

# The Lower Paleolithic of Romania: A Critical Review

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## ABSTRACT

In the last few decades, our understanding of the Lower Paleolithic has expanded, due to multiple advances in research methods and the numerous sites recently discovered. As a consequence, there have been many changes in the interpretation of Lower Paleolithic technocomplexes, in terms of lithic industry characteristics, geographical spread, and chronological framing. This article presents a synthesis of the research carried out on the Lower Paleolithic in Romania in the 20th century. Several problems are discussed—the concept of Osteodontokeratic industries, which was used in the 1960s, still is has not been completely abandoned; terminology is very equivocal and there is no explicit delimitation between various stages of the Lower Paleolithic; tools found in disturbed context are used as cultural markers, which is not recommended for the Lower Paleolithic. Romania has very few sites with stratigraphy. Of those, even fewer have faunal-lithic associations and most of the lithics, scarce as they are (fewer than 10 per site), are often taphonomic or doubtfully anthropogenic. In addition, there are no trustworthy or radiometric dates. Therefore, based upon the evidence so far, the existence of the Lower Paleolithic in the territory of the current Republic of Romania is doubtful.

## INTRODUCTION

The course of humanity has remote and only partially known origins. In recent decades, data on this topic has become more extensive. The interpretation of various chronological and cultural technocomplexes has changed due to the relatively larger number of newly found sites, better excavation techniques, more reliable dating methods, and more complex paleoenvironmental reconstructions. This article analyzes the Lower Paleolithic record from Romania within the context of current approaches. An analysis of this sort is necessary for several reasons—the interpretation of the Lower Paleolithic in Romania relies on a total of about 1,100 pieces, out of which more than 90% come from disturbed contexts; the few syntheses about this period in Romania still use some obsolete concepts, like Osteodontokeratic and Premousterian; and, the criteria used in assigning the pieces to the Lower Paleolithic are completely unstandardized, because they vary from one publication to another.

This paper is divided into four sections. The first is a brief presentation of current perspectives on the technocomplexes that belong to the Lower Paleolithic. The second deals with the history of research in Romania, where three research stages can be identified. The third section presents the discoveries that presumably belong to the Lower Paleolithic. The *in situ* finds are few and do not yield many artifacts. For that reason, all of them are presented with as many details as can be gained from the publications. Some comments regarding their particular situations are made here. The various types of pieces found in derived contexts are grouped in two graphs, according to the published sources, in order to infer the criteria used in assigning them to a certain technocomplex. The fourth section discusses issues in the Romanian Lower Paleolithic. The

inconsistencies in terminology are mentioned and illustrated through extensive quotations. The discussion continues with an analysis of the argumentation used to support the alleged Osteodontokeratic. Other issues discussed include the Long/Short Chronology debate and the concept of Premousterian, which is addressed from the perspective of the Romanian data, where issues regarding its validity can be raised.

## CURRENT PERSPECTIVES

### THE OSTEODONTOKERATIC

The theory that hominins who, prior to using stone tools, were employing animal bones, dentition, and antler as raw material was developed by R. Dart in the decades after the World War II, for sites in South Africa (Dart 1957, 1960). In that region, broken bones from large mammals were found in the same layers as *Australopithecus africanus*. Among the various fragments, some had peculiar shapes that resembled clubs, points, borers, etc. Dart thought this patterning was the sign of intentional actions performed by the Australopithecines, so the alleged types of tools were classified as the Osteodontokeratic industry and were assigned multiple functions, like “stabbing and digging, scraping and polishing, gouging and levering, twisting and boring and reaming and so on” (Dart and Wolberg 1971: 233) The existence of hominin behavior connected solely to hard organic materials was strongly criticized (Brain 1981; Singer 1956; Wolberg 1970), and the numerous pieces in question, previously interpreted as tools, were proven to be the result of predators’ activity and of taphonomic processes.

Recently, some true bone tools have been identified in three sites in Southern Africa. They were made on limb bone shaft fragments and were used by *Australopithecus*

*africanus* for digging into termite mounds (Backwell and d'Errico 2000). Nevertheless, these cannot account for the existence of the Osteodontokeratic industries *sensu* Dart.

### LONG VS. SHORT CHRONOLOGY

In the interpretation of hominin colonization of Europe, two main approaches have dominated the last decades—the *Long* vs. the *Short Chronology* (for a concise presentation, see Balter 2001). The advocates for the long chronology assert that the earliest occupation of Europe took place in the Lower Pleistocene, around 2 MA (Bonifay and Vandermeersch 1991). Their opponents argue that the colonization took place (with some exceptions) mainly in the Middle Pleistocene (Dennell 2003; Roebroeks 2001).

For the *early Lower Pleistocene*, some landmark sites used to support the long chronology are Chilac, Saint Eble, Le Coupet, La Rochelambert, and Perrier-Etouières in the French Massif Central (Bonifay 1991, Chavaillon 1991) and Prezletice and Beroun in Bohemia (Fridrich 1991). The sites were included in the first phase of the *Trés Ancien Paléolithique* (TAP). From an archaeological point of view, the industries of this archaic period mainly comprised choppers, chopping tools, and polyhedrons. The human types are unknown, but are presumed to be either *Homo erectus* much earlier than expected (prior to 1.5 MA) or the presence of even more archaic hominins (Bonifay and Vandermeersch 1991: 315–318).

The anthropogenic character of most of these sites has been challenged for two reasons. First, the lithics, scarce and rudimentary as they are, could be the result of various natural actions (Raynal and Magoga 2000; Roebroeks 1994; Roebroeks and Van Kolfschoten 1994). Second, no true living floors were found, so it is difficult to get reliable biostratigraphical data (Korrisetar and Petraglia 1998; Roebroeks 2001; Rolland 1998).

A true archeological site of this age is Dmanisi (Georgia), which was securely dated at ca. 1.8 MA. The site has yielded numerous hominin fossils associated with Mode 1 lithic industries (Bosinski 1996: 33–34; Lordkipanidze 1998: 16; Lordkipanidze et al. 2007). At the other end of the continent, in Southern Spain, the earliest presence of *Homo* is at the sites of Barranco Leon and Fuente Nueva 3, in a pre-Jaramillo episode (ca. 1 MA) (Oms et al. 2000).

The *late Lower/early Middle Pleistocene*. The long chronology scholars defined a second phase of the TAP, in which the lithic industries have a higher percentage of flakes, the core tools more elaborate forms, and also protobifaces appear. This phase is represented at the sites of Soleilhac (French Massif Central), the caves of l'Escale and Vallonet in South-Eastern France (Bonifay 1991), Stranska Skala in Moravia (Valoch 1991), and Isernia la Pineta in Italy (Peretto 1991; Peretto et al 2004: 64–66). Questions have been raised regarding the anthropogenic character and/or the age of some of these sites (Roebroeks and Van Kolfschoten 1994; Rolland 1998). Nevertheless, the number of sites securely dated is greater than for the preceding phase. A very important site is Atapuerca Gran Dolina, in Northern Spain. Level TD6, dated to ca 800 KYr, has yielded *Homo*

*antecessor* in layers with Mode 1 industries (Arsuaga et al. 1999; Carbonell et al. 1999; Parès and Pérez-Gonzalez 1999). At the site of Pakefield, Mode 1 industries found in secure context, were dated to ca. 700 KYr (Parfitt et al. 2005).

The *Middle Pleistocene*. The map of the European Lower Paleolithic changes with the beginning of the Middle Pleistocene; for this period, there are a number of sites with better known contexts and many more artifacts—Boxgrove (Bergman and Roberts 1988), Cagny-La Garenne (Tuffreau et al. 1997: 229–232), Bilzingsleben (Brühl 2003; Gamble 1999: 153–173; Mania and Mania 2003), Schöningen (Thieme 2003), Notarchirico (Lefevre et al 1994), Vértesszölös (Dobosi 1988; Dobosi 2003). The excavated surfaces revealed habitation structures and numerous artifacts, fauna, and human skeletal remains. In some cases, refittings of artifacts demonstrated the existence of living floors, which could be accurately dated.

### PREMOUSTERIAN

The end of the Lower Paleolithic was associated with industries that were called *Premousterian*. Some scholars believed that the Mousterian had evolved exclusively during colder periods, so this term was created to define Mousterian-like industries, with very few bifaces, which were associated with the last interglacial. In the past few decades, the term was abandoned, because new research revealed that this Middle Paleolithic industry was already present during the Eemian (Tuffreau 1979; Tuffreau 1982).

### A BRIEF HISTORIC OF RESEARCH

Research on the Lower Paleolithic in Romania is almost a century old and is associated with many prominent figures of Romanian prehistoric archaeology. Within this lengthy period of research, several stages can be discerned, both according to the different theoretical orientations within the Romanian academic community, on the one hand, and, the international perspective on this topic, on the other hand.

The first phase began with discoveries made by M. Roska in the 1920s and 1930s in Transylvania. Among the pieces he found, he published some that he called “*coups de poing*,” bifaces, and flake tools, which he assigned to Chellean, Acheulian, and Micoquian (Roska 1928, 1931, 1933), using the European chronology of the time. One of the first critical analyses of the Romanian Lower Paleolithic was written by H. Breuil who visited some of the sites in 1924. In his review of the Paleolithic in Transylvania (Breuil 1927), he acknowledged very few pieces as being possible Acheulian and Premousterian. Among Romanian scholars, these pieces generated a debate that rarely was centered on their cultural context, but more on whether they were human-made or just natural accidents. A series of articles published in the 1930s confirmed the consensus view that the majority of the tools were not of anthropogenic origin (Moga 1936; Moroşan 1933; Nicolăescu-Plopşor 1929, 1930, 1931).

A second phase of research began after World War II, mainly in the 1950s when the new authorities were eager to find traces of populations that had inhabited Romania's

territory through the ages. Their aim was to re-create a long and glorious past. At that time there was a boom in archaeological field research, including the Paleolithic. This once again brought the problem of the Lower Paleolithic to the forefront because, throughout the country, many choppers, chopping tools, polyhedrons, discoids, and various flake tools, which seemed to belong to the early periods of the Paleolithic, were discovered. All of the pieces were found in derived contexts and cultural attribution was made using the typology of the pieces. Thus, based on the principle of *fossiles directeurs*, tools were assigned to the Pebble Culture, the Clactonian, the Acheulian, and the Premousterian (Nicolăescu-Plopșor 1957; Nicolăescu-Plopșor and Moroșan 1959; Păunescu 1970). In the early 1960s, the discovery of large mammal fossil sites in the Olteț River Valley prompted the idea that Pre-Paleolithic industries, such as the Osteodontokeratic, may have played a role in the history of Romanian Paleolithic. This was in part caused by a politically motivated desire to see Romania's territory as another cradle of humanity (Nicolăescu-Plopșor 1964b; Nicolăescu-Plopșor and Nicolăescu-Plopșor 1963).

The third phase is associated with P. Samson and C. Rădulescu, two paleontologists who developed a biochronological framework that covered the entire Late Pliocene and Pleistocene sequence and tried to correlate it with the European sequences (Rădulescu et al. 1998; Păunescu et al. 1982). From an archaeological point of view, the work of Al. Păunescu (1999a, 1999b, 2000, 2001) had the greatest impact on this stage of research. He was the first to catalogue and synthesize all the pieces reported as Lower Paleolithic into a single compendium, as well as providing standardized criteria for their description.

### THE ARCHAEOLOGICAL DATA

The record assigned to Lower Paleolithic is presented here in detail. It is divided into two categories. The first consists of all *in situ* discoveries, which are ordered according to their chrono-cultural attribution. The second comprises the majority of the pieces, which were found in disturbed contexts.

### THE IN SITU DISCOVERIES

Figure 1 illustrates the Romanian geochronological scale and includes the sites where lithics were reported in association with faunal material (with one exception, the choppers of Tetoiu – Dealul Mijlociu).

One of the oldest and richest venues with paleontological remains is in the Olteț Valley, near the village of Tetoiu [Bugiulești]<sup>1</sup> (Figure 2). During the Villafranchian, this area was on the shore of Lake Getian. Three of the sites from this locality, which are very important for the geochronology of the Lower Paleolithic in Romania, are presented below.

#### Tetoiu – Pietrișu Vijoiești (Vâlcea County)

At this site, an area of 126m<sup>2</sup> was excavated to a maximum depth of 7.2 m in 1960–1961. Over an area of about 50m<sup>2</sup>, numerous animal bones were found in a sandy layer between 5.7m and 6m in depth. The taxa identified were *Ar-*

*chidiskodon meridionalis*, *Nyctereutes megamastoides*, *Lynx issiodorensis*, *Eucladocerus* sp., *Pliotragus ardeus*, *Stephanorhinus etruscus*, *Plessipus athanasiui*, *Beremendia* cf. *fissidens*, *Trogotherium dacicum*, and *Vulpes alopecoides* (Păunescu 2000: 304–305; Rădulescu et al 1998: 283–285). Most of the bones were found in anatomical position in the marshy banks of Lake Getian. This marshy environment presumably trapped animals on their way to the water and thus turned them into easy victims for their predators (Nicolăescu-Plopșor 1964a: 305–306, Nicolăescu-Plopșor et al. 1964: 40).

#### Tetoiu – Dealul Mjlociu (Vâlcea County)

In 1960, field research was done on the western slope of a hill near the village of Tetoiu. It is unclear if the remains were excavated or simply recovered from an exposed profile. In a 1.5m thick layer, consisting of sand and gravel, two or three pebble tools were found. Although not *in situ*, they were considered to have originated very close to the spot where they were found because they exhibited few traces of post-depositional movement. The paleontologists who recovered the artifacts mentioned three chopping tools—two in flint (Figure 3: 1–2) and one in quartzite (Rădulescu and Samson 1991: 285). Subsequent publications only mention two, namely those made on flint (Bosinski 1996: 37; Păunescu 2000: 307). No faunal remains were found; nevertheless, the layer's age was estimated at around 1.7 MY (Upper Pliocene – Tiglien) (Rădulescu and Samson 1991) and the chopping tools were assigned to the TAP.

#### Tetoiu – Valea lui Grăunceanu (Vâlcea County)

This is the best known of the Tetoiu sites, because of reports of Osteodontokeratic artifacts. Unfortunately, the documentation regarding the site is very poor; no profiles or plans were printed. The excavation covered approx. 200m<sup>2</sup>. This site was very rich in fauna; the majority were found in an area of 90m<sup>2</sup>, in a clayey-sandy layer at a depth of between 4.77m and 5.6m. Associated fauna includes *Archidiskodon meridionalis*, *Equus stenorhinus*, *Gazellospira troticornis*, *Pliotragus ardeus*, *Macedotherium martini*, *Dicerorhinus* sp., *Cerous philisi*, *Crozetoceros ramosus*, *Castor plicidens*, *Trogotherium cuoieri*, *Nyctereutes megamastoides*, *Ursus etruscus*, *Crocota perrieri*, *Homotherium crenatidens*, *Megantereon megantereon*, *Felis issiodorensis*, *Felis toscana*, and *Meles* sp. Most of the skeletons were found with the bones in anatomical position. Aside from the these taxa, the remains of a primate, *Paradolopithecus arvernensis geticus*, were found. The faunal assemblage led scholars to date the layer to the Villafranchian and suggested similarities with the site of Senèze in the Massif Central, France (Păunescu 2000: 300–304; Rădulescu et al. 1998). Among the 20,000 bones, certain fragments were considered tools and based on the different presumed active parts, they were called clubs, scrapers, borers, etc. These alleged tools formed the main evidence for the anthropogenic origin of this assemblage. In the same layer, three unworked cobbles were interpreted as manuports (Nicolăescu-Plopșor 1964a: 311–312, Nicolăescu-Plopșor 1964b: 49, Nicolăescu-Plopșor and Nicolăescu-Plopșor 1965: 32–34).

	<i>Guiding taxon</i>	<b>Romania</b>	<b>France, Italy, Greece</b>	<b>Germany, Hungary</b>	<b>Georgia, Russia</b>
<b>Middle Pleistocene</b> Saalian Holsteinian Elsterian “Cromerian”	<i>S gregalis martelensis</i>	Sândominic - 2 (LP)	La Fage	Steinheim Castellum Uppony	Khazarian  Singlian  Okaian
	<i>Arvicola terrestris</i> <i>Plyomis relictus</i>	Sândominic -1 (LP)			
		Slatina (terrace) (LP)		Vértesszölös (LP)	
	<i>Arvicola cantianus</i>	Gura Dobrogei (2) (LP) Gura Dobrogei (1)  Casian - 1	L’Escale  Isernia (LP)	Mosbach - 2 Tarko	Tiraspolian
<b>Lower Pleistocene</b> Bavelian Menapian Waalian Eburonian			Vallonet (LP)		Tamanian
	<i>Canis etruscus</i>	Fântâna Alorțiței	Olviola		Odessan Dmanisi (LP)
<b>Upper Pliocene</b> Tiglian	<i>Paradolicopithecus</i> <i>Mitilanotherium</i> <i>Manis</i>  <i>Trogotherium</i> <i>dacicum</i>	Valea lui Grăunceanu Dealul Mijlociu (LP) Pietrișu - Vijoiești	Tiglian 5C  Chilhac (LP) Volakas S. Vallier	Villany - 3	Khaprovian

Figure 1. Correlation of the fossil sites of Romania assigned to the Lower Paleolithic (LP), together with their principal European biochronological equivalents (redrawn from Rădulescu et al. 1998).



Figure 2. The most important sites of the Romanian Lower Paleolithic. Squares = in situ discoveries; triangles = disturbed context locales with 40–100 pieces; circles = disturbed context locales with more than 100 pieces.

In the same layer, three rocks were found. After a macroscopic analysis, it was stated that they could only have come from sources some 40 kilometers away, although no mineralogical analysis was carried out. Together, they weighed about 1 kilo. After eliminating the hypothesis of natural transportation, the scholars concluded that the rocks were transported by Australopithecines in order to be used for breaking and shaping the large bones.

Finally, a quartzite chopper found in the layer above the faunal deposit (Păunescu 2000: 303), also was described, but the associated drawing suggests that it is a taphonomically-modified piece (see Figure 3: 3).

The evidence from these three sites presents a rather awkward situation (see Figure 1). In theory, the Osteodontokeratic should precede any stone-tool-bearing assemblage, but given the geochronological assignments of the Tetoiu sites, the three chopping tools from Dealul Mijlociu seem to pre-date the Osteodontokeratic level from Valea lui Grăunceanu.

### Gura Dobrogei (Constanța County)

Gura Dobrogei is a cave site, also referred to as **Peștera**

**Lilieciilor** (Bats' Cave). The excavations that yielded Paleolithic artifacts were carried out in 1971 in a section called the "Secondary Gallery." The stratigraphic sequence is difficult to follow, as is identifying the layers in which the lithics were found—there is no drawing that would make the dense description of sediment disposition more comprehensible.

The upper part of the sediment, which mostly consisted of loess with clastic limestone fragments, was divided into three loess levels separated by a silty level (towards the bottom) and a brown paleosol (towards the top).

The silt level and the loessic levels above and beneath it were placed in the geochronological framework as Phase Gura Dobrogei 2 (contemporary to the late Cromerian), based on the rodent faunal taxa identified—*Allactaga orghidani*, *Apodemus sylvaticus*, *Cricetulus gr. migratorius*, *Mesocricetus newtoni*, *Cricetus cricetus praeglacialis*, *Ellobius calabaei*, *Spermophilus gr. nogaici*, *Clethrionomys glareolus*, *Lagurus transiens dacicus*, *Eolagurus gromovi vistornensis*, *Arvicola cantianus*, *Microtus guentheri*, *Microtus arvalis*, *Pitymys arvaloides*, *Stenocranium gregalis*, *Ochotona pussila*, and unspecified *Caprinae*. The loess level above the silt layer yielded

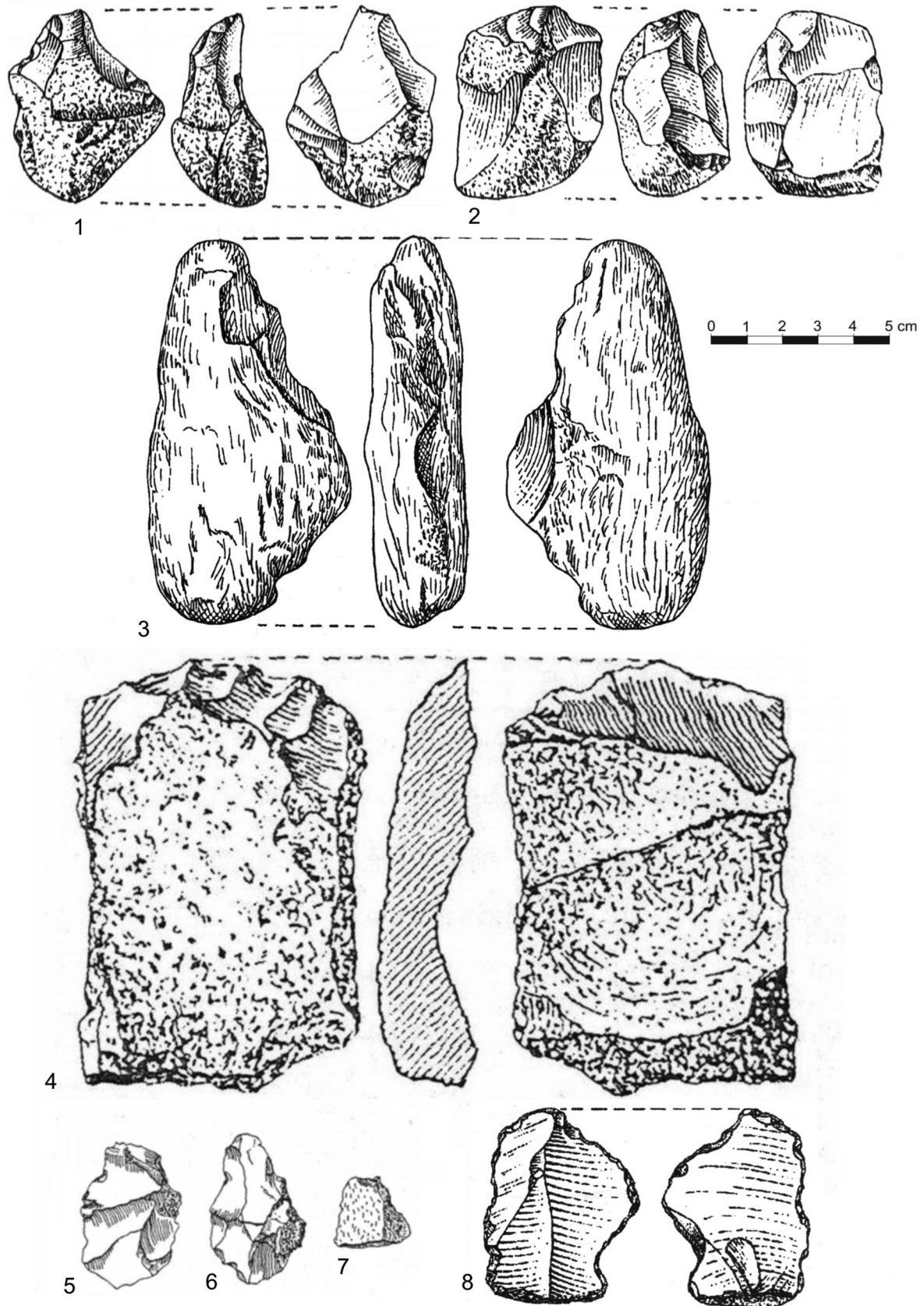


Figure 3. Tetoiu – Dealul Mijlociu: 1, Chopping tool; 2, Protobiface (Păunescu 2000); Tetoiu – Valea lui Grăunceanu: 3, Chopping tool (Păunescu 2000); Gura Dobrogei – Peștera Liliacilor: 4, Chopping tool; 5, Flake with retouched edge; 6, Side scraper; 7, Flake (Samson et al. 1998); Slatina – Terrace: 8, Levallois retouched flake (Păunescu 2000) [all illustrations from Păunescu used with permission of the AGIR; illustration from Samson et al. used with permission of the AFEQ].

only two artifacts, which were interpreted as a chopping tool and a flake with a retouched edge (see Figure 3: 4–5). In the loess level below the silt level, a dubious side-scraper and a quartzite flake were reported (see Figure 3: 6–7). All the pieces were assigned to the TAP (Cârciumaru 1999: 45–46; Păunescu et al. 1982: 55–56; Păunescu 1999: 130–132; Rădulescu et al. 1998: 285–287).

### Slatina (Olt County)

There are five archaeologically or paleontologically interesting locations near this city. Of these, two sites yielded only fauna, one site only lithics (in disturbed context), and the other two were reported as containing both fauna and lithics. In Figure 1, Slatina is categorized as having Lower Paleolithic finds whose age was indicated by the fossil fauna. Below are the two candidates.

#### Slatina – southern side of the city (or Slatina – terrace)

The find-spot at the Slatina terrace is a river-cut profile (see Figure 1). The sequence described here (~45m depth) contains an important stratified paleontological collection, which was used in Romania's geochronological framework. In particular, Level 37 was thought to represent the Pliocene-Pleistocene boundary, according to the taxa identified—*Trogontherium dacicum*, *Miomys* sp., *Unio asperhronicus*, *Unio bozdagiensis*, *Anodonta* sp., *Euphrata* sp., *Corbicula* sp., and *Viviparus lineatus*. Using paleomagnetic dating carried on in the area (Andreescu et al 1981), the layer's age was estimated at 1.8–1.6 MY and came to represent Phase Slatina 3 (Tiglian). On the other hand, in the gravel of the Elsterian terrace of Olt, a single Levallois flake was found (see Figure 3: 8) which was assigned to the Premousterian (Cârciumaru 1999: 45–46; Rădulescu et al. 1998: 285; Păunescu 2000: 205–206). Slatina – terrace thus is reported as having Lower Pleistocene fauna and a presumed Middle Pleistocene flake. There is no argument for presenting it as a site yielding both fauna and lithics (as in Figure 1), because no correlation between them (lithics and fauna) can be made.

#### Slatina – Valea Clocociovului

In another part of the city, in 1970, two pieces were reported—a chopper and a flake that exhibited serious edge damage. They came from a disturbed context and were assigned to TAP. A few years before, in the same valley, an *Elephas antiquus* molar was reported (cf. Păunescu 2000: 205–207). In this case, another impossible correlation was made, between lithics and fauna, both with unknown stratigraphical provenience.

### Amărăști (Dolj County)

This site is located in a piedmont area and was discovered when a dam was built near the village. A small excavation was made (size is unknown). In a clay layer, found at a depth between 2.7m and 4.05m, some parts of an *Elephas trogontherii* skeleton and eight quartzite pieces were recovered. The lithics were two manuports with some knapping scars (Figure 4: 1–2), two unretouched cortical flakes (see Figure 4: 4), three flakes with denticulate retouch, and one

*tranche de citron* flake (see Figure 4: 3). This discovery was interpreted as the remnants of a hunting party. The lithic material was presumed to belong either to some post-TAP industry of the Lower Paleolithic or to the Premousterian, with no further refinement (Cârciumaru 1999: 43–44; Păunescu 2000: 454–456).

### Sândominic (Harghita County)

This site is located in a travertine quarry that was exploited beginning in 1967. The stratigraphic sequence found in a large rock fissure was analyzed by Rădulescu and Samson (1998), who identified two distinct layers—1 (lower) and 2 (upper).

Level 1, about 0.5m thick, was terra rosa (4YR 5/6); based on the presence of *Arvicola terrestris* and *Pliomys relictus*, its age was estimated as late Holsteinian. Four lithics were found, three in quartzite (a cortical flake, a proximal flake, and a shatter) and a sandstone fragmentary biface (see Figure 4: 6). They were assigned to the post-TAP Lower Paleolithic, with no further refinement.

Level 2, about 1.5m thick, mostly consisted of clastic fragments. Based on the presence of *Stenocranius gregalis martelensis*, its age was estimated as early Saalian. The excavation of this layer yielded a piece interpreted as simple side scraper on a Levallois flake and a proximal flake (see Figure 4: 5 and 7) which were assigned to the Premousterian (Păunescu 2001: 401–404; Păunescu et al. 1982: 60–61; Rădulescu et al. 1998: 287–288).

It thus appears that all the *in situ* discoveries have yielded less than two dozen pieces. Unfortunately, for most of the situations mentioned above, profiles were not published, and details about the excavation technique and/or surface are insufficient.

### THE DISTURBED CONTEXTS

Before presenting the material in this section, some clarification should be made. Find-spots where only pebble tools were found were assigned to the TAP. Find-spots that yielded pebble tools plus bifaces and/or flakes were presented as having TAP and some vaguely defined Lower Paleolithic industries; no boundary was drawn to separate the two categories of lithics. If only bifaces and/or flakes were found, the lithics were assigned to the Lower Paleolithic (post-TAP) and presumably to the Premousterian<sup>2</sup>. The total number of pieces is around 1,100; the exact amount is unclear, because for some sites published reports simply say there are “a few” artifacts.

There are 65 locations where TAP, later Lower Paleolithic (post-TAP), and Premousterian pieces have been reported. Most are located on river terraces. The largest number of these are in Walachia and Oltenia (53); in the other provinces, the locations are far fewer—five in Moldavia, four in Transylvania, and three in Dobrudja. In Figure 2, those that have yielded more than 40 pieces are shown.

### THE TAP AND LOWER PALEOLITHIC SITES

The majority of these sites is located in the southern part of Romania, namely in Walachia and Oltenia. As shown in

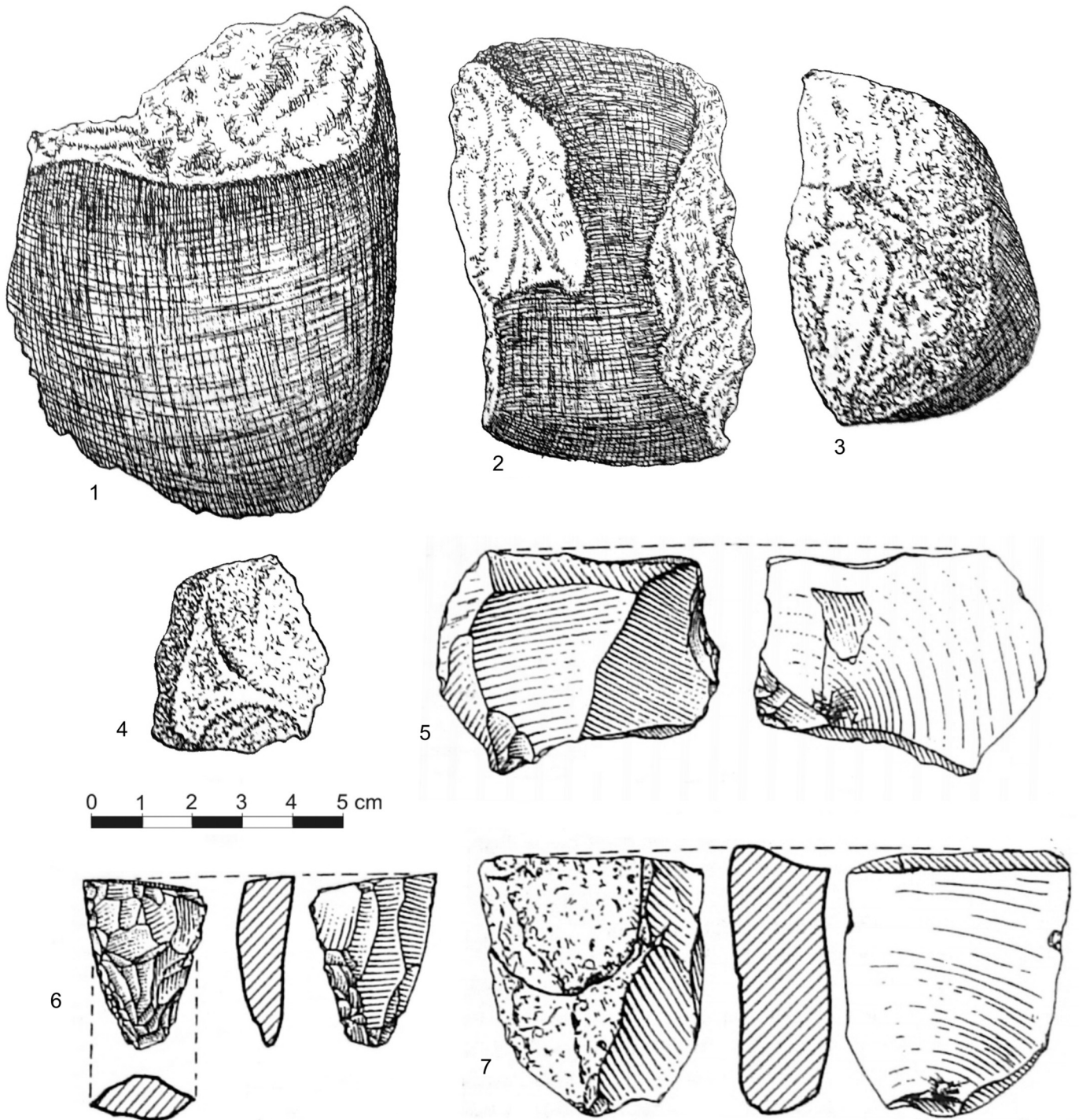


Figure 4. Amărăști – Baraj: 1–2, Pebbles with knapping negatives; 3, Flake; 4, Tranche de citron flake (Păunescu 2000); Sândominic – Travertine Quarry: 5, Simple side scraper on Levallois flake; 6, Biface fragment; 7, Flake fragment (Păunescu 2001) [all illustrations from Păunescu used with permission of the AGIR].

Figure 5, the total of 729 pieces that define the TAP plus the later Lower Paleolithic (post-TAP) consists mostly of choppers (202) and chopping tools (347), followed by various kinds of flakes, pebble tools, polyhedrons, and discoids. Because bifaces were sometimes associated with the Lower Paleolithic and at other times with the Premousterian, their

column is shown with a different pattern.

#### THE PREMOUSTERIAN

The lithic types can be grouped as follows—cores (“quasi-prismatic,” discoidal, or inform), Levallois blanks (blades and flakes), common blanks (unretouched flakes and