

## Terminal Palaeolithic Hunters within the Alps. Discoveries near the Splügen Pass, Italy

### *Abstract*

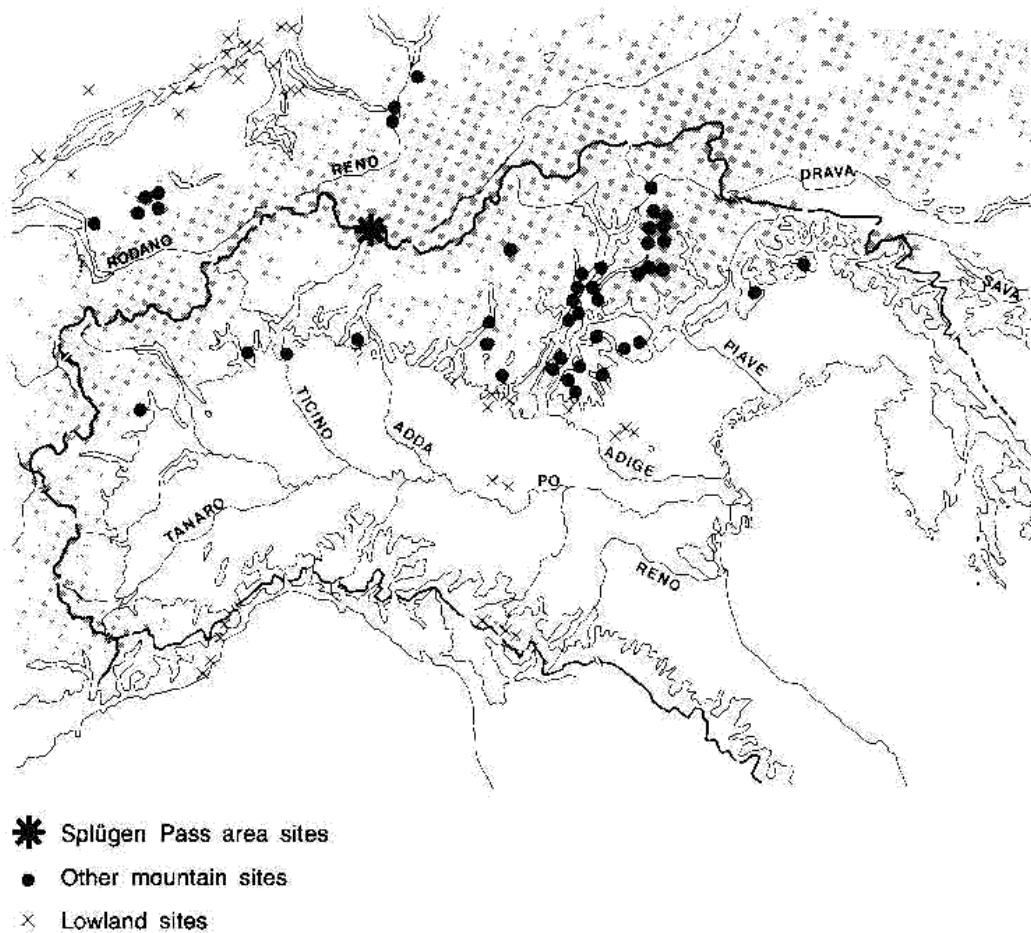
Twenty « lithic » sites, most of them characterized by palaeo-mesolithic artefacts and associated with early post-glacial sediments, have been found at elevations of more than 2000 m in the Splügen Pass area close to the Swiss/Italian border. The first two sites were the product of a thoroughly planned expedition in August, 1986, based on ecological hypotheses and geoarchaeological methods. The locality is called the Plateau of the Horses (Pian dei Cavalli) a limestone upland in the high-pasture Alpine zone.

In 1987 a major site, which included a number of features, was excavated on the plateau (CA1). New sites were then added as a result of survey operations carried out in 1987 and 1989. In 1988 the hypothesis of pronounced human interest for a mountainous area to the north was successfully tested, leading to the discovery of two clusters of sites nearer to the Splügen Pass (Borghetto huts and upper Febbraro Valley). On the available evidence most sites seem to belong to terminal palaeolithic (including early mesolithic) groups of about 10,000 B.P.

« Post-glacial » is used here to describe the local onset of ice-free conditions, regardless of which side it falls of the Pleistocene/Holocene boundary, in chronostratigraphic terms (Bowen, 1978 : 106). Our terminal palaeolithic (Fedele, 1981) encompasses the microlithic developments of the palaeolithic traditions of Europe prior to the full diversification of geometric hypermicroliths.

Our sites range in altitude between about 2000 m and 2410 m above sea level. They are open-air sites, consisting basically of chert and rock-crystal artefacts eroded out of old land surfaces, composed of reddish-brownish sediments. Most sites clearly represent a microlithic industry of late glacial type. No geometric microliths are present, however, apart from a single crescent-like find from an isolated site on the southern edge of the Plateau of the Horses (CA5) and two subgeometric microliths from CA1.

Our experiment was launched on the basis of hypotheses. A mesolithic site had been found by Swiss colleagues at Misox, a low-lying town in Val Mesolcina. We wanted to test the enterprise and capacity of early post-glacial man with respect to truly mountainous terrain in the core of the Alps. We predicted a prehistoric pattern which was eventually confirmed by the results (Fedele, 1985, 1986).



*Fig. 1. Distribution of upper palaeolithic and mesolithic sites in the Alpine region.*

For this programme we have chosen a totally unexplored area in the very core of the Alps, a few kilometres to the southwest of the Splügen Pass between the drainage of the Po and that of the Rhine. Everywhere the Alpine Watershed is within walking distance. Modern access is either by Chiavenna and the Spluga Valley, on the Italian side, or Chur, Thusis, and the Hinterrhein from the Swiss side.

The discovery crowned our first survey expedition to the chosen study area, the Plateau of the Horses, in 1986. The area was chosen because it lies near the point where the main European drainage systems meet, and because it is a limestone plateau. Limestone is almost lacking from the Italian Central Alps. If, indeed, early hunters had been there, our chances of recovering bone refuse from their activities would be better. We also hoped for buried culture horizons in caves, but our testing programme in 1986, although productive in terms of palaeo-environmental data, failed to unearth stratified prehistoric material in caves.

Site CA1, at 2200 m, has so far been excavated over a surface of 100 square metres. There are some fifteen hearths with a little charcoal preserved.

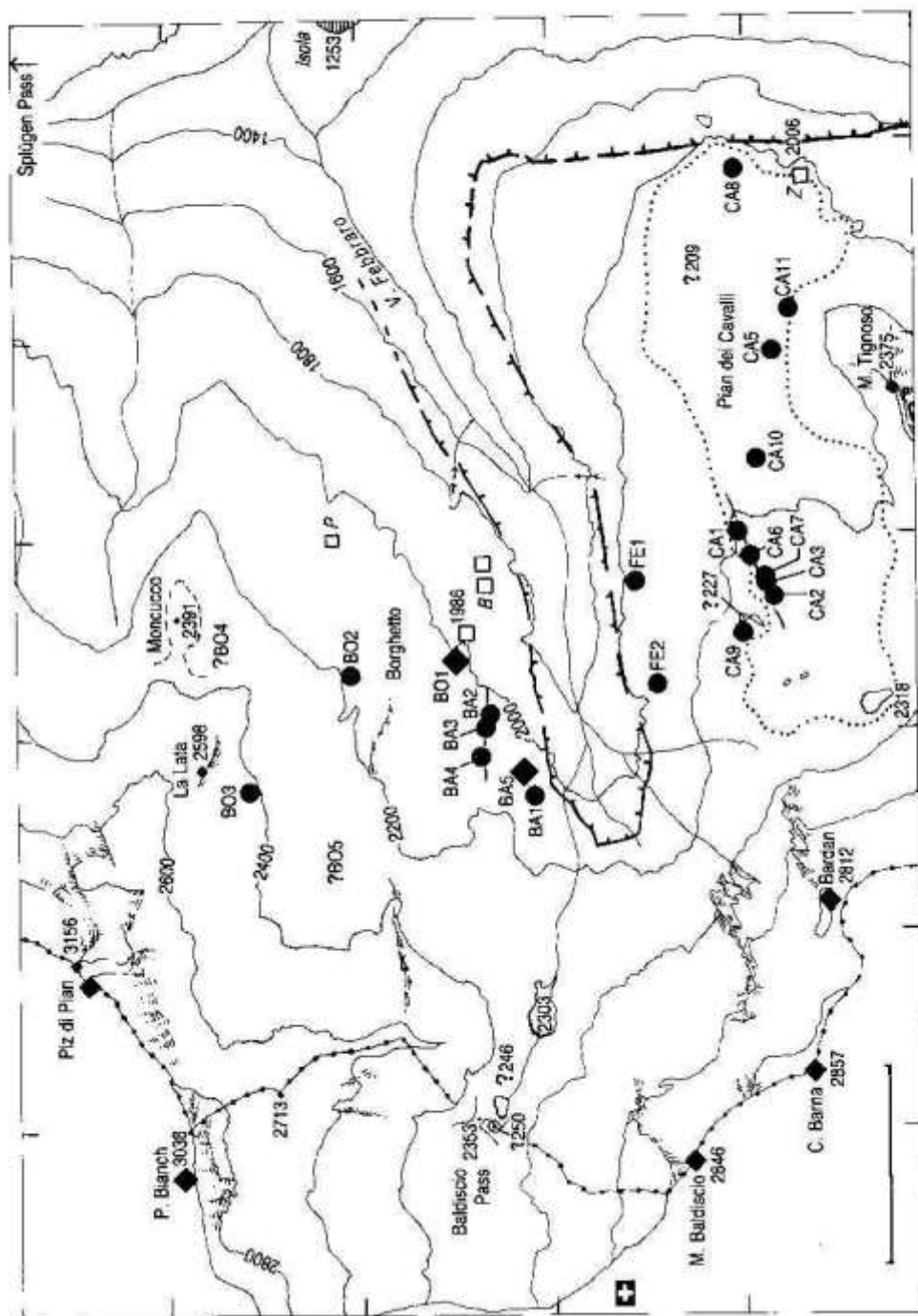


Fig. 2. Prehistoric sites in the Spilugen Pass study area, upper Spiluga Valley, Italian Alps (1986-89). Sites are coded in the « CA1 » style; black squares mark the sites indicated by hearths alone. Elevations in metres above sea level.

(B = Borghetto huts; P = Piani huts; Z = Zocana huts.)

Stone clusters indicate ephemeral structures. About 150 chert and rock-crystal artefacts have been recovered. At the moment, the site is interpreted as a « bivouac » site : a short-term hunting stand where hunters used to wait during their raids. In addition, such temporary high-altitude camps or even « kill-sites » are likely to exist.

CA1 is characterized by relatively acidic soils, derived from Early Holocene pedogenesis of the thin morainic cover and non-carbonate sediments. Locally, however, the site shows a lateral transition to carbonate sediments or bedrock, where bone may be preserved. No evidence of burning or cooking came to light at the site, however. The fires found must have been used for other purposes, such as heating or signaling. CA1 is located near a cliff edge, a remarkable « lookout » but a very windy position.

The glacial history, as inferred from the Swiss data, and site pedology, both suggest an early date after the glacier's retreat, which we place in the 9th millennium B.C. Most of site CA1 has been revealed by excavation.

In 1988 one extraordinary cluster of hearths was found embedded in redeposited post-glacial sandy gravelly silts near the Borgetto huts, facing the CA1 cliff-edge from the north. Accelerator radiocarbon dating indicates a final bronze age episode (c. 1,000 B.C.). Three sites nearby, however, appear to belong to palaeo-mesolithic times.

The skilled use of rock crystal is a highly distinctive feature of all our sites. Likely sources of large crystals have been located in the rugged area between our sites and the Splügen Pass. The provenance of the cherts may be from either the lake region of Lombardy, to the South, or Central or Northwestern Switzerland.

The clusters of sites lying on the opposite flanks of the Febbraro Valley are obviously associated with splendid lookout positions, and we have been investigating their mutual visibility. We are also investigating whether the chief purpose for the sites was animal killing and, if so, what kind of game may have been involved (cf. extensive discussion in Fedele *et al.*, 1987). As far as game is concerned, both the topography and other circumstantial evidence lead us to suspect that the focus was red deer, driven up collectively from the timberline below in some sort of summer « ritual ». Such an interpretation is in striking contrast to current opinions on the early post-glacial hunting behaviour in or around the Alps.

No strictly utilitarian hunting can possibly explain the distribution and setting of our main site clusters. An alternative we are exploring is the systematic palaeolithic prospecting for high-quality quartz crystals.

The discovery that palaeolithic or early mesolithic hunters made raids high up into the inner mountain regions during the first millennia after the last glaciation, is essentially the product of the past twenty years, ignited by chance finds in the Dolomites and the Adige basin. More than a hundred findspots are known in that region of the northeastern Alps as well as in the Pre-Alps of Lombardy but, apart from a few excavations, most are isolated finds from chance reports.

Seasonal and specialized hunting activities have been conjectured, but identifiable bones are not yet available, apart from some evidence of ibex from a mid-altitude cave in the Veneto region. Moreover, nearly all those sites are

located in the eastern part of the Alps, a flagrant geographical bias. Thus, for the moment, all we have is the outline of a pattern of remarkable human performance at the Pleistocene/Holocene boundary. We would like to understand it in much greater depth. This is the main reason behind our Splügen Pass endeavour.

Our discovery is novel on several counts. First of all, in terms of the geographical and altitudinal setting of the sites. We have proved that it is possible to find palaeo-mesolithic evidence in the high-altitude region west of the Adige drainage, where it was previously unknown. Our findings force a reappraisal of the human behaviour behind such occurrences and may provide essential clues to its explanation. Further work is being planned.

The programme reported above is part of a project on the early peopling of the Central Alps begun in 1983. Several reports in Italian are already available.

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