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## Aspects of the Mesolithic age in Liguria

### ABSTRACT

The Authors present the results of recent research carried out in eastern Liguria which lead to the discovery of ten Mesolithic sites located at middle and high altitudes on the Appennine chain. New considerations on the Late Epigravettian occupation levels at Arene Candide and other west ligurian caves conclude the article.

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### PREFACE

Recent surface surveys carried out by local amateurs in Eastern Liguria have led to the discovery of ten Mesolithic sites mainly in the area of the Aiona (1701 m) and Maggiorasca mountains (1799 m) (Baffico, Biagi, Maggi 1983). In every case they are open sites located near passes, at the edges of glacial cirques, on mountain ridges or in one case on a river terrace in a valley.

#### 1. Mesolithic sites of Eastern Liguria

##### 1.1 *Sauveterrian assemblages*

A single valley bottom site, Ferrada 3 (fig 1/10), located at about 100 m above sea level on a river terrace, on the left of the Torrente Lavagna. The industry is exclusively of red jasper which was extracted from an erosion level overlying the alluvial deposits. It comprises about 50 artifacts, which include a scalene triangle, a truncated and backed blade and a bilateral backed point; it is therefore attributable to the Sauveterrian tradition.

Two other sites dating to the same period are those of Passo della Camilla (GC II) (fig 1/1), at 676 m on the pass of the same name, which connects the upper Val Graveglia with the Val Sturla further into the interior, and that of the Nido del

Merlo (fig 1/2) situated close by several hundred metres down the valley.

The industry from the Passo della Camilla comprises almost five hundred artifacts including two carenated end scrapers (fig 2/1), a discoidal scraper and two short end scrapers, one being on a hypermicroflake (fig 2/2). Another hypermicrolithic implement is a backed and truncated blade. There is also a proximal microburin (fig 2/3), a partially backed point on a small flake and two deep truncates; also present are some notched blades, one on a bladelet fragment.

The industry from Nido del Merlo (CG III) was made up of about 160 tools among which are two scrapers, one circular (fig 2/7) and one double carenated frontal (fig 2/4), a scalene triangle with a long base and three retouched sides similar to a Montclus triangle (fig 2/6), a hypermicrolithic scalene trapeze with steep marginal truncations, a fragment of a bilateral backed implement (fig 2/8) and a microburin (fig 2/9). Among four truncated bladelets is one hypermicrolithic and two transversal examples; there is also a denticulated bladelet and some notched blades.

The Monte Aiona range is an impressive area, with an extensive summit, characterised by gently basins containing some small lakes on the north west side.

The locality Prato Mollo (PM1) (c. 1500 m) (fig 1/6) is represented by a peat basin with the site of the same name on its shore.

The flint industry was collected over a considerable area, and comprises about a thousand artifacts among which is a long end scraper, two hypermicrolithic semicircular scrapers (fig 2/10), a long frontal, carenated, end scraper (fig 2/13) and one short one, some marginally and deeply re-

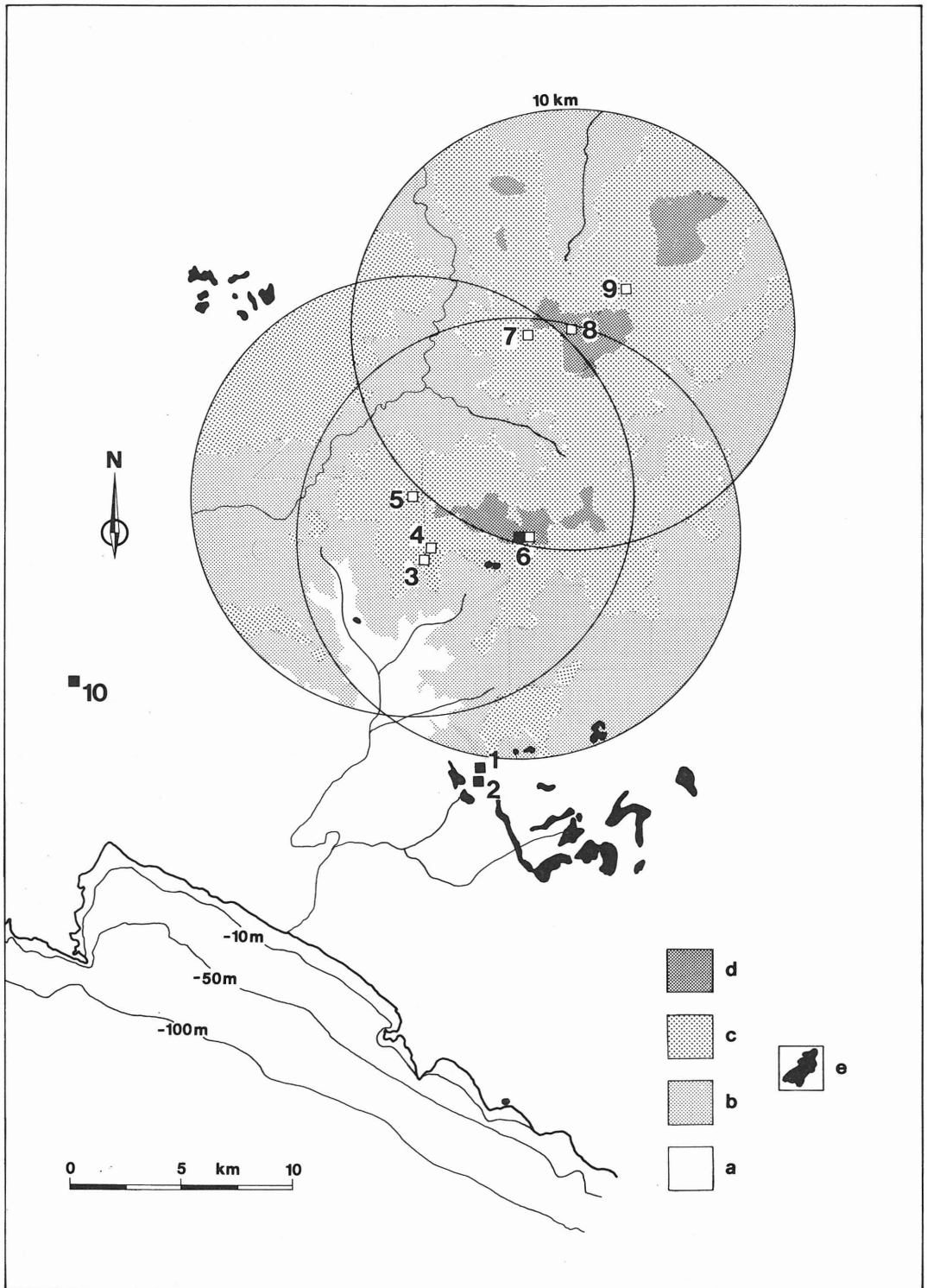


Fig 1 - Mesolithic sites in Eastern Liguria: 1) Passo della Camilla, 2) Nido del Merlo, 3) Malga Perlezzi, 4) Colmo Rondio, 5) Bosco delle Lame, 6) Prato Mollo, 7) Groppo Rosso, 8) Prato della Cipolla, 9) Passo dello Zovallo, 10) Ferrada 3. a) from 0 to 500 m asl; b) from 500 to 1000 m asl; c) from 1000 to 1500 m asl; d) over 1500 m asl; e) jasper outcrops (Authors' drawing).

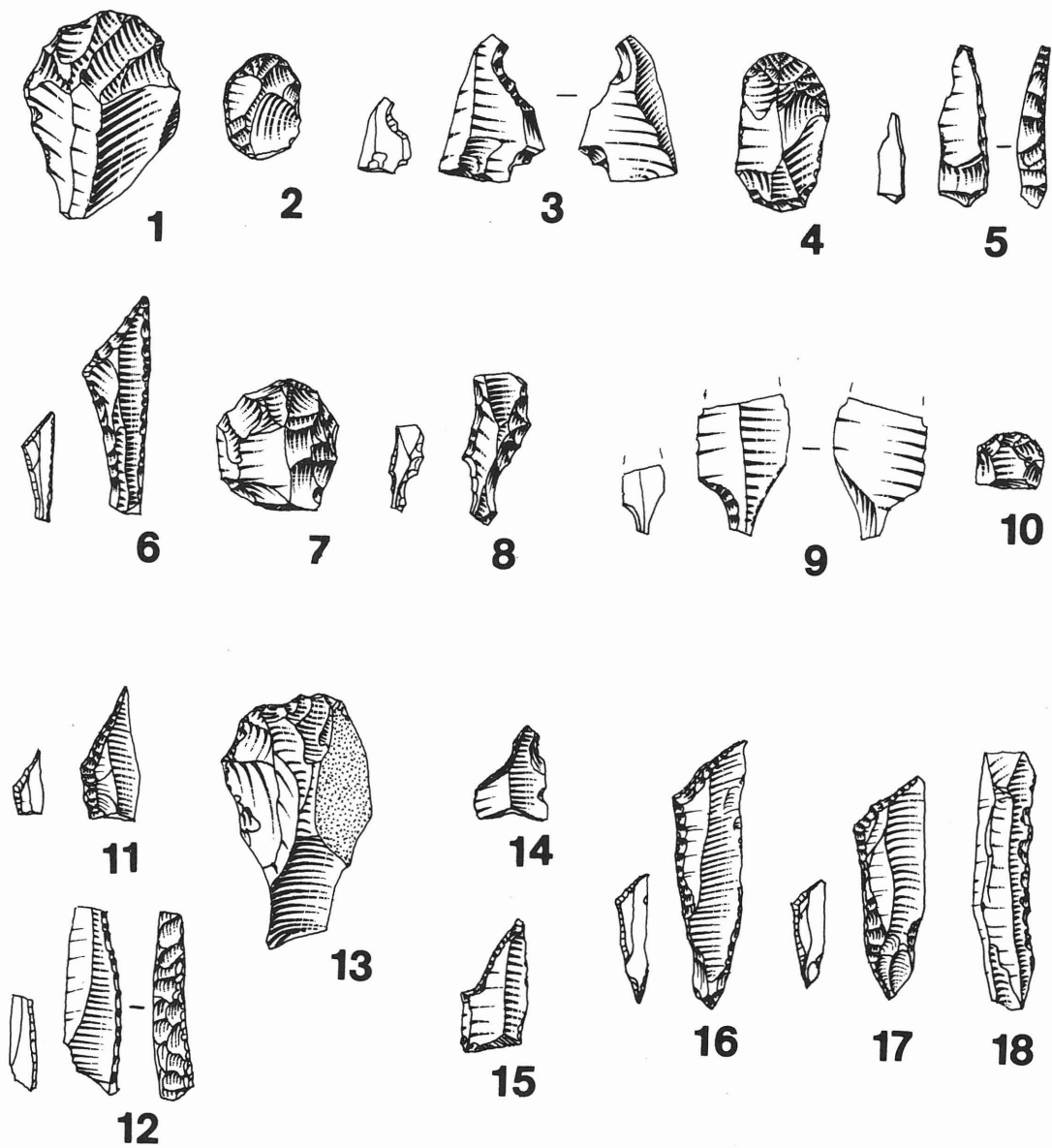


Fig 2 - Mesolithic industries from Passo della Camilla (1-3), Nido del Merlo (4-9), Prato Mollo (10-18) (1:1) (Drawn by D. Vaiati).

touched truncates, a partially backed point, a bilateral steeply retouched awl, a «bec». Various hypermicrolithic tools are backed (fig 2/12), a short double backed point with unworked base, another bilateral backed bladelet, four long scalene triangles of which three have partial retouch on their third side (fig 2/16, 17), three scalene trapezes (fig 2/14), also with *piquant trièdre*, two fragmentary trapezes (fig 2/15), two microburins, three denticulated blades (fig 2/18), several flakes with steep retouch, side scrapers and bladelets with marginal retouch.

This industry appears to be attributable partly to the Sauveterrian tradition and partly to the Castelnovian.

### 1.2 *Castelnovian assemblages*

The site Malga Perlezzi (SG5) (fig 1/3) is situated on a terrace half way up the south west slope of the Aiona, at slightly over 1000 m altitude.

The industry comprises 320 artifacts, among which are three end scrapers, two truncated bladelets, a fragment of a unilateral backed bladelet, an isosceles triangle made by deep, direct and

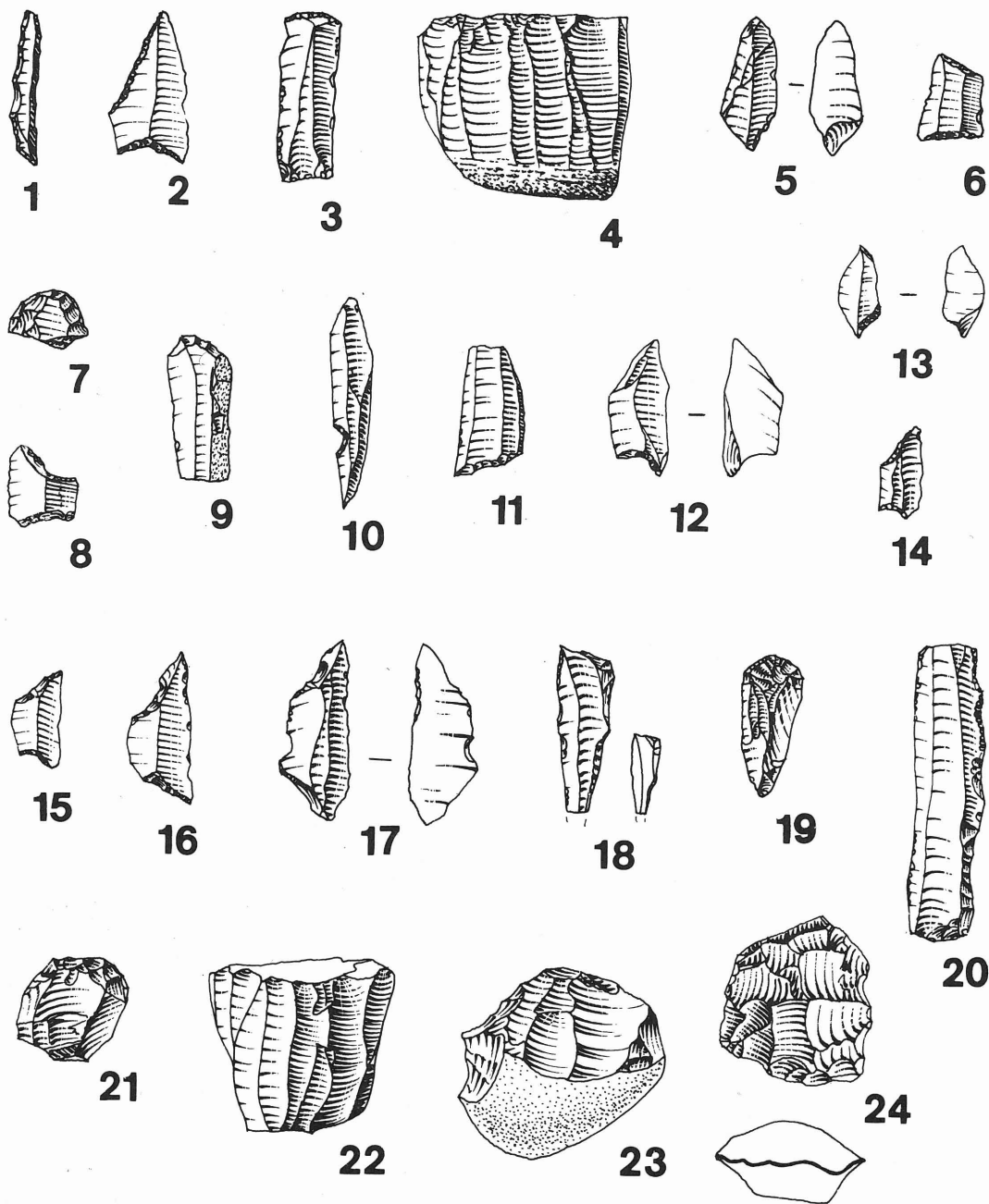


Fig 3 - Mesolithic industries from Colmo Rondio (1-4), Groppo Rosso (5-7,9), Prato della Cipolla (8,10-14), Bosco delle Lame (15-24) (1:1) (Drawn by D. Vallati).

abrupt truncations, a *pièce ecaillée*, several retouched bladelets and some denticulates.

At a short distance, a little further up the mountain, is the site of Colmo Rondio (SG1) (fig 1/4) on a rounded summit, where an assemblage of about 500 artifacts was collected, among which, a burin, three end scrapers, including one frontal on a bla-

det fragment (fig 3/3), a bilateral backed point (fig 3/1), a rectangular trapeze with a truncated concave base opposed to a long oblique truncation (fig 3/2), several retouched bladelets, flakes with steep retouch and some denticulates. At an altitude of 1500 m, on a ridge which divides the north west slope, rich in lakes, from the southern

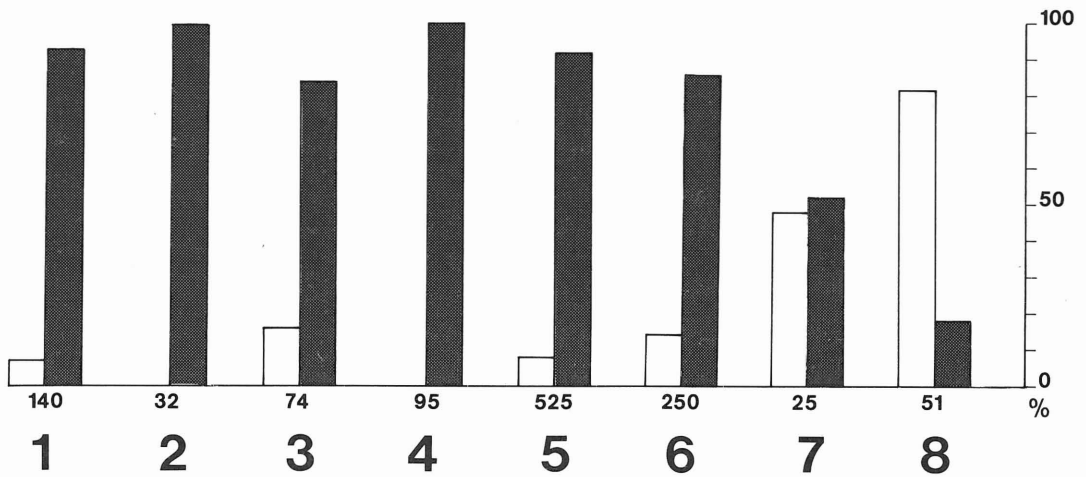


Fig 4 - Mesolithic industries from Eastern Liguria: histograms of the percentage relationship flint/jasper for unretouched artefacts. For site names see fig 1 (Authors' drawing).

slope, is located the site of Bosco delle Lame (SBL1) (fig 1/5), the richest so far discovered, where the industry is scattered over a wide area. 1200 artifacts and 200 cores have been collected. Represented are five long frontal end scrapers (fig 3/19), two short frontal end scrapers (fig 3/21), one fan shaped, three circular and three careenated scrapers among which a long frontal example, a short frontal and the third circular, various truncates, a straight awl, a partially backed point, a hypermicrolithic backed point (fig 3/18), three backed bladelets, four scalene trapezes (fig 3/15-17) and a microburin. The «substratum» is also represented. Cores are prismatic (fig 3/22) and discoidal (fig 3/23, 24). Leaving the Aiona range and moving towards the heart of the Appennine chain, one crosses a ridge that never drops below 1380 m to reach the Maggiorasca group which comprises, besides Monte Maggiorasca itself, the highest peak in the Eastern Ligurian Appennines, Monte Bue (1777 m), Monte Nero (1753 m) and Monte Gropo Rosso (1594 m). The whole area is rich in springs, mostly perennial, and there are also small lakes of glacial origin: Lake Nero and, lower down at 1274 m on the south west slope of Maggiorasca, Lake Riane.

Near Monte Gropo Rosso (GR1) (fig 1/7), a small collection contains about 90 artifacts among which we can note a nosed scraper (fig 3/9), a fragment of a hypermicrolithic end scraper (fig 3/7), three marginal truncates, a scalene trapeze (fig 3/6) and a microburin (fig 3/5). The remaining pieces belong to the «substratum», with a preva-

lence of marginally retouched, often bilateral, bladelets, of flakes with abrupt retouch and of denticulates. At about a kilometre to the east of Gropo Rosso, the Prato della Cipolla (Cip2) (fig 1/8) is a basin of glacial origin, a little under 1600 m, lying to the north west of Monte Bue.

The material collected comprises about 390 artifacts, among which is a burin on retouch with a lateral spall, a short frontal end scraper, various truncates (fig 3/11) with marginal and deep retouch, two scalene trapezes (fig 3/14), one hypermicrolithic isosceles *piquant trièdre* trapeze (fig 3/8) and at least twelve microburins (fig 3/12, 13). The remaining assemblage is made up of the «substratum» in which denticulates on blade predominate (fig 3/10), some of these although fragmentary, are clearly of «normolithic» size.

In the Maggiorasca and Monte Zovallo group the site of Passo dello Zovallo (fig 1/9) is situated. The collection comprises a scalene *piquant trièdre* trapeze, three truncates of which two are *piquant trièdre*, a short frontal scraper, five microburins, several retouched bladelets and some notched pieces. As can be seen in fig 1, the sites are located close to deposits of jasper, of which one lies to the north west, and the other, the most important, to the south east. The histograms in fig 4 show how the percentage of unretouched flakes of jasper decreases in respect of that of flint with the increase in distance from the south eastern deposits.

In fig 5 are shown indices of eight collections. These show how the industries from the different

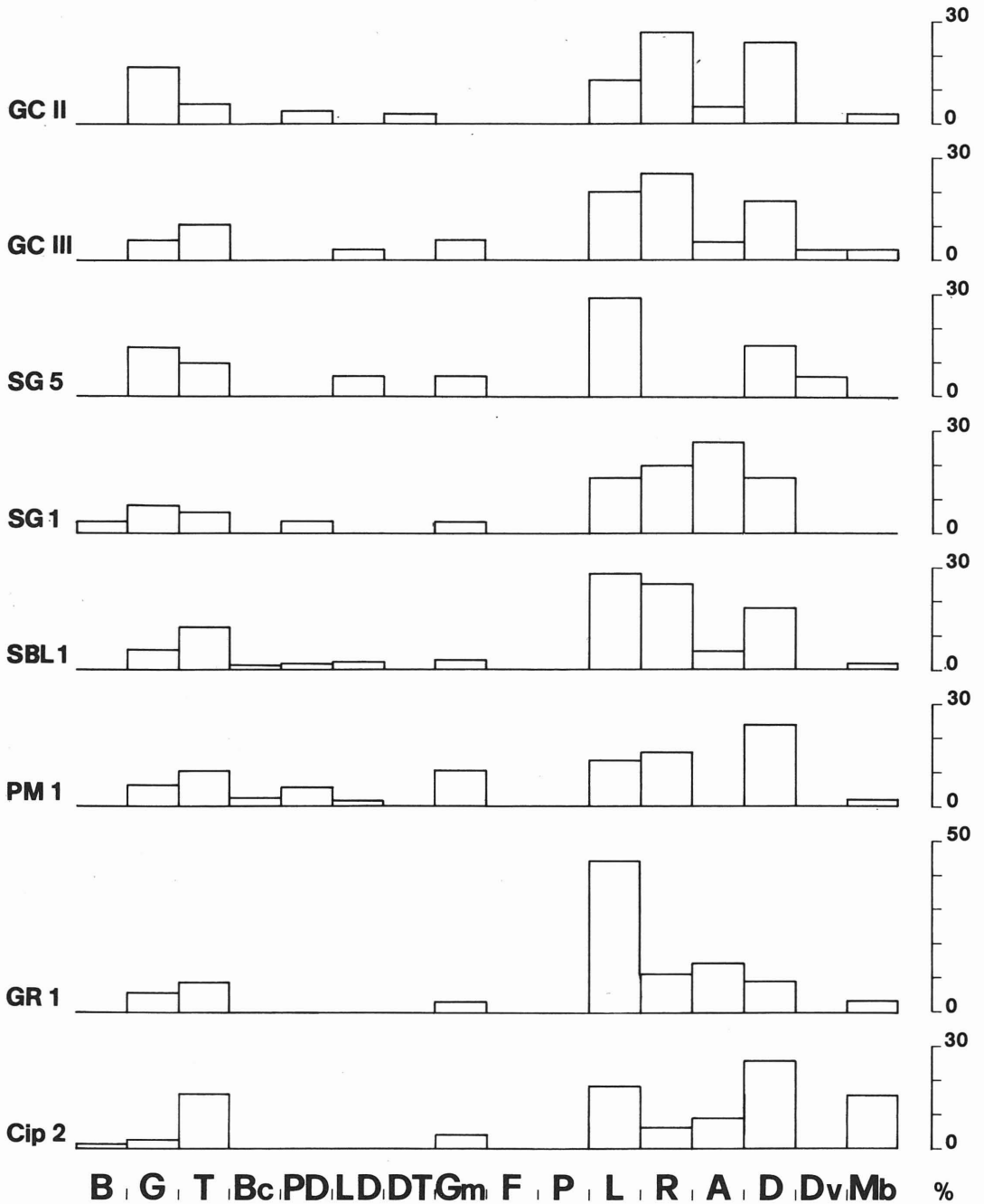


Fig 5 - Structure of the Mesolithic industries of Eastern Liguria. For site names see fig 1. GCII=1; GCIII=2; SG5=3; SG1=4; SBL1=5; PM1=6; GR1=7; Cip 2=8 (Authors' drawing).

sites, independent of chronological factor, have homogeneous structures, largely dominated by the «substratum» which maintains values between 60 and 79%. This is somewhat different from the ge-

neral range of Mesolithic industries in the areas of the Alps, the Emilian Appennines and the Apuan Alps, which are usually dominated by various tools with abrupt retouch.

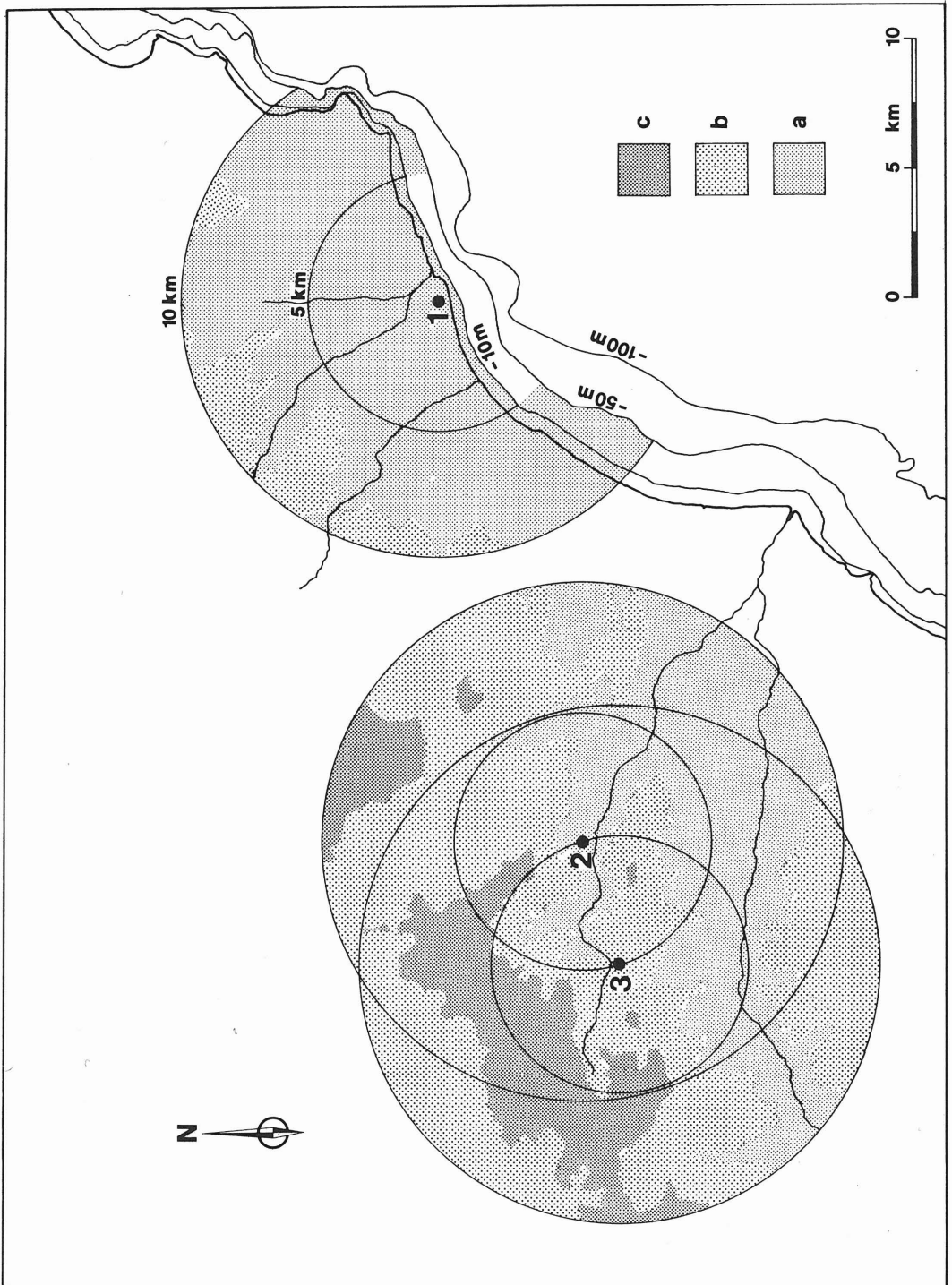


Fig 6 - Western Liguria: cave sites with occupation during the Final Epigravettian and Early Neolithic periods: 1) Arene Candide, 2) Arma di Nasino, 3) Arma dello Stefanin. a) from 0 to 500 m asl; b) from 500 to 1000 m asl; c) from 1000 to 1500 m asl (Authors' drawing).

## 2. Final Epigravettian sites in the western Ligurian Appennines

Fig 6 shows the geographical position of three cave deposits whose stratigraphies include, among other phases, periods of occupation relating to the Final Epigravettian and the Early Neolithic Impressed Ware Culture: Arene Candide (fig 6/1) (Bernabò Brea 1946; 1956; Cardini 1946), Arma di Nasino (fig 6/2) (Leale Anfossi 1962; Palma di Cesnola 1974b), Arma dello Stefanin (fig 6/3) (Leale Anfossi 1972; Palma di Cesnola 1974a). In these stratigraphies we see the absence of Mesolithic occupation, that is the absence of human activity for the whole period of time between the Pre Boreal and the early Atlantic. At Arene Candide the Final Epigravettian levels overlying the cemetery have been dated to  $8380 \pm 95$  bc (Oakley, Campbell, Molleson 1971).

These levels, according to Baissas (1974), are covered by a sterile layer attributable to the Pre Boreal and the Boreal, with evidence of extremely humid conditions. Atlantic levels follow these with Impressed Ware industries, whose earliest dates are UB 2423:  $5030 \pm 115$  bc and LJ 4143:  $4960 \pm 110$  bc.

A similar situation is to be seen at the Arma dello Stefanin in Val Pennavaira (at 440 m). Levels IV and V of Leale Anfossi's excavations have provided dates unacceptable to the present authors (R 126:  $6150 \pm 90$  bc; R 145:  $6850 \pm 300$  bc; R 148:  $6450 \pm 100$  bc) since these industries are attributable to the Final Epigravettian. Excavations at present underway have produced a well defined stratigraphy (fig 7), where between layer 4, Final Epigravettian, and layer 2, Early Neolithic, was a

thick deposit of stalagmite, evidence of the absence of human activity relating to the Pre Boreal, Boreal and initial stages of the Atlantic. A similar condition may also have existed in the Arma di Nasino (fig. 6/2), where M. Leale Anfossi (1962) noted the presence of an «almost sterile» layer, separating layer XI, Epipalaeolithic, from IX, Neolithic.

We can observe that the phenomenon in question is found in different geographical contexts, being both near the sea (Arene Candide), as well as in the deep and closed valleys that lead towards the Maritime Alps (Nasino and Stefanin). One can ask whether the absence of occupation of the caves during the Mesolithic may be related closely to the environmental conditions of these sites (excessive humidity), or more general variations in population trends or activity.

The only Mesolithic site in western Liguria is that of Punta della Mortola, attributable, on typological grounds, probably to an initial moment of the Pre Boreal and at present housed in the Balzi Rossi Museum.

## 3. Neolithisation

As has already been mentioned, the appearance of the Neolithic in western Liguria dates to the end of VI<sup>th</sup> and beginning of V<sup>th</sup> millennium bc as far as we can judge from the radiometric dates from Arene Candide and the Caverna Pollera (Tinè 1974).

The excavations at Arene Candide (Bernabò Brea 1946; 1956; Tinè 1974) and at Pollera (Odetti 1974; Tinè 1974) show that the basic economy of the Early Neolithic in Liguria, besides hunting and gathering, also included animal husbandry (Emilia-

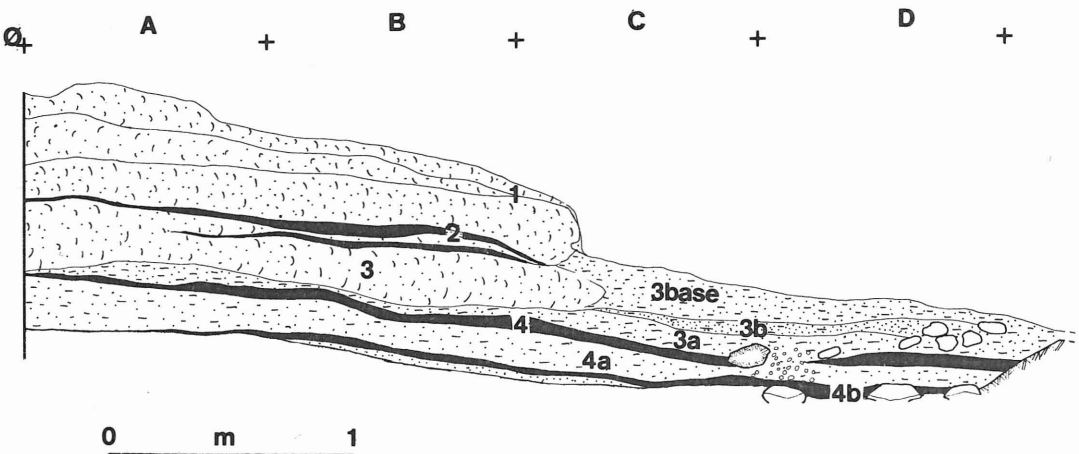


Fig 7 - Stratigraphy in the Arma dello Stefanin (1982 excavation): 1) Stalagmite concretion; 2) Early Neolithic; 3) Stalagmite concretion; 4) Final Epigravettian (Drawn by E. Starnini).



ni, Cardini, Meyeda, MacBurney, Tongiorgi 1964) and crop cultivation (Biagi, Nisbet 1983). It is obvious to think, therefore, that these cave sites were complementary to more open settlements loca-

ted probably close to the sea, which disappeared with the advance of the coast line during the Holocene transgression (De Lumley 1976).

The present evidence for the absolute chronology for the Castelnovian Mesolithic stations of the Tusco-emilian Appennines and the north eastern Alps, is that they all belong to the first millennium of the Atlantic (5500-4500 bc).

The diagram in fig 8 shows an overlap of dates between those of the Mesolithic Castelnovian and the Impressed Ware Culture: an overlap which may be due to either the possible presence in the same region of two cultures based on different economic strategies (Orme 1981) or, since the radiocarbon dates for the Castelnovian come from the area of Po, Alps and Appennines, it is not to be excluded that the Castelnovian Mesolithic was flourishing in these areas at the same time as the earliest Neolithic colonizers occupying the Ligurian coast<sup>1</sup>.

<sup>1</sup> The Authors are very grateful to Dr. L.H. Barfield of Birmingham University who translated this article.

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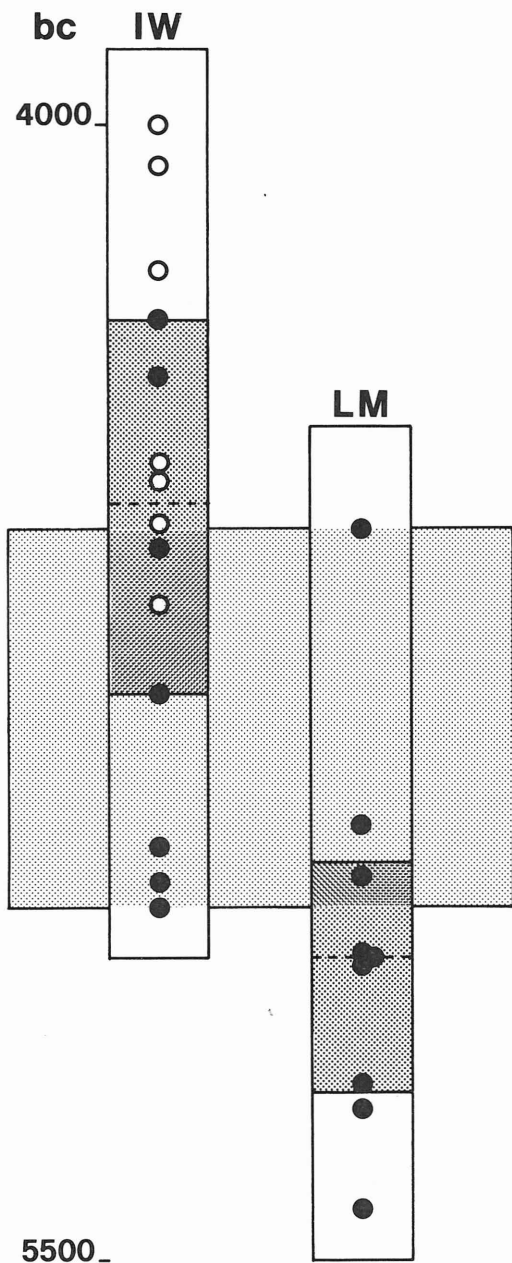


Fig. 8 - Representation using Ottaway method (1973) of absolute dates for the Castelnovian Mesolithic (LM) and Impressed Ware Culture of Western Liguria (IW). The strippled area represents overlapping dates. Points: acceptable dates; circles: dates from Nasino (Drawn by P. Biagi).

## SUMMARY

Thanks to research carried out by local amateurs, 10 Mesolithic stations belonging both to the Sauveterrian and the Castelnovien Complexes, have been discovered in the East Ligurian Apennines. After discussing the materials found in these new stations, the Authors make some comments on the Final Epigravettian stations in caves of Western Liguria; they are also rather perplexed about the fact that these are meant to belong to the Mesolithic period, as understood by the previous Authors. Some hypothesis on the reasons for the absence of anthropization of these caves from the Preboreal to the beginning of the Atlantic and others on the origins of the Neolithic along the coast, conclude this work.

## RIASSUNTO

Grazie a ricerche condotte da amatori locali, sono stati rinvenuti, nell'Appennino Ligure di Levante, 10 stazioni mesolitiche appartenenti sia ai Complessi Sauveterriani che a quelli Castelnoviani. Dopo aver presentato i materiali di queste nuove stazioni, gli Autori espongono alcune considerazioni sulle stazioni Epigravettiane Finali in caverna della Liguria di Ponente ed esprimono alcune perplessità circa la loro cosiddetta appartenenza al periodo Mesolitico come inteso da precedenti Autori. Alcune ipotesi sui motivi di mancanza di antropizzazione di questa caverna dal Preboreale all'inizio dell'Atlantico ed altre sull'origine del Neolitico lungo la costa concludono il lavoro.

## RÉSUMÉ

Grâce à des recherches conduites par des amateurs locaux, on a découvert, dans l'Apennin Ligure de l'est, 10 stations mésolithiques appartenant aussi bien aux Ensembles Sauveterriens que Castelnoviens. Après avoir présenté le matériel de ces nouvelles stations, les Auteurs exposent quelques considérations sur les stations Epigravettiennes Finales en caverne de la Ligurie de l'ouest et expriment une certaine perplexité quant à leur prétendue appartenance à la période mésolithique comme l'ont avancé divers Auteurs précédents. Quelques hypothèses sur les raisons de l'absence d'anthropisation de ces cavernes du Préboréal au début de l'Atlantique et d'autres hypothèses sur les origines du Néolithique le long de la côte terminent ce travail.