

*Field Reports*

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Körtik Tepe

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KPS-75, Kerak Plateau

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Bir el-Maksur

**Makoto Arimura, Christine Chataigner, Boris Gasparyan,**

Kmlo 2

*Contributions*

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Tel Bareqet

**Danny Rosenberg, Nurit Etzion, Daniel Kaufman, Avraham Ronen,**

Daliyat el-Carmel 3

*Conferences*

*New Theses*

*New Websites*

# NEO-LITHICS 2/09

**The Newsletter of  
Southwest Asian Neolithic Research**

|                                                                                            |    |
|--------------------------------------------------------------------------------------------|----|
| <b>Editorial</b>                                                                           | 2  |
| <b>Field Reports</b>                                                                       |    |
| <b>Vecihi Özkaya</b>                                                                       |    |
| Excavations at Körtik Tepe. A New Pre-Pottery Neolithic A Site in Southeastern Anatolia    | 3  |
| <b>Maysoon al-Nahar, Deborah I. Olszewski, Jason B. Cooper</b>                             |    |
| The 2009 Excavations at the Early Epipaleolithic Site of KPS-75, Kerak Plateau             | 9  |
| <b>Ariel Malinsky-Buller, Emil Aldjem, Reuven Yeshurun</b>                                 |    |
| Bir el-Maksur. A New Pre-Pottery Neolithic A Site in Lower Galilee                         | 13 |
| <b>Makoto Arimura, Christine Chataigner, Boris Gasparyan</b>                               |    |
| Kmlo 2. An Early Holocene Site in Armenia                                                  | 17 |
| <b>Contributions</b>                                                                       |    |
| <b>Sumio Fujii</b>                                                                         |    |
| Flint Bowlets. A Comprehensive Review from Wadi Abu Tulayha                                | 20 |
| <b>Yitzhak Paz, Sarit Paz, Ron Shimelmitz</b>                                              |    |
| An Incised Stone Object from the PPNA of Tel Bareqet                                       | 29 |
| <b>Danny Rosenberg, Nurit Etzion, Daniel Kaufman, Avraham Ronen</b>                        |    |
| Daliyat el-Carmel 3. A Flint Bifacial Tools Workshop on Mount Carmel                       |    |
| Preliminary Account                                                                        | 31 |
| <b>Conferences</b>                                                                         |    |
| <b>Bernd Müller-Neuhof</b>                                                                 |    |
| Jordan's Prehistory: Past and Future Research. A Brief Report on a Symposium held in Amman | 36 |
| <b>Olivier Nieuwenhuys, Anna Russel, Reinhard Bernbeck, Peter Akkermans</b>                |    |
| Interpreting the Late Neolithic of Upper Mesopotamia, Leiden, 24-28 March 2009             | 39 |
| <b>New Theses</b>                                                                          | 40 |
| <b>New Websites</b>                                                                        | 42 |
| <b>Masthead</b>                                                                            | 43 |

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## Editorial

Blizzards of emails, swarms of deadlines and papers, baskets of applications, paralysis by administrative needs: all of this increasingly characterizes Near Eastern Neolithic research. The share of original research on field work and material is substituted more and more by research made for the stage, reflected by a mass of papers typified by accelerating redundancy and unsupported guess-work. A paradoxical situation is reached: colleagues produce papers without being able to read others' publications to a sufficient extent, nor do they have the time to communicate about mutual research. Big research clusters in some countries absorb energies by (often) misguiding empty keywords (e.g. landscape, space), while it is forgotten that the major progress and innovation in research mostly results from an ideal combination of two or three individuals operating with interdisciplinary cooperating. The personal side of all of this can result in elements of masochism among the more responsible of us, the inability to say "No," which sometimes leads to health problems, helpless floating with the current, and the exclusion of those who do not follow the main trend.

The Near Eastern Neolithic family is still small, and this should foster the opportunity to critically counter these common trends in research and to develop research ethics against Neolithic research deflation. We have to start considering if all the conferences and workshops are necessary, since they are one source of our academic breathlessness. We have to start investing more time in research progress and innovation by simply sitting down and doing the job: working on excavated materials (final publications) rather than publishing more intriguing preliminary ideas with limited material bases. And we have to start working more sustainably: site hopping, neglected conservation and curation measures, attitudes of non-sharing, and failure to raise local competency are some of the dangers we face. Each of us is asked to distinguish wisely and carefully between necessary constraints promoting Neolithic research and constraints produced by following uncontrolled trends in research and research politics. Let us dare to say "No."

For a number of various reasons on our side, issues of Neo-Lithics appear late, for which we ask you to accept our apologies. We would like to announce that the special issue on Rubble Slides (Neo-Lithics 1/09) will appear in Spring 2010, and the one on Water Domestication (now Neo-Lithics 2/10) later in 2010. We warmly welcome the new Neo-Lithics' managing editorial board (beginning with issue 1/09): Dörte and Jan Krumnow and Christoph Purschwitz, while gratefully remembering the work of the previous managing editor, Jürgen Baumgarten. Dörte, Jan, and Christoph will be on your side during the submission and publication process: as ever, we welcome your research, especially from the young colleagues and sites outside the Levant, for publication in Neo-Lithics.

Hans Georg K. Gebel and Gary O. Rollefson

## Kmlo 2. An Early Holocene Site in Armenia

|                             |                                                            |                             |
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A Franco-Armenian mission has conducted investigations in Armenia for the past 10 years, focusing on understanding the entire sequence of prehistory in the lesser Caucasus, including the Neolithization process in this region. The earliest known village-farming communities date to the 6th millennium BC in the Araks and Kura Basins (the so-called Shulaveri-Shomutepe Culture). Recent excavations conducted by the mission at Aratashen and Aknashen-Khatunarkh in the Araks Basin in southwest Armenia have yielded rich information for this culture (*cf.* Badalyan *et al.* 2007). In contrast, sites earlier than the Shulaveri-Shomutepe Culture are not well attested. Two interesting questions for our research are: what cultural entities existed in the early Holocene and how did they transform or relate to the later Shulaveri-Shomutepe Culture? This is a short report on the recent results from Kmlo 2 in northwest Armenia, which contains a culture type previously unknown in the prehistory of this region but which could give new insights into the cultural sequence of the early Holocene in the lesser Caucasus.

Kmlo 2 is a rock shelter located on the west slope of a deep valley formed by the Kasakh River (Figs. 1-2). The rock shelter opens onto a sheer cliff and faces southeast. The sheltered area at one time covered approximately 3 x 6 m, but it has been reduced by the collapse of two large blocks at the mouth of the shelter. The site was discovered in 2002 by the Armenian archaeological survey due to the abundant obsidian artifacts on the surface. It was thought to date to the terminal Pleistocene or early Holocene, periods of

Armenian prehistory that are not well understood. The excavations started in 2003 and continued in 2005-2006 and 2009 under the direction of Boris Gasparyan and Christine Chataigner.

### Stratigraphy and 14C Dates

The excavations revealed dark brown sandy deposits, ranging from 40 to 50 cm thick. These deposits were divided into several layers by sediment texture and features. The upper layers include several medieval and Chalcolithic potsherds, while lower layers have almost no ceramics: a few potsherds from the lower layers are probably intrusive from the later occupations. Fireplaces with charcoal and ash were found in several layers, along with abundant obsidian artifacts and animal bone

Nine calibrated 14C dates from the lowest layer are from the 11-10th millennia BC, the 8th millennium BC, and the 6-5th millennia BC (Table 1) and might indicate three different occupational phases. Although the samples were taken from almost the same level, the

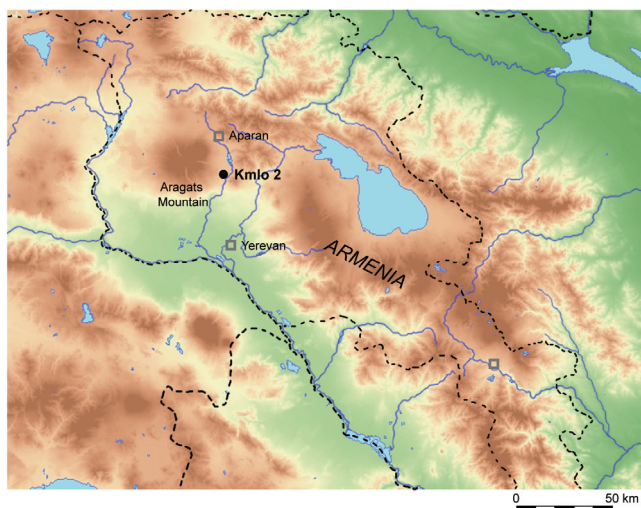


Fig. 1 Location of Kmlo 2

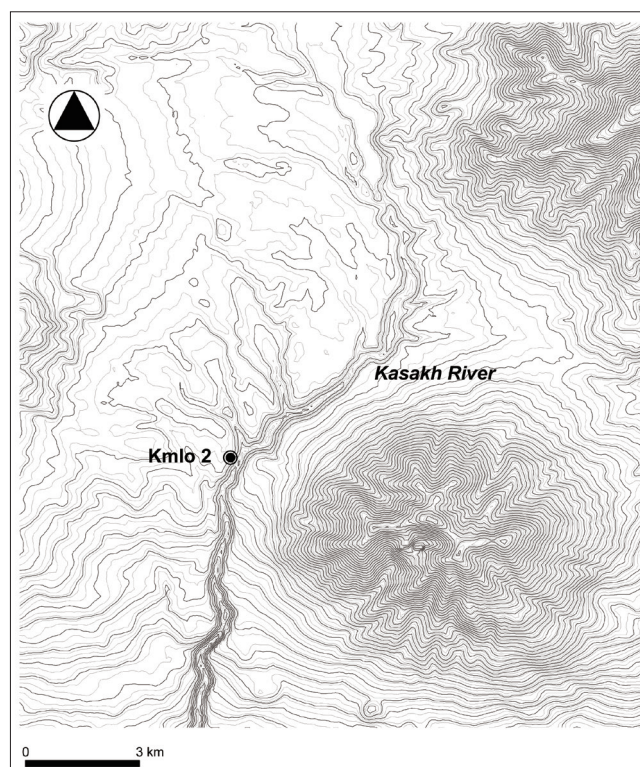


Fig. 2 Location of Kmlo 2

| code       | uncal. BP  | cal. BC (2 sigma) |
|------------|------------|-------------------|
| Poz-20231  | 10900 ± 50 | 10979-10873       |
| AA68562    | 10924 ± 91 | 9879-9299         |
| AA68563    | 10184 ± 93 | 10230-9445        |
| UGAMS-4076 | 9840 ± 30  | 9324-9251         |
| Poz-19666  | 8500 ± 50  | 7530-7490         |
| Ly-2761    |            | 4450-4328         |
| Ly-2762    | 6640 ± 40  | 5631-5509         |
| UGAMS-4077 | 5610 ± 30  | 4498-4361         |
| Ly-2817    | 5555 ± 60  | 4518-4325         |

Table 1 C14 dates from Kmlo 2

results show a wide range of dates. Judging from the potsherds in the upper layers, Kmlo 2 was probably occupied in the Chalcolithic and then again in the medieval period. The Chalcolithic occupation at Kmlo 2 could date to the 6th or 5th millennium BC based on the C14 dates. Although other C14 dates indicate that the lower Layers at Kmlo 2 may be from two phases (11-10th millennia BC and the 8th millennium BC), it is difficult to divide these layers into two phases based on artifactual data.

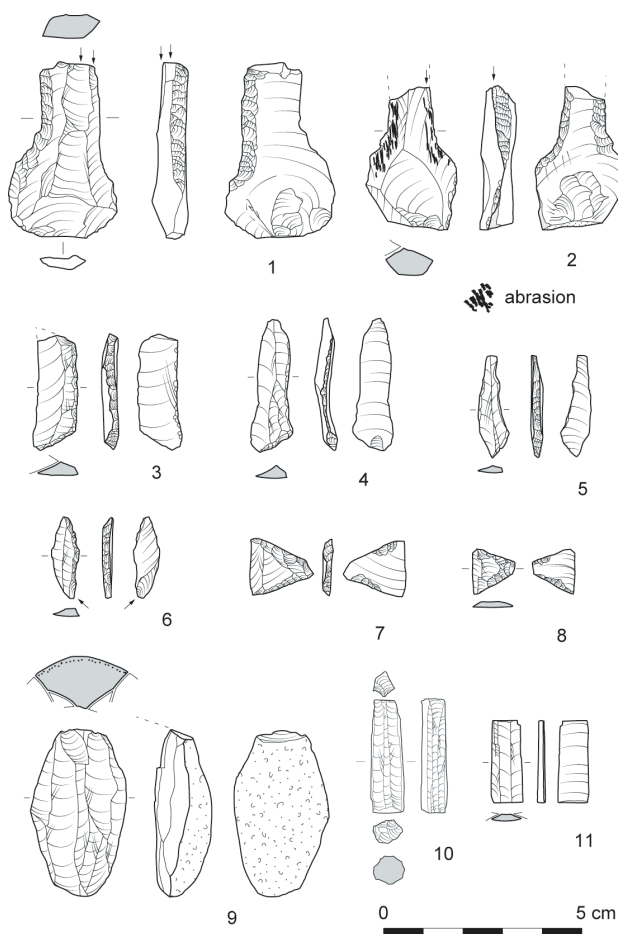


Fig. 3 Obsidian lithics from Kmlo 2

## Lithic Industry

Four seasons of excavation yielded numerous lithics made from local obsidian. Other raw material such as dacite and flint were also used, but their numbers are quite limited. Judging from the cortical flakes of obsidian, approximately 10 cm-sized river pebbles were brought to the cave and knapped on site. Such obsidian pebbles are available on the riverbanks of the Kasakh River. These pebbles were brought from the upper large obsidian sources in the Tsaghkunyats range.

The most remarkable finds in Kmlo 2 are obsidian “Kmlo tools,” which we named after the site (Chataigner *et al.* 2007). This tool type was previously and could be a marker of a cultural entity (see below). Kmlo tools are characterized by continuous and parallel retouch by pressure flaking of one or both lateral edges (Fig. 3: 1-2). They are usually made on blades but also occasionally on flakes. Other important characteristics of Kmlo tool are specific use-wear and fragmentation. In many cases, linear or heavy abrasion can be seen on the surface along the retouched edge and the lateral (retouched) edge is often removed by burin blow. The ends of the tool are also frequently truncated or snapped.

Abundant microliths are also a noteworthy part of the lithic industry in Kmlo 2 (Fig. 3: 3-8). They include types such as lunates and trapeze-rectangles, but backed bladelets and scalene (straight-backed and obliquely truncated) bladelets are predominant (Fig. 3: 4-6). The presence of microburins and remnants of microburin scars on backed bladelets indicate that the microburin technique was used for their production.

There is no significant change in the lithic industry throughout the layers of Kmlo 2. The industry is blade-oriented, and blade/bladelets are generally knapped from single-platform cores (Fig. 3: 9 or, less frequently, from bi-directional cores. The cores are often formed from pebbles without specific core preparation, corresponding to the very low frequency of ridged flakes and blades. Butt preparation is often done by removing of flakes without abrasion, resulting in butts that are not reduced and are relatively large. In addition, several regularly formed, pressure-flaked bladelets and a small bullet core were found (Fig. 3: 10-11). When compared with blade production in later Neolithic sites of the Shulaveri-Shomutepe Culture, where sophisticated blade production was generally practiced with pressure flaking and punch technique, blade production in Kmlo 2 is fairly rough.

## Discussion

How do our data from Kmlo 2 fit into the prehistory in the Lesser Caucasus? Although 14C dates, as noted above, indicate three different phases from 11-10th millennia BC to 6-5th millennium BC, the lithic industry does not show any significant change through these layers. This observation could be explained by the

hypothesis that prehistoric occupations of Kmlo 2 were disturbed by later occupations, including the medieval, which caused such a wide range of C14 dates from the almost same level. Judging from the almost complete absence of pottery found from the lower layers, prehistoric occupations of Kmlo 2 were probably aceramic. However, the dates of the lower aceramic layers remain uncertain even with the 14C dates. Comparing the lithic industry of Kmlo 2 with other sites may be useful in determining the chronological position of the aceramic layers.

Recently, Kmlo tools have been found in several sites in the area surveyed by the mission. At several sites, such as Gegarot and Kuchak in hilly areas in northwestern Armenia, Kmlo tools were collected on the surface or found in archaeological soundings. Typo-technological traits of Kmlo tools observed at Kmlo 2, such as abrasion and fragmentation by burin blow and truncation, are confirmed in collections from these sites. Unfortunately, the sites remain undated but the presence of Kmlo tools implies that they are a marker of a certain cultural entity. It is important to note that no Kmlo tools have been found at sites of the Shulaveri-Shomutepe Culture of the 6th millennium BC.

Furthermore, specimens similar to Kmlo tools seem to be present in the Paluri-Nagutny Culture in Georgia (Kiguradze and Menabde 2004). This culture is not well dated, but it is referred to as the Aceramic Neolithic in Georgia. Georgian specimens are made on both obsidian and flint. Turning to the Western Asia, similar pressure-retouched tools, the so-called “Çayönü tools”, are found in Neolithic sites from the 8th to 7th millennia BC in eastern Anatolia and northern Mesopotamia. Some specimens have abraded surfaces along the retouched edge, comparable to Kmlo tools. According to the use-wear analysis of Çayönü tools (Anderson and Formenti 1996), Çayönü tools may have been used for making objects such as stone bowls or bracelets.

Through this short comparison, it seems that specimens similar to Kmlo tools are present in Neolithic cultures in the lesser Caucasus and Western Asia. This may suggest that the one 8th millennium BC 14C date from Kmlo 2 could be acceptable for dating the aceramic layers of the site. On the other hand, the C14 dates of the 11th-10th millennium BC are hard to accept given our present knowledge. In many regions, retouched tools similar to those from Kmlo 2, such as the heavily pressure-retouched tools such as Kmlo tool and transverse arrowheads (Fig. 3: 1-2, 7-8), are characteristic of the Neolithic. However, at present we cannot rule out the possibility that the basement of Kmlo 2 contains occupations of the 11-10 millennium BC.

Although the dating of Kmlo 2 remains uncertain, our results show archaeological evidence of an Early Holocene culture different from the Shulaveri-Shomutepe Culture. We should consider the relationship between Kmlo 2 and the Shulaveri-Shomutepe Culture, we may suggest two possibilities: Kmlo 2 represents

either a different cultural facies contemporary with the Shulaveri-Shomutepe Culture or it precedes it.

During the 2009 season, we rechecked the stratigraphy of the site and took additional samples for C14 dating. The study of animal remains is underway and will give important information on the subsistence economy of the site inhabitants. These further studies are expected to solve the chronological problem of Kmlo 2. In addition, it will be necessary to research and excavate other “Kmlo-type” sites. The study on the Neolithization process in the Lesser Caucasus has just begun.

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