Liguria: 11,000–7000 BP

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Abstract

Research by local amateurs over the last two decades has led to the discovery of twelve Mesolithic sites in Liguria belonging both to the Sauveterian and Castelnovian traditions. Most of them lie at high altitude in the eastern Apennine chain. Two of the Sauveterian sites are very close to outcrops of dark red jasper, and have produced industries made largely from this local raw material. The Castelnovian encampments yielded assemblages made from both jasper and flint, the percentage of the latter increasing with distance from the jasper outcrops. In western Liguria the site of Pian del Re, close to a pass which connects the inner valleys with the sea, produced trapezes and notched blades almost exclusively chipped from a light-grey variety of quartzite available locally. No cave site has yet produced evidence of Mesolithic activity. Arma dello Stefani and Arnè Candido were both occupied during the final Epi-Gravettian and early Neolithic periods, but their stratigraphies show a gap in occupation corresponding to the Pre-Boreal, Boreal and early Atlantic climatic phases. The vegetation history of the region during the thirteenth to the seventh millennium BP is documented by a series of palynological cores and charcoal identifications, the most detailed of which are those from Arma dello Stefani. Charcoal from the lowermost excavated layers of this cave is almost exclusively Scots Pine, while the layers above produced evidence of a marked increase in thermophilous vegetation culminating in the disappearance of the coniferae in the youngest final Epi-Gravettian layer. The stalagmite levels above should correspond to the entire Mesolithic period. A few charcoal fragments from these levels indicate more temperate climatic conditions with the first appearance of beech.

INTRODUCTION

In the beginning of the 1970s our knowledge of the Mesolithic of northern Italy was restricted to a few cave sites in the Trieste karst (Radmili 1960). Some years later many sites were brought to light in the Adige valley (Brogiolo 1971) and in the north-eastern Alpine chain (Bagolini et al. 1983), as well as in the Tusco-Emilian Apennines (Biagi et al. 1980) and on the fluvial terraces of the central Po plain (Biagi 1981). The chronology of the north Italian Mesolithic is now well known thanks to a good number of radiocarbon dates (Alessio et al. 1983). The Ligurian Mesolithic sites of the eastern Apennines were discovered a few years ago (Baffico et al. 1983; Biagi and Maggi 1983).

Mesolithic cave occupation had already been described by Cardini (1947) at the Arene Candidhe cave; while on the basis of a few radiocarbon dates (Alessio et al. 1967) some authors suggested that there were late Epi-Gravettian hunters in the region until the end of the ninth millennium BP (Palma di Cesnola 1974, 1983; Brogiolo 1981) (Fig. 6A). The excavation in progress at the Arma dello Stefanin in the Pennavaira valley (Biagi et al. 1987) and the re-examination of data collected during previous research (Biagi and Nisbet 1986) demonstrate that no Ligurian cave was inhabited during the whole of the Mesolithic period. On the contrary, cave sites frequently show evidence of final Epi-Gravettian and early Neolithic Impresso Ware layers, always separated by sterile and/or stalagmite levels (Baissas 1974; Biagi and Maggi 1983).

THE MESOLITHIC ASSEMBLAGES

Fig. 3 shows the tool types characteristic of Ligurian Mesolithic assemblages. They can be put into chronological order with the help of the finds from the well-known sequences of the Adige valley and the Tusco-Emilian Apennines (Brogiolo 1971; Biagi et al. 1980; Brogiolo and Kozlowski 1983). The assemblage from Punta della Mortola at Villa Hanbury includes hyper-microlithic isosceles triangles, notched blades and microburins, mostly made from a type of flint which outcrops c. 100 m to the north west of the site (Fig. 2, site 1). Excavations at Punta della Mortola have revealed that the deposit is thoroughly disturbed and that the Pre-Boreal assemblage was probably redeposited during the 1930s (Baroni and Biagi, in press).

On the eastern Apennines at an altitude of some 700 m, the site of Nido del Merlo and the nearby site of Passo della Camilla (Fig. 1, sites 1, 2) are very close to outcrops of dark red jasper. They both produced a poor assemblage including microlithic scalene triangles and circular end-scrapers. A similar collection was found at Ferrada 3 (Fig. 1, site 10) on the left bank of the Lavagna river at an altitude of some 100 metres.

Prato Mollo (Fig. 1, site 6) lies on the southern slopes of Monte Aiona, 600 m south east of Passo della Spingarda (1549 m) and some 200 m north east of a large peat bog basin (1492 m) which is currently being studied by G.M. Macphail (in press). The Mesolithic assemblage comprises material belonging
Figure 1  Mesolithic sites of eastern Liguria. Key: 1. Passo della Camilla; 2. Nido del Merlo; 3. Malga Perlezi; 4. Colmo Rondia; 5. Bosco Lame; 6. Prato Mollo; 7. Groppo Rosso; 8. Prato della Cipolla; 9. Passo dello Zovallo; 10. Ferrada 3; areas shaded black indicate jasper outcrops. Histograms show the percentages of flint (unshaded) and jasper (shaded) for these sites.

*Drawn by P. Bugi*
both to the Sauveterriane and Castelnovan traditions.

Colmo Rondio (Fig. 1, site 4), in the Aiona mountains, produced surface finds with both microlithic bilaterally-backed points and trapezes and denticulated blades.

The industry from Malga Perlezzi (Fig. 1, site 3) is more difficult to define because of the scarcity of diagnostic implements.

All the other eastern Apennines sites can be attributed to the late Mesolithic Castelnovan culture (Fig. 1, sites 5, 7–9), including the western Apennine camp of Pian del Re at 850 m a.s.l. (Fig. 2, site 2). This site lies on the western slope of Monte Bignone, in an area of springs, very close to the pass of Colli Termini di Biaiardo which connects the valleys of the interior to the Mediterranean sea, near Sanremo. The lithic assemblage is very specialized being composed of trapezes and notched blades, chipped from light-grey micro-crystalline quartzite, the nearest outcrop of which lies about 6.5 km west south west of the site.

**THE VEGETATIONAL HISTORY**

Data relating to the nature of the woodland cover of the Lateglacial and the beginning of the Holocene are very scarce and almost exclusively based on charcoal identifications (Vernet 1970, 1974; Fancelli Galletti 1972) (Fig. 6D).

In this context, the stratigraphic sequence recently brought to light at the Arma dello Stefanin (Fig. 4) is of particular importance and has produced new data covering almost six millennia. Together with the Arenae Candida succession, it provides the most important stratigraphy for Ligurian prehistory for the Lateglacial and Postglacial periods.

As mentioned already, no cave has yet produced evidence of Mesolithic activity. There is a gap in our knowledge covering the Pre-Boreal, Boreal and very early Atlantic climatic periods. In the high Apennines, the final phase of the Boreal seems to have been characterized by an expansion of the silver fir, recorded at Lake Agora (1300 m a.s.l.) and especially at Lajone near Panpaludo (985 m a.s.l.) (Montanari et al. 1979). The reasons why the caves were not occupied during the Mesolithic are still difficult to understand. Climatic change with increased internal percolation can be seen as one cause; but the exploitation of, and adaptation to, new forms of environment cannot be excluded as contributory factors (Biagi and Maggi 1983; Biagi and Nisbet 1986).

Charcoal identifications from the uppermost layers of Arma dello Stefanin, as well as those from
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*Figure 3* Typical chipped stone implements from Ligurian Mesolithic sites in chronological order (oldest site at the bottom). Drawn by P. Biagi
Arene Candide cave, show that the final Palaeolithic flourished in an environment subject to rapid changes and that some of the temperate oscillations of the Late Glacial considerably changed the characteristic Würmian woodland cover composed mostly of coniferae. At Stefanin the lowermost layers excavated so far (layers 6 and 6a) produced charcoal almost exclusively of Pinus sub-genus *Diploxylon* (*Pinus cf. sylvestris* /Scots Pine) and *Juniperus*. A similar situation is known from layers 5a–5, but with a gradual increase in thermophilous vegetation with deciduous oak (*Quercus pubescens*) and alder (*Alnus*). This association might indicate a humid temperate episode preceding layer 4 which produced the youngest final Epi-Gravettian assemblage of the cave. In layer 4, itself, a vegetation composed of various thermophilous species makes its appearance while the coniferae disappear (?Allerød). If this
Figure 6  Liguria – site distributions: A. final Epi-Gravettian sites; B. Mesolithic Sauvetterian (circles) and Castelnowian (dots) sites; C. early Neolithic sites; D. sites with pollen (circles) and charcoal (dots) identifications. Large dots indicate concentrations of more than five sites. Drawn by P. Biagi
chronology is correct the thick stalagmite levels of layer 3 should belong to the Pre-Boreal and Boreal. It is interesting to observe that the charcoals from these levels indicate a temperate climate with pubescent oak (Quercus cf. pubescens) and hop-hornbeam (Ostrya) becomingly progressively humid with the first appearance of beech (Fagus sylvatica). At other caves like Arma dell’Aquila, a few kilometres from the sea, the late Palaeolithic layers are dominated by spruce/larch (Picea/Larix). Here, more than ten millennia later, the early and middle Neolithic occupations show evidence of maple (Acer), oak (Quercus cf. pubescens), juniper (Juniperus) and holm oak (Quercus ilex). The Middle Atlantic is characterized by a forest with deciduous oak (Quercus cf. pubescens), ash (Fraxinus), hazel (Corylus) and alder (Alnus). Man’s impact on the environment increased during this period with the first traces of agriculture at Arma dell’Aquila and the Arene Candide caves (Biagi and Nisbet 1986).

CONCLUSIONS

Liguria lies between two areas that are very important for their Mesolithic finds: the Tusco-Emilian Apennines to the east (Biagi et al. 1980; Tovazzi 1980), and Provence to the west (Escalon de Fonton 1976a, 1976b). Significant differences can be observed in the site locations, tool types and supply of raw material for the three areas. The Sauerterian encampments of eastern Liguria have produced assemblages made largely from dark red or pale green Jasper from an outcrop very close to two of these sites. The Castelnovian stations have yielded collections with both Jasper and flint artifacts. The percentage of flint tools seems to increase at those sites farther away from the Jasper outcrops. An interesting phenomenon is the occurrence of many unretouched artifacts at several Castelnovian sites. At the very large site of Bosco delle Lame (Fig. 1, site 5), for instance, the collection comprises thousands of artifacts, mostly blades, blades and some 200 cores to indicate that tools were produced locally. The two western sites of Punta della Mortola (Fig. 2, site 1) and Pian del Re (Fig. 2, site 2), located in a very different environment, have industries made largely from locally available material.

All the Ligurian Mesolithic camps are open-air sites, while in nearby Provence the best documented sequences are all from rock-shelters (Escalon de Fonton 1976b). A very different situation is that of the Tusco-Emilian Apennines where valley bottom ‘base camps’ have been excavated (Tozzi 1980). Many high altitude camps lying very close to passes have implements made of materials from various sources (Cremaschi 1978), mostly flint from the foot of the northern Apennines (Cremaschi et al. 1982).

It is still difficult to understand why no traces of Mesolithic activity are documented in the Ligurian caves, while both Provence and Languedoc are rich in rock-shelters showing evidence of continuous occupation from the Laterglacial to the Atlantic period (Escalon de Fonton 1976b, 1976c).

Unfortunately, no Ligurian Mesolithic camp has produced faunal remains. The few data available for the final Epi-Gravettian show that the ibex was the commonest animal killed for meat at Arma dello Stefanin (Leale Anfossi 1972). Red deer and boar bones are very abundant at Arene Candide, a cave actually lying at 89 m a.s.l. with a steep drop to the Mediterranean sea, where the gathering of marine molluscs also played an important role in final Epi-Gravettian times (Emilian et al. 1963).

A very different picture emerges at the beginning of the early Neolithic Impressed Ware culture (Bernatò Brea 1946, 1956). All the sites of this culture are concentrated in a very restricted zone of the Ponente (west) (Fig. 6C). They are all caves or rock-shelters often opening rather far from the coast (Biagi and Nisbet 1986). The only exceptions are the Levante (eastern) open settlements of Uscio and Suvero possibly belonging to the late seventh millennium BP (Maggi 1980; Biagi et al. 1987). It is probable that most of the coastal sites were destroyed during the Postglacial sea-level rise (Aloisi et al. 1978; Bazile 1987), as already observed in southern France (Mills 1982; Geddes et al. 1983). Thus, the origins of the Neolithic cannot be understood only through the study of the cave finds. In addition to the first pottery production, these sites also have other Neolithic elements, such as new flint types consisting of trapezes with flat retouch (flèches tranchantes) and imported obsidian pieces (Williams Thorpe et al. 1979). The early Neolithic economy at Arene Candide was based mainly on stock raising (Rowley-Conwy, in press) at the end of the eighth millennium BP (UB-2423: 6980±115 BP). According to the radiocarbon dates, at about the same period the Adige valley, the Po plain, the Trieste karst and the Tusco-Emilian Apennines still had a late Castelnovian way of life (R-1148: 6870±50 BP; R-892: 6930±60 BP; R-1043: 7050±60 BP; Birm-830: 6960±130 BP; Bln-3277: 6810±70 BP – Alessio et al. 1983; Accorsi et al. 1986).

References


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