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THE LATE MIDDLE PALAEOLITHIC AND EARLY UPPER PALAEOLITHIC OF THE NORTHEASTERN AND EASTERN EDGES OF THE GREAT MEDITERRANEAN (SOUTH OF EASTERN EUROPE AND LEVANT): ANY ARCHAEOLOGICAL SIMILARITIES?

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Opening Remarks

The Levantine Palaeolithic contains a wealth of anthropological and archaeological data on the dispersal into and out of the region of both Early Modern Humans and Neanderthals. This paper will evaluate some possible interconnections between the eastern Mediterranean data and data on the south of Eastern Europe, the area that is actually geographically the northeastern Mediterranean, representing the so-called Great North Black Sea region with the Crimean peninsula and territories from the Lower Dniester river in the west, across the Lower Dnepr river and the Lower Don river, to the north-western Caucasus in the east (see Demidenko 2008a) (figs. 1 and 2). The comparisons we propose are for the Late Middle Palaeolithic (LMP) and Early Upper Palaeolithic (EUP), in the time range between ca. 55–48/47 and 32–28 ka, based on uncalibrated TL and/or C14 BP dates.

It is important to make such comparisons now because several previous comparisons and suggestions have already been made. First, after the pioneering Palaeolithic investigations in the Crimea and the Levant by G.A. Bonch-Osmolowski and D. Garrod in the 1920s and 1930s, some very general comparisons were made for both Middle Palaeolithic industries and Neanderthal remains in the two regions (e.g. Bonch-Osmolowski 1940; 1941, on the basis of data from the Kiik-

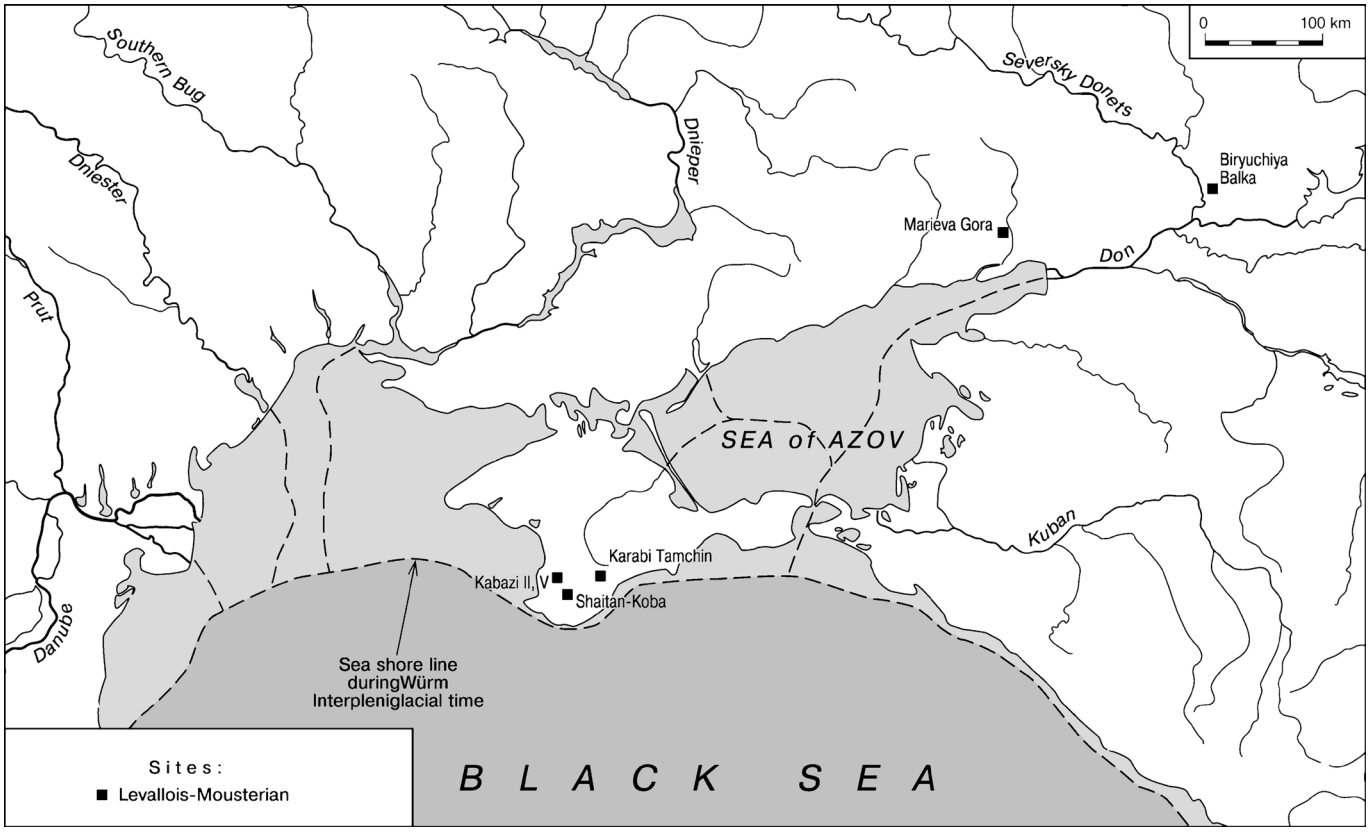

Figure 1 - Site location map of Great North Black sea region Levallois-Mousterian industry.

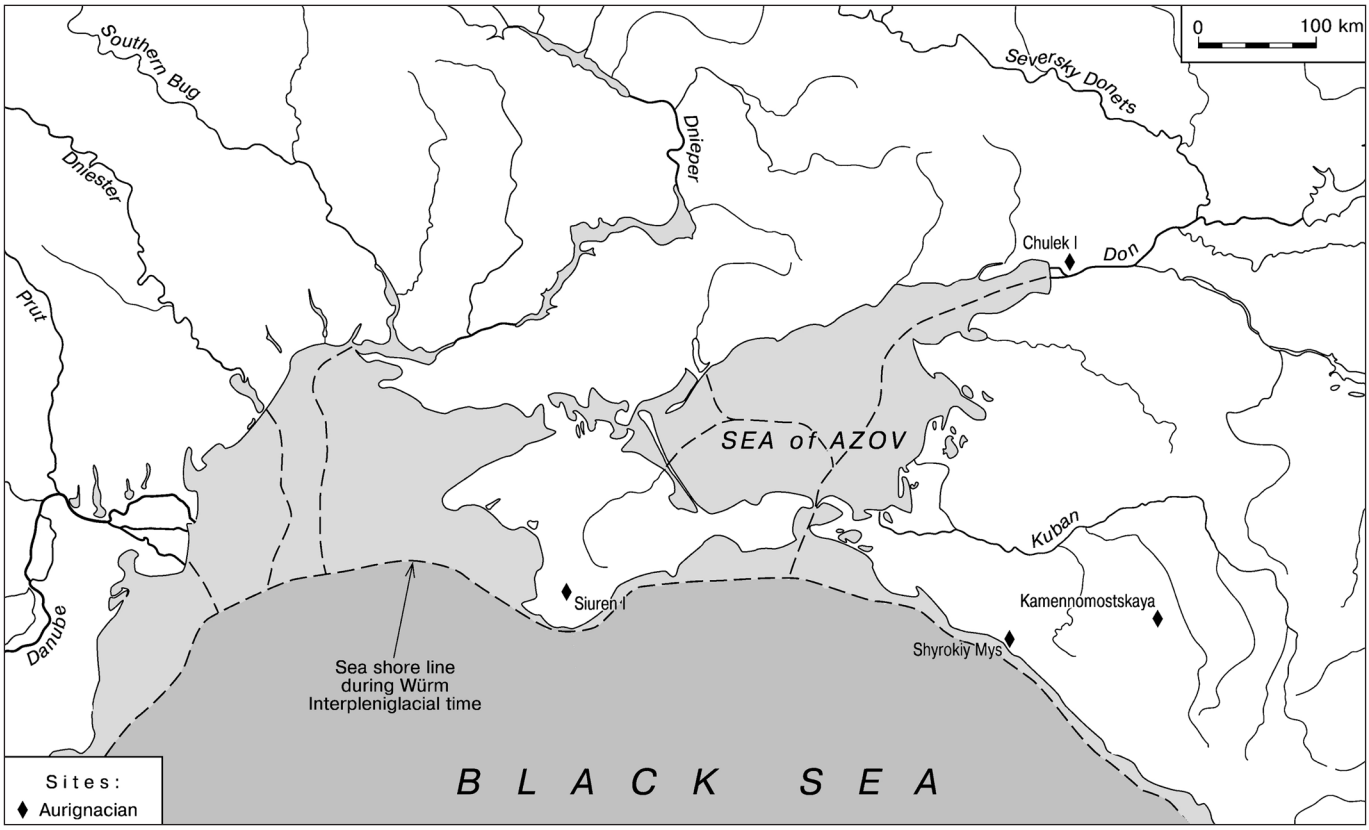

Figure 2 - Site location map of Great North Black sea region Early / Archaic Aurignacian industry.

Koba grotto). But that was at the time of initial acquisition of the concrete data, when each important site and its materials was almost always compared with other sites from all over the Old World. Second, the discovery of a "rather modern child" within the Middle Palaeolithic cultural bearing deposits at the Starosele site (Crimea) in the 1950s (Formozov 1958) caused some speculations on Middle to Upper Palaeolithic transition and migration ideas in the context of the Qafzeh and Skhul "Proto-Cro-Magnons" found with Middle Palaeolithic artifacts, and the presence of blady "Pre-Aurignacian" industries in the Levant (e.g. Howell 1958, 1959; Bordes 1960). After the later excavations at the Starosele site in the 1990s (Marks *et al.* 1997), it is now well established that the burials of modern humans there are of intrusive late-medieval character and they are not related to the site's Middle Palaeolithic cultural remains at all. At the same time, various "Pre-Aurignacian" industries, including the Hummalian one, as well as Qafzeh and Skhul Early Modern Humans of Tabun C-type Levantine Mousterian, are chronologically dated well prior to the real Transitional Middle to Upper Palaeolithic period – ca. 50–30 ka. Third, O. Bar-Yosef (1988, 1989) advanced a very reasonable migration hypothesis that the Neanderthals of Tabun B-type Levantine Mousterian arrived in the Levant from southeastern Europe under the pressure of MIS 4 harsh climatic conditions ca. 70 ka. The only problem, however, is that the idea from palaeogeographical and anthropological data, well based upon absolute chronology, lacks archaeological support in recognition of any Middle Palaeolithic industries similar to Tabun B-type Levalloiso-Mousterian – with Levallois point unidirectional convergent reduction – in southeastern Europe.

Taking into consideration all of the above, as well as the fact that human remains in the Great North Black sea region are of very limited character (Neanderthals are only known from the Micoquian archaeological context that is completely unknown in the Levant, whereas EUP human remains are restricted to a single Homo sapiens molar from the 1920s excavations of the Lower Aurignacian layer at Siuren I rock-shelter), the present paper will focus on exclusively archaeological data for the LMP and the EUP of these two Great Mediterranean regions.

In a general archaeological structure for the time period, the areas can be characterized as follows (see Chabai 2000, 2003, 2004; Demidenko 2008a). On the one hand, the Levantine record lacks LMP and EUP assemblages with any of the bifacial tool treatment traditions (Micoquian for LMP and Szeletian *sensu lato* for EUP) that are so characteristic for the south of Eastern Europe, while the latter area does not show any either Initial Upper Palaeolithic or Ahmarian assemblages. On the other hand, Levallois-Mousterian of LMP and Aurignacian of EUP are well known in both areas where they did not play, however, any, or any significant, role in the emergence of the first EUP industries.

Late Levallois-Mousterian

The Levantine record

Tabun-B type Levallois-Mousterian or Late Levantine Mousterian is geochronologically connected to MIS 4 and the early part of the MIS 3 time period (ca. 70–48/45 ka) and its human representatives appear to have been Neanderthals. Much

of what is now known of the Levallois-Mousterian type and has influenced studies for the material understanding of other sites comes from the data of the multidisciplinary excavations at Kebara cave in Israel in 1982–1990, directed by O. Bar-Yosef and B. Vandermeersch (Bar-Yosef & Vandermeersch 1991; Bar-Yosef *et al.* 1992). The Levallois-Mousterian sequence of Units XII to VI is ca. 3.5 m thick there, being TL, ESR and AMS dated between ca. 64 and 48 ka BP. A Neanderthal KNH-2 burial was found at the base of Unit XI, and in Unit XII a very rich artifact record has allowed L. Meignen and O. Bar-Yosef much insight into the Late Levantine Mousterian archaeological context (Bar-Yosef & Meignen 1992; Meignen & Bar-Yosef 1991, 1992; Meignen 1995). Using the *chaine operatoire* concept and involving E. Boeda's Levallois method theory, they have extensively technologically analysed the Kebara artifacts. According to their data, the Kebara Levallois-Mousterian primary flaking technology was based on the Levallois *récurrent* unidirectional convergent method. This produces serially, from one core's flaking surface, both shortened broad-based Levallois points, having typically fine-faceted chapeau de *gendarme butts* and often *Concorde* arched lateral profiles, and various triangular flakes, although there was a general dominance of Levallois flakes within all the Levallois products there. Retouched tools are rather few in number, and often bear a peculiar ventral retouch on both Levallois products and some formal tools. By typology, the latter pieces are mainly represented by simple lateral scrapers, truncated-faceted pieces, denticulates, notches and burins. These characteristics of the Kebara Late Levantine Mousterian have also been applied by Meignen and Bar-Yosef to some other Levantine Mousterian site assemblages. The respective materials from Tor Faraj and Tor Sabiha (Jordan), Dederiyeh (Syria), Bezez and Ksar Akil (Lebanon), Amud, Sefunim and Erq el Ahmar (Israel) are accepted by many colleagues now as related to the Kebara materials representing Tabun-B type Levallois-Mousterian (e.g. Henry 2003a:17). Also, with all the questions related to the Kebara Levallois-Mousterian, the distinct position of the Tabun-B type Levallois-Mousterian within the Levantine Mousterian sequence has been established by Meignen and Bar-Yosef as being not just a facies of a common Tabun-C and B types industry, as was sometimes suggested before (see Ronen 1979; Jelinek 1981). Taking into consideration that not very many flint artifacts at all relate to a "small sample from those deposits that are assumed to be equivalent to the base of Layer B (our Beds 1–17)" for the 1967–1972 Tabun cave investigations (Jelinek 1982:79), and remembering that Layer B of the 1930–1932 excavations at Tabun cave "was almost entirely removed by Garrod", and hence why "a well-controlled collection is not available from the upper levels" of the site (Meignen & Bar-Yosef 1992:140), it is reasonable to view the 1980s excavations of the Kebara cave Levallois-Mousterian as etalon-like/reference assemblages for Late Levantine Mousterian.

At the same time, two subjects can be added to the discussions on the Kebara material. First, rather intensive refit and technological studies for Tor Faraj Levallois-Mousterian artifacts (Demidenko & Usik 2003) have indeed shown both striking technological and typological similarities to the Kebara materials, with some important technological reservations. Our studies did not allow us to agree with the *recurrent* removal of a series of Levallois products during one core exploitation phase that has been proposed for Kebara. Instead, all our objective data indicate flintworking using a *lineal* Levallois unidirectional convergent point method, where just one point is removed during one core exploitation phase and some other flaked debitage items represent just preparatory pieces within the technological process, while the phases can extend from two to as many as six for a core, showing true strict and multiple Levallois point production. Tracing different aspects of Levallois point primary reductions for the Tor Faraj artifacts, it was again clear to see the so-called technological law of Levallois point removal method, previously established by us (Demidenko & Usik 1995), where "the length of the inter-faceting ridge in the Y-arrete pattern will be always longer than the length of any subsequent point removed from the same working face", explaining why "preparations for the delivery of even broad-based points, that are relatively wide to their lengths, require that the preparatory removals be quite elongated, if not of blade proportions" (Demidenko & Usik 2003:152). Namely, remembering the technological law, it is no wonder that blades, being functionally preparatory pieces within the Levallois point reduction, account for 19.3% at Tor Faraj (Henry 2003b:68) and "sometimes form up to 25% of the blanks" for the different Tabun-B type Levallois-Mousterian assemblages (Bar-Yosef 2000:116). The Levallois point production actions involve the reduction of unmodified chert cobbles and various debitage pieces at Tor Faraj. Adding here multiple Levallois point production for a core, when each successive exploitation phase of a core gives points smaller in size, because of the core's size reducing through primary reduction processes, the Tor Faraj assemblage exhibits a full range of different sized Levallois points being, with maximum length from ca. 10 to ca. 2 cm long, with average length indications between 5 and 6 cm (Henry 2003b: table 4.7). Some small-sized Levallois points (2–3.5 cm long) have been removed from truncated-faceted pieces (Demidenko & Usik 2003: figs. 6.20-6.21) as well, demonstrating this function for a part of the latter pieces at Tor Faraj and quite possibly at Kebara, too.

Second, many colleagues who accept the Kebara Late Levantine Mousterian data after Meignen and Bar-Yosef, do not pay attention to some artifact variability throughout the Kebara cave Mousterian sequences, although that was to some extent constantly underlined by the site material investigators. First of all, the main reference Kebara Mousterian data originate from middle part of the Levallois-Mousterian sequence there – Units X and IX (see Meignen 1995). On other hand, the lowermost Units XII–XI feature the highest blade indices (22.9–20.2%) within the Kebara sequence and a "genuine bidirectional flaking occurs" at Unit XII (Meignen & Bar-Yosef 1992:136). On the other hand, the upper Units VIII–VII can be summarized here through the following features: not high blade indices (10.9–12%), the highest rates of Levallois flakes (78.4–73.8%) and the lowest rates of Levallois points (4.5–6.8%), as well as the lowest overall butt faceting (IFl = 59.1–58.2% and IFst = 54.1–53.1%) and chapeau de gendarme (9.2–6.7%) indices and the highest plain butt indices (19.4–20.9%) for Levallois products throughout the Kebara sequence, with also remarkably high proportions of Levallois products having a radial dorsal scar pattern (28.6–25.6%). The statistical minority of Levallois points for Units VIII–VII finds confirmation in the illustrations

of the Kebara Mousterian artifact published by Meignen and Bar-Yosef (1991), where no one typical Levallois point was illustrated for the two upper Units. From the typological point of view, worth noting is also the highest ratio of Mousterian group tools (60.5%) and the lowest ratio of Upper Palaeolithic group tools (7.4%) in the Unit VII tool-kit for the Kebara Mousterian sequence analysed by Meignen and Bar-Yosef (1991: tabl. VII), remembering that Unit VIII contains just a few retouched tools. Adding to the Units VIII and VII the last undisturbed uppermost Mousterian Unit VI at Kebara cave with similar technological characteristics and TL and AMS dates of ca. 48 ka (Tostevin 2000:240-252, figs. A35-A39), it appears that the whole upper Levallois-Mousterian Unit package at Kebara cave (dated to ca.57–48/45 ka) is sufficiently different from the underlying Kebara Units X–IX, which reveal the Levallois unidirectional convergent point primary flaking method, and associated with them other Tabun-B type Levallois-Mousterian assemblages in the Levant. Unit VI features a rather complex Levallois flake primary flaking method involving, to a variable but still significant degree, unidirectional, radial and bidirectional reductions and, at the same time, an atypical Levallois point component there. Accordingly, a technological shift is seen from the Levallois unidirectional convergent point method into the Levallois flake method within the Late Levantine Mousterian sequence. Such technological change within the Late Levantine Mousterian is also possible to trace for one more Levantine site – Ksar Akil rock-shelter (Lebanon), where the flint assemblages of the uppermost Levallois-Mousterian levels XXVIA and XXVIB look similar to the Kebara uppermost Levallois-Mousterian (see, for the data, Marks & Volkman 1986). These levels also have a not very accurate date, but one that is still late for the Levantine Mousterian U-series date in 47 ± 9 ka (G-888174S) (Bar-Yosef 2000:130). If we accept Shea's reasonable assumption that ca. 50–45 000 years ago "the cold, dry conditions associated with the Heinrich 5 event are likely to have retracted Neanderthal settlement to woodland refugia along the Mediterranean coast" (Shea 2007a:472), there is no wonder that we see the Latest Levantine Mousterian near the coast at Kebara cave and Ksar Akil rock-shelter. This is much in contrast with the Kebara Units X–IX/Tabun-B type assemblages known to be distributed almost throughout the whole Levant, including the arid and semi-arid zones in Syria and Jordan. At the same time, the very much traditional Middle Palaeolithic industrial characteristics of the Kebara and Ksar Akil Latest Levantine Mousterian assemblages mean that one cannot but admit the correctness of Bar-Yosef's (2000:116) following remark on the matter: "If a technological transition to the EUP took place locally, it is difficult to argue that it emerged from centripetal core preparation". Thus, the possibilities that Late Levantine Mousterian Neanderthals either became extinct there (Shea 2007a, 2007b; but see Hovers 2006) or migrated somewhere outside the Levant at about 48–45 ka seem to be important for the analysis. The latter possibility is worthy to be discussed in the light of Levallois-Mousterian presence in the south of Eastern Europe.

The Great North Black sea region

Interestingly enough, when the Latest Levantine Mousterian disappeared in the Levant, Levallois-Mousterian appeared in the Crimea (Ukraine) around 45 ka (see fig. 1; tab. 1), whereas before the present-day peninsula was only occupied by Micoquian Neanderthals from the time of the Last Interglacial. Malacofauna, microfauna and especially pollen data (Mikhailesku 2005; Markova 2005, 2007; Gerasimenko 2005, 2007; see also Chabai 2008a) for the kabazi II and V sites indicate the first appearance of Levallois-Mousterian humans during the Hosselo stadial of boreal to south-boreal forest-steppe with a prevalence of meadow-steppe associations and an increased role of xerophytes. Next, during the Hengelo interstadial, the landscape was dominated by a pine forest with some presence of birch, alder, hornbeam, oak, elm, lime, hazel and spindle-tree, when the climate was relatively warm. The hunted ungulate species were basically *Equus hydruntinus* and to significantly lesser degrees *Saiga tatarica*, *Bison priscus*, *Equus caballus* and *Cervus elaphus* (Patou-Mathis 2006, 2007). The Levallois-Mousterian industry was primarily identified as Western Crimean Mousterian (WCM), which has been studied for many years and became industrially and chronologically understandable thanks to the work of V.P. Chabai (1998a, 1998b, 2000, 2003, 2004, 2008a, 2008b, Marks & Chabai 2006). The Crimean Levallois-Mousterian record is now the best known on in situ materials from sites kabazi II, numerous levels of Unit II; kabazi V, Sub-Unit III/3 with six levels and Unit IV with three levels; karabi Tamchin, levels II/2 and III; and Shaitan-Koba, upper layer (see also Kolosov 1966, 1972; Yevtushenko 2004; Demidenko 2008b). In spite of some different location of sites, and variability of fauna and flint exploitation, the industry holds clear enough archaeological characteristics. Through chronological and industrial data the Crimean Levallois-Mousterian was subdivided by Chabai into early and late stages. The early stage lasted from the Hosselo stadial (ca. 45 ka) through the Hengelo interstadial to the Huneborg interstadial (ca. 35 ka), while the late stage is related to the Huneborg stadial and Denekamp/Arcy interstadial, surviving up to 30–28 ka. Archaeological distinction for the stages lies in a different presence of Levallois and Parallel volumetric primary reductions there, while typologically, they are similar with a dominance of side-scrapers (ca. 60%) with a leading role of simple lateral types, a moderate number of points (ca. 15–20%), as well as denticulates and notches (ca. 10–15% together), some occurrence of truncated-faceted pieces and a minor number of mostly atypical Upper Palaeolithic tool classes (end-scrapers, burins, truncated blades) with, at the same time, the absence of bifacial tool treatment traditions. The prime interest here is the early stage of Crimean Levallois-Mousterian (ca. 45–35 ka) with sites kabazi II, levels IIA/2 through II/7; kabazi V, Unit IV/levels 1–3; karabi Tamchin, levels II/2 and III; Shaitan-Koba, upper layer. Technologically, it is basically characterized by a complex Levallois method with centripetal, uni- and bidirectional, convergent technologies. High debitage faceting indices (IFl – ca. 60–70% and IFst – ca. 50%) and core lateral supplementary platforms illustrate careful preparation of the core striking platform and flaking surface for reduction of a diversity of debitage pieces, including Levallois flakes, many blades (15–25%), various flakes, *débordantes* and Levallois mainly atypical points (see figs. 3-5).

Although Chabai explains the appearance of the Levallois-Mousterian complexes in the Crimea as a result of human migration from the Middle Dniester river, seeing direct parallels with the Molodova I site Levallois-Mousterian, it is ne-

MIS	Geo-chronology	Vege-tation	Sites, levels	AMS / C^{14}	ESR	Technocomplexes, facies
Stage 3	Denekamp / Arcy interstadial	south-boreal forest-steppe	Buran Kaya III, B	OxA-6674, 28,52±0,46 OxA-6673, 28,84±0,46		Micoquian, Kiik-Koba
			Siuren I, Fb2 Siuren I, Ga Siuren I, H	OxA-5155, 29,95±0,7 OxA-5154, 28,45±0,6 OxA-8249, 28,2±0,44		Aurignacian
			Kabazi V, II/4-II/7			Micoquian, Ak-Kaya
			Prolom II, II Zaskalnaya V, I Kabazi V, III/1 Kabazi V, III/1A	Ki-10617, 28,1±0,35 Ki-10891, 28,85±0,4 Ki-10744, 30,08±0,35 OxA-X-2134-45, 30,98±0,22	 30-26 <41	Micoquian, Starosele
			Kabazi II, A3A, A3B, A3C, A4 **Kabazi II, II/1A**		30±2	**Levallois-Mousterian, WCM**
	Huneborg stadial	boreal xeric grassland	Zaskalnaya VI, II Zaskalnaya V, II Kabazi V, III/2, III/2A	OxA-4131, 30,11±0,63 Ki-10893, 30,7±0,45 Ki-10607, 30,22±0,4 Ki-10743, 31,6±0,35		Micoquian, Ak-Kaya
			Prolom I, upper layer	GrA-13917, 30,51±0,58/0,53 GrA-13919, 31,3±0,63/0,58		Micoquian, Kiik-Koba
			Buran Kaya III, C	OxA-6869, 32,2±0,65 OxA-6672, 32,35±0,7		Eastern Szeletian
			Kabazi II, II/1 **Kabazi II, II/2** **Kabazi II, II/3** **Kabazi II, II/4** **Kabazi II, II/5** **Kabazi V, III/3-1 -- III/3-3A**	OxA-4770, 31,55±0,6 OxA-4771, 35,1±0,85 OxA-4858, 32,2±0,9 OxA-4859, 33,4±1		**Levallois-Mousterian, WCM**
	Huneborg interstadial	south-boreal forest-steppe	Prolom I, lower layer	Ki-10615, 33,5±0,4 Ki-10616, 35,2±0,45		Micoquian, Kiik-Koba
			Zaskalnaya VI, III	OxA-4772, 35,25±0,9 Ki-10609, 38,2±0,4 Ki-10894, 36,4±0,45		Micoquian, Ak-Kaya
			Kabazi II, II/6 **Kabazi II, II/7**			**Levallois-Mousterian, WCM**
			Zaskalnaya VI, IIIa	OxA-4132, 30,76±0,69 OxA-4773, 39,1±1,5 Ki-10610, 39,4±0,48		Micoquian, Ak-Kaya
	Hengelo interstadial	south-boreal forest-steppe	Кабази V, III/5-3B2 Starosele, 1	OxA-14726, 38,78±0,36 OxA-4775, 41,2±1,8 OxA-4887, 42,5±3,6	 41,2±3,6	Micoquian, Starosele
			Kabazi II, II/7AB **Kabazi II, II/7C, II/7D, II/7E** **Kabazi II, II/8** **Kabazi II, II/8C, IIA/1**		36±3 44±5	**Levallois-Mousterian, WCM**
	Hosselo stadial	boreal xeric forest-steppe	**Kabazi V, IV/1-IV/3** **Kabazi II, IIA/2**			
			Chokurcha I, IV-I, IV-M			Micoquian, Ak-Kaya
			Chokurcha I, IV-O Zaskalnaya V, IV Zaskalnaya VI, IV	OxA-10877, >45,4 GrA-13916, >46,0 Ki-10611, >47,0		Micoquian, Starosele
	Moershoofd interstadial	south-boreal forest-steppe	Kabazi II, IIA/4			Micoquian, Ak-Kaya

Table 1 - MIS 3 chronology of the Crimean Middle and Early Upper Paleolithic (notations in bold type are related to Levallois-Mousterian complexes; modified after originals in Chabai 2008a, table 18-2).

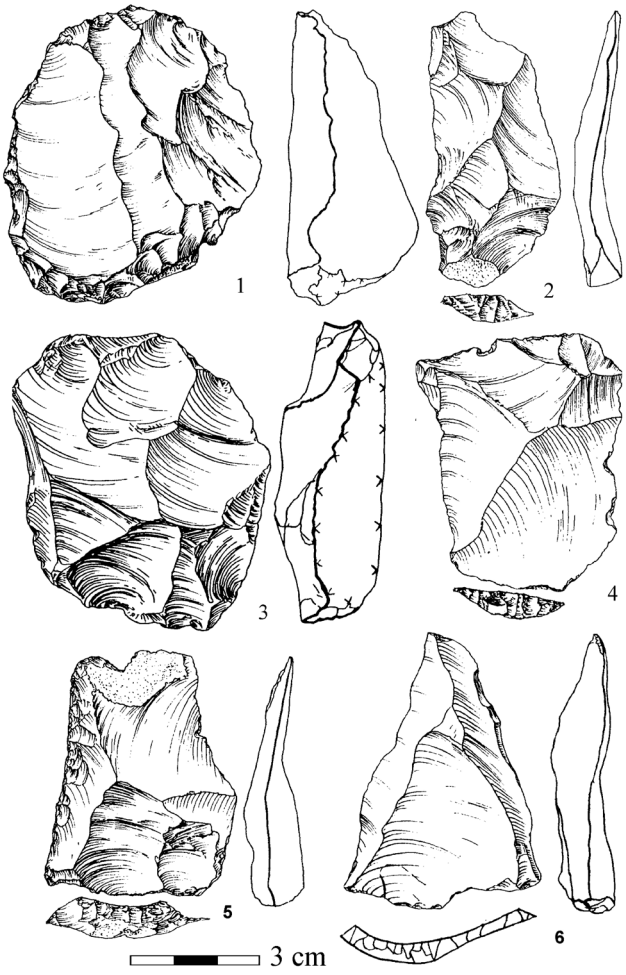

Figure 3 - Kabazi II site (Crimea). 1: unidirectional convergent core with lateral and distal supplementary platforms; 2: Levallois centripetal blade; 3: bidirectional core with lateral supplementary platforms; 4: Levallois centripetal flake; 5: simple concave side-scraper; 6: Levallois point (1-2 Unit II, level 7; 3, 6: Unit II, level 8; 4: Unit II, level 7C; 5: Unit II, level 8C) modified after originals in Chabai 2004.

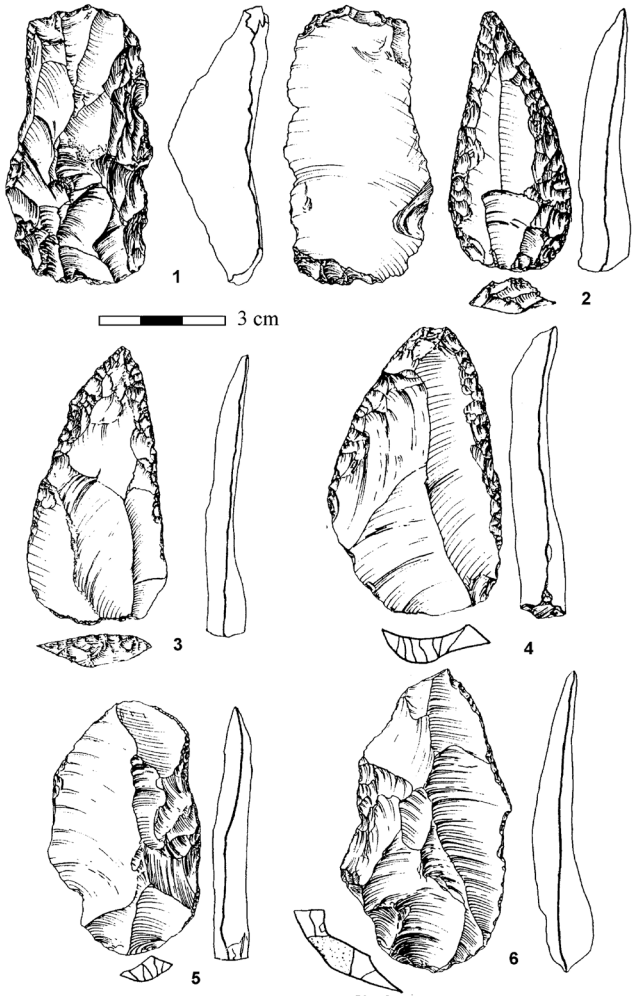

Figure 4 - Kabazi II site (Crimea). 1: bi-truncated-faceted denticulate; 2-3: sub-crescent points; 4: convergent semi-crescent side-scraper; 5-6: retouched enlèvement deux flakes (1, 3-6: Unit II, level 8; 2: Unit II, level 7AB) modified after originals in Chabai 2004.

vertheless important to compare the Crimean Early Levallois-Mousterian record with the Latest Levantine Mousterian for a better understanding of these two industrially and chronologically similar Mousterian events. Indeed, all the Crimean Early Levallois-Mousterian techno-typological features are present at the Latest Levallois-Mousterian assemblages at Kebara and Ksar Akil. Moreover, the proposed Levallois-Mousterian comparisons can be expanded at the expense of some Lower Don river region (Russia) Mousterian materials from the still poorly published Biryuchiya Balka sites 1a and 2, and the redeposited site of Marieva Gora, which look industrially similar enough to the Crimean Levallois-Mousterian (Demidenko 2008a). At the same time, the Middle Palaeolithic data from the north-western Caucasus do not indicate any Levallois-Mousterian presence there, being characterized by only Micoquian sites. Thus, Levallois-Mousterian humans did not occupy the south-eastern part of Great North Black sea region.

Remembering that the Latest Levallois-Mousterian disappearance in the Levant was no later than ca. 48–45 ka, the archaeological context of the Great North Black sea region in which the Levallois-Mousterian humans have been geochronologically coexisting is worth noting (tab. 1; Chabai 2000, 2003, 2004; Demidenko 2008a). Initially, they did coexist with Micoquian Neanderthals for the whole of their known time period in between ca. 45 and 30-28 ka. Then, during two Transitional/Early Upper Palaeolithic stages, the Levallois-Mousterian and Micoquian coexistence has been added, first, by Eastern Szeletian presence in the Crimea and the Lower Don river region (ca. 36/35–32/31 ka) and, second, by Aurignacian presence in the Crimea, the Lower Don river region and the north-western Caucasus (ca. 32/30–29/28 ka). The traced geochronological co-occurrence of the two LMP and two EUP industries in the region also shows the clear absence of any recognizable features due to mutual influence in their flint artifact materials which allows us to conclude their independent existence there. After 28 ka the Levallois-Mousterian, as well as the Micoquian, "retired from the stage" in the southern belt of the East European Palaeolithic record leaving no successors in the Upper Palaeolithic.

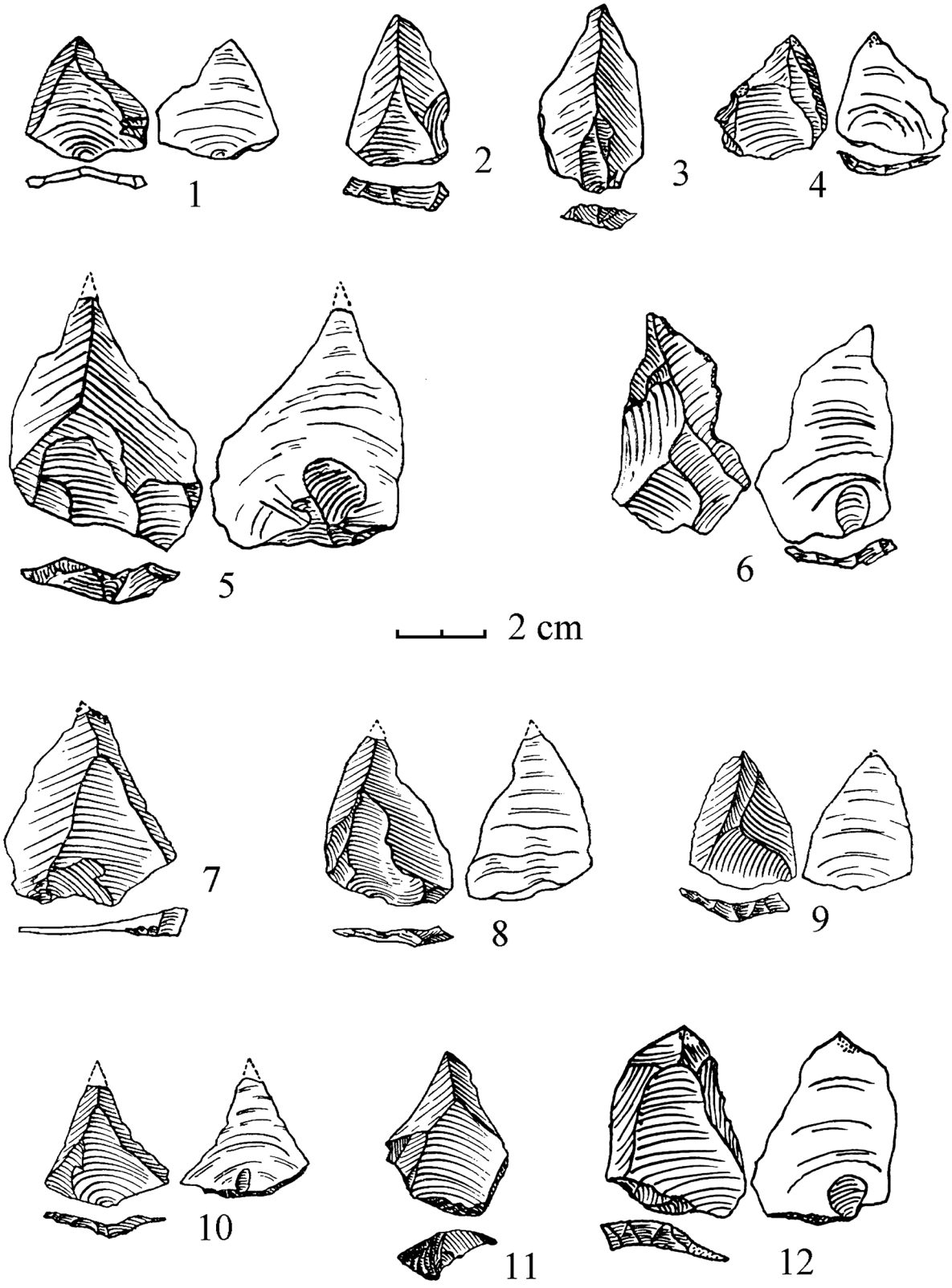

Figure 5 - Shaitan-Koba grotto (Crimea). 1-12: Levallois mostly atypical points (modified after originals in Kolosov 1966).

Aurignacian

The Great North Black sea region

Following the appearance of the Aurignacian in the Great North Black sea region, which is restricted to the last, second stage of the Transitional/Early Upper Palaeolithic period there (ca. 32/30–29/28 ka), and keeping in mind possible archaeological parallels with the Levantine Aurignacian data, the socalled Early/Archaic Aurignacian of Krems-Dufour type industry here is worth discussing. It includes Aurignacian materials from the four sites; the Siuren I rock-shelter, the 1920s excava-

tions Lower layer/the 1990s excavations Units "H" and "G" (Crimea); Chulek I open-air site (Lower Don river region); kamennomostskaya cave, lower layer; and Shyrokiy Mys open-air site (north-western Caucasus) (fig. 2). According to the basic artifact techno-typological data, the Early/Archaic Aurignacian industry is characterized by the regular presence of both bladelet carinated cores and endscrapers but no, or rare, carinated burins, a prevalence of angle and truncation/lateral retouch burins over dihedral ones, the most typical of Dufour bladelets of the Dufour sub-type with alternate retouch, and the characteristic occurrence of some Font-Yves/Krems points among the "non-geometric microliths". Accordingly, the Early/Archaic Aurignacian assemblages of the Great North Black sea region find direct archaeological comparisons with the Aurignacian 0/ Proto-Aurignacian/Archaic/Primitive Aurignacian complexes with Dufour bladelets of Dufour sub-type that are well known in Europe. At the same time, some artifact peculiarities of the discussed Early/Archaic Aurignacian industry definitely subdivide it into the next two assemblage groups. One group is composed of the respective Siuren I and Chulek I find complexes.

The 1920s excavations Lower layer/1990s excavations Units "H" and "G" (five archaeological levels with some sub-levels) at Siuren I is a key site for understanding of the Early/Archaic Aurignacian in the region, which is why the data are presented in detail below (see also Demidenko 2001-2002, 2002; Demidenko & Otte 2000-2001, 2007). These are very representative flint artifact samples from a total excavated area of ca. 100 sq. m – about 15 500 pieces (including ca. 80 core-like pieces and ca. 800 tools) from the 1920s excavations and 5348 pieces (including 27 core-like pieces and 425 tools) from the 1990s excavations, having very clear Aurignacian 0 industrial characteristics. Technologically, it is characterized by a predominant primary flaking of bladelets and microblades (together 40.3–51.1% of all debitage pieces excavated in the 1990s, including tool blanks and core maintenance products) having mainly "on-axis" removal direction and flat/incurvate profiles from bladelet "regular" and "carinated" cores (fig. 6:1-2), and carinated, including thick shouldered/nosed types, end-scrapers (fig. 6:8, 11). At the same time, the quantity of blades is about half as much in comparison with bladelets and microblades. Typologically, the tool-kits correspond well to the observed technological trends. "Non-geometric microliths" (fig. 6:3-7) compose ca. 40% of the Lower layer tools from the 1920s excavations and from 50.0% to 67.6% of the tools from the 1990s excavations (five levels of Units "H"–"G"), without taking into account the Middle Palaeolithic Micoquian tool component there. The most typical among them are Early Aurignacian types with flat and semi-steep micro-scalar and/or micro-stepped retouch. These are alternative (55.3% in the 1920s Lower layer and 63.2–72% in the 1990s levels of Units "H"–"G") and ventral (3% in the 1920s Lower layer and 7–8.7% in the 1990s levels of Units "H"–"G) Dufour bladelets of Dufour sub-type, as well as Krems points with alternate and dorsal bilateral retouch (present in the 1920s Lower layer and in the 1990s Unit "H" (7%), levels "Gc1-Gc2" (2.5%) and "Ga" (11.1%)). The following types, in decreasing order of their frequency, represent indicative Upper Palaeolithic tools. Burins, mostly made on blades, are the best characterized by angle (fig. 6:12) and on truncation/lateral retouch types (fig. 6:10). The dihedral type of burins occupies a subordinate position with a remarkable occurrence only at the top of the 1990s Unit "G" archaeological sequence – levels "Gb1-Gb2" and "Ga". At the same time, it is worth noting the complete absence of carinated types among the 1990s Units "H"–"G" burins and their single representation among the 1920s Lower layer burins. End-scrapers show not numerous but typical Aurignacian carinated and thick shouldered/nosed pieces (fig. 6:8, 11) and serial simple flat items mostly made on unretouched blades (fig. 6:9). Retouched blades feature just the single occurrence of specimens with so-called "Aurignacian retouch". Scaled tools, truncations and perforators, although present, are not with any specific types and quantity. To the flint artifacts are added some bone tools: five points and 45 awls of the 1920s Lower layer and five points with flattened cross-sections and not clearly isolated tips and a single shouldered awl having a long sting, from the 1990s levels "Gc1-Gc2" and "Gb1-Gb2" (Demidenko & Akhmetgaleeva in press). Personal adornment pieces are also present: shell beads of Aporrhais pes-pelecani fossil marine molluscs and of river molluscs *Taeodoxus fluviatilis* L. and *Theodoxus transversalis* C. Pff. from both the 1920s Lower layer and the 1990s levels "Gc1-Gc2", "Gb1-Gb2" and "Ga". It is worth underlining the indicative presence of *Aporrhais pes pelicani* (fig. 6:13) among the Siuren I shell beads. M. Stiner's detailed analysis of shell beads for the Riparo Moshi rock-shelter (Liguria,

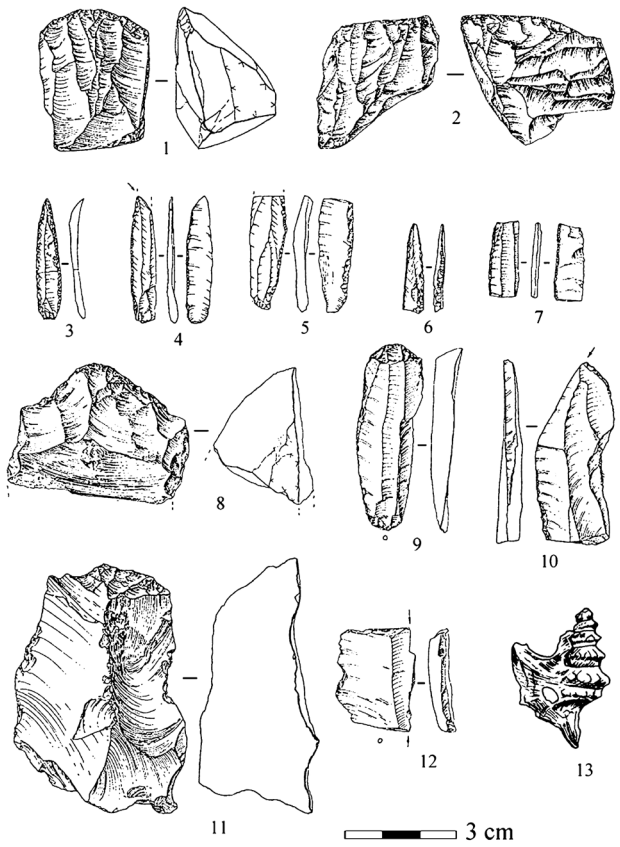

Figure 6 - Siuren I rock-shelter (Crimea). 1-2: bladelet "carinated" cores; 3-7: "non-geometric microliths"; 8, 11: thick shouldered end-scrapers; 9: simple flat end-scraper on blade; 10: burin on truncation; 12: double angle burin; 13: shell bead of *Aporrhais pes-pelecani* fossil marine mollusc (1, 3-5, 10-11: 1990s Unit "H"; 2, 6-7, 9: 1990s level "Gc1-Gc2"; 8, 12: 1990s level "Gb1-Gb2"; 13: 1920s Lower layer).

Italy) has shown the presence of Aporrhais pes pelicani species only in layer G with the kind of Early/Archaic Aurignacian industry discussed here, and not in any of the other numerous Palaeolithic layers there (Stiner 1999). This shell bead peculiarity once again connects the Siuren I Early/Archaic Aurignacian with the respective European Aurignacian assemblages.

Finally, the Siuren I Lower Aurignacian sequence, with two AMS dates for the lowermost Unit "H" (28 200 ± 440 BP – OxA-8249) and the uppermost level "Ga" (28 450 ± 600 BP – OxA-5154) and preliminar interstadial indications for microfauna and malacofauna data (Markova & Mikhailesku in preparation) is high likely geochronologically to date to the Arcy interstadial (ca. 30 ka).

Chulek I is a surface find spot with no cultural remains or organic materials preserved in situ (Gvozdover 1964). The site's relatively few flints (874 items) nevertheless do feature some definite Aurignacian 0 characteristics (Demidenko 2000-2001). In spite of the absence of carinated and thick shouldered/nosed end-scrapers, the assemblage is characterized by a pronounced unidirectional primary reduction (fig. 7:9-10) with production of mainly flat/incurvate in profile blades and bladelets, a significant predominance of burins on truncation/lateral retouch (fig. 7:1-4) over both angle and dihedral burins (mostly made on blades), the complete absence of any carinated burins and numerous, as for the tool-kit with 100 items, 39 "non-geometric microliths". The latter pieces are the most typologically indicative tool class. By strict typological subdivision, the microliths can be subdivided into the following types: nine Dufour pieces with alternate retouch (fig. 7:6-7), one Dufour piece with alternating retouch, three Dufour pieces with lateral ventral retouch, five Dufour pieces with bilateral ventral retouch (fig. 7:8), two Krems points with bilateral dorsal retouch (fig. 7:13-14), eight pseudo-Dufour pieces with lateral dorsal retouch, five pseudo-Dufour pieces with bilateral dorsal retouch, one bladelet with lateral ventral micro-notch, one bladelet with dorsal retouch at distal end, two bladelets with ventral thinning of their basal ends having no any lateral retouch, and, finally, two bladelets with thin dorsally backed lateral edges. Accordingly, the main body of microliths is composed of typical Aurignacian specimens – alternate (25.6%) and ventral (20.5%) Dufour bladelets of Dufour sub-type and bilateral dorsal Krems points (5.1%). Moreover, eleven microliths of both Aurignacian and non-Aurignacian types (28.2% of all 39 microliths or 35.5% of 31 Dufour and pseudo-Dufour bladelets) are characterized by the peculiar secondary treatment feature of a fine ventral thinning of their basal ends (an accommodation element for clamping microliths?) (fig. 7:6, 8). It has already been suggested that, "ventrally thinned 'non-geometric microliths' be called the Chulek-I type" (Demidenko 2000-2001:151). But the specific feature of Chulek I microliths is not a unique one and it can serve as a "typological bridge" to Western European Aurignacian 0/Proto-Aurignacian assemblages as some of them (e.g. Fumane grotto, Ancient Aurignacian levels in Italy, Broglio *et al.* 2005: fig. 9,30–35, 37, 39) do contain microliths with similar basal ventral thinning.

Thus, by both general and/or particular characteristics of flints and even non-flint artifacts, the discussed Siuren I and Chulek I

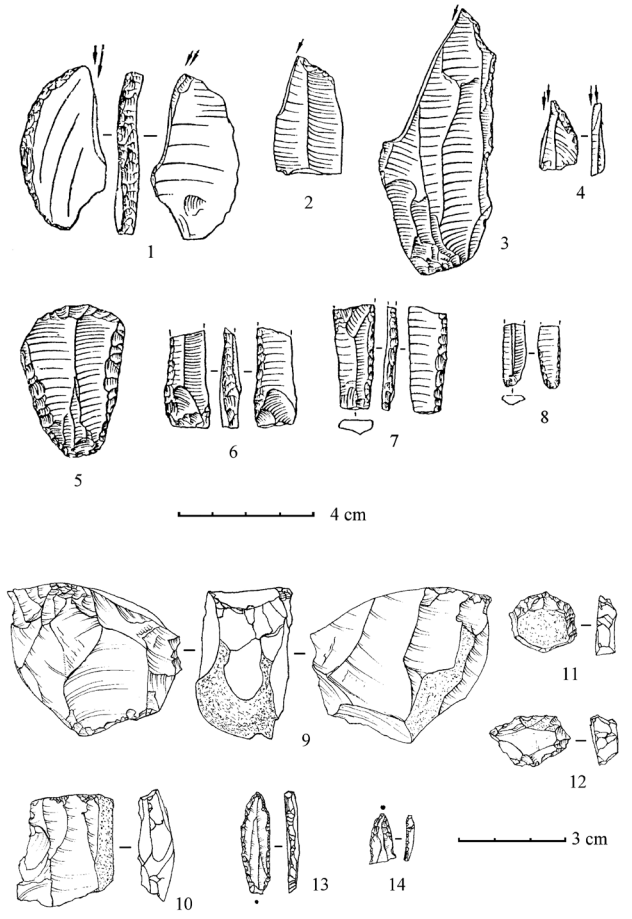

Figure 7 - Chulek I site (Lower Don River area). 1-4: burins on truncation; 5: fan-shaped end-scraper on flake; 6-7: alternate Dufour bladelets; 8: ventral bilateral Dufour bladelet; 9: bladelet "carinated" core; 10: bladelet single-platform core on blade's fragment; 11-12: small flat sub-circular end-scrapers; 13-14: Krems points (1-8: modified after originals in Gvozdover 1964).

materials fit well into the European Early/Archaic Aurignacian industry.

On the other hand, kamennomostskaya cave, lower layer and Shyrokiy Mys flint assemblages, still being within the industrial frameworks of the Early/Archaic Aurignacian, with Dufour bladelets of Dufour sub-type, do contain some artifact types and/or their characteristic numerical compositions that force us to look at the Levantine EUP record for some comparisons.

Kamennomostskaya cave (Formozov 1971; Amirkhanov 1986) was first excavated in 1961 by A.A. Formozov with a recovery excavation technique that was rather poor even for the early 1960s, hence many bladelets and microblades have definitely been lost from the site's lower layer assemblage. Nevertheless, it has the following Early/Archaic Aurignacian industrial features (see Demidenko 2000-2001). From the technological point of view, they are traced through the presence of single-platform bladelet and blade/bladelet cores with an indicative appearance of carinated pieces among bladelet cores, as well as a dominance of flat/incurvate in profile items among the bladelets. Typologically, some carinated items (15.4%) occur among 24 burins and their 26 definable burin verges (fig. 8:1-2) (although burins on

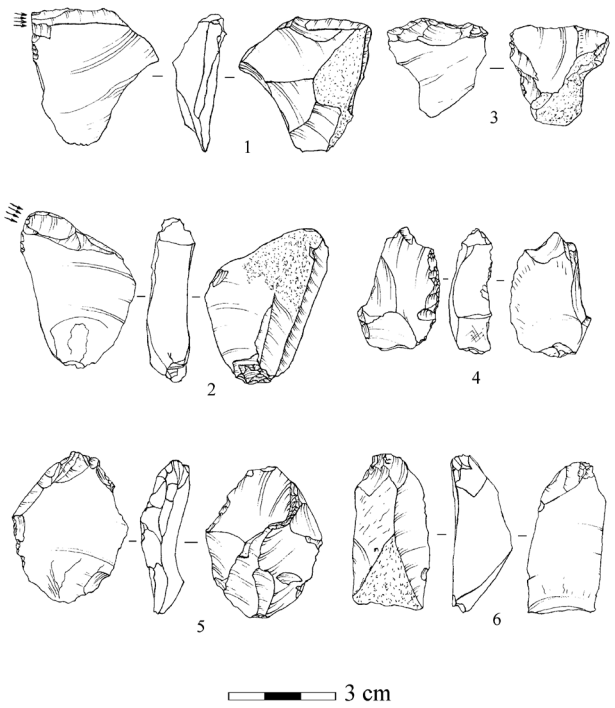

Figure 8 - Kamennomostskaya cave, lower layer (North-Western Caucasus). 1-2: carinated burins; 3-6: "inverse truncations" / lateral carinated pieces.

truncation/lateral retouch (30.8%) and angle burins (34.6%) dominate there where some dihedral items are also known – 19.2%); two carinated and two flat nosed end-scrapers among all twelve end-scrapers; three alternate, ventral Dufour bladelets of Dufour sub-type and a bilateral dorsal Krems point among all eleven "non-geometric microliths" with flat and semi-steep micro-scalar and/or micro-stepped retouch testify to the declared Aurignacian attribution for the assemblage. At the same time, the Upper Palaeolithic tool-kit with just 69 pieces is also notable for eight specific items (11.6%) (fig. 8:3-6). Initially, they were neutrally classified as "inverse truncations" (Demidenko 2000-2001:158-160). They bear a ventral semi-steep secondary treatment at either their proximal or distal end. Moreover, four of them have been recognized as initially elaborated items with a few retouch scars (fig. 8:4). Four other items are with regular inverse either a scalar (fig. 8:3) or a lamellar retouch (fig. 8:5-6). Apart from one chunk, all these tools were manufactured on different flakes and a blade, including one core tablet (fig. 8:5) with a mean length 3.4 cm ranging from 2.5 to 4.2 cm. Leaving aside the previously proposed typological comparisons for the specific pieces discussed – within either French Early Magdalenian or Moravian Epi-Aurignacian (Demidenko 2000-2001), real comparisons should be sought within the strict Aurignacian context. One definite solution for the search does really exist. By the retouch treatment characteristics and placement, the "inverse truncations" find direct analogies to the south of the Northern Caucasus – in the Levant, where the same items are called lateral carinated pieces.

The Shyrokiy Mys site, discovered in the mid-1960s by V.E. Shchelinsky and still under his investigations (Shchelinsky 1971, 2007), is represented by a huge collection of more than 30 000 mainly redeposited flints containing ca. 1200 core-like pieces and more than 2000 tools. Again, as with the kamennomostskaya cave find complex, the assemblage's basic characteristics lie within the Early/Archaic Aurignacian industry. It is distinguished by the following techno-typological features: a dominance of single-platform blade/bladelet (fig. 9:7-8) and bladelet specimens within morphologically stable cores and a serial presence of carinated items among them (fig. 9:1-6); of ca. 550 end-scrapers (mostly simple and variously retouched ones – fig. 10:1-4), about 10% are carinated and thick shouldered/nosed ones (fig. 9:9–13); dihedral burins account for just a little more than 10% among all ca. 250 burins, while notable is the angle (fig. 10:5) and truncation/lateral retouch (fig. 10:6), the high dominance of burin types and the absence of carinated burins; the presence of some Aurignacian blades, including even strangled ones among them (fig. 10:10-11), occurred also as blanks of some end-scrapers and burins (fig. 10:8); the availability of serial mainly bilateral dorsal Krems points (fig. 11:1-9) and alternate (fig. 11:34-40) and ventral Dufour bladelets of Dufour sub-type within the "non-geometric microliths" sample in ca. 700 pieces. At the same time, the "non-geometric microlith" internal typological structure is rather peculiar for analysing the Early/Archaic Aurignacian assemblage. On the one hand, alternate and a few ventral Dufour bladelets together account for no more than 15% of all microliths. Krems points attain a high value – almost 9%. On the other hand, an overwhelming majority of the microliths are pieces with either lateral or bilateral dorsal retouch (up to 75.9%). Of course, some of the bilateral dorsal microliths in reality could be fragmented Krems points, as they bear traces of projectile damage (fig. 11:10-15). But still no less than 70% of all microliths are so-called pseudo-Dufour pieces (fig. 11:16-33). Two aspects seem to be important for the Shyrokiy Mys microlith discussion. First, many of the pseudo-Dufour microliths do bear Ouchtata retouch (fig. 11:16-25), which is well pronounced at a microlith's proximal end and becomes thinner toward its distal end. The fineness of the Ouchtata retouch might be caused by an abrasion treatment when an applied power is stronger at the beginning and gets weaker through a microlith's lateral edge length. The retouch is well-known for Ahmarian and especially Late Ahmarian microliths in the Levant, although it also occurs on some Aurignacian microliths there. Second, a subordinate position of alternate Dufour bladelets and a serial presence of Krems/el-Wad points seem to be a distinct feature for Levantine Early Aurignacian *sensu lato* assemblages.

Thus, the basic assemblage data for the Early/Archaic Aurignacian in the Great North Black sea region archaeologically connect the four analysed sites with two different non-Eastern European regions. While Siuren I and Chulek I site materials are well affiliated with the European Aurignacian 0, Kamennomostskaya and Shyrokiy Mys complexes are more related to the Near Eastern Aurignacian.

The Levantine record

Having the two peculiar features for the north-western Caucasus Early/Archaic Aurignacian assemblages, it is important to recognize them within the Levantine Aurignacian data.

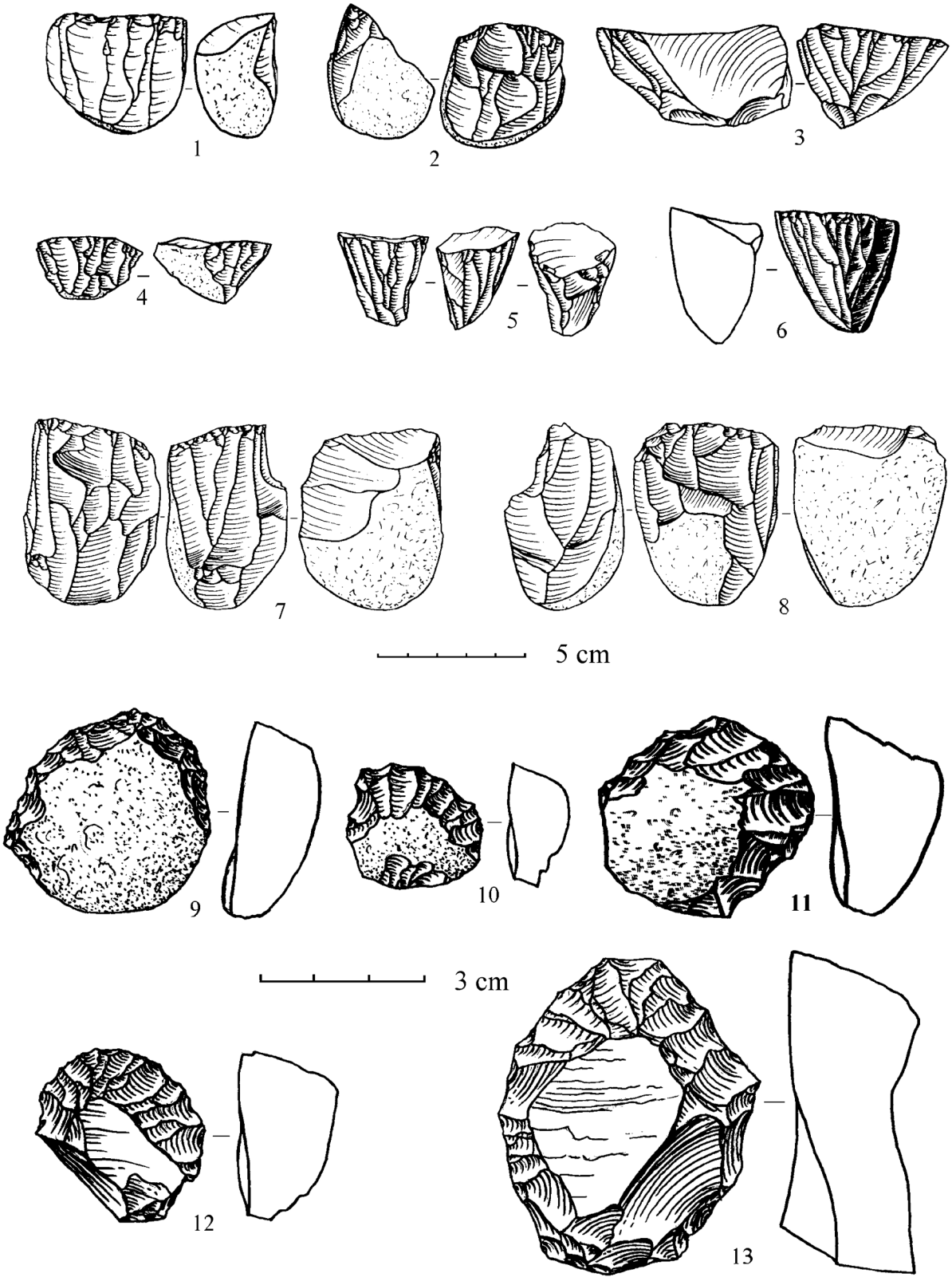

Figure 9 - Shyrokiy Mys site (North-Western Caucasus). 1-6: bladelet "carinated" cores; 7-8: blade/bladelet cores; 9-13: carinated end-scrapers (modified after originals in Shchelinsky 2007).

Lateral carinated pieces are well-known both in the Aurignacian *sensu lato* early (e.g. Ksar Akil, levels XIII–XI) and late (e.g. Ein Aqev) manifestations. Taking into consideration the basic Early Aurignacian data from kamennomostskaya cave, lower layer assemblage, a search should be directed toward Early Levantine Aurignacian find complexes, disregarding the late ones. The best comparable candidate in the Levant for now is level X from the Ksar Akil rock-shelter (Lebanon), not taking into account here the site's level IX, with its mixed upper portion (Bergman 1981, 1987, 2003). By a combination of artifact

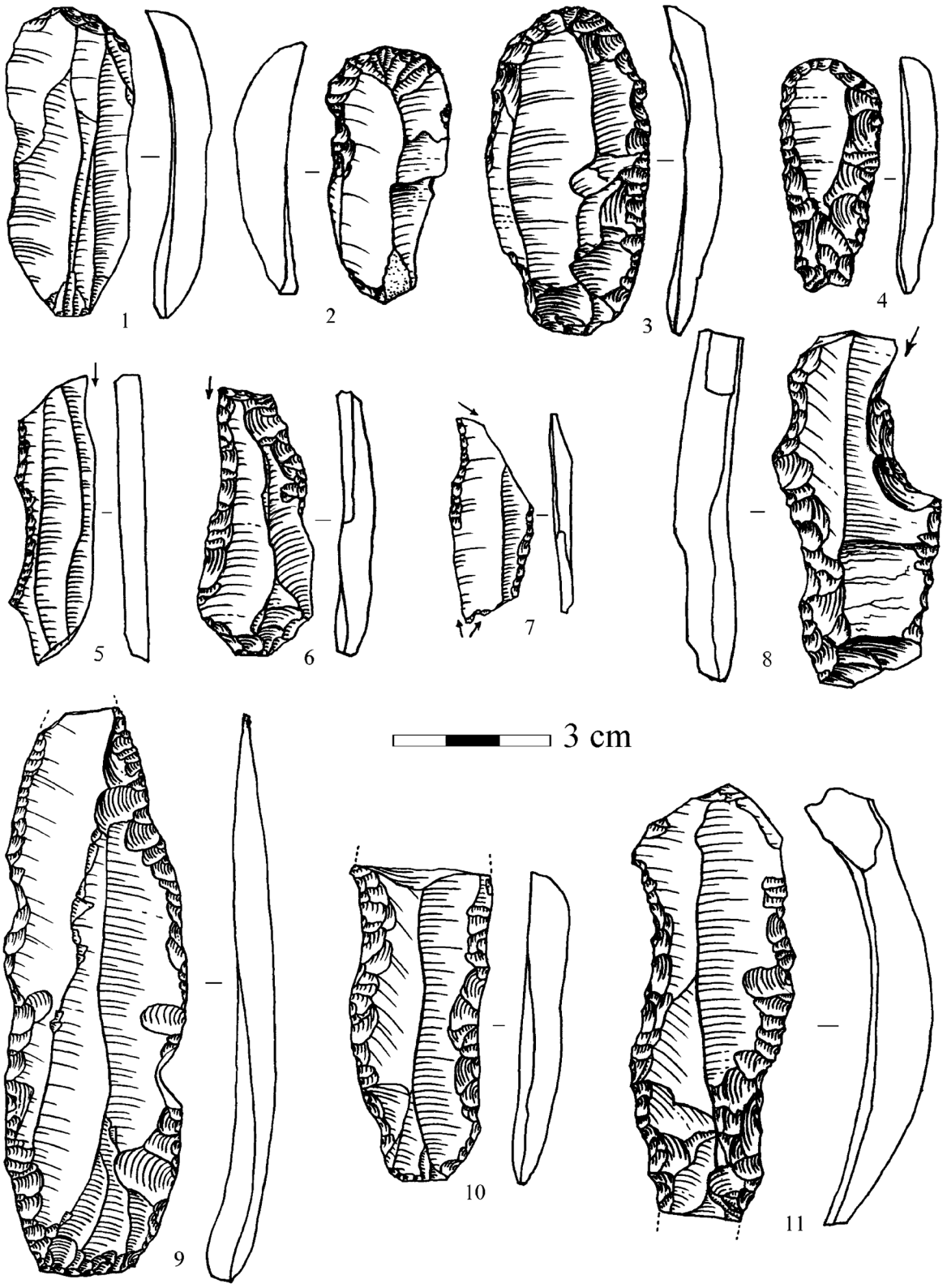

Figure 10 - Shyrokiy Mys site (North-Western Caucasus). 1: simple flat end-scraper; 2-4: end-scrapers on various retouched blades; 5: angle burin; 6: burin on truncation; 7: double mixed burin; 8: angle burin on an Aurignacian strangled blade; 9: retouched blade; 10-11: Aurignacian strangled blades (modified after originals in Shchelinsky 2007).

type presence and technological features, the kamennomostskaya and Ksar Akil assemblages have the following "points of contact": a basic single-platform blade/bladelet unidirectional primary reduction, with the production of mainly straight and incurvate bladey debitage pieces; the presence aside of carinated end-scrapers and also some flat shouldered/nosed items; an indicative but not a dominant occurrence of carinated burins among either all burins or all carinated pieces; a rather subordinate position of alternate and ventral Dufour bladelets within the whole "non-geometric microliths", including

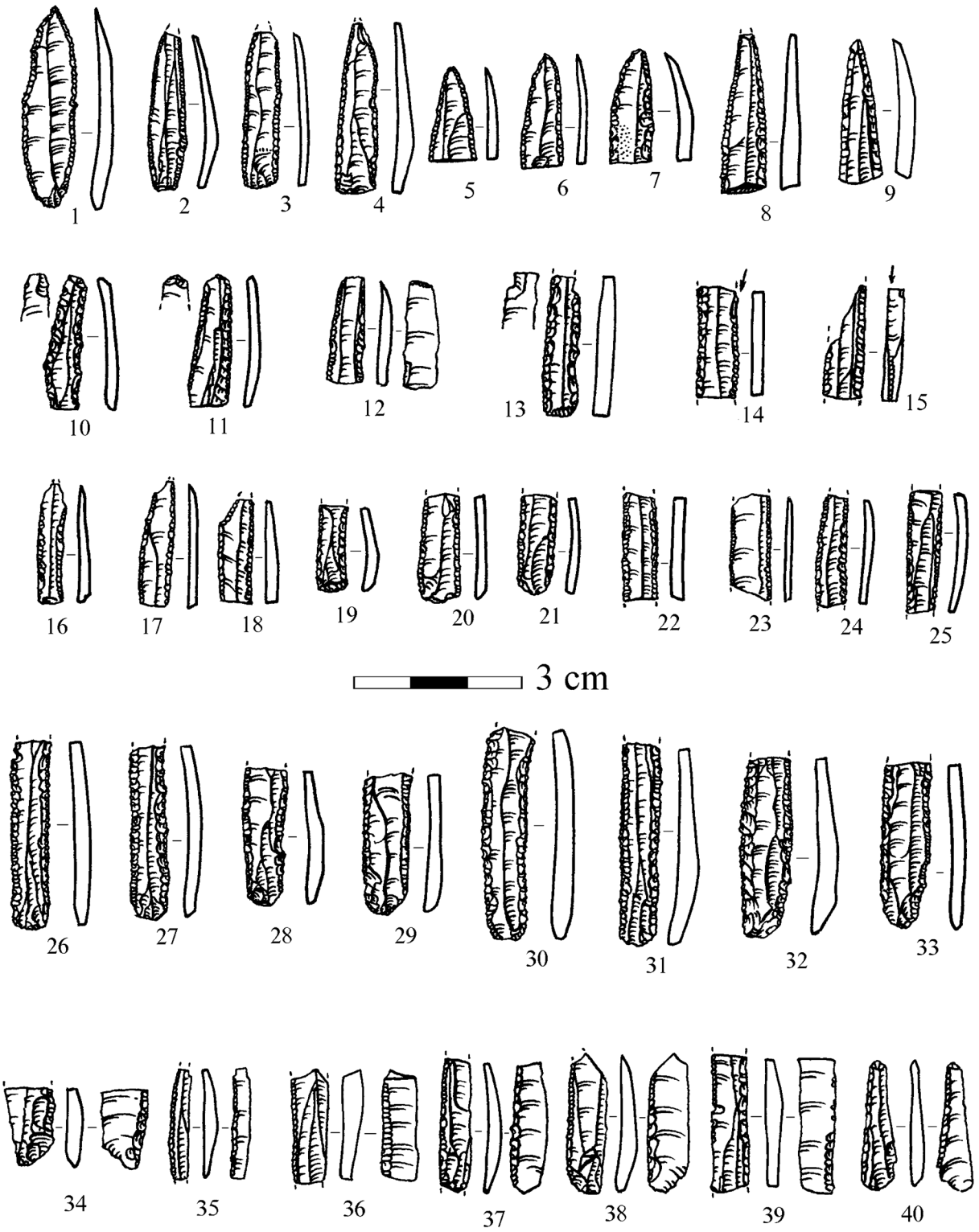

Figure 11 - Shyrokiy Mys site (North-Western Caucasus). "Non-geometric microliths", 1-9: Krems points with bilateral dorsal retouch; 10-15: pseudo-Dufour bladelets with bilateral dorsal retouch having projectile "bending" and/or "spin-off" damage; 16-25: pseudo-Dufour bladelets with bilateral dorsal retouch, having Ouchtata fine retouch on some of them; 26-33: pseudo-Dufour bladelets with bilateral dorsal retouch; 34-40: alternate Dufour bladelets (modified after originals in Shchelinsky 2007).

Krems/el-Wad points there; and, finally, an important role of our "fossiles directeur", the lateral carinated piece type, being sufficiently numerically represented. The kamennomostskaya cave data lack any natural science chronological determinations, while the 1969–1974 excavations of archaeological level 12 at Ksar Akil (the very probable stratigraphical analogue of the 1937–1938 excavations upper part of level X) is dated on a charcoal sample to 32 000 ± 1500 BP (MC-1192) that is in a good accord with a series of Oxford AMS dates and one more Monaco C14 date for overlying archaeological levels of the 1969–1974 excavations (Mellars & Tixier 1989: tab. 1; Bergman 2003:191).

The Shyrokiy Mys assemblage, with the prominent Early/Archaic Aurignacian industrial characteristics, having a peculiar "non-geometric microlith" internal typological composition and some definite Ouchtata retouch pieces, does share some features in common again with the Ksar Akil level X assemblage. They are seen through the dominance of bilateral and lateral dorsal pseudo-Dufour bladelets, some of which bear a fine Ouchtata retouch (e.g. Bergman 1981: pl. 3: h, l, n; 1987: figs. 31:6-7; 36:6, 8), and a significant number of Krems/el-Wad points. At the same time, lateral carinated pieces and carinated burins are completely missing from the Shyrokiy Mys assemblage. Therefore, it is only possible to argue on some particular but not basic similarities for the two assemblages.

The proposed comparisons between the two north-western Caucasus Early/Archaic Aurignacian assemblages and the Ksar Akil level X assemblage and possibly some similar Levantine EUP find complexes (see Bergman 1987:149-151) raise an important question on an industrial taxonomy position of the analysed Ksar Akil assemblage. Now it is widely accepted that Aurignacian *sensu stricto* in the Levant is actually represented by "Levantine Aurignacian C" cave/rock-shelter sites mainly in the north and central Mediterranean Levant (e.g. Ksar Akil, levels VIII–VII; Hayonim, layer D; Sefunim, layer 8; Raqefet, layers II (very base)–III–IV (very top); el-Wad, layer D) that is indicatively characterized by both flake and bladelet twisted primary reduction technologies with, at the same time, a number of tools on blades, and numerous carinated and thick nosed/shouldered end-scrapers, but no lateral carinated pieces, varying numbers of carinated burins, serial flat nosed/shouldered end-scrapers, tiny Dufour bladelets, some el-Wad points and Aurignacian blades, accompanied by plenty of utilitarian and non-utilitarian bone, antler and tooth artifacts (Bergman 1987; Belfer-Cohen & Bar-Yosef 1981, 1999; Bar-Yosef 2000; Belfer-Cohen & Gorring-Morris 2003; Lengyel 2005; Goring-Morris & Belfer-Cohen 2006). Accordingly, the previously defined "Levantine Aurignacian A–B" blade/bladelet-oriented assemblages and also Aurignacian flake-oriented assemblages in the southern Levant are often excluded from the Aurignacian *sensu stricto* as not having all the components of the true Aurignacian artifact package (e.g. Belfer-Cohen & Gorring-Morris 2003; but see contra Marks 2003). The discussed Ksar Akil level X assemblage, with a combination of Ahmarian-like unidirectional technology and some clear Aurignacian typological elements, falls into the former group of supposedly non-Aurignacian find complexes. The problem, however, is that adherents of the Aurignacian *sensu stricto* in the Levant base their considerations on some direct comparisons with French Aurignacian I characteristic data. The true European Aurignacian industrial-chronological composition is a much more complex one, however, being represented by three assemblage groups for an interval between ca. 38–36 and 28 ka: (1) Aurignacian 0/Proto-Aurignacian/Archaic/Primitive Aurignacian complexes with basically flat/incurvate in profile alternately retouched Dufour bladelets of Dufour subtype and some Krems/Font-Yves points; (2) Early Aurignacian I with split-based bone/antler points and the whole classical Aurignacian package having no or very few carinated burins and also a few, at best, tiny non-twisted microliths; (3) Late/Evolved Aurignacian II–IV with a full range of carinated pieces and a significant number of carinated burins among them. Hence the main body of "non-geometric microliths", if they occur, is represented by twisted and off-set ventral and narrow Dufour bladelets of Roc de Combe sub-type and morphologically the same but dorsal pseudo-Dufour bladelets, whereas Krems/Font-Yves points and Aurignacian blades with stepped retouch do not usually occur there.

If we accept the represented tripartite European Aurignacian subdivision for a possible look at the Levantine Aurignacian, the following picture might appear. First, the Levantine Aurignacian *sensu stricto* may actually envelope assemblages similar to the European Aurignacian I and Aurignacian II–IV assemblages, e.g. Hayonim layer D for the former type and Ksar Akil levels VIII–VII for the latter type. Second, Aurignacian 0 has not yet been defined in the Levant. On the other hand, there is a new idea on a possible origin of the Mediterranean Aurignacian 0 from Early Ahmarian in the Levant, initiated by O. Bar-Yosef and supported by some European colleagues (Bar-Yosef 2003; Teyssandier 2006; Mellars 2006). The present author does not agree with the claimed significant similarity in between the Aurignacian 0 and actual Early Ahmarian complexes, taking into account many industrial features that considerably differentiate them in terms of primary reduction technologies and tool type, morphology and structure representations. At the same time, assemblages like level X of Ksar Akil with a blade/bladelet technology where most of the core flaking surfaces and bladelets are no longer than 5 cm (Bergman 1987:64-83), and some definite Aurignacian typological features, unlike the true Early Ahmarian data, might indeed be similar to the Aurignacian 0 complexes (see also Mellars 2006:171-176). In this case, the kamennomostskaya cave assemblage looks like the best comparable candidate for now having lateral carinated pieces, which, however, are totally absent from any Mediterranean Aurignacian 0 assemblages. These considerations can also give a "second wind" to the personal observation of F. Bordes of the Ksar Akil level X assemblage and his conclusion that it is "strikingly similar to the Aurignacian of Font Yves" in France (Bergman 1987:8). Thus, instead of insisting on the strong Early Ahmarian connections with the European Aurignacian 0, it may be more productive to restructure the Aurignacian *sensu lato* in the Levant through the European standards. If Aurignacian 0 is really represented there, which can be only proved by some direct comparisons of the respective European and Ksar Akil assemblages, it could greatly enlarge our detailed understanding of both the Levantine Aurignacian record and the whole Aurignacian concept in western Eurasia.

Finally, coming back to the Early/Archaic Aurignacian industrial event in the Great North Black sea region, an important chronological subject also arises. The question is that the respective Siuren I assemblage is dated no earlier than the Arcy interstadial (ca. 30 ka), which is a late geochronological position for the European Aurignacian 0, dated from ca. 38–36 to 34–32 ka. Moreover, if our typological comparisons of the kamennomostskaya cave lower layer and the Ksar Akil rock-shelter level X assemblages are correct, keeping in mind also the latter assemblage's chronology of ca. 33–30 ka, in that case, the kamennomostskaya cave Early/Archaic Aurignacian might also be of a late chronology for this kind of Aurignacian industry. Therefore, we have some direct (Siuren I rock-shelter)

and indirect (kamennomostskaya cave) indications of a basic late geochronology for the whole Early/Archaic Aurignacian in the south of Eastern Europe. Moreover, it is interesting to note that the possible late (33–30 ka) chronology for the Great North Black sea region Early/Archaic Aurignacian might be valid for both the complexes archaeologically connected to the European respective materials (Siuren I and Chulek I) and the complexes having some definite parallels in the Levant (kamennomostskaya cave, Shyrokiy Mys). Accordingly, the southern territories of Eastern Europe can well represent the chronologically latest region of the Early/Archaic Aurignacian in western Eurasia.

Final Remarks

The complex picture of industrial variability for the Latest Levallois-Mousterian and Early/Archaic Aurignacian assemblages of the Levantine and the Great North Black sea regions presetned here show some level of archaeological and chronological similarity. Of course, in the present article there is just a first step for recognizing and understanding the assemblages' basic and peculiarly similar features. More studies of the noted particular LMP and EUP sites and their materials are certainly needed with their mutual similarities kept in mind. They deserve special attention and further studies as they can significantly contribute to our understanding of many problems for an important transitional period from the Middle to the Upper Palaeolithic for these parts of the Great Mediterranean. Moreover, the subject of similarity presented is interesting in that it is related to the LMP and EUP industries which have not been involved in any so-called direct transitional processes on the emergence of the first true UP industries in the regions, but it rather represents industrial "outsiders" of the transitional period. Finally, detailed studies of the assemblages from the Levant and Great North Black sea regions involved can also assist in their industrial classification and role within both the LMP and EUP regional archaeological contexts.

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