

L'ABRI DU PAPE MESOLITHIC ARTIFACT ASSEMBLAGES IN REGIONAL CONTEXT

Lawrence Guy Straus

INTRODUCTION

There is little material in the southern Belgian-northern French region with which to compare the Boreal-age Pape Mesolithic artifact assemblages. Ironically, this small site is one of the very few Mesolithic sites in the Ardennes and its peripheries to have provided either radiocarbon dates or faunal remains. Thus, although there are several large lithic assemblages from the region---much larger than the small and rather diagnostic ones from Pape---most of these are from open-air sites with little or no organic preservation. In addition, many of the region's Mesolithic open-air sites suffered from mixture (prehistoric and/or modern) and several of the important collections are either the result of surface pickup ("field-walking") or the victims of uneven or disastrous museum curation since the time of their excavation, sometimes in the last century (Rozoy 1978). Even the best recent excavations of Mesolithic open-air sites in the lower French Meuse basin (Roc-la-Tour II and Roche-à-Fépin) lack faunal remains and radiocarbon dates (Rozoy 1978, 1990). The only other cave site with some potentially useful artifactual and chronometric information (albeit at least a millennium older than the oldest human occupation of Pape), Remouchamps, is located at the opposite end of the Ardennes upland near Liège, c.75 linear km from Pape. The Dryas III-age Ahrensburgian industry at Remouchamps (and elsewhere) is seen as leading to the development of the Mesolithic in NW Europe through an Epi-Ahrensburgian of Preboreal age which is (so far at least) not known in the Ardennes region (Gob 1991). Also ironically, the only other Mesolithic sites to have been excavated recently in the immediate and general vicinity (i.e., upper Belgian Meuse)---all caves and with radiocarbon determinations similar to those of Pape--- either lack or have only a very few artifacts: they are exclusively *burial* sites, attributable to the Mesolithic only because of their radiocarbon dates and lack of ceramics.

L'Abri du Pape and the Ardennes upland in general lie between several classic Mesolithic culture areas: Tardenoisian to the south, Limburgian to the north, and Beuronian to the east. It is during the millennium represented by the Mesolithic levels at Pape that rising ocean levels re-inundated the North Sea basin and eventually breached the Straits of Dover c. 8000 BP. Thus the Low Countries became the western edge of continental north-central Europe. For edaphic, orographic and climatic reasons, the Ardennes region may have been one of the last regions of west-central Europe to witness the replacement of Mesolithic foraging by Neolithic farming. However it is also a region that is archeologically relatively little-known and the systematics of whose Mesolithic assemblages is somewhat in dispute. Perhaps because the Ardennes uplands straddle France, Belgium and Luxembourg, it has been interpreted from the perspectives of different national research traditions, but most specifically from the differing perspectives of two current, important Mesolithic researchers in northern France and southern Belgium respectively: J-G. Rozoy and A. Gob. Interpretation of the Pape

artifact assemblages must begin by attempting to compare them with the cultural taxonomic units that have been proposed for the Ardennes and immediately surrounding regions by these two specialists. The differences between them can be summarized as "splitting" versus "lumping", definition of local "cultures" versus synthesis of vast supra-regional "techno-complexes". Naturally, any attempt to compare the Pape assemblages to the various industrial phyla defined by either Rozoy or Gob immediately runs into the irresolvable problem of the small size of the Pape samples, which could be the reason for the absolute rarity of armatures (microlithic weapon elements) in the Pape assemblages. This is unfortunate given the nature of Mesolithic systematics, since the main bases of assignment of assemblages to cultural "traditions" and to temporal phases therein, are supposedly diagnostic microlith types (presence, absence and relative frequency of various types of geometrics, micro-points, backed bladelets, use of the microburin technique, etc.). Instead, Pape has 4 coherent C-14 dates: its "saving grace".

PAPE ASSEMBLAGES AND THE ROZOY MESOLITHIC TAXONOMIC SCHEME

For J-G.Rozoy (1978, 1990) there are three relevant penecontemporaneous regional traditions to which the Pape assemblages could be compared: Tardenoisian, Limburgian and Ardennian. In addition, Rozoy stresses the fact that the Ahrensburgian should be viewed as a microlithic industry even though it dates to the very end of the Last Glacial (Dryas III). Its chronological position make it at least a millennium older than the earliest occupations at Pape however.

The Tardenoisian tradition, dating between the Preboreal and early Atlantic phases of the Holocene and centered in the Paris/Seine Basin, extended between the northernmost bend of the Loire in the Southwest to the Oise and almost to the Meuse in the Northeast. According to Rozoy, the site of Roc-la-Tour, near the Meuse-Semois confluence in the French Ardennes, is an outlier of the Tardenoisian. It is some 53 km upstream of Pape. It is assigned to the Tardenoisian by Rozoy (1978) because of the following characteristics:

1. Use of the somewhat irregular Coincy debitage style, with heavy production and use of blades and especially bladelets, but virtually no Montbani blades;
2. High percentage (52%) of armatures of highly diverse typology;
3. Few endscrapers or even pieces with continuous retouch;
4. Armatures include many backed bladelets and, in descending order, lesser numbers of points with retouched base ("Tardenoisian points"), obliquely truncated points, isosceles and scalene triangles, and circle segments, but no trapezes;
5. Abundant microburins;
6. Small number of cores relative to the very large amount of debitage at the site.

In no detailed way do either the early (Stratum 21-22.2) or late (Stratum 20) assemblages from Pape resemble the Roc-la-Tour II (or, hence, the Tardenoisian) industry.

Rozoy defines the Limburgian site distribution as including the modern territories of

Belgian and Dutch Limburg and Brabant, as well as Antwerp Province, with a timespan between about 9000-7000 or even 6000 BP (uncal.). Its sites lie mainly on the low, sand-covered plains of northern Belgium and southern Netherlands, and all are open-air. It is the Middle Limburgian stage that concerns us here, since it is of Boreal age. Assemblages of this technological tradition include high percentages of armatures, including abundant truncated backed bladelets, sometimes obliquely truncated points (early) and (later) invasively retouched points, some triangles and trapezes. The armatures are often very well made. Microburins are common in possibly early assemblages of this stage. There are few retouched flakes, but the industry is often highly laminar/lamellar. Endscrapers are abundant. Quartzitic sandstone from the singular Wommersom source in Brabant is common in most Limburgian sites (Rozoy 1978; Caspar 1984; Vermeersch 1984, 1989). Material from this point source is found in Limburgian sites as far away as 60-80 km---as far north as sites in the area of Eindhoven in the Netherlands. Yet there is no Wommersom quartzitic sandstone at Pape, which is c. 70 km due South of the source. Nor is there anything typological about the Pape assemblages (especially given their poverty of armatures) that would suggest a close similarity or "filiation" with the Limburgian assemblages.

Finally there is Rozoy's (1978, 1990) Ardennian tradition. It was defined on the basis of limited excavations (often salvage operations) or surface collections from sites in eastern Liège Province on the one hand, and in the Meuse-Semois confluence region of the Ardennes in France and Belgium on the other hand, and at the isolated site of Marlement on the northern edge of Champagne. None of the sites is stratified and all are open-air. Characteristics of the Ardennian technology include:

1. Significant production and use of flakes (many quite large and thick) as tool blanks, with short, thick blades made in the somewhat irregular Coincy style;
2. Very few armatures (no more than 22%, often much less);
3. Relatively many cores;
4. Relatively many blades with continuous retouch;
5. Moderate percentage of endscrapers;
6. No trapezes or Montbani blades;
7. Some scalene triangles and transversal base points.
8. In general the style of the armatures (and other artifacts) is more irregular and thick and less careful and laminar than in the neighboring "traditions".

Rozoy's (1990) recent excavation at La Roche-à-Fépin, 15 km south of the Belgian border (and located 25 km upstream from Pape, on the rim of the Meuse gorge in the French enclave that terminates at Givet), provides further details on the so-called Ardennian. Of 404 retouched tools, there are 123 armatures (30%---less than in any Tardenoisian assemblage). The most numerous armatures are scalene triangles, followed by points with unretouched base and segment circles and transversal base points. Backed bladelets are virtually absent and invasively retouched points are totally absent. The most numerous tools are retouched flakes, followed by retouched bladelets and blades, endscrapers and burins. Many of these characteristics are clearly reminiscent of the Pape assemblages, although no meaningful statistical comparison can be made due to the very small sample sizes of Pape tool/weapon assemblages.

Another site mentioned by Rozoy (1978:636) which is relevant by its proximity to Pape, is Sarts-à-Soile, on the summit of the Sept Meuses hill at Bois Laiterie (Rivière), 14 km north of Pape. This site, which like Roche-à-Fépin, Roc-la-Tour II and Roma, has a panoramic view of the Meuse canyon. Collected a century ago, Sarts-à-Soile yielded some 10,000 flint artifacts, which, because of the reported presence of trapezes, circle segments and invasively retouched points ("mistletoe leaves"), Rozoy argues to be representative of a late Mesolithic. Thus this site, compositionally very different from Pape, would be much younger than it and perhaps assignable to a late Limburgian in Rozoy's scheme. Pape seems to fall into a category of sites with few armatures (including some scalene triangles and triangular micropoints, but no trapezes or circle segments), no backed bladelets, moderate numbers of endscrapers, relatively abundant cores, many retouched pieces (on flakes and blades/bladelets), debitage that includes short, thick blades and many flakes, without use of Wommersom quartzitic sandstone: i.e., Rozoy's "Ardennian", regardless of whatever ethnic, stylistic or territorial meaning that term may or may not connote.

PAPE ASSEMBLAGES AND THE GOB MESOLITHIC TAXONOMIC SCHEME

André Gob's synthesis of the Mesolithic of southern Belgium can be found in numerous publications that both use and dispute Rozoy's work (e.g., Gob 1981, 1984, 1985; Gob and Jacques 1985). The late Mesolithic of the region, called the Rhine-Meuse-Scheldt techno-complex and dated between about 8200 BP and possibly as recently as 6000 BP (uncal.), is characterized by the presence of invasively retouched armatures ("mistletoe leaves"), backed bladelets and trapezes. It seems completely irrelevant to the Pape assemblages. However, a nearby rockshelter, Grogneau in Anseremme (Dinant---near the Lesse-Meuse confluence)---unfortunately heavily disturbed at the time of its excavation around the time of World War II---does fit the characteristics of the R-M-S tradition: narrow backed bladelets, mistletoe leaf points and trapezes. All of these elements are utterly absent at Pape.

Gob's earlier Mesolithic (part of which does, however, seem to overlap chronologically with the early R-M-S) is called the Beuronian, as defined by W. Taute and S.K. Kozlowski, and covers a vast area of western Germany, the Low Countries, northern France and even Moravia.

As such, it geographically overlaps and is coterminous with Rozoy's Tardenoisian, Ardennian and Limburgian (etc.). The Beuronian lithic industry is in general characterized by somewhat irregular laminar débitage ("Coincy style"), 20-60% armatures which include variable quantities of triangular points with unretouched (Zonhoven) and retouched (Tardenoisian) bases, triangles (mainly scalene) and segments, as well as microburins, which are often abundant (Gob 1984). Most of the sites that Gob uses in his discussion of the Belgian situation are located in the Ourthe Basin of the eastern part of the country (Liège Province) and most are open-air. The earliest dates for his Beuronian A are from Ourlaine near the city of Liège: 9200 and 8890 BP and the end of the Beuronian C is believed to

correspond to the early Atlantic period at the nearby cave of Coléoptère, although a radiocarbon date of 7000 BP from that site is judged to be too young (Gob 1984)---possibly due to downward sample migration in the open-work scree matrix. Thus Gob's Beuronian tradition corresponds to the millennium represented by the occupations at Pape. The only site listed as "Beuronian" by Gob (1984) which is in the vicinity of Pape is Trou du Chêne, one of the famous caves at Montaigle on a tributary of the Upper Belgian Meuse. Excavated in 1867 by E. Dupont, its collections are said to consist of a mixture of Upper Paleolithic, Mesolithic and Neolithic materials, so it provides no useful comparative information.

Given a grand total of 58 retouched artifacts from all the Mesolithic levels at Pape (including the items from Lacroix's original sondage), the 4 armatures constitute only 6.9%---far below the percentages that Rozoy gives for the Tardenoisian and Limburgian, or that Gob gives for the Beuronian. The only conceivable label to give to the Pape assemblages, under existing taxonomic schemes, would be "Ardennian". One can wonder, however, if at least some of the characteristics of Mesolithic assemblages in the Ardennes uplands *per se* might not be due to the scarcity of good-quality raw materials in this mainly Devonian schist bedrock area? It is, after all, a region with only relatively localized outcrops of Carboniferous flint-bearing limestone, inferior in quality to the Upper Cretaceous flints of Hainaut (Campanian) to the west, Hesbaye (Maastrichtian) to the north, and the Paris Basin (Senonian) to the south. Yet Roc-la-Tour II, in the Ardennes, is classified by Rozoy (1978:400) as Tardenoisian, although its inhabitants procured flint from perhaps 50 km to the south and southwest. And Marlemont, which, to the contrary, is classified as Ardennian, is located *on* a source of good-quality flint (in fact, the same general variety of flint as was imported and used at Roc-la-Tour II). There is little doubt, however, that the inhabitants of Pape, besides using a variety of local raw materials (cherts, psammite, etc.), also procured non-local, good-quality chalk flint. That this is likely to have come from the sources in the vicinity of Mons-Spiennes in Hainaut, rather than from the equally famous Hesbaye flint sources around Orp, is suggested by the complete lack of Wommersom quartzitic sandstone at Pape. This material's only known source is only 12 km north of Orp in Wallonian Brabant. Yet Wommersom quartzitic sandstone is essentially found (abundantly) only in Mesolithic sites in the lowlands to the north of the central Belgian Meuse and in the eastern Ardennes foothills of Liège Province (Caspar 1984). Had Pape inhabitants procured flint in the western Hesbaye area (whether by direct or indirect methods: visits or trade/exchange), it is hard to imagine that they would not have also acquired some of the Wommersom material, so "popular" specifically in the Mesolithic of the Low Countries. In both Rozoy's and Gob's syntheses, the Hainaut region of SW Belgium is *terra incognita*; there is not a single Mesolithic site shown on their maps for Hainaut. Perhaps sites most comparable to Pape are therefore yet to be found in the region where Pape's human users may have obtained their best flints...

OTHER POSSIBLE POINTS OF COMPARISON

Recently, M. Toussaint *et al.* (1993) have published a preliminary report on their excavations in Chauveau Cave, 15 km upstream of Namur and 20 km downstream of Pape on the Meuse. Like Pape, this site is at the base of a cliff on the Meuse riverbank. The site

contains a small terminal Magdalenian or "Creswellian" component radiocarbon dated to 12,000 BP. This is overlain by a Mesolithic component radiocarbon dated to 7350+/-75 BP (uncal.). The lithic assemblage (totally some 250 artifacts) includes blade(let)s with Montbani retouch, trapezes (especially frequent), triangles, triangular points with retouched and unretouched bases, backed bladelets, microburins, transversally and obliquely truncated bladelets, etc. Despite the late age, there are no invasively retouched ("mistletoe leaf") points, so the assemblage cannot be assigned to Gob's R-M-S tradition. There are a few flakes, bladelets and tools of Wommersom quartzitic sandstone---not surprising as the source is only 53 km to the north: a distance well within the known radius of distribution of this material. On chronological, typological and material grounds, then, there is no reason to see similarities between Pape and Chauveau.

Further afield, but worth mentioning because of the high quality of the excavations and wealth of lithic artifacts and faunal remains with an AMS radiocarbon date, is the Mesolithic component of the vast site of Place St.-Lambert in the City of Liège (on the low terrace of the broad Lower Belgian Meuse valley). The most recent research has revealed a large flint workshop locus, a cobble pavement, a stone slab constructed hearth and a bone dump area (Gustin *et al.* 1994; Léotard *et al.* 1995). A bone was dated to 7800+/-75 BP (uncal.). The lithic tools include endscrapers, a truncated blade, a perforator, one whole and one fragmentary "mistletoe leaf" point. The huge quantity of cores, flakes, blade(let)s and angular debris, together with many hammerstones, testify to the function of this site located near good-quality flint. Despite the local abundance of good material, a few pieces of Wommersom quartzitic sandstone have also been found, showing that the inhabitants belonged to the "Limburgian" sphere or network of relations. (Wommersom is at a distance of 46 km to the northwest.) Once again, this site bears no formal relationship to Pape, despite its date and relative proximity. Territories may have been quite small in the densely forested early Holocene of Belgium!

The other Mesolithic sites of the Upper Belgian Meuse (Namur Province) are burial caves, most of which have been discovered (by Ph. Lacroix in some cases) and excavated only very recently. They are:

L'Abri des Autours (Freyr Cliff, within a few hundred meters of Pape)
La Grotte Margaux (Freyr Cliff, within a few hundred meters of Pape)
La Grotte de Claminforge (Sambreville)
L'Abri du Petit Ri (Malonne)
Grotte des Sarrasins (Loverval)
Grotte du Bois Laiterie (Rivière)

Margaux had a collective burial of 9 individuals in a pit lined with stones and covered with a pile of rocks with no associated artifacts. Some of the bones had been removed later and placed on the surface next to the tomb (Cauwe 1988, 1993, 1998). A conventional radiocarbon date of 9190+/-100 BP (uncal.) has been obtained for this tomb.

Les Autours yielded a collective burial and an individual burial of Mesolithic age, the former with an AMS radiocarbon date of 9090+/-140 BP (uncal.) and the latter with a date of

9500+/-75 BP (uncal.) (Cauwe *et al.* 1993; Cauwe 1993,1994,1995a,b). There are no artifacts at all with the individual burial, while the collective burial yielded only a few unretouched bladelets said to have a distinctively Mesolithic appearance.

Claminforge (Toussaint *et al.* 1996) contained 5 Mesolithic human burials without associated artifacts. There is an AMS radiocarbon date of 9320+/-75 BP (uncal.). Le Petit Ri contained either an individual or a collective human burial associated with 11 flint artifacts (which include an endscraper, a partly backed bladelet, a retouched flake, and some unretouched bladelets). As with the other sites, a human bone has been AMS radiocarbon-dated, the result being 9270+/-90 BP (uncal.) (Jadin *et al.* 1995). Sarrasins yielded a burial of 2 individuals with no associated artifacts and a conventional radiocarbon date of 9090+/-100 BP (uncal.) (Cauwe 1993).

Our own work in Bois Laiterie Cave (Otte and Straus 1997) revealed the presence of human remains without associated Mesolithic stone artifacts in a brecciated deposit above the 12,650 year old Magdalenian horizon. AMS radiocarbon assay revealed that at least one of these humans dates to 9235+/-85 BP (uncal.).

Thus a clear tradition of individual and collective human burial in caves (disassociated from human habitation) was established during the early Mesolithic in the Upper Belgian Meuse and Sambre region (Namur Province) at a time just before the earliest human habitation of Pape, which is immediately adjacent to two of the known Mesolithic burial caves. Dates for these burials range from 9500 to 9000 BP (uncal.). A definite Mesolithic population had been established in this small territory by late Preboreal times---one which had its own distinctive burial practices. L'Abri du Pape must have been one of many sorts of places used for occasional, ephemeral *residence* by this apparent socio-territorial human group, although the earliest dated levels Pape itself are somewhat later in time (early Boreal) than these burial caves.

While the human burial sites noted above are all several centuries older than the first human occupation of Pape (and hence "Epi-Ahrensburgian" in age---if not in artifacts---according to A. Gob's [1991] culture-historical scheme), it should be noted that Martina Cave (near le Trou Magrite, along the Lesse not far from its confluence with the Meuse near Pape) had yielded 2 human individuals without associated lithic artifacts. A conventional radiocarbon date yielded 7440+/-110 BP (uncal.) (Dewez *et al.* 1995). This suggests that the local Mesolithic cave burial tradition continued even beyond the time of occupation of Pape. It is even argued by N. Cauwe (1993, 1995; Cauwe *et al.* 1993) that there was continuity between the Mesolithic and Middle/ Recent Neolithic burial practices in this region. Pape, with its Neolithic burials, though a rockshelter, would be an example of that possibility. In any event, these other sites, while offering no basis for techno-typological comparison with Pape, probably form the real cultural context for the human occupations of this small rockshelter in a territory centered on the Upper Belgian Meuse and its tributaries, the Lesse and the Sambre. It was via the latter valley that Mesolithic occupants (like their Magdalenian predecessors) probably had access to the Hainaut flint sources in the West.

STRAUS, Lawrence G. University of New Mexico, Department of Anthropology, Albuquerque, NM 87131 USA.

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