° 122, fig. 4.2., Tartar and White 2013).

Table 2 - Typo-technological inventory of Blanchard osseous industry housed in US museums.

INDUSTRIE EN MATIERES OSSEUSES	Didon 1911	AMNH	WM	LMA	FM	TOTAL
Objets finis	>333	45	21	20	13	98
Pointes à base fendue	174	15	3	2	3	23
Pointes à base massive	15	1	1	-	-	2
Pointe d'Isturitz (fragment)	-	-	-	1	-	1
Pointes (fragments)	11	6	5	2	3	16
Poinçons	60	9	3	7	1	20
Poignards	5	-	-	-	-	-
Alènes	1	-	-	-	-	-
Aiguilles	10	-	-	-	-	-
Hameçons	5	-	-	-	-	-
Bandeaux	10	-	-	-	-	-
Bâtonnets	-	-	-	3	-	3
Tubes	-	-	-	2	-	2
Lissoirs (et spatules)	19	6	9	1	1	17
Objets à extrémité mousse	-	2	-	-	2	4
Outils intermédiaires (coins, ciseaux)	13	1	-	1	-	2
Bâtons percés	7	1	-	-	1	2
Objets sur meule	2	-	-	-	-	-
Plaque en os décorée	1	-	-	-	-	-
Côte décorée	-	1	-	-	-	1
Retouchoirs	présents	2	-	-	-	2
Objets indéterminés	-	1	-	1	1	3
Produits/Restes de fabrication	>30	14	6	2	10	32
Objet en cours de mise en forme	-	1	-	-	-	1
Ebauches de pointe à base fendue	-	4	1	-	2	7
Ebauche de pointe à base massive	-	1	-	-	-	1
Pièces avec traces de sciage	-	-	1	-	3	4
Pièces avec traces de rainurage	-	-	1	1	1	3
Déchets de fente (pièces à languette)	>30	3	1	1	3	8
Déchets de sectionnement	-	-	2	-	1	3
Déchets de mise en forme	-	4	-	-	-	4
Base de bois avec traces d'entaillage	-	1	-	-	-	1
TOTAL	>363	59	27	22	22	130

Massive-based points and related products

- 14 The collections have yielded two massive-based points and a possible rough-out, all made of reindeer antler but belonging to different morphological types (Peyrony 1933). The first point, whose distal extremity is lacking, is lozenge-shaped with oval cross-section and a slightly concave-convex profile (N° 25, fig. 4.6). It was made from a large sized antler and was carefully shaped. The second point is a mesio-proximal fragment with flattened lozenge-shaped tip. It has a subquadrangular section and is significantly larger than the previous one (N°24, fig. 4.8). L. Didon gives the following description: "... it is one that must have been particularly large in dimensions: the remaining part measures 192 millimeters, and from its shape it can be concluded that its length was 270 mm at least. The lozenge-shaped and flat base measures 30 millimeters" (Didon 1911 - p. 258). If this objects fits typologically in the category of massive-based points, the morphology of its base (twisted and irregular in section) and its imposing dimensions make highly unlikely an effective use as a spear point. To these points, we can add a probable biconical point rough-out (No. 107): it has the shape and its fashioning, very rough, evokes a first shaping stage.

Figure 3 - Plates II and V from Didon 1911 (modified after Didon 1911).

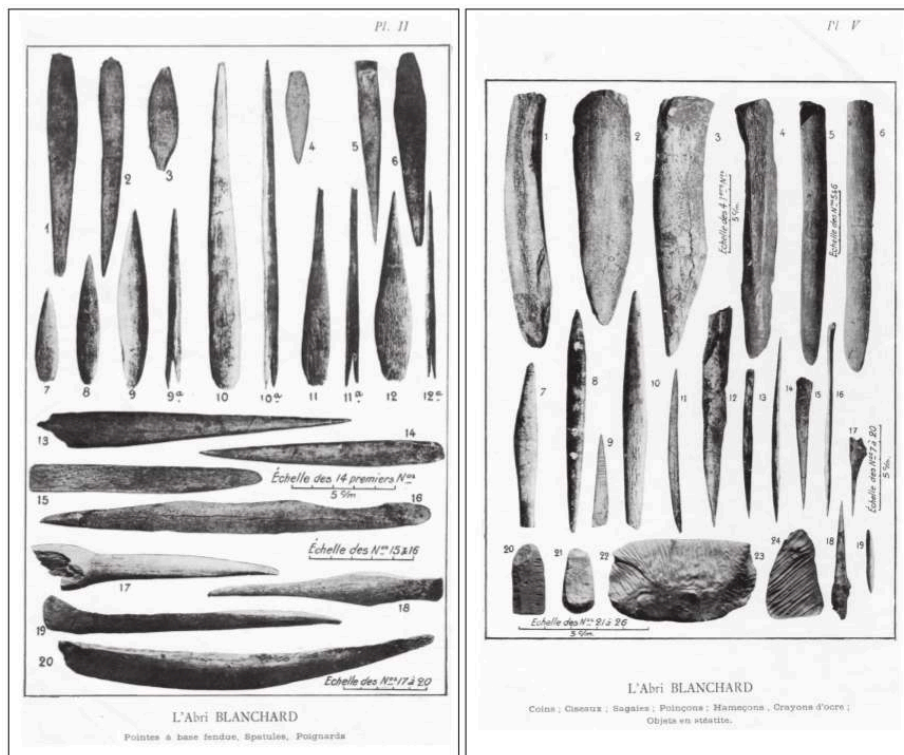


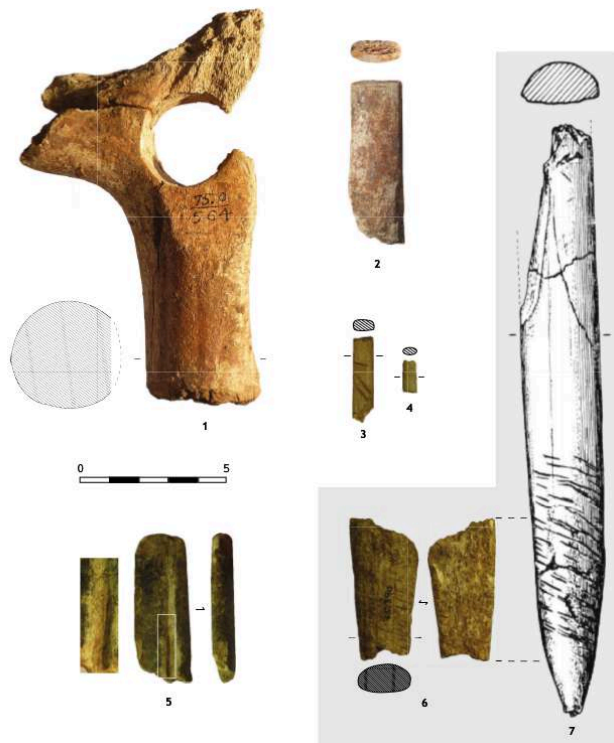
Figure 4 -1-2: Split-based points (N° 19 et 18) ; 3-4: Tongued pieces (N° 118 et 122) ; 5: Split-based point rough-out (N° 100) ; 6-8: Massive-based points (N° 25, 39 et 24). Coll. AMNH (5, 8) ; coll. WM (4, 6, 7) ; coll. LM (1) ; coll. FM (2-3).



An Isturitz point

- 15 It is a fragment of reindeer antler with converging edges, oval in section, covered on its upper side and on the edges with series of slightly oblique and parallel incisions (No. 26, fig. 5.6). The nature, shape and dimensions of the support and the incisions that cover it strongly evoke the proximal part of an Isturitz point. The fragment identified in the Blanchard collection of the LMA also offers clear similarities with an Isturitz point from the level 4 in Abri Pataud (fig. 5.6; Movius 1973).

Figure 5 - 1: Pierced baton (N° 90) ; 2: Waste product (N° 124) ; 3-4: Decorated sticks (N° 63, 64) ; 5: Grooved wedge fragment (N° 113) ; 6: Isturitz point fragment (N° 26) ; 7: Isturitz point from abri Pataud, level 4 (modified after fig. 2.2, Movius 1973). Coll. AMNH (1) ; coll. WM (2) ; coll. LM (3-6).



Point fragments

- 16 Fifteen points did not keep their proximal part, which prevents any certain typological classification. In some cases, the morphometric features of the fragments nevertheless allow connecting them with a particular type. This is the case of four fragments whose narrow widths and thicknesses and flattened section evoke the split-based points (No. 27, 35, 40, 42) and of five more robust fragments that strongly recall the massive-based points (N° 30, 31, 34, 38, 39, fig. 5.7). The shape of the fragments tends to connect them with the flattened lozenge-shaped type for four of them and to the lozenge-shaped type with oval section for the latter.

The pierced batons

- 17 There are two, one kept at the AMNH and the other at the FMNH. For the first, one L. Didon gives the following description: "The No. 2, taken in a much larger reindeer

antler, has a very short shaft, sawn voluntarily. Its hole, incomplete, yet reveals an oval perforation, with the almost total disappearance of the thread. There is no flaring" (Didon 1911 - p. 255). The pierced baton (N° 90, fig. 5.1) was actually made out of a large-size reindeer antler, the shaft of the object corresponding to the beam A and the branch to the start of the brow tine or bay antler. The second, of which only the mesial part remains, also comes from a large-size reindeer antler but more likely from another part of the antler, at the junction of beam C with the palm (No. 91).

Blunt-ended objects

- 18 As their name suggests, these pieces have in common a blunt end, but their morphology, particularly that of the distal end, is variable. The first, shown in the publication of 1911 (N° 84, fig. 3, plate V, N°2) is a large fragment of antler beam, triangular in contour. The pointed end has a beveled profile covered, on the lower side, by a very intrusive blunting. The remaining two items (No. 86 and 87) are raw reindeer antler rods, obtained by splitting. They show a shiny and blunt distal end.

The rods

- 19 These small fragments of reindeer antler rods have parallel edges and an oval or quadrangular section, fashioned by scraping. The fracture sections present on both ends show a fracture on dry bone (recent fracture). This type of object is frequently found in the assemblages of the early Upper Paleolithic but their status remains ambiguous (waste, blanks, fragments of objects?). Two objects from Abri Blanchard are decorated: one punctuated (No. 64, fig. 5.4.) and the other made of perpendicular and oblique incisions (No. 63, fig. 5.3.). They could be fragments of ornaments.

Indeterminate objects

- 20 The first one is the end of an artifact fashioned in reindeer antler (No. 96). Fashioned on a rod, it has a very flat, elliptical section. The preserved end shows a rib-shaped contour and a straight profile. Its general shape is reminiscent of a smoother but the poor surface state prevents any typo-functional attribution. The second is a mesial portion of an object shaped on a rod, oval in section (No. 97). The edges are slightly convergent. It could be a point fragment.

Products/waste from manufacturing

- 21 The collections have yielded eight products or manufacturing waste: three sectioning waste, two shaping waste, two objects with traces of grooving traces and a notched antler base.
- 22 The three sectioning wastes are extremities of partly fashioned reindeer antler rods (No. 123-125). They probably result from the size adjustments to an object during its shaping. In two of these cases, the sectioning is done by sawing (N° 124, fig. 5.2) and the third by flexion.
- 23 The two examples of shaping waste are the result of fashioning fine objects on rods (No. 127 and 128). They both exhibit the characteristic scraping stops at the end detached

from the support. The shape and dimensions of these objects evoke waste produced during the sharpening of points.

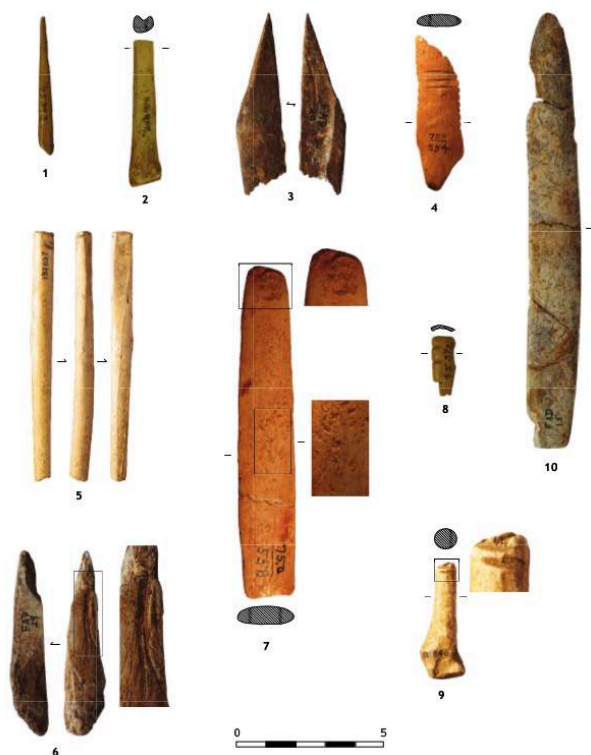
- 24 The first object with traces of grooving is an extremity of reindeer antler rod with triangular outline of which one edge (the other is fashioned) retained the traces of a grooving (No. 112). The second is a fragment of a rod fashioned in reindeer antler, probably the proximal end of an intermediate tool such as a wedge or chisel (No. 113, fig. 5.5). In its center, it bears the start of a groove interrupted by a recent fracture.
- 25 Finally, the faunal remains stored at the AMNH yielded a deer antler base (No. 130). This is a fallen antler from an adult male, bearing evidence of a sectioning by notching.

The bone industry

Awls

- 26 The collections include 20 awls of different types: on splinter (n = 3, No. 62, fig 6.3.), on metapodial portion with proximal epiphyseal part (n = 5, No. 58, fig 6.2.), on naturally sharp bone (n = 2), on long bones and fully fashioned (n=3, N° 55, fig. 6.1). The other objects are represented by distal and mesio-distal fragments (n = 7). With the exception of an object on large sized metapodial fragment (horse or bovines, No. 52) and another on bird bone or rodent (No. 53), the awls were made from medium sized bones (reindeer size). Note that an awl on splinter shows a shallow and curved groove, localized distally on the lower side.

Figure 6 - 1-3: Awls (N° 55, 58 et 52) ; 4-10: Lissoirs (N° 71, 76) ; 5: Blank or waste product of tube (N° 111) ; 6: Grooved bone fragment (N° 114) ; 7: Wedge used also as retoucher (N° 88) ; 8: Fragment of decorated tube (N° 66) ; 9: Bone waste product (N° 110). Coll. AMNH (4, 7) ; coll. WM (3, 6) ; coll. LM (1, 2, 8, 10) ; coll. FM (5, 9).



The smoothers

- 27 There are 16 smoothers on hemi-ribs: one whole (N° 76, fig 6.10.), two mesio-distal fragments, 10 mesial fragments and three mesio-proximal fragments. The three objects with their distal part are of the "common axis smoother" type (Averbouh and Buisson 1996). Nine of them bear a decoration in the form of lateral notches, often associated with groups of transverse incisions on the upper side (N° 71, fig. 6.4). Note also that three objects show areas with imprints on the upper side that evoke a use as retoucher (No. 69, 70 and 76 (fig. 6.10); Patou-Mathis 2002; Tartar 2012). The majority of them have been done on large sized ribs (horse/Bovinae size).

Intermediary tools

- 28 The collections of the AMNH and the LMA have each yielded an intermediary tool of the chisel-type (No. 88 and 89). In both cases, it is a mesiodistal fragment of tool done on hemi-rib. The distal end has a crushed thread and the object from the AMNH has a negative of removal and bundles of horizontal and vertical grooves (N° 88, fig. 6.7). Like some smoothers, the two objects have area of imprints evoking a one-time use as retoucher.

A blunt-ended object

- 29 This is a fragment of scapula from a large size ungulate, unshaped and whose extremity, flat in section and with a rounded contour, exhibits significant wear similar to that found on the active part of a smoother (No. 85).

Tubes

- 30 The collection of the LMA yielded two small fragments of tubular elements, decorated with several incisions perpendicular to the long axis of the object and parallel to each other (N° 66, fig. 6.8, and 67). The size of the fragments evokes the use of bird long bones.

Decorated ribs

- 31 These two ribs portions are decorated with a series of lateral notches (No. 92 and 93).

Retouchers

- 32 Two retouchers were identified in the faunal remains kept in the AMNH (No. 94 and 95). The first, a large size long bone diaphyseal fragment has a unique area of vertical imprints. It has been used for long periods as evidenced by the loss of material in this area. The second one is a reindeer femur portion and carries an area of vertical imprints at each end.

An indeterminate object

- 33 This is a fragment of object on rod, fully fashioned and fractured at both ends (N° 98).

Products/ waste from manufacturing

- 34 The products and waste from manufacturing in bone include: one object in the process of being shaped, two shaping waste, four objects with traces of sawing and one with grooving traces.
- 35 The object in the process of being fashioned is a rough-out on hemi-rib (No. 99), probably a smoother if not an intermediary tool, the main tools made on this type of blank. The shaping out has barely been started since only the edges are regularized.
- 36 Four objects have at one end the characteristic traces of a sectioning by peripheral sawing. Both are portions of ribs (No. 108 and 109), probably waste associated with the manufacture of smoothers and/or intermediary tools on hemi-ribs. The third one is a fragment of bird long bone related to the manufacture of tubular elements (waste or blanks, N° 111, fig. 6.5). The last one is a portion of fully-fashioned metapodial preserving a portion of the epiphyseal end of the bone (N° 110, fig. 6.9). As a hypothesis, it could be an awl being repaired given the exploited support (portion of metapodial), otherwise a matrix for the production of small elements rounded in section (small pointed elements, beads?).
- 37 Both examples of shaping waste result, like the antler objects, from the fashioning of fine objects on rods (No. 126 and 129). This is probably waste produced by the shaping of the distal parts of awls.
- 38 Finally, a small fragment of large-sized long bone shows on its upper side the start of a groove (N° 114, fig. 6.6). The fracture faces on the edges of the fragment exhibit patterns typical direct percussion on fresh bone. Thus the groove has been made on the long bone before fracturing.

Chrono-cultural attribution

- 39 Within the osseous industry collections from the Blanchard shelter kept in the United States, three typo-technological components are distinguished. The first component is represented by 30 split-based points, including 7 rough-outs, and 8 tongued objects associated with their manufacture. To this, 4 point fragments whose form and dimensions coincide with those of split-based points can be added. In his publication, L. Didon had already noted "the considerable number of split-based points" (n=174), encouraging him to think that Abri Blanchard had been a manufacturing workshop (Didon 1911 - p. 251). These points (and the products associated with their manufacture) are also well represented in the French collections (Leroy-Prost 1979; Knecht 1991). An iconic tool of the Aurignacian (Liolios 1999, 2006; Tejero 2013), the split-based point was used as an index fossil by which archaeological sites could be dated well before D. Peyrony classified them as strong markers of the Early Aurignacian (Leroy-Prost 1975 - p. 104; Peyrony 1933; Tartar and White 2013). Because some specimens were identified in Protoaurignacian contexts, the exclusive combination of split-based points with the Early Aurignacian is now the subject of debate (Tartar in press). However, the objects from Blanchard can be reasonably attributed to the basal archaeological level of the shelter.
- 40 The second component consists of 3 massive-based points, out of which one rough-out, and 5 fragments whose shape and dimensions recall this type of point. From a morphometric perspective, these points and fragments can be connected to the

morpho-types defined by D. Peyrony and instituted as index fossils for the Aurignacians II, III and IV: 5 objects evoke the "flattened lozenge-shaped points" (Aur. II), 2 others evoke the "lozenge-shaped points with oval section" (Aur. III) and the rough-out evokes a "biconical point" (Aur. IV, Peyrony 1933). In his publication, L. Didon had already noted the presence of spears with unsplit bases of various shapes (Didon 1911 - p. 258), which was also confirmed by C. Leroy Prost's study of part of the collections kept in France (Leroy Prost 1979 - p. 326-340). However, the chronological succession proposed by D. Peyrony for osseous points in the late Aurignacian¹¹ is no longer accurate. In many sites, different morpho-types occur within the same levels (current study, E. Tartar). Unless we envision these mixtures to have been systematic, their presence casts serious doubts on their chronological succession. Besides such a succession can only be valuable if the considered index fossils are part of the same functional register. But the projectile point function seems highly questionable for some objects. This is the case of many lozenge-shaped flattened points from La Ferrassie, Les Vachons or Les Rois with very imposing size and blunt distal end. Object N°24 from Abri Blanchard is a good example (see above). Note also that a significant proportion of these points do not bear the characteristic traces of use as a projectile head but those of use as a wedge, sometimes associated with areas of typical imprints from use as retoucher. A vague terminology therefore surrounds the notion of massive-based points whose functional attributes do not always explicitly link them to the category of projectile points and whose morphological characteristics do not appear stable enough to provide a framework for an internal chronology of the Recent Aurignacian. With the state of the data, their validity as marker of the Recent Aurignacian taken in the broad sense does remain valid. The presence of these points at Blanchard thus confirms the existence of Recent Aurignacian in the shelter, probably closer to the upper archaeological level described by L. Didon.

- 41 A third component, more surprisingly, is composed of an Isturitz point fragment and four pieces with traces of grooving. Long associated with the Noaillian, Isturitz points have since been identified in other contexts, but always Gravettian (Goutas 2008, 2013). Grooving is also a technique that is often associated with this techno-complex. It is indeed from the Gravettian on that the technique is integrated within debitage processes (such as extraction by double grooving or by bilateral grooving, Goutas 2009). Nevertheless, to conclude that Abri Blanchard was occupied during the Gravettian is not justified, as no other remains, especially lithic, can confirm this hypothesis. The most plausible explanation for the Isturitz point is that of a mixture of materials (White 1992). In 1911, while continuing his research at Abri Blanchard, M. Castanet was beginning new excavations in the Castelmerle valley in the Labattut shelter, still on behalf of L. Didon. There, he identified two Gravettian levels, rich in osseous productions including Isturitz points (David 1966). In all likelihood, M. Castanet or L. Didon mistakenly stored the fragment point from Labattut among the material from Abri Blanchard. It is possible that the grooved pieces also come from the neighboring shelter. However and as far as we can tell, three of them only have a mere superficial groove. If the intended action escapes us, such objects have already been identified in assemblages of the Early Aurignacian (Goutas 2009; Tartar 2009). The last object, however, differs because the presence of a groove facet on one of its edges can certify the use of this technique to define the support and prepare the removal from the original block, which has never before been reported for the Early Aurignacian. However, the possibility that this object belongs to the Recent Aurignacian cannot be

excluded. The exploitation modes of the osseous materials for this period are indeed still largely unknown, as debates surrounding the emergence of the Upper Paleolithic in Europe have focused the attention of researchers on the industries of the very first phases of the techno-complex.

- 42 Ultimately, the study of the osseous material collections from the Blanchard shelter kept in the United States has allowed us to note the unmistakable presence of material from the Early Aurignacian and the Recent Aurignacian. These new data thus confirm the doubts expressed for over 50 years as to the chrono-cultural equivalence of the two archaeological levels recognized by L. Didon. Our diagnosis rested mainly on reindeer antler points. Note that the rest of the toolkit, though it is hardly characteristic from a chrono-cultural perspective, is nevertheless quite comparable to the categories of the toolkit found within the ancient Aurignacian assemblages of neighboring sites such as Abri Castanet or Abri Cellier. This observation and the numerical superiority of split-based points compared to the massive-based points presage that most of the osseous industry in the collections held in the USA comes from the basal archaeological level that, in addition, has proven to be much thicker and richer in material than the upper level (Didon 1911).

5 - New field data

Objective and running of operations

- 43 In the context of field operations undertaken in 2005 by the team of R. White on the eastern slope of the Castelmerle valley, a topographical study of this slope was initiated. The goal was to better assess the morphology of the limestone massif including the terrace on which the Aurignacians settled at Blanchard and Castanet. In preparation for a geophysical study by electrical resistivity, the entire slope was cleared revealing several piles of old and recent backdirt. These deposits were diagnosed, and for most, the test-pits have reached the bedrock without delivering undisturbed material, the excavated deposits corresponding to M. Castanet's backdirt and/or modern backfill. However, a trench dug in a pile of backdirt from the excavations of M. Castanet at Abri Blanchard and located at the northern end of his excavation area, enabled the discovery of a first layer fragment close of the wall (sector 1), leaning at the north against a step of the bedrock and with a strong slope to the southwest (fig. 7). In order to delineate the extent of this layer fragment, a series of test-pits was dug at the south, west and north. To the north, the 4/5 sector has yielded another layer fragment in contact with the bedrock, also rich in archaeological material but unrelated to the first one (the rise of the bedrock separates the two fragments). The excavation of this area, the study of the archaeological material and a series of dating allowed to assign this level to the Early Aurignacian and to consider it as the northern limit of the basal archaeological layer excavated by M. Castanet. We will not dwell on research in this area, all data will be presented in detail in two forthcoming articles (Bourrillon *et al.* in press; Chiotti, Cretin, Morala in press), but we will look at the level unearthed in sector 1.

Contextual Analysis of the archaeological level in sector 1

- 44 When it was discovered, archaeological material could be seen in the level within yellow sediment with sandy matrix that corresponds fairly well to the description given by M. Castanet of his upper archaeological level. The main objective of the excavation was to determine if the sector had preserved the stratigraphic sequence described by L. Didon.
- 45 The excavation of sector 1 up to the substrate showed a relatively uniform level, characterized by yellow sand with limestone plaquettes that underwent a strong carbonation implying an induration of the sediment (fig. 7). The level rests against a step formed by the substrate. The artifacts visible on the surface are coarse in fraction and have a strong southwesterly inclination. Their concentration throughout the sequence is discontinuous. The fauna/lithic element ratio leans clearly in favor of the latter and the faunal remains found are in a very poor state of conservation. Out of all the stratigraphic units identified (seven in total), the decimeter fraction dominates. Systematic sieving of sediment has revealed very little fine anthropogenic fraction and the excavation has revealed the presence of a small channel. The position of the archaeological level, its taphonomy, the particle size of the preserved elements and the scarcity of anthropogenic fine fraction indicate that the level is clearly in a secondary position in the shelter. Moreover, the end of the excavation in this sector has revealed no underlying level. Indeed, the position of the deposit in cladding against a step of the limestone bedrock at the junction with the wall of the shelter prevents any stratigraphy there.
- 46 Therefore, the excavation of sector 1 did not allow for the rediscovery of the stratigraphic sequence described by L. Didon. It revealed the presence of an archaeological level in a secondary position, accumulated by gravity and affected by post-depositional phenomena. However, the sedimentary composition and the study of the archaeological material it contained (see below) make it possible to consider this level as the upper archaeological level described by M. Castanet.

Chrono-cultural attribution of the archaeological material from sector 1

- 47 Despite its small area, sector 1 has delivered abundant archaeological material largely dominated by the lithic production (1,494 flint objects for only 167 bones.) No piece of bone industry or ornaments was unearthed in this area.
- 48 The 1,494 lithic objects are composed mainly of bladelets (44.4%) and flakes (36.8%), the blades being relatively few (6.8%). This series includes 103 tools, or 7% of the lithic assemblage (tab. 4). Among these tools, the most important category is by far the Dufour bladelets of Roc-de-Combe subtype with 33 objects (34.4%). The group of tools on bladelets even reaches 40.6%. The scrapers group is dominated by thick Aurignacian endscrapers: carinate scrapers (6.2%) and nosed scrapers (7.3%), all having relatively narrow fronts (on average 17 mm wide). Burins are also well represented, including four Aurignacian burins: three carinate burins and one burin des Vachons. They are all irregular objects, relatively atypical. No burin busqué is present. Ten other burins are present, dihedral, on natural facet, on truncation or on break. Objects with continuous retouches account for 11.5% of the toolkit, but no Aurignacian blades were found.

- 49 Among the 584 bladelets, the majority (76.5%) are produced from Aurignacian scrapers (carinate or nosed) and from Aurignacian burins (carinate, Vachons or busqué). For most of them (375 pieces), it is impossible to tell the difference between production on scraper or on burin. Only 12 pieces are clearly from Aurignacian scrapers and 121 from Aurignacian burins. The operational chain of the Aurignacian scrapers is seen in its entirety, with the shaping of carinate scrapers (Chiotti and Cretin 2011), cores/carinate scrapers, shaping flakes, resharpening flakes, large bladelets from shaping or maintaining the front and small bladelets from full debitage. The production of bladelets on Aurignacian burins is clearly evidenced by the presence of four burins and 121 bladelets, identifiable thanks to the presence of a steep facet on one of their edge which corresponds to a portion of the lower surface of the support of the burin (Chiotti 2003). Some bladelets, generally larger and straighter (28 objects, 4.2%), are from a different debitage: debitage in thickness of plaquettes or small blocks.
- 50 The 33 Dufour bladelets have a morphology that shows a strong selection within the lamellar production. They are very small, 16 mm maximum length, 3.2 mm of average width and 1.1 mm average thickness, they are mostly curved, twisted and lopsided to the right. They are produced either on Aurignacian scrapers or Aurignacian burins, but none has the characteristic abrupt facet of the latter. They have a thin inverse retouch on the right edge, usually along the entire length, sometimes more intense in the proximal part. Some also carry a retouch of the left edge, usually direct. When their morphology is determinable, the supports of the other eight retouched bladelets do not differ from those of the Dufour bladelets. Their retouch is generally very uniform, and therefore very similar to that of the Dufour bladelets. All these objects have a retouch that is much more regular and continuous than that observed on the retouched bladelets of the Early Aurignacian of the nearby site of Abri Castanet (Pelegriin and O'Farell 2005; Chiotti, Cretin, Morala, in press).
- 51 The lithic industry of sector 1 from Abri Blanchard is therefore characterized by the presence of:
- nosed scrapers in large quantity;
 - carinate scrapers generally elongated and with narrow fronts;
 - burins of all types;
 - Aurignacian burins (carinate burins and Vachons burins);
 - many bladelets from a production on Aurignacian burins;
 - small Dufour bladelets of Roc-de-Combe subtype in very large proportion.
- 52 These various elements converge toward an attribution of this industry to the Recent Aurignacian.

Figure 7 - Abri Blanchard, excavations 2011-2012. On top: plan of abri Blanchard with the different excavated sectors. Bottom left: view from the West of the sector 1 layer against the rising bedrock. Bottom right: superior view of the sector 1 layer before excavation.

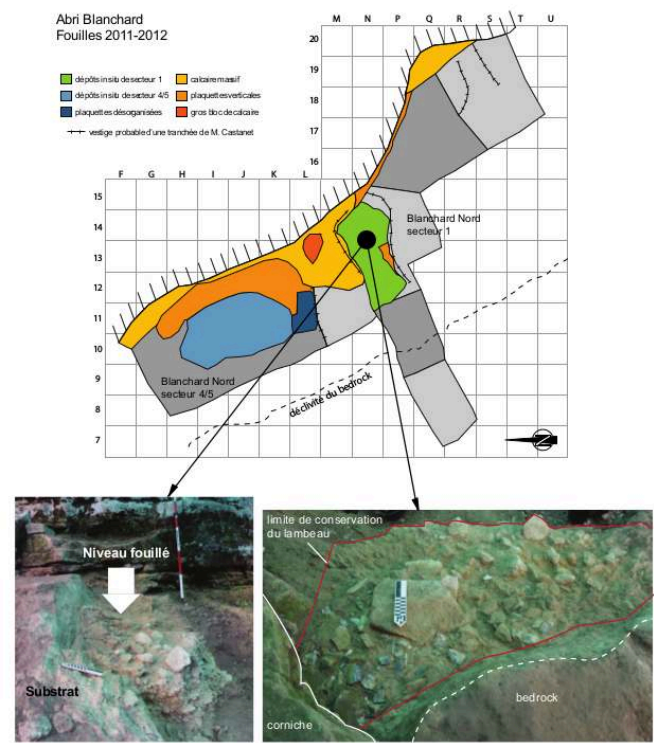


Table 4 - Typological inventory of the lithic artifacts from abri Blanchard sector 1.

Abri Blanchard, secteur 1, fouilles 2011-2012		
Type d'outil (liste type Sonnevill-Bordes, Perrot)	Nb.	%
1 Grattoir sur bout de lame	5	5,2
2 Grattoir atypique	2	2,1
5 Grattoir sur lame retouchée	2	2,1
11 Grattoir caréné	5	5,2
12 Grattoir caréné atypique	1	1,0
13 Grattoir à museau	7	7,3
17 Grattoir/burin	1	1,0
27 Burin dièdre droit	1	1,0
28 Burin dièdre déjeté	1	1,0
29 Burin dièdre d'angle	1	1,0
30 Burin sur pan naturel	2	2,1
31 Burin dièdre multiple	3	3,1
32 Burin caréné	2	2,1
32 Burin des Vachons	1	1,0
35 Burin sur troncature oblique	2	2,1
60 Pièce à troncature droite	2	2,1
61 Pièce à troncature oblique	1	1,0
65 Pièce à retouche continue sur un bord	9	9,4
65 Lamelle à retouche continue sur un bord	5	5,2
66 Pièce à retouche continue sur deux bords	2	2,1
66 Lamelle à retouche continue sur deux bords	1	1,0
74 Pièce à encoche	3	3,1
90 Lamelle Dufour	33	34,4
92 Divers (fragments d'outils)	4	4,2
Total liste type	96	100,0
Hors liste type Sonnevill-Bordes, Perrot		
Eclat à retouche discontinue ou partielle	2	
Lame à retouche discontinue ou partielle	3	
Lamelle à retouche discontinue ou partielle	2	
Total hors liste type	7	
TOTAL OUTILLAGE	103	

6 - Summary and conclusion

- 53 The study of the osseous material industry from Abri Blanchard curated in the United States has confirmed the presence, within the ancient collections, of productions attributable to the Recent Aurignacian in combination with a typical toolkit of the early Aurignacian. The study of the archaeological material contained in the layer fragment unearthed in sector 1 has, in turn, provided clear evidence of the presence of Recent Aurignacian in the shelter. The position and the composition of the sedimentary and archaeological level indicate that it accumulated by gravity and was affected by post-depositional phenomena and that it is in secondary position. The characteristics of this fragment and the typo-technological attributes of the archaeological material it contained reveal it to be a remnant of the upper archaeological level described by M. Castanet. In all likelihood, the intrusive nature of the deposits from the top of the sequence had not been perceived during the first excavations and L. Didon, whose presence on site was limited to occasional visits, published an "idealized" stratigraphy.
- 54 A similar observation was made during the renewed excavations at Abri Castanet (White *et al.* 2006b, 2007), where the cleaning of the section forming the southern boundary of D. Peyrony's excavations in 1994 and 2006 (Texier 2009; White *et al.* 2006b, 2007) permitted the identification at the top of the sequence and separated from the basal archaeological layer by a sterile scree level, a unit including little characteristic archaeological material, probably corresponding to the "upper layer" described D. Peyrony and attributed by him to the Aurignacian II. The sedimentary composition of this unit enabled us to connect it to an intense flowing phase during which the sediments from the plateau (and the archaeological material they contained) were deposited in the upper part of the filling of the shelter.
- 55 Abri Blanchard and Abri Castanet have probably experienced a rather similar archeo-stratigraphic history but the very invasive excavations of M. Castanet, the limited extent of the recent excavations and the different taphonomic phenomena that affected unequally the 80 meters-long terrace strongly limit the possible interpretations. Thus, the hypothesis that the two shelters ever formed a single large site (Delluc and Delluc 1978) is not demonstrated to date. The Didon/Castanet archives argue for the contrary. During his excavations in Abri Blanchard, M. Castanet had indeed noticed the disappearance of the archaeological deposits to the south, before the cadastral boundary delimiting the two shelters. Test-pits in the southern part of the land leased by L. Didon would have delivered nothing. It should be noted, however, that the cliffs in the southern part of the Blanchard plot still bear traces of troglodytic structures (study by Z. Garrett, ongoing). Below this structure, by the roadside, a survey in 2008 also yielded stones with rings accompanied by medieval ceramics. Therefore we cannot completely exclude the possibility of continuity between the deposits of the Blanchard and Castanet shelters in the Aurignacian period, a continuity that was interrupted by one or more post-Paleolithic emptying.
- 56 Our research on Abri Blanchard has highlighted the still incomplete nature of our knowledge of the Recent Aurignacian. Despite greater attention in recent years (Chiotti 2000, 2003, 2005; Lucas 2000; Pesesse and Michel 2006; Michel 2010), the Recent Aurignacian remains the poor relation, as debates surrounding the emergence of the Upper Paleolithic in Europe have focused the attention of researchers on the industries of the first phases of the techno-complex.

- 57 From the perspective of the lithic industry, it remains relatively unknown. The most common levels (found in Europe) represent D. Peyrony's Aurignacian II (1934), with two different facies that seem to have a chronological value: a facies with dominant nosed scrapers and a facies with dominant burins busqués (Aurignacians IIa and IIr of F. Djindjian (1993)). However, the end of the Aurignacian is more problematic, the Aurignacian III and IV of D. Peyrony remaining poorly defined and are rarely found on other sites than La Ferrassie (Rigaud 1989). These industries from the end of the Aurignacian were the subject of various and sometimes conflicting definitions over time (Peyrony 1934; Sonnevile-Bordes 1960; Delporte 1984; Rigaud 1989; Djindjian 1993; Demars 1994; Djindjian, Koslowski, Otte 1999; for an attempt of synthesis, see Chiotti 2005). More recently, a new division of the Recent Aurignacian proposed by A. Michel (2010) further complicates the situation by redefining certain phases under existing designations. Although sometimes referred to under different names (Demars 1994; Michel 2010), most agree on the presence of two different facies of the Aurignacian II, whose chronological value seems certain. However, the subsequent facies characterized mainly by the presence of burins des Vachons (Pesesse and Michel 2006) are less well defined and are still being discussed.
- 58 As regards the production of osseous material, only massive-based points are known so far. If their validity as an index fossil of the Recent Aurignacian *sensu lato* remains valid, an important terminological blur surrounds them. Their functional attributes do not always explicitly link them to the category of projectile points and their morphological characteristics do not appear stable enough to provide a framework for a chronology of the end of the Aurignacian. It is necessary to resume the study of the series to try to better characterize this industry. However, the task promises to be difficult. In France, around twenty sites (mainly in the Dordogne) have yielded production in osseous material attributed to the Recent Aurignacian and often in small amounts (Castanet, La Ferrassie, Le Facteur, Le Flageolet I, Cellier, etc). For the vast majority, these sites also include several Aurignacian layers and were excavated in the past. Thus the taphonomic study of several of them has revealed stratigraphic mix-ups illustrated by the mixed nature of the lithic industry in the levels and/or refittings between distinct layers (i.e. la Rochette, the Trou de la Chèvre, Roc de Combe, see Michel, 2010 for a summary). Therefore, it is essential to undertake new excavations to base our reflection on solid archeo-stratigraphic sequences. It is only at this price that it will be possible to precisely characterize the post-Early Aurignacian industries, to reconstruct the internal chronology of the Aurignacian in the southwest of France and to monitor the technological and socioeconomic changes begun in the older stages of the techno-complex.

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NOTES

6. Abri Castanet was excavated for the first time in 1911 by M. Castanet under the direction of D. Peyrony (1935).

7. La Souquette shelter was excavated in 1902-1903 by the Abbot Landesque then by others (Coste, Letellier, Hauser, Castanet) and published for the first time by F. Delage (1938).

8. *This correspondence, which is now part of the Didon archives, includes plans of M. Castanet indicating layer boundaries or the position of the discovered remains. It was not common, at the time, to keep an "excavation log book", but these letters unquestionably replace one.*

9. All the archives have been transposed by R.White.

10. For all the figure calls about the illustrations of osseous objects, the first number (No.) corresponds to the number of the items in table 3 – in annex.

11. The term "Recent Aurignacian" is used here in the broad sense, as it is the most frequently found in the literature. It corresponds to the grouping of stages II, III and IV of D. Peyrony (Peyrony 1933) and of the middle, recent and final stages of H. Delporte (Delporte 1991). In the case of Abri Blanchard, only the Aurignacian II of D. Peyrony (corresponding to H. Delporte's middle phase) is present. However, we prefer for the rest of this article the use of the more generic term "recent Aurignacian" to that of "middle Aurignacian" to describe this stage, especially as the term middle Aurignacian was recently reused with a different definition from that of H. Delporte (Michel 2010).

ABSTRACTS

In 1910, Marcel Castanet began excavations at abri Blanchard (Sergeac, Dordogne) under the direction of Louis Didon. Two archaeological layers, separated by a sterile one, were recognized and attributed to the Middle Aurignacian (*sensu* Breuil), today widely known as Aurignacian I with split-based points. Even today, abri Blanchard remains one of the richest sites for this period in terms of osseous artifacts. In theory, the Blanchard assemblage retains considerable

potential to contribute to our knowledge of the first societies of the Upper Paleolithic. Nevertheless, for more than 50 years, serious doubts have been raised about L. Didon's chronocultural attribution, several authors having hypothesized that the upper level reflects a more recent Aurignacian occupation. Unfortunately, Didon and Castanet's excavations were carried out according to the concerns and practices of another time, resulting in incomplete archaeological assemblages without precise stratigraphic and spatial context. To make matters worse, L. Didon mixed the artifacts from the two levels and sold them in batches to several French and foreign buyers. This fact has made it logistically difficult to undertake a comprehensive study of this important material. Of those parts of the collection that were dispersed by L. Didon, the four sent to the United States and now curated at the American Museum of Natural History (New York), the Wilson Museum (Castine, Maine), the Field Museum of Natural History (Chicago, Illinois) and the Logan Museum of Anthropology (Beloit, Wisconsin), are the most overlooked. Osseous artifacts being well represented in these collections, we have undertaken a thorough analysis, in part to try to infer a chronocultural attribution. This study has allowed us to identify artifacts attributable to the Early and Later Aurignacian. Importantly, a recent field operation at Blanchard has led to the discovery of a fragment of a layer, providing clear evidence of Late Aurignacian in the shelter. However, the position and the sedimentary and archaeological composition of the layer suggest a derived or secondary context. Above all, the analysis of the Blanchard material has highlighted our profound lack of knowledge concerning the Late Aurignacian. It points out the necessity to prioritize the study of other older collections and undertake new excavations in an attempt to better characterize the archaeological material and to reconstruct the chronology and evolution of the Aurignacian in SW France.

En 1910, M. Castanet sous la direction de L. Didon entamait les fouilles de l'abri Blanchard (Sergeac, Dordogne). Deux niveaux archéologiques séparés par une couche stérile seront individualisés et attribués à l'Aurignacien moyen sensu H. Breuil (soit Aurignacien I à pointe à base fendue). L'abri Blanchard fait partie des deux ou trois sites ayant livré les plus riches ensembles en matières osseuses pour cette période. Il recèle un important potentiel informatif pour notre connaissance des premières sociétés du Paléolithique supérieur. Mais depuis plus de 50 ans, de sérieux doutes pèsent sur l'attribution chronoculturelle faite par L. Didon, plusieurs auteurs ayant émis l'hypothèse que le niveau supérieur reflète une occupation aurignacienne plus récente. Malheureusement, les fouilles ont été réalisées selon des préoccupations et des pratiques dont découle un matériel archéologique incomplet et sans précision stratigraphique et spatiale. De plus, L. Didon rassembla le matériel des deux niveaux et le vendit par lots à des acquéreurs français et étrangers. Par conséquent, aucune étude d'ensemble n'a jamais pu être entreprise sur le matériel. Parmi ces lots, ceux envoyés aux États-Unis sont les plus méconnus. Au nombre de quatre, ils sont conservés à l'American Museum of Natural History (New York), au Wilson Museum (Castine, Maine), au Field Museum of Natural History (Chicago, Illinois) et au Logan Museum of Anthropology (Beloit, Wisconsin). Parce que l'industrie en matières osseuses y est particulièrement bien représentée, nous avons entrepris d'en mener une analyse approfondie. Cette étude nous a permis de relever la présence de matériel rapportable à l'Aurignacien ancien et récent. En outre, une récente opération de terrain a mis au jour un lambeau de couche, apportant la preuve incontestable de la présence d'Aurignacien récent dans l'abri. La position ainsi que la composition sédimentaire et archéologique du niveau permettent toutefois d'affirmer que ce dernier est en position secondaire. L'étude des collections a mis en lumière le caractère encore très lacunaire de nos connaissances sur l'Aurignacien récent. Il importe de reprendre l'étude des séries et d'engager de nouvelles fouilles afin de tenter de mieux caractériser les industries et reconstituer la chronologie et l'évolution interne de l'Aurignacien du sud-ouest français.

INDEX

Mots-clés: Abri Blanchard, Aurignacien ancien, Aurignacien récent, sondages, industrie en matières osseuses, pointes à base massive, grattoirs à museau, burins, lamelles Dufour sous-type Roc-de-Combe

Keywords: Abri Blanchard, Early Aurignacian, Late Aurignacian, test-pits, osseous industry, massive based points, nosed scrapers, burins, Dufour bladelets of Roc-de-Combe type

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