

AN ANDESITE LEVALLOIS POINT FROM THE JAVAKHETI HIGHLAND (NORTH-WESTERN LESSER CAUCASUS, GEORGIA)

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ABSTRACT

This paper describes and discusses an andesite Middle Palaeolithic Levallois point discovered on the surface of Javakheti Highland in the Lesser Caucasus of Georgia at 2130 m of altitude during the surveys carried out in the summer of 2017. Though andesite Acheulian hand-axes were already recovered along the slopes of Mt. Chikiani during the Soviet period, the new find shows that this raw material was employed also for knapping Levallois tools, despite the rich obsidian sources available from the volcano. The discovery would suggest that the tool is older than the beginning of exploitation of the obsidian sources that, according to the available data, started to be utilised around the end of the Middle Palaeolithic.

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INTRODUCTION

The scope of this paper is to illustrate and discuss a so far unique andesite Levallois point found in the Javakheti Highland during the surveys carried out in the summer of 2017.

The Javakheti Highland is located in the Tsalka district of north-western Lesser Caucasus (south-western Georgia). It consists of a volcanic structure that formed during several phases of Quaternary magmatic activities, the more recent of which is dated between 2.8 and 2.4 Myr (Lebedev *et al.* 2008; Lebedev & Vashakidze 2015; Nomade *et al.* 2016). The prevailing rocks are represented by rhyolites, obsidians and perlites that form the cone of Mt. Chikiani volcano previously known as Koyun Dağ, still reported with this name in most official maps in Russian. Along the eastern side of the mountain dacites prevail, while basalts and basalt andesites constitute most of the northern sector (Nasedkin *et al.* 1983).

Since Soviet times, Chikiani is well known as an important source of excellent quality obsidian of different colours, whose archaeological distribution covers a large area that extends from the shores of the Black Sea, in the west, to the uplands of Iran and the Caspian Sea plain, in the east (Badalyan *et al.* 2004; Badalyan 2010: Fig. 4), following the recovery and characterization of Chikiani obsidian artefacts from sites of different ages located throughout the aforementioned area. According to the available evidence, the exploitation of the obsidian sources began around the end of the Middle Palaeolithic. This is demonstrated by the artefacts uncovered from the Late Mousterian layers of Ortvale Cave in north-western Georgia (Le Bourdonnec *et al.* 2012; Moncel *et al.* 2015: 118, Fig. 17). It continued at least until the Iron age, as is shown by the discovery of well stratified obsidian flakes from the 1st millennium BC layers of Grakliani Hill, ca 50 km north-west of Tbilisi (Licheli 2011). These data reinforce the impression that during the late

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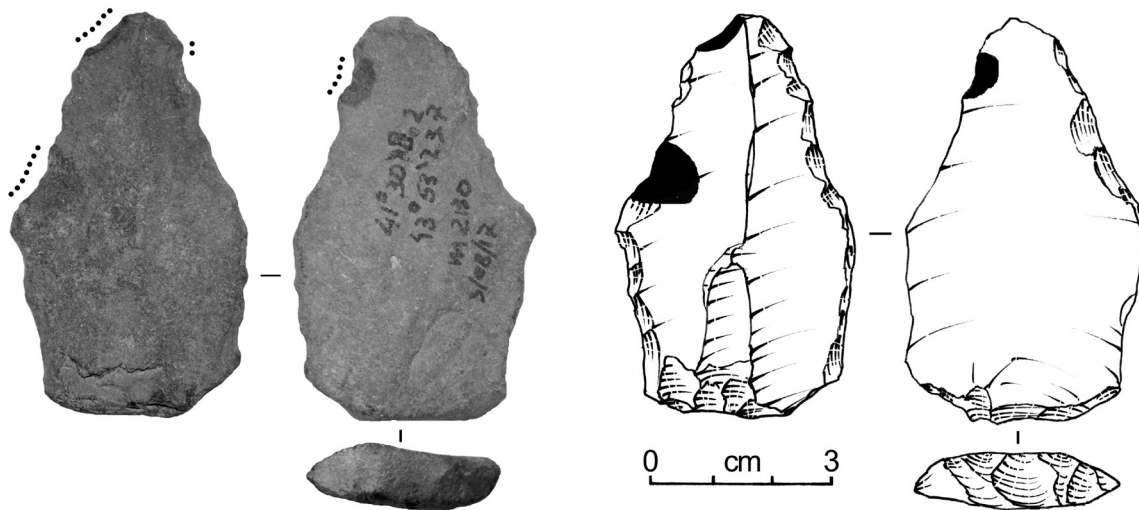


Figure 1: The Javakheti Highland east of Mt. Chikiani with the location of the place where the Levallois point was recovered (black dot), the area with main concentrations of Bronze Age obsidian mining pits (yellow rectangles), and the suggested place where Z.K. Kikodze collected Acheulian andesite hand-axes (blue rectangle) (map by P Biagi).

Middle Palaeolithic “obsidians were also sporadically transported by Neanderthals from sources located between 200-250km and 350-400km from sites”, though “the area of resource exploitation usually did not exceed a radius of about 0-5km from a site”, even when the material exploited was not of a good quality (Doronicheva & Shackley 2014: 581)

The surveys carried out by Ca’ Foscari University of Venice in collaboration with I. Javakhishvili Tbilisi State University between 2012 and 2017, led to the discovery of clusters of hundreds of Bronze Age obsidian mining pits distributed mainly along the northern and eastern slopes of Mt. Chikiani (Biagi & Gratuze 2016; Biagi *et al.* 2017a; 2017b). Moreover, the same surveys demonstrated that the entire upland was intensively exploited in different periods of prehistory (Fig. 1). This fact is shown by the presence of hundreds of archaeological features among which are various types of small, large, and corridor *kurgans* made of andesite and obsidian boulders, megalithic alignments, and one standing stone (*menhir*). Other structures consist of

complex villages with stone-walled houses and andesite quarries that were exploited to build the same settlements. Most of the aforementioned features are most probably to be attributed to a period comprised between the end of the Neolithic and the Iron Age (Biagi & Nisbet 2018).

THE LEVALLOIS POINT

A typical Levallois point was incidentally found on the surface of the north-western edge of the Javakheti Highland, at 2130 m of altitude, more precisely at 41°30’18.2” N - 43°53’23.7” E (Fig. 2). The tool consists of a typical, triangular, second order Levallois point (Debénath & Dibble 1994: 50), detached from a dihedral/faceted platform andesite flake of dark grey colour (5Y4/1), with a simple, marginal, alternate retouch along both sides, one central ridge and triangular negative scar at the base. The tool measures 66x39.5x11 mm (length, width and thickness). The edges and arises are rounded by weathering. The point is in a good state of preservation apart from three, clearly visible, small concassage detachments at the distal edge and along the left side, most probably due to recent



Figure 2: The Javakheti Highland photographed from Mt. Chikiani and the location of the place from which the andesite Levallois point was collected (black dot) (photograph by P. Biagi).

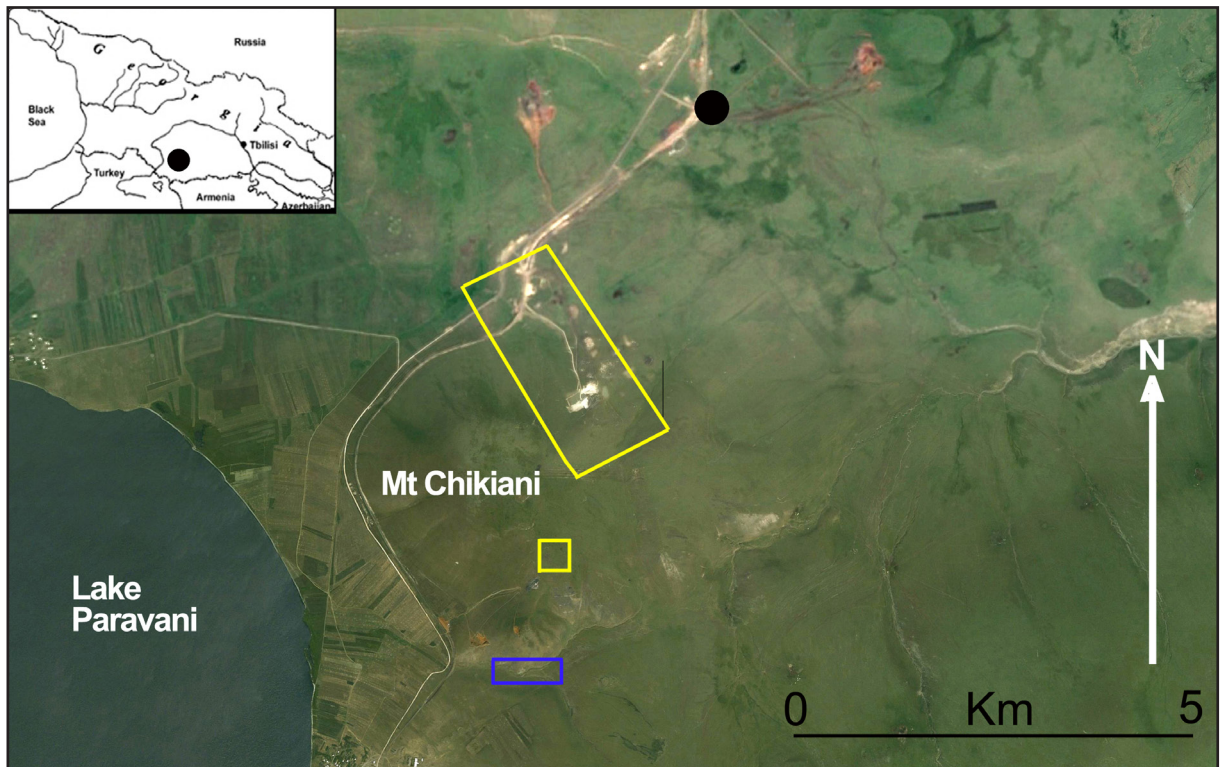


Figure 3: The andesite Levallois point from the Javakheti Highland. The black spots show the presence of concassage detachments due to trampling marked by small black dots (photographs and drawings by P. Biagi, M. Ferrandi and E. Starnini).

post-depositional trampling that exposed the real colour of the material employed for its manufacture is very dark grey (5Y3/1) (Fig. 3).

DISCUSSION

Andesite tools were discovered for the first time along the southern slopes of Mt. Chikiani in 1977. They were published a few years later by Z.K. Kikodze (Kikodze 1983) who attributed them to the Acheulian Lower Palaeolithic (Kikodze 1986: 55; see also Gabunia 2000: 46, and Lioubine 2002: fig. 90). As reported in a recent volume published by the National Museum of Georgia, both Acheulian and Middle Palaeolithic tools were recovered on the surface of Mt. Chikiani from point 41°21'57.9" N - 43°51'12.8" E (Gabunia *et al.* 2015: 94), though the above authors did not specify whether the few Middle Palaeolithic specimens they found are made from andesite or obsidian, as their drawings would suggest (Gabunia *et al.* 2015: 95). Moreover, the presence of Acheulian andesite and basalt hand-axes is reported also from a few other high-altitude, open-air sites in the Lesser Caucasus (Lyubin 1998: 150).

To sum up: the available data would suggest that 1) following the typological analysis and proposed chronology of the Early and Middle Palaeolithic assemblages of the Caucasus (Adler *et al.* 2014), the Levallois point discussed in this note is undoubtedly more recent than the andesite Acheulian bifaces published by Z.K. Kikodze in the 1970s. However, according to Le Bourdonnec *et al.* (2012: 1320): “*The Chikiani obsidian was used since the Lower Palaeolithic as evidenced by the bifaces found in the vicinity of the sources* (Kikodze & Koridze, 1978)...”. It is important to remark that the latter two authors never mentioned the discovery of obsidian Acheulian hand-axes from the Chikiani area. More precisely, in their 1978 report written exclusively in

Georgian, they wrote that near the village of Rodionovka, at the altitude of 2417 m, they uncovered a workshop with an impressive number of knapped obsidian artefacts that they attributed to different prehistoric periods spanning from the Acheulian Early Palaeolithic to the Mesolithic. In the same paper they attributed two thick obsidian scrapers from the same site to the middle Acheulian period because of their typological characteristics (see Kikodze & Koridze, 1978: 24, fig. 4); 2) the new discovery of a characteristic Levallois point raises the problem of the chronology and cultural attribution of the earliest exploitation of Mt. Chikiani obsidian sources. According to the present evidence, we can suggest that it undoubtedly began around the end of the Middle Palaeolithic. Moreover, we know that Mousterian Neanderthal communities are thought to have exploited the knappable stone resources that were available within their activity radius, and that they were not necessarily related with the presence of obsidian (Pleurdeau *et al.* 2007; Frahm *et al.* 2016).

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