



**HAL**  
open science

## Çemka Höyük: A Late Epipalaeolithic and Pre-Pottery Neolithic Site on the Upper Tigris, Southeast Anatolia

Ergül Kodaş, Bülent Genç, Yunus Çiftçi, Charlotte Labedan Kodaş, Çağdaş Erdem

► **To cite this version:**

Ergül Kodaş, Bülent Genç, Yunus Çiftçi, Charlotte Labedan Kodaş, Çağdaş Erdem. Çemka Höyük: A Late Epipalaeolithic and Pre-Pottery Neolithic Site on the Upper Tigris, Southeast Anatolia. NEO-LITHICS: The Newsletter of Southwest Asian Neolithic Research, 2020, 20, pp.40-46. hal-04138487

**HAL Id: hal-04138487**

**<https://hal.science/hal-04138487>**

Submitted on 27 Jun 2023

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial - NoDerivatives 4.0 International License

# Çemka Höyük: A Late Epipalaeolithic and Pre-Pottery Neolithic Site on the Upper Tigris, Southeast Anatolia

Ergül Kodaş, Bülent Genç, Yunus Çiftçi, Charlotte Labendan-Kodaş, and Çağdaş Erdem

## Introduction

The settlement of Çemka Höyük (Su Kenarı Höyük; 37°31'22.27"N, 41°50'26.23"E) is located within the boundaries of the Ilisu village of Dargeçit in Mardin Province, approximately 1,100m southwest of the Ilisu Dam. Çemka Höyük is approximately 420m above sea level. It is located just west of the Tigris River and approximately 900m southeast of the settlement of Boncuklu Tarla (Pre-Pottery-Neolithic site; Kodaş and Genç 2019, Fig. 1). The settlement, which measures approximately 65m x 135m, was unfortunately not identified during surveys in 2008 due to the flood layer on the mound and it has been severely damaged in many places by road works associated with the Ilisu Dam and HES Project.

## Stratigraphy

Round planned houses built of small stones are dated to the PPNA period and floor and wall remains of simple shelter-type structures dated to the Late Epipaleolithic Period were identified and recorded in 2018 after analyses of three different sections created by road works across the site. Excavations and cleaning activities were carried out in six different sectors and profiles located on the banks of the Tigris River in 2019. However, due to the destruction, the archaeological studies carried out in the settlement concentrated on two areas. In this context, the excavations were mostly concentrated in the area north of the road dividing the mound (Sector 2) and between this road and the road leading to the Tigris River (Sector 1, Fig. 2). Eight different building levels dating to the Late Epipaleolithic and PPNA periods were identified and numerous architectural remains belonging to these building levels, as well as a large number of human skeletons (about 15 hocker burials), ground and chipped stone tools and a small number of ornaments were recovered at the site.

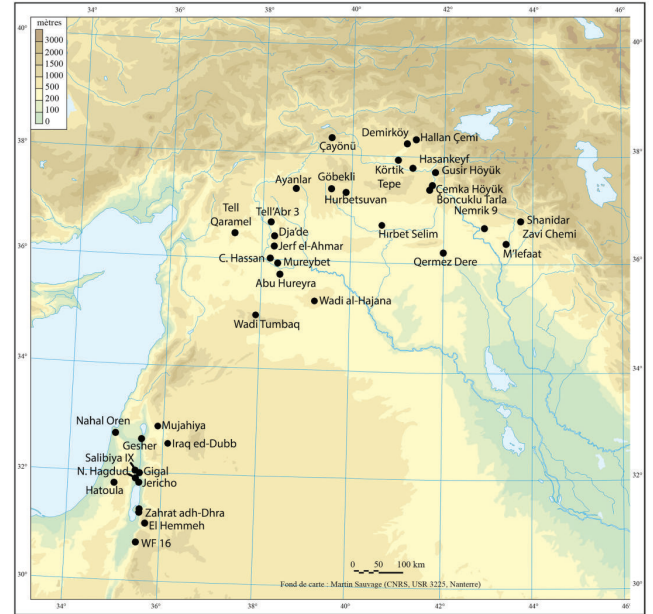


Fig. 1 Localization of Çemka Höyük. (Map: E. Kodaş)

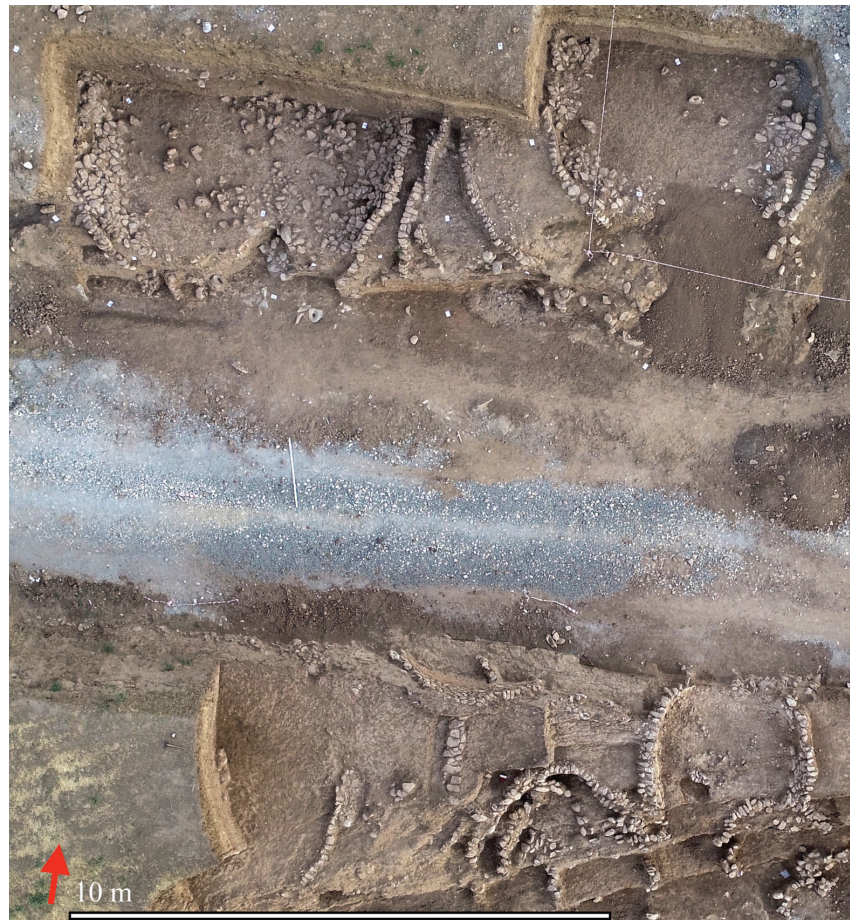
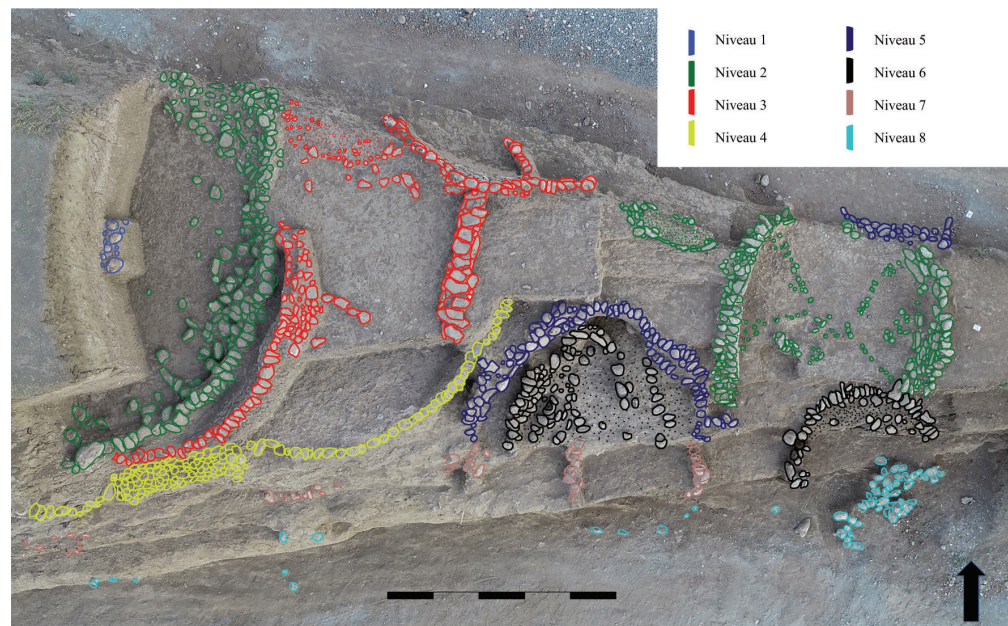


Fig. 2 Drone photo of Çemka Höyük and the areas of excavations in 2019. (Photo: E. Kodaş)

Fig. 3 The architectural remains unearthed at Çemka Höyük Sector 1. (Photo: E. Kodaş)



ID	Context	Material	BP	$\delta^{13}\text{C}$	cal BCE
Tübitak 1156	Sector D17 Level 2	charcoal	9970±38	-27.6±03	9558-9313 (75.8%) 9661-9571 (19.6%)
Tübitak 1155	Sector D16 Level 5	charcoal	9970±38	-28.0±08	9672-9317 (94.4%) 9742-9729 (1.0%)

Table 1 Results of radiocarbon data from Çemka Höyük.

When the plans and construction types of architectural remains are examined chronologically, a change from simple huts to sub-terranean shelter-style buildings, and later, to large-scale stone constructions built on the surface can be observed. Particularly in building Levels 2, 3, and 4, the walls of the buildings are built more systematically and strongly and even plastered with clay or lime plaster. The structures of Levels 5 and 6 of Çemka Höyük comprise round planned buildings that were sub-terranean in a pit with diameters ranging from 4 to 5m (Fig. 3). We also uncovered two sub-terranean buildings with radial plans on Level 2 and 3. The structures of Levels 7-8 represent the oldest phases of the settlement. The remains of the buildings, which are simple shelter-type structures, were found mostly in the southern section on the banks of the Tigris River and were represented by stone groups, that do not form a clear plan. Levels 1 and 6 are dated to the PPNA, and Levels 7 and 8 are dated to the Late Epipaleolithic Period (Table 1). Levels 2 and 5 have been radiocarbon dated, with the  $2\sigma$ -ranges strongly overlapping because of the early Holocene plateau. Level 2 is dated between 9661-9313 cal BCE and Level 5 between 9742-9317 cal BCE (Table 1).

### Chipped Stone Tools

Two different techno-typological groups (or assemblages) of stone tools have been identified depending on the occupation period at Çemka Höyük. The first

group of chipped stone tools is represented by scalene triangles, trapezes, half-moon shaped tools (lunates), and leaf-shaped small arrowheads (foliate microlith) and Nemrik-type arrowheads from the PPNA Period of the Nemrik industry (Fig. 4; Watkins 1987; Kozłowski 1990; Aurenche and Kozłowski 2010; Altınbilek-Algül 2013; Maeda 2018; Kartal *et al.* 2018). However, the

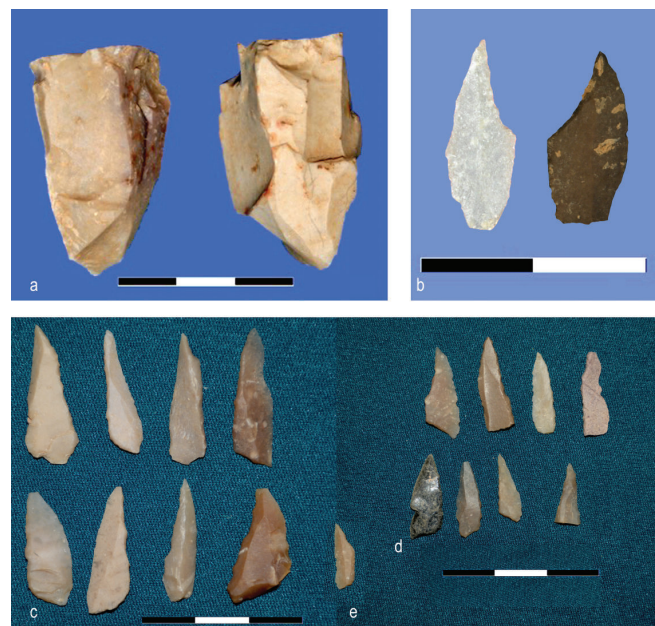


Fig. 4 PPNA chipped stone tool techno-typology of Çemka Höyük: a) core, b) Çemka Point, c-d) several scalene triangles, e) trapeze. (Photos: E. Kodaş)

production of arrowheads is not only limited to Nemrik and leaf-shaped arrowheads. In particular, it seems that the long-sized triangular trimmed micro-blades and others are the dominant type of arrowheads at Çemka Höyük (Kartal 2012; Maeda 2018). Moreover, it has been observed that some types of arrowheads, which are similar in form to the small arrow-shaped projectile points belonging to the PPNA Period, are narrowed only on one side to achieve more pointed arrowheads (Çemka Point).

The second typological group is represented by smaller-sized scalene triangles and backed micro-blades (*lamelle à dos*), half-moon-shaped segments (*segment de cercles*), and chisels (small burins); these are similar in form to chipped stone tools of the Zarzian culture which is dated to the Late Epipaleolithic Period (Fig. 5)<sup>1</sup>. During this period, except for triangular pruned backed blades, arrowheads were not recovered. While double platform microblade cores were common during the PPNA Period, there were only single platform microblade cores in the Late Epipaleolithic Period. Moreover, while there are few obsidian fragments in Levels 1 to 6 (dated to the PPNA), there are no obsidian fragments in Levels 7 and 8, which are dated to the Late Epipaleolithic Period.

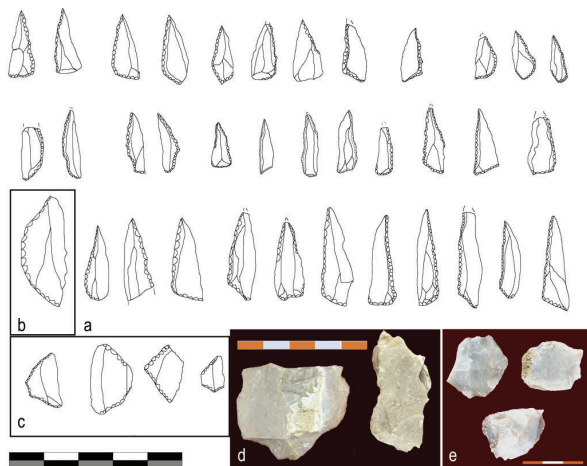


Fig. 5 Late Epipaleolithic chipped stone tool techno-typology Çemka Höyük: a) several scalene triangles, b) crescent, c) trapeze, d-e) core. (Photos: E. Kodaş)

### Grinding Stones and Mortar Pestles

Nearly 40 grinding stones, that were found scattered in different areas of the site due to the destruction of the mound, are dated to the PPNA Period. After the excavation in 2019, a large number of grinding stones were exposed *in situ* at the site (Fig. 6 a-b). Almost all of these grinding stones were made of basalt and andesite, except for a few examples of limestone. Except for one round shaped item, all of them are long and flat. Some of these grinding stones have a length of 30-50cm,

<sup>1</sup> Comparing the results of our new excavations to the Epipaleolithic levels of the nearby site of Bonçuklu Tarla, dated to 10471-10109 cal BCE (Kodaş 2019).

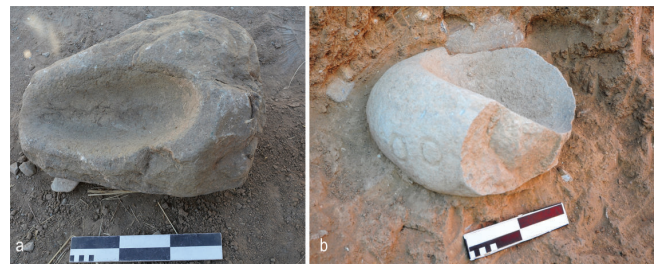


Fig. 6 Some grinding stones found at Çemka Höyük. (Photos: E. Kodaş)

while some are smaller (20-30cm) and also shallower. All the pestles found in the settlement were made of basalt. Their dimensions vary between 12 and 23cm in length with an average diameter of 5-11cm. All of them have a cylindrical form, except for a few cases. Grinding stones that were still resting on the floor were unearthed in almost all of the houses in the settlement.

### Bone Tools

A large number of bone awls and spatula fragments uncovered in the PPNA levels indicate that such tools were used frequently. In addition, some bone ornaments with holes in their upper parts were found; these were probably used as pendants. Bone objects unearthed in the settlement are especially important in terms of revealing similarities with the finds recovered from other settlements in the region such as Körtik Tepe (Özkaya and Coşkun 2011), Hasankeyf Höyük (Miyake *et al.* 2012), Çayönü (Erim-Özdoğan 2011), Hallan Çemi (Rosenberg 2011a), and Gusir Höyük (Karul 2011). However, the decorated bone plaques that have been found at these sites have not been found at Çemka Höyük. No other bone tool was found in the Epipaleolithic layer, except for a spatula fragment.

### Other findings

A large number of stone vessels fragments was uncovered during the excavations. They were primarily made of limestone, although a few are of chlorite. However, all stone vessels that are decorated with geometric motifs were made of chlorite. In addition, the figured stone plaques, grooved stone objects, and broken stone canes are all made of chlorite or sandstone (Fig. 7), and similar objects were found in other PPNA settlements such as Çayönü (Erim-Özdoğan 2011), Körtik Tepe (Özkaya and Coşkun 2011), Hasankeyf Höyük (Miyake *et al.* 2012), Hallan Çemi (Rosenberg 1994, 2011a), Gusir Höyük (Karul 2011) and Demirköy (Rosenberg 2011b) in the Upper Tigris Basin. In this context, it is important to mention the presence of a few scattered stone and bone beads, and a large number of bead ornaments made of freshwater shells that were discovered in the graves (Fig. 8 a-e). However, ornaments were not found in Levels 7 and 8, which are dated to the Late Epipaleolithic Period.



Fig. 7 Grooved stone found at Çemka Höyük. (Photo: E. Kodaş)

### Human Skeletal Remains

All of the human skeletal remains unearthed at Çemka Höyük are primary burials dated to the PPNA Period. They were found beneath the floor of the houses. Of the approximately 15 individuals, 12 are male and female adults, while three are subadults (infants?). While the subadults (infants?) were buried in flexed positions, the adults were placed in flexed and semi-flexed positions (Fig. 9). There are very few grave goods in the burials



Fig. 8 Some ornaments found at Çemka Höyük. (Photos: E. Kodaş)

with beads made of freshwater shells being the most common.

### Conclusions: First Observations

At Çemka Höyük, that has been considerably destroyed and has an archaeological fill of about 7m in height, only two main occupation phases that are thought to be dated to PPNA and Late Epipaleolithic Period were



Fig. 9 Some examples of tombs unearthed at Çemka Höyük. (Photos: E. Kodaş)

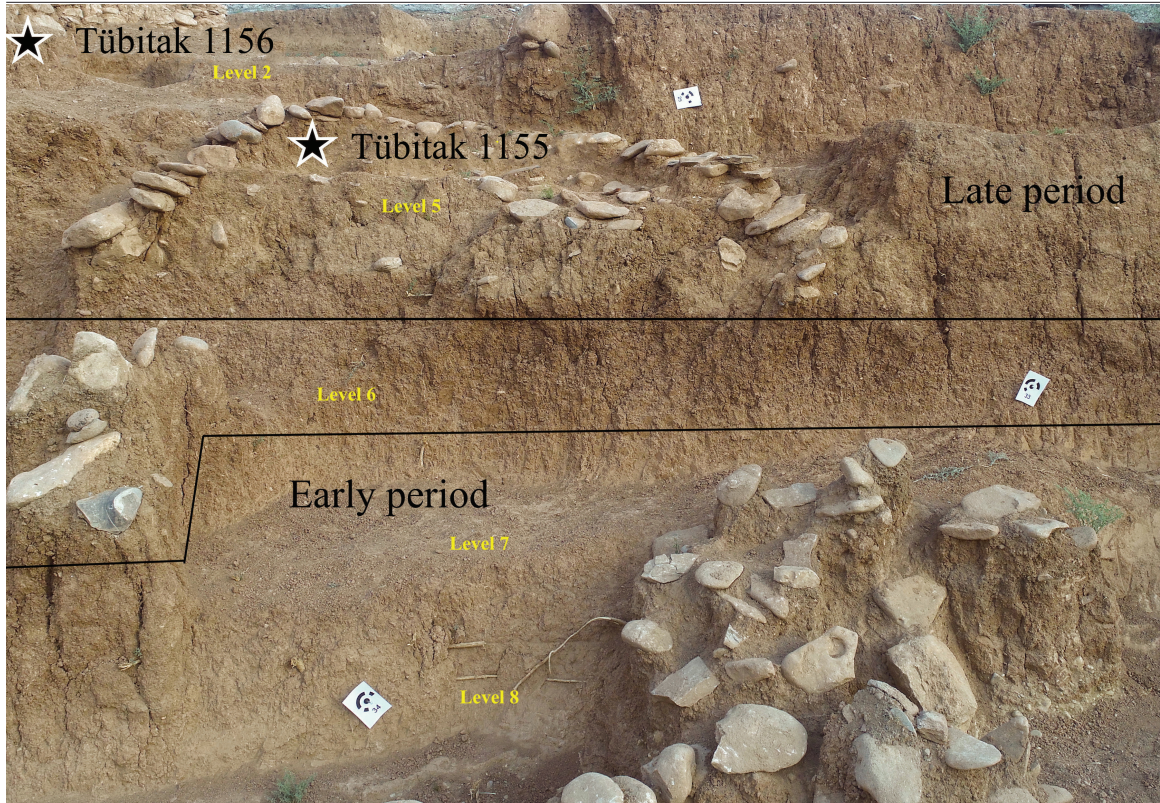


Fig. 10 Archaeological layers of the site with stars indicating the location of radiocarbon samples. (Photo: E. Kodaş)

identified (Fig. 10). The first phase is represented by six-building levels. The second phase is represented by only two building levels. The chipped stone technologies of these phases show some differences in themselves. In the Late Epipaleolithic Period, there is a chipped stone tool culture belonging to the Zarzian culture of the Zagros, while in the PPNA Period there are chipped stone tools belonging to the Nemrik culture. Concerning the architectural developments, in general, the PPNA settlement changes from simple huts (Levels 5 and 6) to sub-terranean shelter buildings; in particular, the walls were built stronger in building Levels 2, 3, and 4 and plaster remains indicate that they have been plastered. In addition, it is observed that the houses of the upper levels were larger than those of the lower levels. However, in light of available data, it is observed that the houses have turned into simple tent-type cottages on the earliest building level. When looking at PPNA architectural remains in general, the architectural remains unearthed at Çemka Höyük share similar features with Gusir Höyük, Körtik Tepe, and Hasankeyf Höyük. In particular, the round planned buildings (with radial plan) dated to the Levels 2 and 3 are similar to buildings unearthed at Jerf el Ahmar, Tell ‘Abr 3, Mureybet, Wadi Tumbağ 1 and Wadi el-Hajana 1 in Syria (Cauvin 1980; Fujii and Adachi 2013; Yartah 2013; Abbès 2014; Stordeur 2014). However, the round planned buildings observed in northern Syria (e.g. Jerf el Ahmar, Tell ‘Abr 3, and Mureybet) on the one hand, exhibit some different features both in terms of size and construction style from the buildings unearthed at Çemka Höyük. On the other hand, radial plan buildings at Çemka Höyük, both in terms of size and plan, exhibit more similar features with buildings unearthed at

Wadi Tumbağ 1 and Wadi el-Hajana 1 (Fujii and Adachi 2013; Abbès 2014) and dated to the early phases of the PPNA. Since for the Late Epipaleolithic Period, architectural remains are represented only by scattered wall and floor remains, it seems impossible to make a comparison for now. However, architectural remains belonging to this period are also known from Körtik Tepe (Benz *et al.* 2015) and Boncuklu Tarla (Kodaş 2019) in the Upper Tigris Basin.

Çemka Höyük, in the Upper Tigris Basin, has the potential to provide important information on PPNA and Late Epipaleolithic Period cultures in this region. The excavations to be carried out in the following years shed light not only on the Neolithization process of the region in question but also on broader interactions between regions. Çemka Höyük is a settlement that provides important information on many points such as the transition from the Late Epipaleolithic to the PPNA (especially hunter-gatherer semi-nomadic life) and on the development of the Zarzian culture in the north, especially the Late Epipaleolithic Period.

*Acknowledgements:* Our sincere thanks are due to M. Benz and H.G.K. Gebel for the invitation to report about our new project in Neo-Lithics. We are also grateful to Frédéric Abbès, Mehmet Özdoğan, Erhan Bıçakçı, Moritz Kinzel and Aslı Erim-Özdoğan for their advice and scientific support. The excavation project was financed by the State Hydraulic Works of Turkey (DSİ) within the framework of the Ilisu Dam Project. The project was realized in cooperation with the Museum of Mardin and Mardin Artuklu University.

**Ergül Kodaş**

Department of Archaeology, Prehistoric Archaeology,  
Mardin-Artuklu University,  
ergulkodas@gmail.com

**Bülent Genç**

Department of Archaeology, Protohistoric Archaeology,  
Mardin-Artuklu University  
bulendgenc@hotmail.com

**Yunus Çiftçi**

University of Van-Yüzüncüyıl,  
Department of Archaeology,  
cftc.yns@gmail.com

**Charlotte Labendan-Kodaş,**

University of Montpellier Paul Valéry 3,  
Department of History and Archaeology,  
labedancharlotte@gmail.com

**Çağdaş Erdem**

University of Artuklu/ Mardin,  
Department of Anthropology,  
cagdas.erdem@hotmail.com

**References**

Abbès F.

- 2014 Le Bal'as, un autre scénario de la néolithisation du Proche-Orient. In: C. Manen, T. Perrin and J. Guilaine (eds.), *La transition néolithique en Méditerranée. Actes du colloque transitions en Méditerranée, ou comment des chasseurs devinrent agriculteurs*, Muséum de Toulouse, 14-15 avril 2011. Archives d'Écologie Préhistorique: 9-21. Arlès: Éditions Errance.

Altınbilek-Algül Ç.

- 2013 The lithic assemblages of Gusir Höyük (Turkey): The preliminary results. In: F. Borrell, J.J. Ibáñez and M. Molist (eds.), *Stone tools in transition: From hunter-gatherers to farming societies in the Near East*. Proceedings of the 7<sup>th</sup> conference on PPN chipped and ground stone industries of the Fertile Crescent: 289-298. Bellaterra (Barcelona): Universitat Autònoma de Barcelona. Servei de Publicacions.

Aurenche O. and Kozłowski S.K.

- 2011 The spatial distribution of arrowheads and microliths in the Near East (10,200–8,000 cal BC). In: Healey E., Campbell S. and Maeda O. (eds.), *The state of the stone, terminologies, continuities and contexts in Near Eastern lithics*. Proceedings of the sixth PPN Conference on chipped and ground stone artefacts in the Near East, Manchester, 3<sup>rd</sup>-5<sup>th</sup> March 2008. Studies in Early Near Eastern Production, Subsistence, and Environment 13: 449-456. Berlin: ex oriente.

Benz M., Deckers K., Rössner C., Alexandrovskiy A., Pustovoytov K., Scheeres S., Fecher M., Coşkun A., Riehl S., Alt K.W. and Özkaya V.

- 2015 Prelude to village life. Environmental data and building traditions of the Epipaleolithic settlement at Körtik Tepe, Southeastern Turkey. *Paléorient* 41(2): 9-30.

Cauvin J.

- 1980 Mureybet et Cheikh Hassan. In: J. Margueron (ed.), *Le Moyen Euphrate, zone de contacts et d'échanges*. Actes du colloque de Strasbourg (mars 1977). Travaux du Centre de Recherche sur le Proche Orient et la Grèce Antique: 21–34. Leiden: Brill.

Erim-Özdoğan A.

- 2011 Çayönü. In: M. Özdoğan, N. Başgelen and P. Kuniholm (eds.), *The Neolithic in Turkey 1. The Tigris Basin*: 185-269. Istanbul: Archaeology and Art Publications.

Fujii S. and Adachi T.

- 2013 Wadi al-Hajana 1: A Khiamian outpost in the northwestern piedmont of Mt. Bishri, Central Syria. In: F. Borrell, J.J. Ibáñez and M. Molist (eds.), *Stone tools in transition: From hunter-gatherers to farming societies in the Near East*. Proceedings of the 7<sup>th</sup> conference on PPN chipped and ground stone industries of the Fertile Crescent: 45-58. Bellaterra (Barcelona): Universitat Autònoma de Barcelona. Servei de Publicacions.

Kartal M.

- 2012 Körtik Tepe yontmataş endüstrisi. (Chipped stone industries at Körtik Tepe) *Araştırma Sonuçları Toplantısı* 29(1): 475-490.

Kartal M., Kartal G., Coşkun A., Carter T., Şahin F. and Özkaya V.

- 2018 Chipped stone assemblages of Körtik Tepe (Turkey). *Journal of Archaeological Science: Reports* 19: 92-99.

Karal N.

- 2011 Gusir Höyük. In: M. Özdoğan, N. Başgelen and P. Kuniholm (eds.), *Neolithic in Turkey 1. The Tigris Basin*: 1-19. Istanbul: Archaeology and Art Publications.

Kodaş E.

- 2019 Un nouveau site du Néolithique précéramique dans la vallée du Haut Tigre: résultats préliminaires de Boncuklu Tarla. *Neo-Lithics* 19: 3-15.

Kodaş E. and Genç B.

- 2019 Çemka Höyük: Yukarı Dicle havzasında bulunan yeni bir PPNA ve geç Epipaleolitik dönem yerleşim yeri. *Anadolu/Anatolia* 45: 211-221.

Kozowski S.K.

- 1990 *Nemrik 9. Pre-Pottery Neolithic site in Iraq*. Warsaw: University of Warsaw.

Maeda O.

- 2018 Lithic analysis and the transition to the Neolithic in the

- Upper Tigris Valley: Recent excavations at Hasankeyf Höyük. *Antiquity* 92(361): 56-67.
- Miyake Y., Maeda O., Tanno K., Hongo H. and Gündem C.Y.  
2012 New excavations at Hasankeyf Höyük: A 10<sup>th</sup> millennium cal BC site on the Upper Tigris, Southeast Anatolia. *Neo-Lithics* 1/12: 3-7.
- Özkaya V. and Coşkun A.  
2011 Körtik Tepe. In: M. Özdoğan, N. Başgelen and P. Kuniholm (eds.), *Neolithic in Turkey 1. The Tigris Basin*: 89-127. Istanbul: Archaeology and Art Publications.
- Rosenberg M.  
1994 A preliminary description of the lithic industry from Hallan Çemi. In: H.G. Gebel and S.K. Kozłowski (eds.), *Neolithic chipped stone industries of the Fertile Crescent. Studies in Early Near Eastern Production, Subsistence, and Environment 1*: 223-238. Berlin: ex oriente.  
2011a Hallan Çemi. In: M. Özdoğan, N. Başgelen and P. Kuniholm (eds.), *Neolithic in Turkey 1. The Tigris Basin 1*: 61-78. Istanbul: Archaeology and Art Publications.  
2011b Demirköy. In: M. Özdoğan, N. Başgelen and P. Kuniholm (eds.), *Neolithic in Turkey 1. The Tigris Basin*: 79-87. Istanbul: Archaeology and Art Publications.
- Stordeur D.  
2014 Jerf el Ahmar entre 9500 et 8700 av. J.-C. Un village des débuts de l'agriculture. Une société complexe. In: C. Manen, T. Perrin and J. Guilaine (eds.), *La transition néolithique en Méditerranée. Actes du colloque transitions en Méditerranée, ou comment des chasseurs devinrent agriculteurs, Muséum de Toulouse, 14-15 avril 2011*. Archives d'Écologie Préhistorique: 27-41. Arlès: Éditions Errance.
- Watkins T.  
1987 *Qermez Dere, Tell Afar, interim report 1, project paper 2*. Edinburgh: University of Edinburgh, Department of Archaeology.
- Yartah T.  
2013 *Vie quotidienne, vie communautaire et symbolique à Tell 'Abr 3 – Syrie du Nord. Données et nouvelles réflexions sur l'horizon PPNA au Nord du Levant 10 000-9 000 BP*. Lyon: Université de Lyon 2. Unpublished PhD Thesis.