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Living-Floors and Structures From the Lower Paleolithic to the Bronze Age in Italy

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ABSTRACT

New researches have been performed on the analysis of some Italian dwelling structures dating from the Lower Paleolithic to Bronze Age. Different methods have been applied to each study according to the extensions of the areas explored. The following sites have been analyzed: Isernia La Pineta (Molise), Visogliano (Trieste) – Lower Paleolithic; Grotta del Cavallo (Lecce), Grotta Grande and Riparo del Molare (Salerno) – Middle Paleolithic; Grotta di Fumane (Verona), Riparo Tagliente (Verona), Grotta Continenza (Fucino L'Aquila), San Bartolomeo (Maiella Mountain, Abruzzo) – Upper Paleolithic; Mondeval de Sora (Belluno), Alpe Veglia (Verbania) and Grotta Edera (Aurisina, Trieste) – Mesolithic; Cala Giovanna Piano (Pianosa Island, Livorno), Contraguda (Perfugas, Sassari), Colle Santo Stefano (Fucino, L'Aquila), Catignano (Pescara), Settefonti (L'Aquila) – Neolithic; Castellaro Lagusello (Monzambano, Mantua) – Bronze Age.

Key words: *living-floors, structures, prehistory, protohistory, Italy*

Introduction

This contribution sets out data emerging from the analysis of several structures and living floors brought to light over the last ten years in Italy. The sites considered here illustrate the main phases of pre-protolithic settlement of our peninsula, from the Lower Paleolithic up to the Bronze Age. The aim of the paper is to highlight the potential offered by this category of archaeological evidence, making considerations on the settlement strategies adopted and how the organization

of living floors evolved over this ample time-span.

The Living Floors of Isernia La Pineta: Figure 1, n. 1

(C. Perreto, A. Minelli, U. Thun Hohenstein)

The exploration and study of the deposit at Isernia La Pineta are carried out in collaboration between the Dipartimento delle Risorse Naturali e Culturali of Ferrara University and the Soprinten-

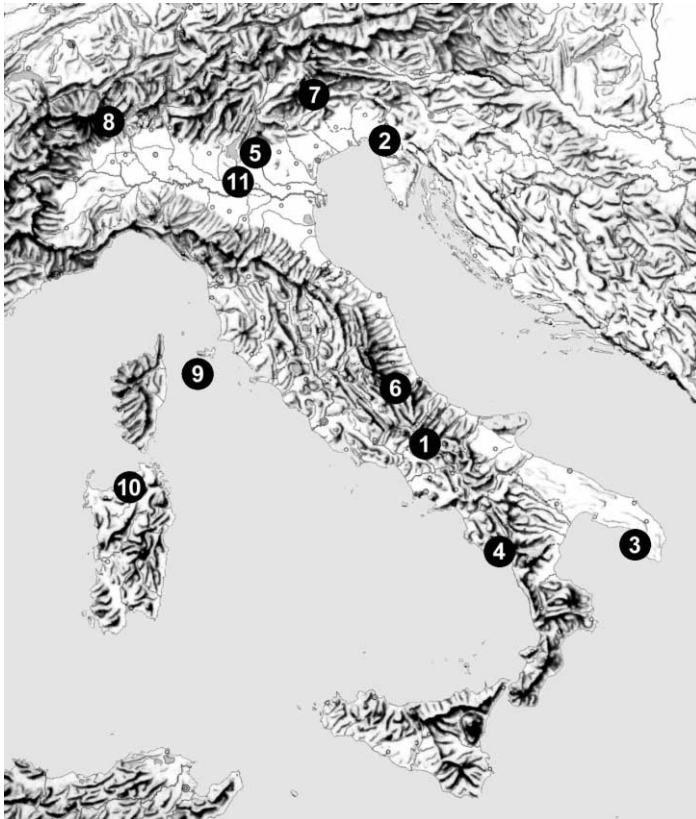


Fig. 1. 1. Isernia La Pineta (Molise); 2. Visogliano and other Karst sites; 3. Grotta del Cavallo (Lecce); 4. Masseta at Scario sites (Grotta Grande and Riparo del Molare); 5. Veneto area sites (Grotta di Fumane and Riparo Tagliente); 6. Abruzzo sites (Grotta Continenza, S. Bartolomeo, S. Stefano, Catignano, Settefonti); 7. Mondeval de Sora (Belluno); 8. Alpe Veglia (Verbania); 9. Pianosa island (Cala Giovanna); 10. Contraguda (Sassari); 11. Castellaro Lagusello (Mantova).

denza Archeologica del Molise. The area under excavation covers several hundred square meters; it is covered by a pavilion housing the laboratories for the restoration work, study of materials, and treatment of the data banks and living floors using GIS.

Recent research performed on the site allows a completely new interpretation to be made of how the ancient living floors were formed (3c, 3a, 3S10), mainly thanks to the extension of the explored area. These archeosurfaces are the result of behaviors arising from specific strategies directed at obtaining meat for food consumption, and are borne out by the paleogeographic reconstruction of the area, the deposition and distribution of lithic and bone finds¹, the technical and typological characteristics of flakes and cores, as well as by the operative sequence adopted by prehistoric humans for their knapping and use.

The three living floors are apparently different *facies* of a single settlement phase, which the sequence of events sur-

rounding its burial lead to be erroneously attributed to separate archaeological layers, from a chronological point of view.

The common element shared by all three living floors is the humid environment present in the area at that time: this can be seen from the partly-emerged travertine formations, evidencing a fairly continuous horizontal, linear progression. The gradual increase of these formations – caused by flowing water – is documented by the exposed sections and excavation reliefs testifying typical structures linked to this phenomenon (Figure 2). It appears likely that the entire area was characterized by a reticulate, with a myriad of small lakes or pools leading into one another.

The excavation work unearthed a large quantity of lithic material on the long, narrow surface of one of these reliefs surrounded by water; these finds are in a very good state of preservation, mostly consisting of flakes obtained by direct percussion or on an anvil², their surfaces showing frequent traces connected with



Fig. 2. Isernia La Pineta. The paleosurface 3a.

butchery (L. Longo, personal communication). Bone remains instead are very scarce, becoming very frequent at its edges, where water was present; flint artifacts are infrequent here, and present translucent surfaces to indicate their immersion in water. The bone/flint ratio thus changes in relation to the area, i.e. reliefs or the lower humid zones.

Furthermore, in the sunken areas we can distinguish the three different living floors (3c, 3a, 3S10), which become joined in a single layer at the level of the travertine bar, on the higher ground. Volcanic deposits (cinerites) fill in the sunken areas, separating the archaeosurfaces and tending to level out the whole area, and rise up – like the living floors themselves – along the sloping edge of the travertine bar towards the lake area. In some places the extension of the travertine invades part of the living floors.

Bearing in mind the numerous studies on the lithic and faunal finds of the area^{2,3}, the interpretation of these data informs us that prehistoric humans adopted specific and productive subsistence strate-

gies. The stable occupation of the travertine reliefs surrounded by a lacustrine environment afforded the human group the necessary refuge and protection, while exploration of the surrounding territory offered the opportunity of recuperating animal carcasses, or parts of these, for food consumption. The carcasses were carried to these areas – decidedly safer than on the open plains – where they were butchered and further exploited by fracturing the bones to extract the marrow. The considerable concentration of faunal remains in the humid environment close to the relief (which was noted from the very first stages of research⁴) leads us to believe that they were deliberately thrown there. The immersion of organic remains still rich in organic material ensured they did not draw the attention of carnivores.

Visogliano: Figure 1, n. 2
(G. Boschian, C. Tozzi)

Level 13 is a living floor made up of a pebble pavement lying on a horizontal



Fig. 3. Visogliano. The living floor of Level 13.

surface (Figure 3). It is unclear whether the surface was formed naturally, by some erosion process, or to which extent a naturally formed surface may have been reshaped by humans requiring a flat living surface. In any case, this surface is a major unconformity that intersects a series of levels dipping towards the outside of the shelter, and starts a horizontally layered sequence.

The pebbles and cobbles of the pavement were collected outside the shelter from *terra rossa*-like soil profiles and outcrops, and are typically rounded by dissolution. These stones were often broken with a single stroke, so that a flat face with sharp edges all round was created; these artifacts were then laid onto the flat surface, and a 10 to 20 cm thick pavement was obtained. Among the stones, flint and volcanic rock tools are common, together with a large number of intentionally broken bone remains.

At present, this layer is strongly cemented by calcite, so that the position of pebbles, tools and bones is well preserved.

Grotta del Cavallo: Figure 1, n. 3 (L. Sarti)

The Grotta del Cavallo, a cave located on the coast of Salento (Lecce), was the object of research during the 1960s (excavations by A. Palma di Cesnola)⁵ and is currently the center of a new research project (excavations of the Mousterian levels by L. Sarti). This site, one of the most important in Southern Italy, contains a highly significant stratigraphic series, which includes four principal chronological and cultural levels: the Mousterian (layers M–F), the Early Upper Paleolithic of Uluzzian *facies* (layers E–C) and the Final Upper Paleolithic with the Epigravettian of Romanellian *facies* (layer B), and a Neolithic layer that closes the sequence.

At the end of the 1970s, Palma di Cesnola and his collaborators of the Uni-

versity of Siena began a new project of multidisciplinary research on the site, which also includes the restarting of excavations in the Romanellian deposits (entrusted to F. Martini), in the Uluzzian levels (entrusted to P. Gambassini) and in the Mousterian series, one of the fundamental Middle Paleolithic sites of Southern Italy (entrusted to L. Sarti).

The first phase of the project, still in progress, has given priority to research in the Mousterian deposit, where every year an excavation campaign is carried out over a surface of 12 m², significant for studying the organization of living space; these studies, conducted by a team of archaeologists and naturalists, also include the treatment of spatial data with advanced CAD programs.

Research in the Mousterian deposit, which has extended the trench which was first excavated in the 1960s, has already covered almost all the series, confirming the distinction and cultural interpretation of the various levels formulated initially by Palma di Cesnola. The most ancient Mousterian layer (layer M) is referable to the Charentian of Quina type, with some archaic elements maybe of a tayacoid tradition. A Mousterian layer follows (layer L) with scarcely evident Charentian characteristics, in which the use of mollusc valves (*Callista chione*) to integrate lithic raw material is frequent. This use seems to be unique and limited to this zone. The denticulate Mousterian of layer I characterizes the successive stage of the sequence; after an archaeological phase containing very little documentation (layer H) and a volcanic level (layer G), the final Mousterian of layer F follows, distinguished by typical-Mousterian: abundant of scrapers in the lowermost part and rich in denticulates in the higher part⁶.

The recent excavations have made it possible to distinguish the various living horizons within the layers already noted,

together with their structural characteristics. This constitutes the most important result of the new research, which has also permitted further archaeological material to be collected and sediment samples to be drawn for paleoenvironmental studies. At the moment the lithic industries and fauna of layers F–I are at an advanced stage of study (a first contribution for layer F)⁷, while paleoecological and sedimentological analyses and the studies regarding raw materials are in progress.

The new excavations have also allowed the paleosurfaces to be distinguished from the so-called thick layers: in fact, each layer contains living surfaces of slight thickness, detected on the basis of the distribution of lithic and faunal remains, of the presence of structured stones of medium and large dimensions, and of fire points⁸. These points may be of two different types: the first is represented by an area of reddish sandy soil containing abundant carbon and without any structure; the second, more elaborate, is represented by structured fireplaces with stones delimiting the area, sometimes with a concavity at the base. The paleosurfaces of the upper layers (layers FI–FII) contain non-structured fire points, in some cases more than one per paleosurface; the limited use of these points seems to be demonstrated also by the distribution of lithic and faunal remains in the nearby area, which are generally scarce. In these cases the cave may have been used only for occasional resting periods.

More complex fireplace structures are found in layer FIII, for example in paleosurfaces c–d, where the fire points are more structured and around which the distribution of materials is evident. In these paleosurfaces two privileged fire areas are detected, whose positions correspond exactly to those in the lower layers (E–L) and, in part, also in layer M.

Paleosurface e, at the base of layer FIII and on top of the volcanic layer G, is represented by a thick accumulation of anthropic soil with ashes and carbon. Lithic and faunal abound in this paleosurface, and are distributed throughout this unit.

The most structured fireplaces have been discovered in the layers L and M. They are of a more complex construction than those mentioned above, of larger dimensions, very often sunken, and delimited by stones. Several paleosurfaces contain evidence testifying that the same fire structure was used more than once.

Masseta at Scario: The Sites of Grotta Grande and Riparo del Molare: Figure 1, n. 4 (A. Ronchitelli)

In Masseta near Scario (Locality of San Giovanni a Piro – Salerno – Southern Italy), on the Tyrrhenian coast, the Middle Paleolithic deposits of Grotta Grande and Riparo del Molare, are currently undergoing systematic excavations.

The research has been conducted by the Sezione di Preistoria of the Dipartimento di Archeologia e Storia delle Arti of Siena University, in collaboration with the Soprintendenza Archeologica of Salerno. Conglomerate is present at the base of both the continental series, presumably referable to the Eutyrrhenian transgression through the findings of rare examples of *Strombus bubonius* and *Patella ferruginea*. On the basis of paleoenvironmental data, the anthropic levels may largely be referred to the same isotopic stage 5. In the upper part of the Riparo del Molare series (where traces of human presence are rare), sedimentological studies indicate a climatic deterioration, which could correspond to a cooler oscillation within stage 5 (5b?), or maybe at the beginning of stage 4⁹.

Grotta Grande

The cave extends for 85 meters along a fracture perpendicular to the seacoast and divides in two large areas, connected by a short corridor. In protected areas of the entrance it conserves cemented strips

of the original prehistoric deposit, largely removed by sea erosion¹⁰.

Trial excavations in the early 1980s found several levels all referable to the Middle Paleolithic; in the internal chamber, free of all other prehistoric remains,

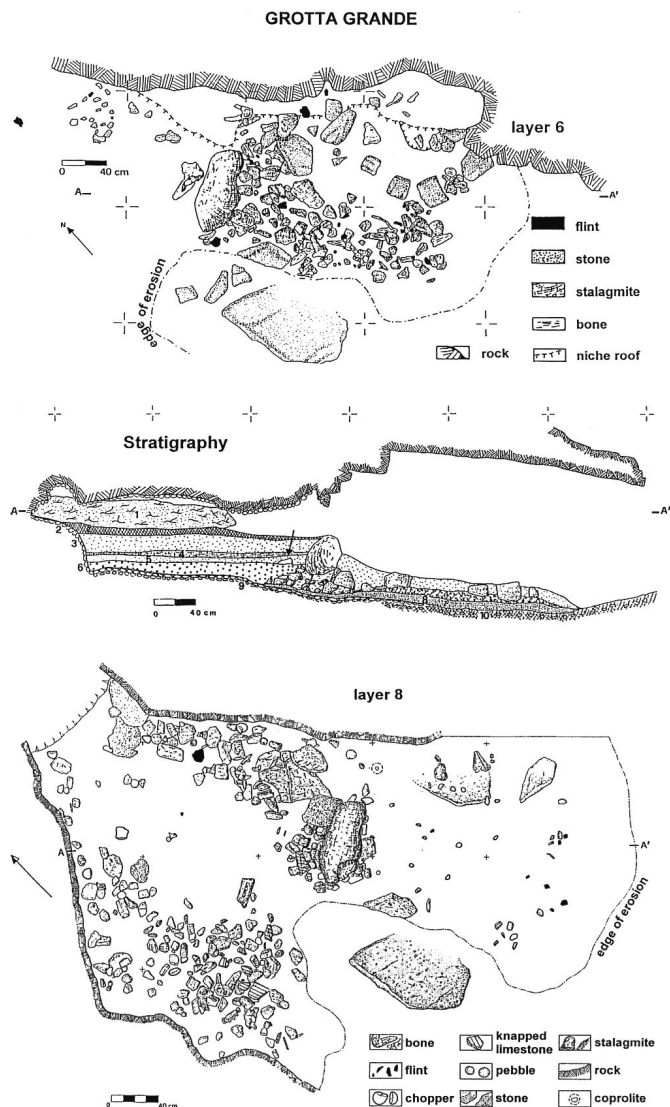


Fig. 4. Grotta Grande. Sector F: map of layer 6 (top); stratigraphy (middle – the arrow points to

a burial ground dating back to the Roman age (IV century BC) was found.

Recent excavations have been concentrated in a relatively unexplored area (sector F) situated near a low tunnel (3×3 meters), almost like a small »cave within a cave«, eroded by a transgression sea before humans occupation (probable isotopic stage 7), and which remained sealed up to the ceiling by the subsequent deposit (layers 1–10 from above; Figure 4, in the middle): 1: tephra; 2: red breccia and bones; 3–5: red sterile muddy sand; 6: red-orange sand, partly cemented, which leads to the top of a horizontal living-structure (Figure 4, above); 7: vertical structure consisting of an accumulation of earth, stones and pebbles, often knapped, which support a large stalagmite propped horizontally by stones on both sides; 8: anthropic level, with charcoal accumulated in some zones and traces of organized living space (Figure 4, below); 9: pebbles resulting from the breaking down of ancient marine deposits attached to the ceiling; 10: breccia containing some examples of *Strombus bubonius* together with *Patella ferruginea* (dug to a depth of 10 cm).

Of great interest is the presence of structures which divide the living space, both horizontally and vertically^{11,12}. A small stretch of wall – made up of a large stalagmite (layer 7 – Figure 4, middle) intentionally resting on a pile of stones, bones and dirt with base stones immersed in level 8 – testifies to human presence in this particular part of the cave. This wall was constructed in a point where the ceiling of the niche is lower; it divides the atrium (1.5 m high) from a sort of tunnel where the maximum height is reduced to 80 cm. The same structure also delimits a change in the modality of deposits (layer 8). The atrium is characterized by an accumulation of ashes and charcoal, mixed together with very scarce lithic and faunal material distributed

uniformly. Inside the tunnel there is an accumulation of stones, pebbles and pieces of concretion, with lithic instruments and bones along the two lateral walls; the central strips almost totally devoid of materials and completely free of charcoal (Figure 4, below). In the internal space we also note a greater amount of faunal remains, mostly cranial, almost completely absent on the outside; hippopotamus, bear and bison are furthermore present with Cervidae and Capridae. The lithic assemblage is characterized by a prevalence of calcareous knapped pebbles over the *débitage* products, only half being in flint materials. In the outside zone, on the other hand, the finds consist of small bone fragments, often burned, referable to fallow deer, red deer and ibex. Only in this zone do retouched implements appear (mostly lateral convex scrapers and transversal rectilinear scrapers), together with flakes and more numerous cores, often calcareous. The *Levallois* technique, even if present, does not seem to characterize the *débitage* of this industry.

The finding of a coprolite in the atrium, of probable hyena origin, and the tight space in the tunnel suggests the bones may have been brought there by carnivores. The rare presence of material in the central part of the tunnel is possibly due to the presence of these at a time when humans were not present. In any case, at this stage of research, the presence of a vertical structure (layer 7), like a wall – almost certainly built by humans – and the absence of gnawing marks on the bones (partially cemented and corroded), leads us to conclude that the action of carnivores was irrelevant.

The vertical structure was still functional during the successive level (layer 6), corresponding to another paleosurface with traces of organized living space (Figure 4, above). This structure consists of stones and stalagmite concretions forms a semicircle which separates a material-

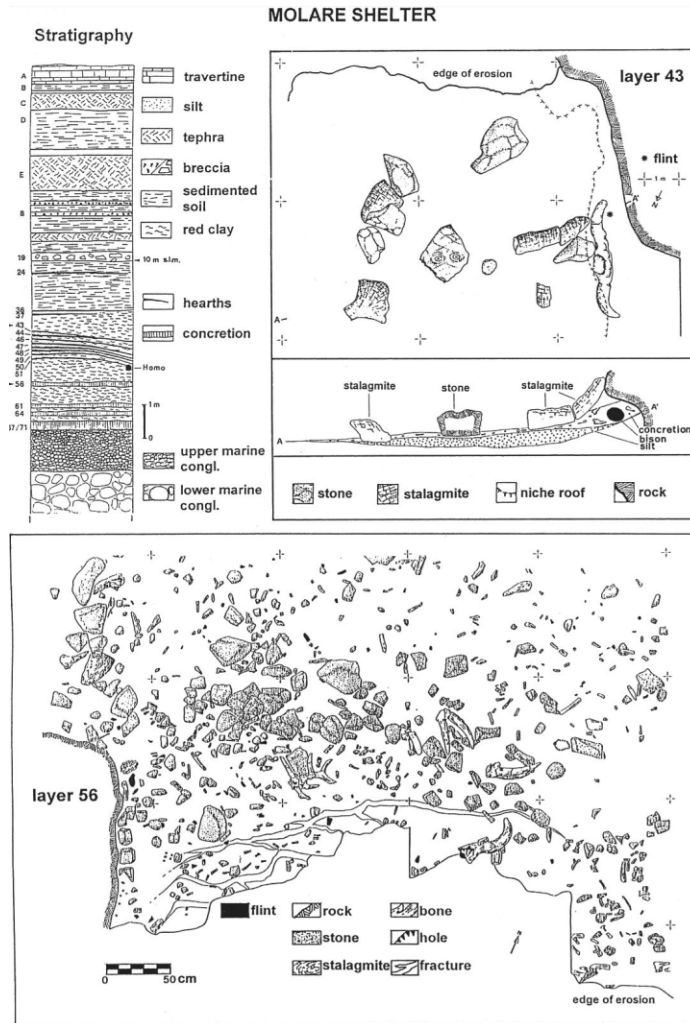


Fig. 5. Riparo del Molare. Stratigraphy (top left); map and section of layer 43 (top right); map of layer 56 (below).

free area from another with accumulated bones and lithic finds. Industry and fauna are analogous to those of the tunnel, with an additional fragment of elephant molar contributing to the pachyderm remains. The structure is situated in the atrial area, as the tunnel at this point becomes impracticable; the only significant piece collocated here is a cranial frag-

ment of *Bison priscus*, overturned alongside the large stalagmite (Figure 4, top and the arrow in Figure 5, middle).

Riparo del Molare

The rockshelter is named after a toponym of the zone (Molara) connected to the extraction of large *millstones* along this part of the coast. The research began in

1984, but it was only during the exploration of 2001 that the basal part of the stratigraphic series was excavated; this part lies immediately above the Eutyrrhenian marine deposit. We now know that the entire sequence (10 meters in thickness), contains more than 20 anthropic levels, most of which have yielded lithic instruments (scrapers, denticulates and points) and the numerous bones remains of the animals hunted: red deer, roe deer and ibex above all, but also bear, bison and some pachyderms like elephants and rhinoceros. Of great importance is the discovery, in the middle part of the deposit, of a robust mandible of a four years old Neandertal^{13,14}.

From a stratigraphic point of view (Figure 5, top left), the upper part of the series consists of tephra levels alternating with cemented red breccias and red, looser soil sediment and with scarce calcareous skeleton; the lower part consists of levels of sterile clay (with Fe-Mn enamelling and absence of clasts), alternating with cemented levels which correspond to the single levels of anthropic occupation (true paleosurfaces »*sensu Bordes*«).

Structures have been found in layers 56 and 43, both against the western wall of the rockshelter¹⁵: the first (Figure 5, below), with a semicircular shape, must have been some sort of enclosure (or hut) placed against the rock, delimited by stones and the skulls of large herbivores (ibex, red deer and bison). At the Western extremity of the deposit the stones of the alignment are superimposed one upon another, so as to form a low wall, sloping down towards the sea. Waste material is spread throughout the area where the group lived. Traces of scattered ashes and charcoal lead us to believe that there must have been fireplaces nearby, even though these have been lost together with a large part of the living space, destroyed by erosion.

The other dwelling structure (layer 43 – Figure 5, top right) is constituted by large stones and concretions placed in a circle; in the center a stone with two rock mamelons of natural origin (load casts of the original limestone layer) are collocated. This structure is connected to a bison skull, found in a niche under the rock, marked with a stone and covered with stalagmite. The association stalagmite/bison isolated inside a niche has been already testified in layer 6 of the Grotta Grande. Inside the rockshelter, this association is found in a stone circle in an area with few remains, presumably with a symbolic rather than a practical significance.

During the excavations non structured hearths were discovered in almost all the anthropic levels, generally oval shaped and of small dimensions (max. diameter 20/60 cm): it seems that in some levels several fireplaces of this type had been operative at more or less the same time. Finally, we find that the area underneath the western wall of the rockshelter was used for accumulating meal leftovers.

The structures of the living space found in Masseta which attest a certain organization in the management of the camp, together with a study of the hunting remains and the instruments found, permit us to reconstruct the survival strategies of these human groups. Since the findings are concretioned, a further study of the materials (lithic and faunal) as well as of their planimetric distribution in the various levels, may only be undertaken once the pieces have been completely cleaned and restored. As regards the lithic industry, a typological, typometric and technological analysis will be performed in order to arrive at the source of supplies, chaîne opératoire and taxonomic definition of the sets discovered. In order to study how the finds are distributed within each paleosurface, we foresee

the use of a computer program (i.e. Autocad and Mapinfo) to process this data and to emphasise latent structures, if any. With regard to the paleoenvironment of the two deposits, an interdisciplinary collaboration for the geomorphological and sedimentological studies, (marine, coastal, pyroclastic levels- Universities of Valencia and Bordeaux), paleontological (macromammals, micromammals and avifauna – Universities of Siena, Florence, Palermo and Turin) and paleobotanic study (Universities of Modena and Lecce) is envisaged. Radiometric datings TH230/U234 are presently under way at the University of Liverpool. (Surveys by P. Boscato, P. Gambassini, A. Ronchitelli; drawings by A. Corsi and S. Ricci)

Hearths and Other Aurignacian Structures at the Fumane Cave:

Figure 1, n. 5

(A. Broglio, M. Peresani, M. De Stefani)

The cave lies at 350 m a.s.l. in the Lessini Mountains and was sounded by F. Mezzena of the Natural History Museum of Verona in 1964. Many years after, new research started in 1987 and led to the discovery of protoaurignacian and mousterian layers throughout the whole deposit. In the oldest Aurignacian paleo-living floor (Figure 6), several evident structures have been brought to light¹⁶. They are mostly located in the southern sector, currently in the open, and across the entrance of the cave; only a few lie in the

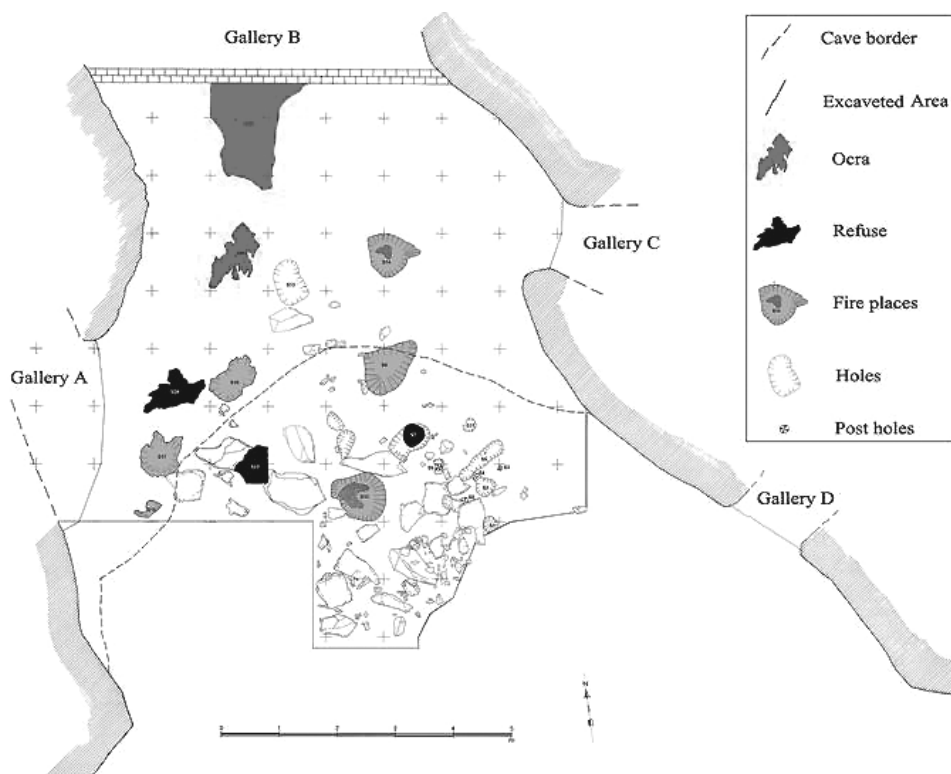


Fig. 6. Fumane Cave. Aurignacian living floor discovered in the sub-unity A2.

initial tract of the main cave-mouth. These structures are of various types: post-holes, fire-burning structures, waste, accumulations of burnt remains and ochre accumulations.

Post-holes (S3, S4, S6, S8)

These are 7–10 cm wide and 20 cm deep, filled with organic earth and archaeological remains (flints, bones) vertically tilted upwards.

Fire-places (S9, S10, S14, S16, S17, S18)

The most complex are contained in variably extended depressions with flat bottom, roughly circular in shape, excavated to a depth of 20 cm deep and, in some cases, adjacent to limestone slabs plunging into the unit underneath. Their fills usually show a systematic sedimentary sequence: the bottom, reddened, is covered by one monogranular level of large charcoals and a thin ashy layer at the center of the hearth; the uppermost organic levels alternate with sterile levels that are locally rubefied; sometimes, one anthropic unit ends the sequence. The remaining structures (S9, S16, S18) are more superficial, their bottom is flat or slightly concave, with an ellipsoidal or subcircular outline. The best preserved structures have an outer beld formed with big and long charcoals facing towards the central area, where organic matter and ash abound. Some structures were profoundly deformed by the overlying units and by crioturbation, particularly in the upper part of the fills.

Waste zones (S7, S19, S20)

Located at the entrance of the cave, these structures are noticeable due to the accumulation of bone remains and lithic artifacts on the ground (S19, S20) or within small concavities (S7). Bone remains may be entire (ribs, jaws), or else long fragmented diaphysis.

Accumulation of burnt remains (S13) and other structures (S1, S2, S5, S11)

Few modestly-sized, circular depressions sometimes dug in the anthropic layer, had loamy micro-stratified fills, variably organic and porous, rich in flint and bones, partially burnt, with planar disposition.

Ochre accumulations (S21, S23)

Thin, large ochre accumulations were discovered at the entrance and in the cave-mouth. Affected by post-depositional turbation, these structures lie on the sterile ground and are covered by the oldest Aurignacian anthropic level, or else may be intercalated between Aurignacian levels A2 and A1.

The pattern of these evident structures has been referred to the preliminary results concerned on the spatial distribution of lithic artifacts and marine shells introduced onto the site by the Aurignacians. Retouched tools (432 items, including 144 end-scrapers and 88 burins) draw two concentrations, the both lied in proximity of the largest fire-places, S14 and S10, its western side. Bladelet cores (144 pieces) have been recovered mainly in the eastern side of the cave across its entrance, in vicinity of the cave-wall; in the rest of the area they frequency dramatically decreases. On the contrary, the small points shaped on bladelets (138, fragments included) become more frequent in proximity of the largest (S14 and S10) and of the minor (S16 and S17) hearths. Furtherly, the spatial distribution of the marginally retouched bladelets (803 pieces, fragments included) differentiates from the previous for the existence of a main concentration along a belt, mostly lied outside the actual cave roof, near the structures S10 and S16. Marine shells (653 specimens) were found mainly in the inner area of the cave, with a high concentration in front of the C cave-mouth. Such a concentration

is mostly due to a high number of entire unpierced shells that record a maximum in square 92a, suggesting the existence of a cache.

Intra-Site Organization at Riparo Tagliente: Figure 1, n. 5
(A. Guerreschi, F. Fontana)

The site of Riparo Tagliente is situated on the Lessini Mountains on the left slope of the Valpantena, at 250 m a.s.l., near the village of Stallavena (Grezzana, Verona). The opening of the shelter is at the foot of a small rock wall formed by a bank of oolitic limestone, cropping out at the base of the western slope of Monte Tregnago. The excavation work in progress here since the 1960s has made it possible to bring to light, over a thickness of over 4 meters, a stratigraphic series which can be divided into two main units separated by an erosion surface: the lower one, datable to the early and middle

Würm, contains Mousterian and Aurignacian industries with Dufour bladelets, while the upper one dates back to the Late Glacial, and is characterized by Epi-gravettian industries¹⁷.

The extended excavation in the Late Glacial deposits has allowed finds of particular importance to be brought to light, including a burial, various decorated objects, and a series of structures, some of which have already been the object of previous publications^{18,19}. In particular, the analysis of dwelling structures, still at the preliminary stages, has shown the existence of a pronounced organization of space within the site. Notably, in the area protected by the overhang of the shelter, a structure dug into the underlying deposits has been unearthed; this consisted of a slope with a »scalloped« shape, inside which a series of depressions of various typology and dimensions were present. Several of these (at least five) may be interpreted as post-holes while another two



Fig. 7. Riparo Tagliente. Structure consisting of a slope with a »scalloped« shape and one of the fireplaces dug in the Mousterian deposit.

– sub-circular in shape with pebbles on the bottom and showing evident traces of heating – were instead apparently used as fireplaces. A further structure, that can also be interpreted as a fireplace, was dug partially into the Mousterian deposit, and presented a filling comprising basically ashes and silt; its irregular shape suggests it was used in several periods over time (Figure 7). Finally, no feasible hypotheses could be advanced regarding the function of a subcircular-shaped structure consisting of an arrangement of pebbles, which was identified in the 1980s¹⁹.

The area immediately outside the shelter is characterized by a remarkable accumulation of lithic artifacts, originating partly from knapping activities *in situ* and partly from »clearing« of other areas. Notably, three main masses have been identified, mostly consisting of rejected knapping products, located in an area bounded by large limestone blocks originating from a massive rockfall. Separated from one another by fine silty layers, these masses – interpreted as lithic workshops – have been dated at a period between 13,270±170 BP and 12,040±170 BP (not calibrated). In the outermost area the continual accumulation of sedi-

ments and remains has not allowed any significant structures to be detected, except some rare concentrations of limited extension which were composed either of blanks deriving from the flaking of a flint nodule or of bone remains from the butchering of a carcass portion²⁰.

Grotta Continenza (Fucino, Abruzzo): Figure 1, n. 6

(R. Grifoni, A. Iacopini)

Human changes and improvements of the site – such as living floors, hearths and shell-middens – are present already in the Mesolithic levels. The Epigravettian layers are characterized by several burning pits of oval or circular shape; these are filled or lined with stones and surrounded by flint knapping areas, or by zones with burnt soil remains and masses of food waste (mostly fish remains).

Layer 31 marks the beginning of the Final Epigravettian sequence (datings: level 32: 9700± 75; level 32b: 9680 ± 75; level 32c: 9840 ± 75; burial: 10280± 100); starting from layer 32, more complex, oval or circular combustion features appear. Various sedimentary bodies occurring in areas close to these structures are

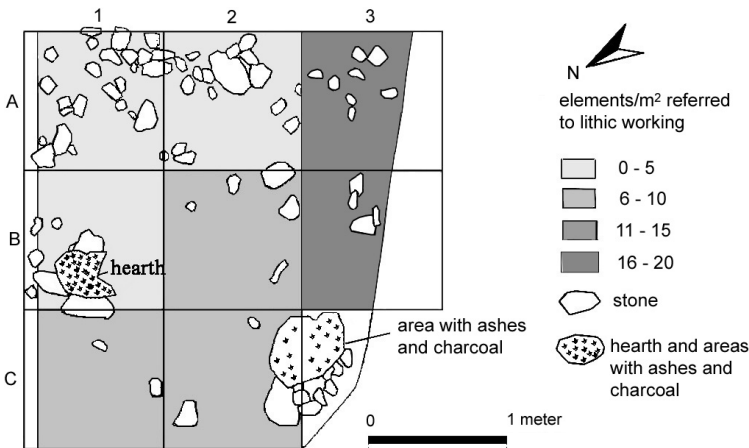


Fig. 8. Grotta Continenza. The paleosurface of layer 32.

clearly due to human activity. A ring-shaped hearth dug in layers 32–36 is formed by coarse stone fragments and yellowish silt lenses and is surrounded by burnt soil areas. During excavation we documented a structured hearth that could be classified as a *»cuvette et remplissage de pierres«*²¹, and an area with ashes and charcoals. Facing the hearth, there is an area with a very high density of small, extremely fragmented faunal remains. Stone circles and a floor made up of small flat pebbles represent a funerary structure in the area between two burials.

Considering the distribution analyses, it is very likely that two different areas can be distinguished in the paleosurface of layer 32 (Figure 8). The inner one, facing the hearth (B2 square), was devoted to the preparation and consumption of food, while the outer one shows several elements linked to flint knapping.

The excavation squares that showed the lowest density of artifacts were those – apart from the hearth area – containing a greater quantity of stones, both fragmented by heat (A1 square) and mixed with ashes and charcoals (C2–C3 squares), thus possibly indicating another area suitable for the heaping up of hearth debris.

San Bartolomeo (Maiella Mountain, Abruzzo): Figure 1, n. 6
(G. Boschian)

The Ermanno de Pompeis shelter was frequented by late Upper Paleolithic (Final Epigravettian) hunter-gatherers who moved to the mountains where the site is located for seasonal hunting²².

A flint workshop area was found inside the shelter; it is externally delimited by a large pre-existing flat block, connected to the bottom wall by a low stone wall whose lower rows were found during excavation. On the other side, the workshop ended near a sequence of five piled

up hearths. Part of the workshop was covered by a large heap of calcareous quarry debris, which testifies to a shift in time and space of the working area²³.

The Structures and Living-Floors From the Sauveterrian Layers of Mondeval de Sora: Figure 1, n. 7, and Alpe Veglia: Figure 1, n. 8
(A. Guerreschi, F. Fontana)

Site VF1 of Mondeval de Sora, discovered in 1985, has been the object of yearly research campaigns by the University of Ferrara since July 1986. Located on the north-western edge of the basin bearing the same name, on a small terrace formed by the Cordon stream at an altitude of 2,150 meters, the deposit is situated beneath the overhang of a large erratic boulder. Three areas situated below different overhanging faces of the boulder have been investigated. In Sector 1, where the first finds were made, more than ten years' research led to the unearthing of a complex stratigraphic series, explored over a surface of about 60 m². This comprises a series of layers attributable to different phases, corresponding to a chronological interval between the early Mesolithic and the sub-present age^{24,25}.

The presence of Mesolithic levels is attested solely in the southern portion of the site, while northward these are intersected by subsequent occupation of the site. The oldest phase (Sauveterrian) has undergone less interference, whereas the most recent one (Castelnavian) has been extensively disturbed in various periods, except for a burial in an excellent state of preservation²⁴.

The Sauveterrian layers are represented by evident structures and living-floors^{26,27}. The structures consist of a paved area (US 14), made of tufa slabs of local origin conserved over a total surface of ca. 8 m², and an artificial arrangement of dolomite blocks, located along the south-

Mondeval de Sora. Site VF 1 Layers 14, 32 and 33

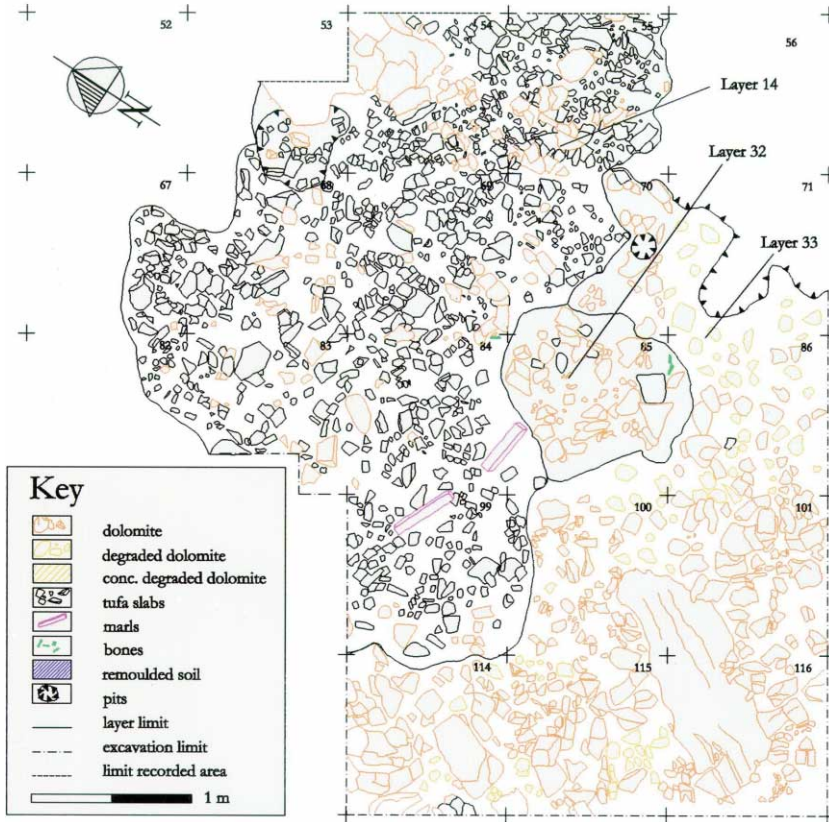


Fig. 9. Mondeval de Sora. Plan of Layers 14 (paved area), 32 (fireplace) and 33 (arrangement of dolomite blocks).

ern and south-eastern edge of the floored area (US 33). Within this arrangement a roughly circular structure, used as a fireplace (US 32), was identified (Figure 9). The entire paved area was covered by an anthropic layer, ranging from 5 to 20 cm thick, which contained abundant lithic artifacts, faunal remains and charcoals (US 8), while the outermost surface was occupied by another anthropic layer, characterized by lithic industry and a wealth of faunal remains, interpreted as an area

where waste products were discarded (US 31).

The Mesolithic site of Alpe Veglia (Lepontine Alps, Verbania, Italy), first brought to light in 1986, constitutes the only high-altitude settlement currently being studied throughout the entire Western slope of the Italian Alps. It is located at an altitude of 1,750 m at the edge of a conoid of morainic-fluvial origin, cut by a small stream (Rio delle Streghe)²⁸.

The archaeological excavations (1988–2000), performed over a total surface area of 165 m², have led to the unearthing of a Mesolithic industry which consists almost entirely of artifacts in local microcrystalline and rock crystal. An understanding of how the living space was organized within the site has been made possible thanks to a spatial analysis of the lithic materials, carried out using GIS software: this has permitted the identification of three main areas where finds are concentrated, each characterized by different associations of artifacts²⁹. During the latest field campaign (2000) a small, structured fireplace was also found, which is presently undergoing dating analysis.

Edera Cave (Aurisina, TS):

Figure 1, n. 2

(P. Biagi)

Edera Cave opens at the bottom of a doline near the marble cave of Aurisina, at an altitude of approximately 230 meters a.s.l., some 3 km from the present coastline of the Trieste Gulf. Its opening faces to the north-east.

New excavations have brought to light a stratigraphic sequence some 4 meters thick, with occupation layers of at least two periods of the Mesolithic, the Neolithic, the Copper and Bronze Ages, as well as of the Historical Age. Several radiocarbon dates have been obtained from different organic samples, with both conventional and Accelerated Mass Spectrometer (AMS) methods, also at a purely experimental level.

The deepest Holocene deposits belong to the early Mesolithic. Two radiocarbon dates from *Pinus sylvestris* charcoals (GrA-14108: 9930±50 BP e GrN-23130: 9810±70 BP) attribute layer 3d to the Pre-Boreal³⁰.

The overlying layer, 3c, is very rich in archaeological structures, among which a paleosurface with many faunal remains,

a series of ash lenses and a large hearth. This level also yielded an abundant flint industry characteristic of the Boreal climatic period, with long, hypermicrolithic scalene triangles and bilateral backed points, obtained, in some cases with the microburin technique, as well as short and circular endscrapers. The radiocarbon dates from this horizon, attribute it to the middle Sauveterrian (GrN-25139: 8350±120 BP and GrA-11818: 8250±50 BP). Layer 3b, which is composed of sparse ash lenses, was carbon-dated to the end of the Boreal/beginning of the Atlantic (GrN-25138: 8110±90 BP; GrA-17122: 8100±60 BP; GrN-25137: 8060±70 BP e GrA-14106: 8045±40 BP). The flint assemblage from this layer, represented by a few trapezoidal microliths, is in agreement with the results of the radiocarbon dates.

A long interval occurs between this period and the overlying hearth 3a, which yielded a highly specialized Castelnovian flint assemblage, represented by two trapezes, some forty microburins, one notched bladelet, and one endscraper, collected together with a few potsherds and three very small sandstone beads.

The radiocarbon dates obtained from charcoals from this hearth attribute it to the Atlantic period (GX-19569: 6700±130 BP), while a second date from a sample of *Patella caerulea* marine shells gave a result of 6480±40 BP (GrN-25474).

A sequence of superimposed ash lenses, interlayered with sterile levels characterizes layer 2a, which overlies the Mesolithic sequence; this has been attributed to the Neolithic thanks to the presence of Vlaška-type³¹ potsherds, a local variant of the Danilo Culture, which is distributed along most of the Dalmatian coast. This aspect is represented here by typical potsherds, mostly of local production³². Among these are pedestalled, restricted mouth vessels, sometimes decorated with bands of incised, parallel li-

nes, fragments of a typical, four-legged *rhyton*, specimens of fine, black-burnished pottery, and a small pipe spoon. This series has been carbon-dated, from bottom to top, to 6615±390 BP (GX-19568); 6590±100 BP (GrN-23129); 6445±210 BP (GX-19567) and 6305±285 (GX-19022).

Layer 2, which consists of hearth lenses attributed to a more recent period of the Neolithic and Chalcolithic, has yielded just a few finds. Two radiocarbon dates attribute it to the Middle Neolithic (GX-19020: 5555±250 BP) and to the beginning of the Bronze Age (GX-19019: 4680±325 BP).

The layers above the Early Neolithic ones contain very few archaeological remains. They document a sporadic occupation of the cave even during various moments of the Historical period. A hearth, discovered at a depth of 1 metre near the cave opening, contained Medieval potsherds which yielded a radiocarbon date of 1415±35 BP (GrN-18968).

Cala Giovanna Piano (Pianosa Island, Livorno, Tuscany): Figure 1, n. 9
(C. Tozzi)

After the excavations carried out by Chierici in 1874, the remains of an Epi-Gravettian lithic industry, an early Neolithic and a Metal Age pottery had been revealed on Pianosa island³³. During a survey in 1997 several pottery fragments were unearthed in the isthmus joining the Cala Giovanna cave promontory to the rest of the island. Subsequent excavations, not yet completed, have confirmed the presence of a settlement which shows an association of final Impressed Pottery and Linear Pottery (Fiorano culture)³⁴.

This site can be interpreted as a landing place used by human groups collecting marine shells (*Columbella rustica*, *Conus mediterraneus*) for food and ornamental purposes, and as an exchange site between Sardinia, Corsica, Tuscany and

Southern Tyrrhenian areas, as demonstrated by the provenance of lithic artifacts, mainly obsidian.

The settlement is quite small, around 200–300 m², but contains dwelling structures that have been only partially dug till now. Close to its northern border there is evidence of a partially collapsed dry wall formed by stone blocks, perhaps a windbreak (Figure 10). Few meters south of the wall there was a semicircular floor formed by small stones, while a surface between the wall and floor revealed a shell-midden formed mostly by *Patella* sp.³⁵; a quadrangular pit approximately 20 cm deep could also be observed. Other small pits dug in the sterile ground have been brought to light around the north-eastern settlement border.

Contraguda (Perfugas, Sassari, Sardinia): Figure 1, n. 10
(R. Pala, L. Sarti, C. Tozzi)

This four-hectare prehistoric settlement was located on a flat hilltop at 157–179 meters a.s.l. The substratum is formed by a marly-limestone rock formation with flint layers lying on igneous rocks. The excavations of Pisa, Florence and Siena Universities, in collaboration with the Soprintendenza Archeologica di Sassari, have brought to light a large Neolithic settlement dating back to the Ozieri culture and the Metal Age. Five radiometric datings from the charcoals of several layers show a chronological span between 5070±40 (Beta-149261) and 5423±47 (OZC 966) years BP³⁶.

Several structures used for practical and perhaps ritual purposes have been recognized in the area excavated till now (some hundreds of square meters, thoroughly explored). The one used perhaps for ritual purposes is formed by a barrow of ellipsoidal stones located on the hilltop, measuring 7×5 m and around 80 cm high. This feature belongs to the most recent phase of the Neolithic settlement.

This structure is formed by a main rectangular body built with stones and stone blocks of various dimensions, sometimes preserved in rows one upon another. The inner part shows a complex arrangement of small rooms separated by thin walls facing different directions. At the base there is a floor of small, closely-fitted stones with a huge trachite block in the middle, placed vertically over a shallow pit without archaeological remains. Although we could not find any precise comparisons for the meaning of this structure in the Sardinian cultural context, it undoubtedly enriches the typological variety of the island's prehistoric monuments.

The other structures can be classified in two main typologies: combustion features and pits. The former are shallow structures dug in the hardened, reddish marly substratum (sometimes associated

with plaster fragments); the latter are represented by numerous artificial cavities presenting various shapes and dimensions. Some are shallow, irregular hollows filled with stones and refuse (Figure 11), whereas others are roundish cavities filled with stones arranged in regular, intentional patterns, and are covered by a circular stone platform more or less corresponding to the underlying pit. Until now, also these structures were unprecedented in Sardinia.

The Spatial distribution by AUTOCAD of lithic artifacts and pottery in area 19, layer D1, showed the existence of latent structures revealed by concentrations of such remains. Only in the case of pit 1905 we could observe a meaningful correspondence of the concentration of lithic and pottery artifacts with the underlying pit.

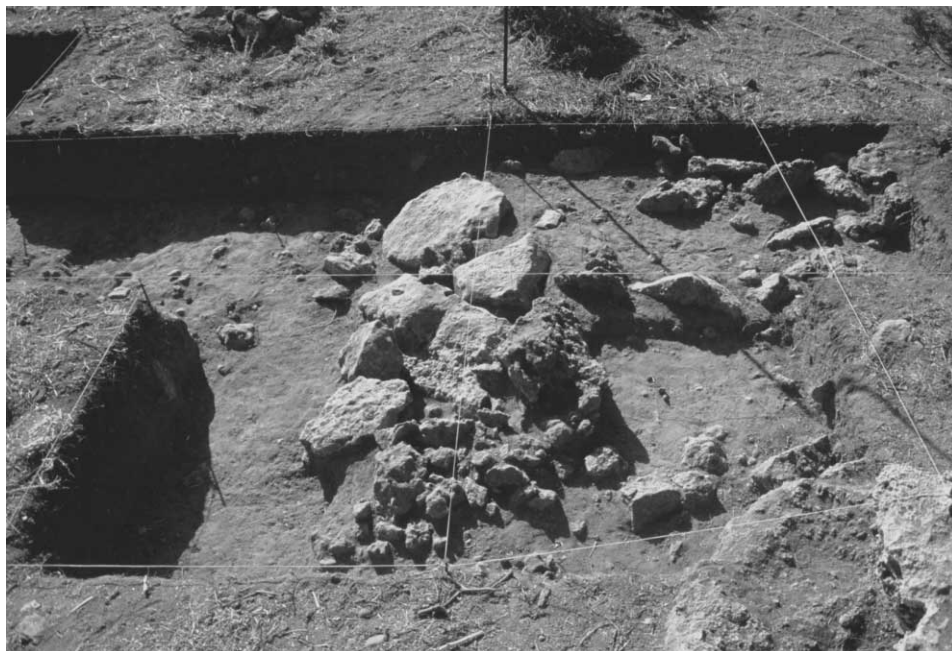


Fig. 10. Cala Giovanna, Pianosa. Dry wall.

Colle Santo Stefano (Fucino, L'Aquila, Abruzzo): Figure 1, n. 6 (G. Radi)

This is an early Neolithic site (Middle Adriatic Impressed Pottery showing similarities with southern Italian cultures), located on a flat area facing the ancient Fucino lake at 690 meters a.s.l. The archaeological deposit is formed by gray silts in a natural hollow at the top of a gravel deposit.

The thickness of this deposit is between 20 and 90 cm; it has been investigated over a surface of around 100 m, revealing materials and structures that can be dated back to various dwelling phases³⁷.

The most ancient phase (> than 6575+80 B.P.) features a structure built of small pebbles embedded in a lake-silt layer artificially smeared on the gravel substratum, hardened and reddened by fire in some places.

With its irregular circular outline and unclear margins, this structure covers a surface of around 28 m² and has several archaeological remains above it, thus may be representing an open-air activity area.

Catignano (Pescara, Abruzzo): Figure 1, n. 6 (C. Tozzi)

The Catignano-Scaloria Bassa painted pottery culture was named after this site which was extensively dug in 1972–1980 (area A); it provides evidence of a settlement with big rectangular dwellings, semicircular apses, hollow and rectangular firing structures, storage pits for cereals and large, circular or lobate pits^{38,39}.

New excavations started in 1999 and are still in progress in another area of the settlement, named area D. The ploughing destroyed the original paleosurface, and only the structures dug in the geological substratum have been preserved to the present day.



Fig. 11. Contraguda. Feature 'b', a pit filled up with stones and refuse.

This area shows peculiar features, because we could find neither the dwellings nor combustion pits that were present in the other excavation area. We brought to light a huge elliptical oven (structure 511) with remnants of its walls, and two conical pottery firedogs (Figure 12). There is also a large deep pit (50 cm-structure 501–503) of irregular shape, formed by the superimposition of many roundish pits and hollows.

This feature yielded abundant evidence of well-preserved painted pottery and few fragments of impressed pottery. Another structure, different from all the others investigated so far, and not yet completely defined, is formed by a huge, long pit in NW-SE direction, 5 m wide and 14 m long.

The dates of the structures – 501 (6330±40 years BP, Beta-149260 and 6350±70 BP, Beta-149259) and 511 (6240±40 BP, Beta-158321) – confirm that the Catignano and the Impressed

Pottery cultures were roughly contemporary in the Abruzzo region.

They also show that the combustion pits found in area A, aged between 6500 and 6300 years BP, are related to some structures of area D, while the dwellings and storage pits in area A belong to a more recent phase of the site, thus dating back between 6200 and 5900 years BP³⁹.

Settefonti (L'Aquila, Abruzzo):

Figure 1, n. 6

(G. Radi)

The site is located in the Aquila valley, in a flat, well drained and easily arable area. The pottery found in this site led us to relate it to the Paterno cultural aspect, belonging to a late phase of the Ripoli culture; however, the datings between 5500 and 5300 years BP revealed that Settefonti is more ancient than Paterno and probably to be linked to the 3rd phase of Ripoli village⁴⁰.



Fig. 12. Catignano. Structure 511 with two pottery firedogs.

The excavation took place in an area of 350 m² where deep ploughing almost destroyed the structures and the brownish living floor, of which only small residues are still present.

Various typologies are exemplified: combustion structures are shallow, rectangular pits with semicircular section and abundant branches, with charcoals at their base supporting a stone layer.

Granaries and storage pits have a circular opening and mostly a cylindrical section (barrel or open shapes are uncommon). The dimensions of the openings are 160 cm (between 60–85 cm deep), 120 cm (75 and 80 cm deep), 100 cm (45 and 60 cm deep). Two structures seem to have been still under construction. The fillings are homogeneous, apart from structures 1 and 2, and layered; sometimes we found flat blocks of hardened silt that could have been their original lids.

The walls are hardened, having been probably heated, but not reddened, given that this silt lacks oxides.

Two pits with an irregular oval opening present difficulties of functional interpretation. In both cases we noticed repeated episodes of walls that had collapsed during their excavation (sterile silt blocks, less compact than the surrounding soil, lying on the anthropic deposits).

In structure 28 we noticed that the extreme convexity of the wall could be connected to an original hypogean chamber. Few, unconnected human bones were found in the upper part of the deposit, touching a large hearth and three loom weights. Perhaps they were part of disturbed burials, the loom weights being their grave goods. A small pit yielded the partially connected remains of a pig about 12 months old, buried whole in this structure.

Several post-holes are present in the area, unconnected with other structures (located east of the excavated one), though they do not show significant alignments.

Castellaro Lagusello (Monzambano, MN): Figure 1, n. 11
(L. Fasani)

Castellaro Lake is situated in the southern part of the morainic amphitheatre of the Lake Garda area, at an altitude of 102 m a.s.l. and about 35 m above the level of the lake itself. It is situated on the margin of the village and after that of Frassinò, is the largest lake in the area. It occupies the bottom of a large intramorainic depression surrounded by low hills.

The Castellaro basin has been noted for the presence of prehistoric remains since the beginning of the 20th century⁴¹. Evidence of human population around the basin dates back to the Early Neolithic, as demonstrated by findings from the hills surrounding the lake^{42,43}. However, it was in the Bronze Age that the morainic amphitheatre of the Lake Garda area had its major period of anthropic occupation^{44–47}. The presence of two settlements has been documented from exactly along the banks of the small lake, one situated along its south-eastern side (Loc. Generali), the other on the south-western side. Further evidence of pile-dwellings may be found in the nearby localities of Sale, Barsizza and Casa Saponè.

Among these settlements only the one situated along the south-western bank has been studied systematically. The first explorative researches were carried out by A. Piccoli in 1977 and 1978^{42,48}. In these surveys – which reached a depth of 2 meters over a surface of four square meters – Piccoli exposed a succession of six layers referred to as A, B, B₁, C, C₁, D⁴². Structural elements and remains of an industry from a sequence which covered a period ranging from the Middle up to the Late Bronze Age were recognized in all the levels; elements were also collected in the upper reworked levels which belong to an initial phase of the late Bronze Age.

A more complete, precise analysis of the material from the excavations by A. Piccoli was recently made by Marcel Torres Blanco⁴⁸. By means of a wide-ranging and detailed series of comparisons, this study has allowed the material to be attributed to a sequence which – according to the most recent proposals for the chronology of the Bronze Age in the Po Basin area – extends from the Middle Bronze (BM) II^o–III^o up to a not very advanced period of the Late Bronze Age, corresponding in terms of transalpine chronology to the B2, C1 and C2 and Ha1 Phases.

The systematic excavations began in 1995, and have continued up to the pres-

ent through annual excavation campaigns. It has thus been possible to obtain a better interpretation of the sequence of former surveys, and to identify about 100 square meters – explored to date to a depth of 130 cm – of a series of structures belonging to at least five settlement phases. The first of these, disturbed by agricultural works, is documented only by the presence of sporadic material and may be attributed to a late phase of the Bronze Age (XIII–XII centuries BC).

The other four phases have been evidenced by the remains of structures, the oldest of which exposed to date is linked to a period in which the settlement area

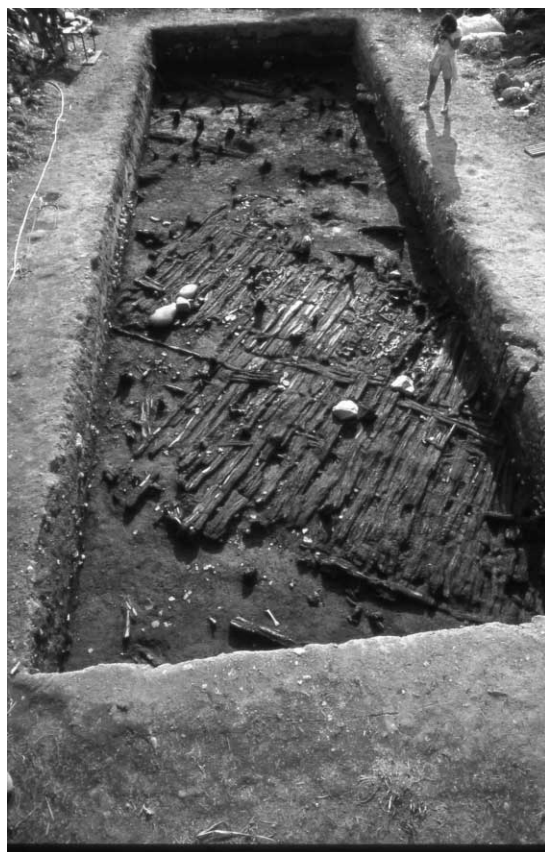


Fig. 13. Castellaro Lagusello. View of the wooden floor of dwelling 1.

was characterized by a humid environment. Foundation structures of wooden plinths embedded in the underlying limnic-humus rich ground were used to keep horizontal elements in place upon which the floorboards of the dwelling rested.

To date the remains of the base of two huts have come to light, one of which is exceptionally well preserved and still retains the floorboards. In over 150 years of research in the morainic amphitheatre of Lake Garda – and with over one hundred recorded sites – this is the first time it has been possible to identify the outline or plan of the dwellings. It is a rectangular construction, with the principal axis oriented in a north-south direction. Due to the lack of raised elements and the presence of a large beam and plinths along the central axis of the dwelling, it may be assumed that it probably had a roof with a double slope. The width of the construction itself is about 6 m, while its length is still unknown as it is still being excavated (Figure 13).

The successive habitation phases, which alternate with periods of abandonment of the site, are characterized by structures made from material cleared and reworked from pre-existing structures, some of which were certainly destroyed by fire. Elements that could help to define the type of habitation are missing for all these periods of successive occupation, dated as ranging between the XVIII and the XVI century BC on the basis of radiometric dates and dendrochronology. The structural elements are mostly limited to a few post-holes. In any case, we are dealing with habitations on dry land which testify the definitive abandonment of the pile-dwelling structural type, which instead is documented by the wooden platform and foundation remains of the other dwelling, exposed at the base of the deposit section explored to date⁴⁹.

Conclusions

Following a period when the attention of researchers was mainly addressed to solving problems of a chronological and cultural nature, recent studies have instead focused on reconstructing various aspects of the way Pre-Protohistoric populations lived. Great importance, for example, is given to analyses which are able to reconstruct the internal organization of dwelling spaces by studying structure remains, as well as to intra-site spatial analyses, which make ever-increasing use of the latest information technology.

As can be seen from the synthesis proposed in the present paper – which considers some of the most significant Italian sites from the Lower Paleolithic to the Bronze Age – a growing number of studies are able to shed light on these aspects, thanks to the greater attention devoted to these issues and to the use of increasingly sophisticated equipment, on a par with the rest of Europe.

Right from the earliest stages of human settlement – for example, during the Lower Paleolithic at Isernia La Pineta and Visogliano – it is possible to observe behaviors linked to optimal exploitation of sites. It is from the Middle Paleolithic onwards, however (Grotta del Cavallo, Grotta Grande and Riparo del Molare), that the very first traces of structures appear, mostly in the form of fireplaces, floors, stone rings and post-holes. The spatial analyses performed regarding the Upper Paleolithic and Mesolithic sites (Grotta di Fumane, Riparo Tagliente, Grotta Continenza, San Bartolomeo, Mondeval de Sora, Alpe Veglia and Grotta Edera), alongside the study of the structural remains unearthed, testify the emergence of a more rational, complex organization of dwelling structures, with a marked distinction between one type of area and another.

Lastly, between the Neolithic (Cala Giovanna Piano, Contraguda, Colle Santo Stefano, Catignano, Settefonti) and the Bronze Age, the distinction between true dwelling structures and settlements destined for other, specialized activities becomes increasingly marked; similarly, the range of dwelling structures as such ex-

tends in relation to the economic activities performed.

A particular case is the site of Castellaro Lagusello, which represents the first case, in 150 years of research in the Garda amphitheatre, that the planimetry of a lake-dwelling has been identified.

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RAZINE I STRUKTURE STANOVANJA OD RANOG PALEOLITIKA DO BRONČANOG DOBA U ITALIJI

SAŽETAK

Provedena su nova istraživanja strukture stanovanja u Italiji u periodu od ranog paleolitika do brončanog doba. U svakoj studiji su primijenjene različite metode ovisno o veličini istraživanog područja. Analizirani su sljedeći lokaliteti: *Isernia La Pineta (Molise)*, *Visogliano (Trieste)* – rani paleolitik; *Grotta del Cavallo (Lecce)*, *Grotta Grande* and *Riparo del Molare (Salerno)* – srednji paleolitik; *Grotta di Fumane (Verona)*, *Riparo Tagliente (Verona)*, *Grotta Continenza (Fucino L'Aquila)*, *San Bartolomeo (Maiella Mountain, Abruzzo)* – kasni paleolitik; *Mondeval de Sora (Belluno)*, *Alpe Veglia (Verbania)* and *Grotta Edera (Aurisina, Trieste)* – mezolitik; *Cala Giovanna Piano (Pianosa Island, Livorno)*, *Contraguda (Perfugas, Sassari)*, *Colle Santo Stefano (Fucino, L'Aquila)*, *Catignano (Pescara)*, *Settefonti (L'Aquila)* – neolitik; *Castellaro Lagusello (Monzambano, Mantua)* – brončano doba.