

Traces of Mesolithic occupation in the Pindos Mountains of western Macedonia (Greece)



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Abstract

Surveys carried out in the Pindos Range of western Macedonia (Greece) during the last 20 years have led to the discovery of an impressive number of archaeological sites, isolated finds and raw material chert outcrops, many attributed to the Middle Palaeolithic and the Late Neolithic/Bronze Age. However, a few artefacts attributed to the Late Upper Palaeolithic and Mesolithic have also been discovered. The scope of this paper is to present and discuss a few characteristic Mesolithic artefacts recovered along the eastern slopes of Mt. Gurguliu, mainly from the surface of a plateau that opens north-northeast of the Vlah town of Samarina at an altitude of *ca.* 1550 m. Their discovery shows that the highland zones of this part of the Pindos Range were sporadically visited by Mesolithic hunter-gatherers during the Late Preboreal and Early Atlantic. Although evidence of their presence is scarce, the raw material employed for making artefacts, in particular the so-called “black chert”, shows that their base camps are most probably located in neighbouring Epirus valley bottoms.

1 Introduction

Surveys conducted along the slopes of Mounts Gurguliu and Boghdani in the Pindos Range of western Macedonia (Greece) have shown the great potential of this highland zone of Southern Europe for the study of different archaeological prehistoric periods. It is well known that the territory which extends for a radius of at least 15 km around the Vlah¹ town of Samarina (1440 m), has yielded an impressive amount of data, especially for the Middle Palaeolithic (Biagi *et al.* 2016), and the Late Neolithic and Bronze Age (Efstratiou *et al.* 2006). However, a few Late Palaeolithic occupations have also been identified (Biagi *et al.* 2015a). One of the most important reasons why this region of the Pindos massif attracted Middle Palaeolithic Levalloisian hunter-gatherers, is the abundance of good-quality light grey chert, with outcrops extending for kilometres, mainly along the watershed extending between La Greklu, Kirkuri, and beyond (Biagi *et al.* 2015b).

¹Also referred to as Vlach or Wallachian.

The presence of high-altitude Late Neolithic and Bronze Age sites is also very interesting. Some of the sites can be related to pastoral activities, which started to intensify in the Middle Bronze Age, while recovery of isolated flat-retouched chert arrowheads shows that sporadic hunting took place along the watersheds during these periods. Moreover, some sites can be interpreted as strategic stations, located as they are on the top of mountain peaks, from which the surrounding territory can be easily controlled. This is the case for the Middle Bronze Age site partly excavated on the top of Mt. Anitsa (1706 m), from which the western Macedonian-Epirus watershed and the complex system of watercourses flowing to the Ionian and Aegean Seas can be viewed (Biagi *et al.* 2023).

However, despite the intensive surveys conducted under different light and weather conditions around Samarina during the last 20 years, leading to the recovery and GPS-recording of thousands of chert artefacts of different ages, very few Mesolithic tools have been collected. This is even though this landscape can be considered ideal for Mesolithic occupation, as it is rich in seasonal streams, small ponds and freshwater basins. The focus of this paper is to illustrate the knapped stone implements so far recovered in the area, and frame them in the general picture of the Mesolithic in the southern Balkans and north-western Greece.



Figure 1: Distribution map of sites HCF-2 (No. 1), HC CH-20 (No. 2), HC-201 (No. 3), HC-205 (No. 4), and Sam-5 (drawing by E. Starnini).

2 The sites

2.1 The Historic Camp

The plateau called the Historic Camp (henceforth HC), consists of a strongly altered surface belonging to the oldest moraine recognised to date in the area, and located a few hundred metres north-northwest of Samarina, along the right (western) bank of the Samariniòtikos River (Figure 1). The name relates to the discovery of a 7th century AD camp-site, which was partly excavated in 2006 (Efstratiou 2008: Figure 15). According to available radiocarbon results, the plateau started to be systematically deforested around the Middle Bronze Age (Biagi & Nisbet 2018). The area is rich in streams and small ponds, either on the top of small terraces, or delimited by the moraines that descend from Mt. Gurguliu (Hughes 2004: Figure 7.31).

The first knapped stone tool attributable to the Mesolithic period was found in the autumn of 2013 along the shore of a small, dissected seasonal water basin (HCF-2: 40°06'49.1" N – 21°00'19.2" E, 1553 m) (Figure 2). It consists of a backed point obtained by abrupt, deep, direct retouch along the left side of a microbladelet of exogenous bluish black chert (10G2.5/1) (Figure 3, No. 5), and is the only artefact of this type so far discovered in this mountain zone. According to its techno-typological characteristics, the tool can be compared with other microlithic backed points retrieved from Layer IIIb, radiocarbon dated to the Early Preboreal, and Layer IV (undated) of the Boila rock-shelter (Kotjabopoulou *et al.* 1999; Elefanti *et al.* 2021), which is located in Epirus *ca.* 33 km south-west of Samarina.

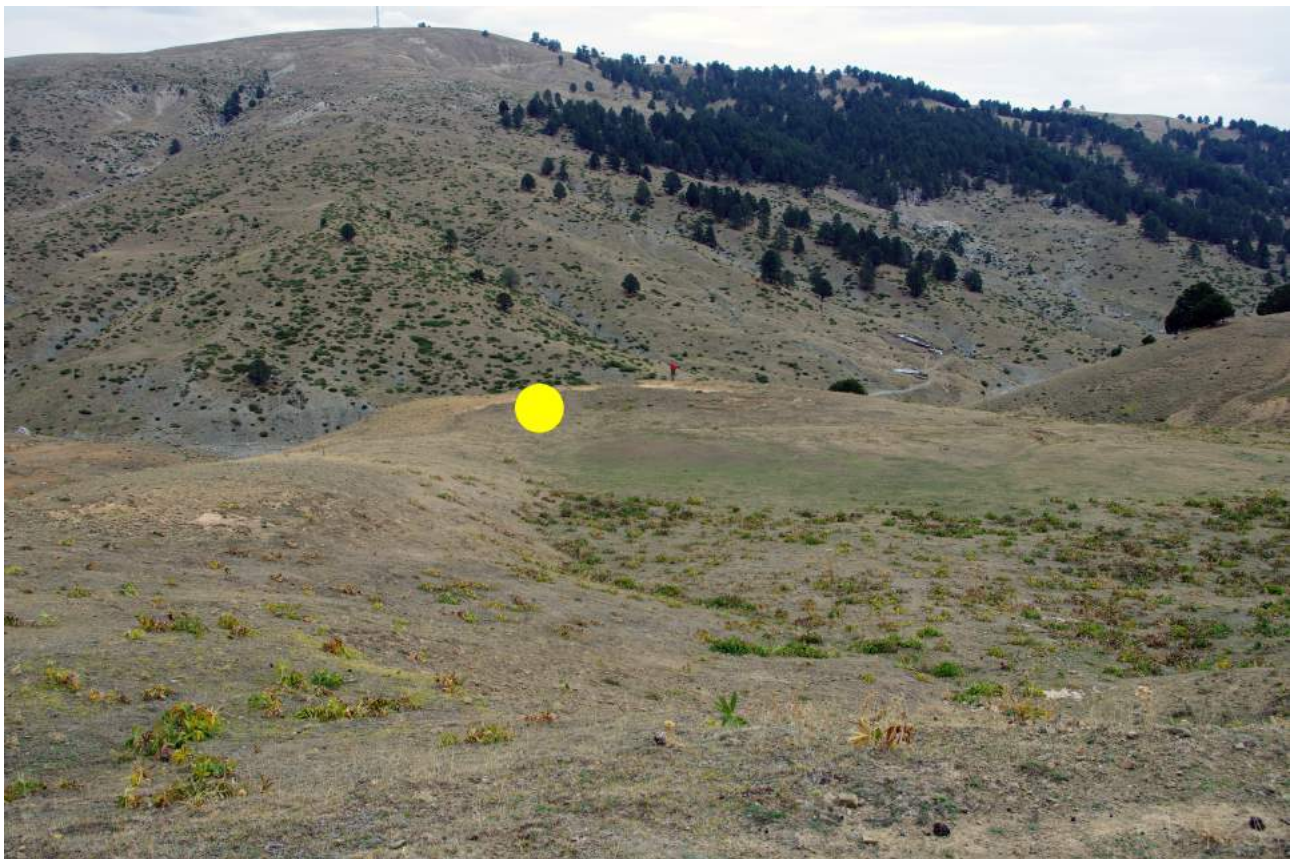


Figure 2: The dried small basin where the microbladelet backed point, HCF-2, was collected (yellow dot) (photograph by P. Biagi in 2020).

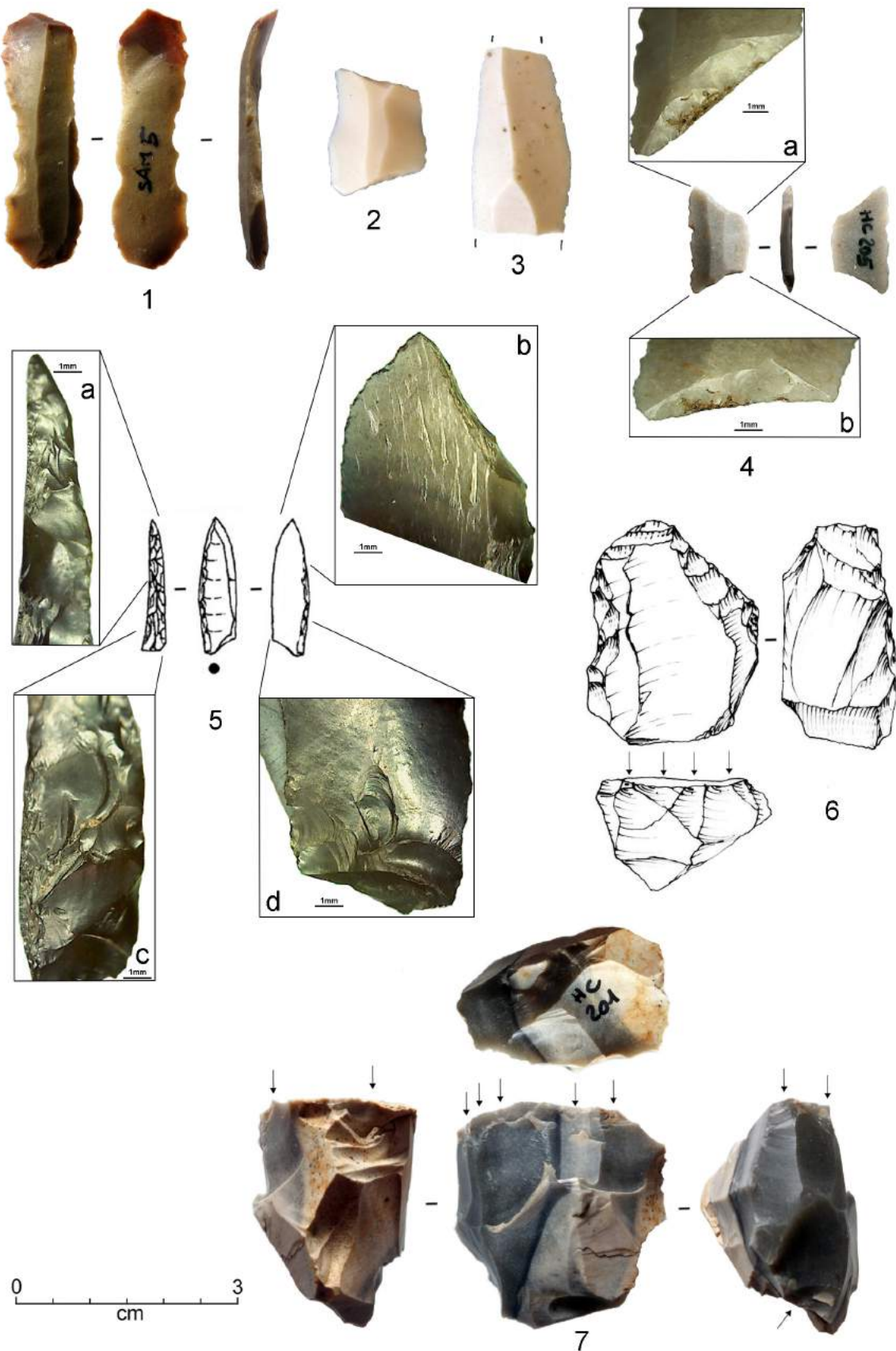


Figure 3: Knapped stone artefacts from Sam-5 (Nos. 1-3 and 6), HCF-2 (No. 5), HC-205 (No. 4) and HC-201 (No. 7) (photographs by E. Starnini (Nos. 1, 4, 5 and 7) and N. Efstratiou (Nos. 2 and 3), drawings by P. Biagi and G. Almerigogna).

In 2020, *ca.* 30 m north of the same basin, along the profile of a small crack opened by a seasonal stream, a thin layer of charcoal pieces was discovered (Figure 4). One charcoal sample (*Salix* sp.), collected from the depth of *ca.* 80 cm (HC CH-20), yielded a radiocarbon date of 8075 ± 35 BP (GrM-25076) (Table 1). The date falls into the recent Preboreal period, and perfectly fits the chronology expected for this type of microlithic point.

Sample name	Lab. number	Coordinates	Altitude (m)	Material	F14C	BP date	cal BC date (OxCal 4.4)	$\delta^{13}\text{C}$
HC-CH20	GrM-25076	40°06'46.05"N – 21°00'19.8"E	1546 m	Charcoal (<i>Salix</i>)	0.3383	8075±35	7934-7917 (1.6%), 7822-7596 (93.9%)	-26.20

Table 1: Radiocarbon date of sample HC CH-20.



Figure 4: Open profile sampled along the stream (HC CH-20), which yielded the radiocarbon date of 8075 ± 35 BP (GrM-25076) (photograph by E. Starnini in 2020).

Two more knapped stone tools attributed to the Late Mesolithic come from the eroded surface of the same plateau (HC). The first is a microlithic isosceles trapeze of non-local grey chert (2.5Y5/1), with two oblique, slightly concave truncations obtained with the microburin technique, as shown by the presence of two retouched *piquant trièdre* points (HC-205: 40°06'39.3" N – 21°00'35.8" E, 1537 m) (Figure 3, No. 4). The geometric microlith was collected very close to an exhausted, prismatic bladelet core with one prepared platform and an opposed flakelet detachment, made from non-local dark greenish grey chert with lighter spots (5GY3/1) (HC-201: 40°00'39.4" N – 21°00'36.1" E, 1538 m) (Figure 3, No. 7). These two artefacts show that this part of the plateau was sporadically visited by hunter-gatherers during the Late Mesolithic Atlantic.

2.2 Samarina 5

The site of Samarina 5 (Sam-5) was discovered in 2002, along the north-eastern edge of the whitish limestone outcrop locally called Delichmèt (40°08'10.5" N – 21°00'52.7" E, 1773 m). A small assemblage of microlithic tools made from exotic chert of different colours was collected from the surface of a findspot located on the western part of the earth road that follows the watershed (Figure 5). It is impossible to say if the complex is homogeneous, though some artefacts can be undoubtedly attributed to the Late Mesolithic because of their techno-typological characteristics. The site is located *ca.* 20 m north-west of a dissected seasonal waterhole, which also yielded a few microlithic chert artefacts (Sam-15), and south-east of a perennial spring that is at present exploited by Vlah shepherds to water their flocks. One 2 x 3 m trench was opened in 2004, *ca.* 20 m south-west of the Sam-5 Mesolithic findspot. It yielded evidence of a short Byzantine occupation with a small hearth radiocarbon-dated to 1129 ± 26 BP (DEM-1917, OxA-16222) and 1127 ± 25 BP (DEM-1918, OxA-16223) from charcoal.



Figure 5: The site Samarina 5 (Sam-5) from the north, with the location of the Mesolithic findspot (yellow dot) and the place where the trial-trench was opened (photograph by P. Biagi in 2004).

The Sam-5 knapped stone assemblage consists of fresh, non-patinated artefacts made from chert of different colours, including “black chert”, whose sources are known in neighbouring Epirus, along the Vikos Gorge, into which the Boila rock-shelter opens (Elefanti *et al.* 2021; Stergiou *et al.* 2021). They are represented by one microlithic isosceles trapeze with oblique, retouched, *piquant trièdre* straight truncations, obtained from a radiolarian chert bladelet with trapezoidal cross-section of very pale brown colour (10YR8739 (Figure 3, No. 2), one notched bladelet of brown chert with darker spots (10YR4/3) obtained by abrupt, deep, direct retouch along both sides (Figure 3, No. 1), one microb-

ladelet mesial fragment made from radiolarian chert of a very pale brown colour (10YR8/3) with very small darker spots (Figure 3, No. 3), two prismatic microflakelets (Figure 3, No. 6), one subconical microbladelet core and a few unretouched microbladelets.

3 Discussion

The few Mesolithic artefacts discovered in the Pindos Range around Samarina contribute to our knowledge of the Early Holocene archaeology of Greece, some aspects of which have been discussed recently from several points of view (Galanidou 2011; 2014; Berger *et al.* 2016; Sampson 2019: 12-42). The main problem for Greek Mesolithic archaeology, at least regarding the north-western continental part of the country, is summarised in the following sentence: “*the sites identified are scarce (a dozen at most), and consist of caves and small open-air settlements*” (Perlès 2003: 100). Moreover, all the previously recovered sites are located in lowland zones. Therefore, their number is insufficient to draw any conclusion, considering that we are dealing with communities of mobile hunter-gatherers with a broadly spread economic subsistence base. The result is the establishment of many, though in some cases ephemeral, types of sites every year (Binford 1982).

Apart from these observations, the Mesolithic artefacts discovered around Samarina are important for many reasons. They help us follow the probable direction from which hunter-gatherers moved into the Pindos highland zones. Owing to the presence of artefacts made of non-local chert, we can infer that one of their starting points was in the Epirus lowlands. Moreover, they provide us with evidence of two periods of Mesolithic exploitation in the Pindos mountain landscape.

The first period was around the end of the Preboreal, as suggested by one typical tool and the aforementioned radiocarbon date, GrM-25076. The second was during the Early Atlantic, shown by the discovery of characteristic Castelnovian tools, among which are isosceles trapezes, one notched bladelet, exhausted microbladelet and microflakelet cores. The latter inform us that the material exploited for making tools was transported from a distance of *ca.* 30 km, which corresponds roughly to a day's walk in such a complex environment, and that the tools were manufactured on the spot. All these features perfectly fit into the Mesolithic hunter-gatherer pattern shown over many years of research and excavation in mountainous sites of the southern Alps (see Biagi & Starnini 2016).

The Mesolithic artefacts recovered around Samarina show techno-typological characteristics which can be closely compared with assemblages retrieved from the few Mesolithic rock-shelters and cave sequences known in the south-western Balkan Peninsula (see Kaczanowska & Kozłowski 2018), assemblages attributed to both the earliest Holocene (see Kotjabopoulou *et al.* 1999; Mihailović *et al.* 2017), and local aspects of the Late Mesolithic Castelnovian culture (Schuldenrein 1998; Harrold *et al.* 2016; Mihailović 2017: 217).

In conclusion, it is important to remark that the few finds discussed in this paper suggest that the Pindos highland zone falls into the general picture of the south-western Balkan Mesolithic. From the techno-typological point of view it has very little in common with that of the Peloponnese and the Greek Islands, which have been a topic of interesting debate, mainly during the last two decades (see Sampson 2019).

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