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Editorial

When we look in journals and other publications during the years of war and regional troubles in the past century, we find it strange that there is little to no mention of these impacts. Possibly volumes became thinner or several years were bound in one volume, editors changed, manuscript quality altered, etc., but academic fixation seems to have developed untouched by cataclysmic events. Many years later, we may identify thoughts in publications that possibly are related to, or must be the outcome of, recent historic learning, at the least. Today, in our research areas monstrous and outrageous developments and crimes against humanity take place while our prehistoric business goes on, in one way or another. Why this is? Are we historians immune against the historic events we are contemporary witnesses to? Is there a responsibility of us Near Eastern (pre-) historians to raise our voices, as was done by European cultural scientists in confronting nuclear armament in the later 1980s, which resulted for some colleagues in changing research perspectives and modified teaching attitudes?

This Neo-Lithics is delayed because a thematic issue on the Neolithization of NE-Africa was converted to be a SENEPSE volume of ex oriente.

Hans Georg K. Gebel & Gary O. Rollefson

Enclosure: Leaflet on Klaus Schmidt’s book on Göbekli Tepe. A Stone Age Sanctuary in South-Eastern Anatolia, to be published by ex oriente in Dec. 2012.

New Results on the Younger Dryas Occupation at Körtik Tepe

Aytaç Coşkun, Marion Benz, Corinna Rössner, Katleen Deckers,
Simone Riehl, Kurt W. Alt, and Vecihi Özkaya

“It is now clear that the eastern part of southwest Asia was an independent center of development. This region constitutes a unique cultural entity rooted in the local late Upper Paleolithic/ Epipaleolithic cultures [...]”
Peasall 2000: viii

Introduction

Although Peasall and Zettler wrote the above fundamental conclusion more than ten years ago, research about “Epipalaeolithic” settlements in southeastern Turkey is only at its beginnings. It is indeed premature to speak about *the* “Epipalaeolithic” in this region, because a clear definition is still lacking. Most findings come from surveys or small test excavations dated by typology. Well stratified sites with unmixed layers – such as Öküzini or Karain Cave in the southwestern Taurus Mountains – are missing (Algaze et al. 1991, 1994; Rosenberg and Togul 1991; Kartal 2003; Garrard

et al. 2004; Hauptmann 2011). Therefore, remains of at least two multi-layered constructions and several pits excavated beneath the early Holocene settlement at Körtik Tepe in 2011 and 2012 are of major importance.¹ A sequence of four radiocarbon samples and three dates from other locations of the site firmly date this early occupation to the second half of the 11th and the first half of the 10th millennia calBC.²

The Epipalaeolithic Occupation in Trenches A104 and A80

Trenches A80 and A104 are located in the southwestern and western part of the tell (Fig. 1). In both trenches, remains of pre-Holocene constructions were documented (Benz et al. 2012; n.d).

In A80, at -490 cm, the most ancient construction was cut down about 40 cm into the natural soil. Three postholes belonging to this oldest construction were

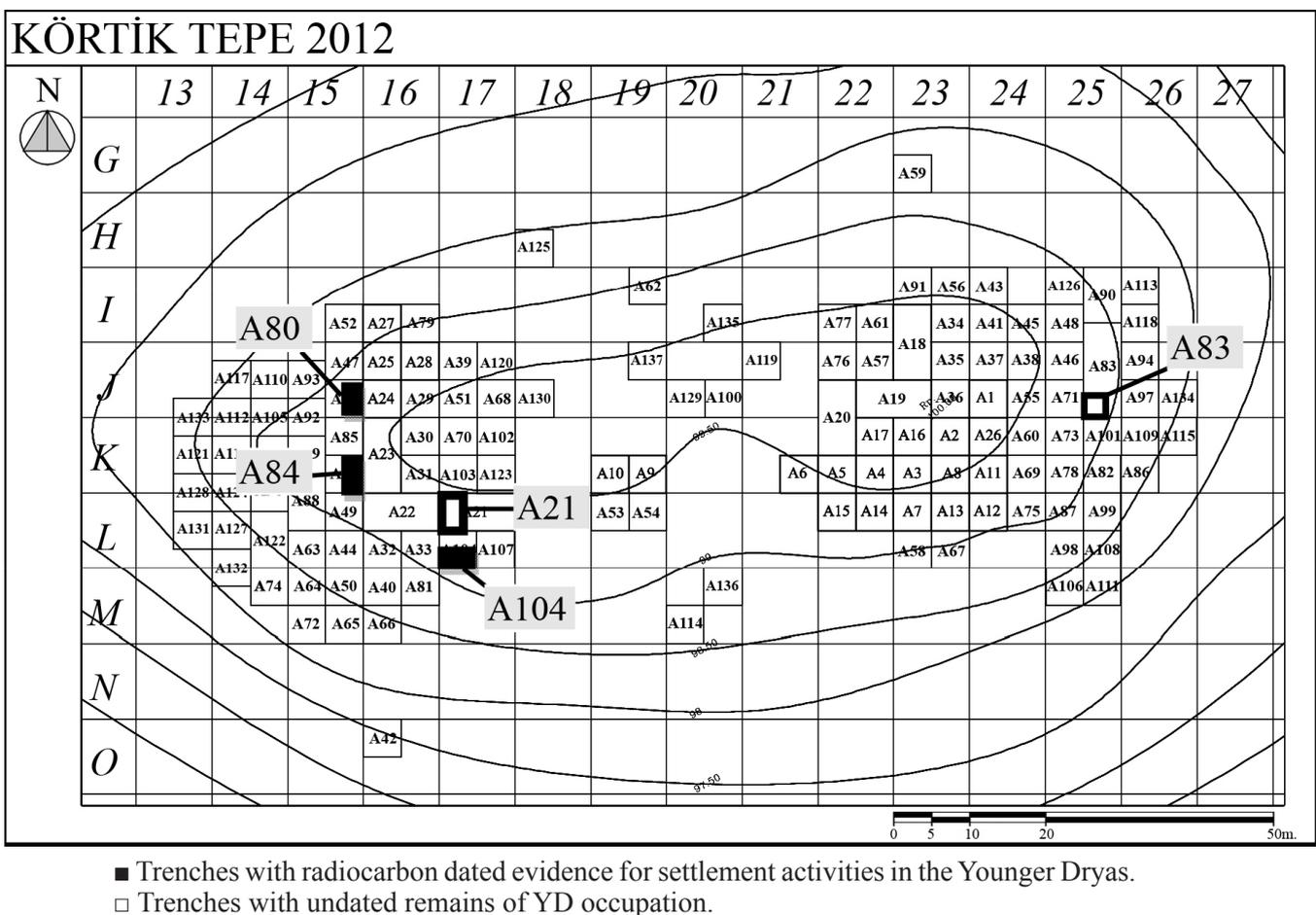


Fig. 1 Trenches with documented/radiocarbon-dated settlement activities during the Younger Dryas.

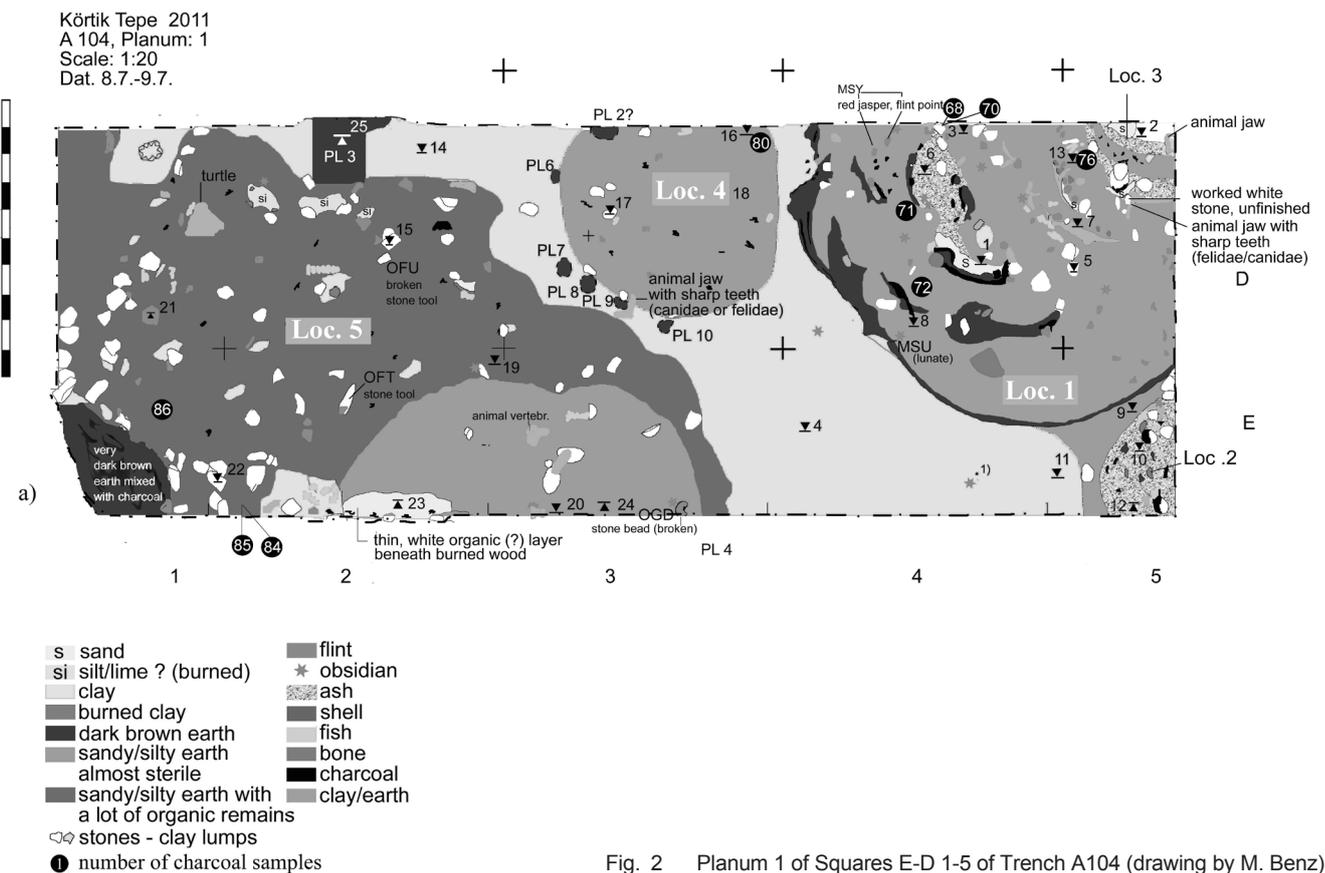


Fig. 2 Planum 1 of Squares E-D 1-5 of Trench A104 (drawing by M. Benz).

observed. The course of the later sediments and the position of the postholes suggest that this building had a diameter of about 3 m. Above this first building, several more destruction and filling layers, a hearth, as well as traces of thin layers of anthropogenic origin appear. In contrast to the compact clay and stone constructions of the upper layers (Özkaya and Coşkun 2011), the more flimsy remains of the lower layers indicate rather ephemeral occupations or an outside space.

The occupational remains in A104 (Fig. 2) have been described in detail elsewhere, that it suffices to summarize the results (Benz *et al.* n.d.). Locus 1 is a large pit, of which the southwestern quadrant was excavated. If it is circular, its full diameter is about 180-200 cm. It probably was originally about 1 m deep. In shape it resembles an inverted bell. A similar bell-shaped structure was observed at Demirköy³ (Algaze *et al.* 1991:181).

The pit was filled with many flints and obsidian artifacts, including an obsidian lunate and a very large complete obsidian nodule. The flints were mostly medium to large flakes and only a few microliths. The ashy remains contained some animal bones, mostly of smaller species, a shell, and many fish bones. Only three items of jewelry, two ring-beads, and a teardrop-shaped black stone pendant, were found. Mixed in with the fill were some scattered stones, most of which showed traces of heavy burning or which had been fractured by heat.

The lowest part of Loc. 1 (-5.35/ -5.51 m) was lined with large river stones.

Because the walls were not straight and narrowed

towards the bottom, it is unlikely that Loc. 1 was a habitation. More likely it was used for storage, though its extraordinary diameter makes it a rather large structure for such a function. West of this pit another round structure with a diameter of about 80 cm was discovered (Loc. 4). It had been dug into the natural soil down to -4.76 m, but because of later (Neolithic) destruction it is not possible to determine its original height. To its west and southwest it is lined by some small postholes (PL 6-10). A large posthole (PL2) could be observed in the northern profile. Loc. 4 was mostly devoid of finds.

The most impressive structure of that trench was a multi-layered pit (Locus 5). At the bottom of that construction was a pit (Loc. 5_2) (Fig. 3). A fire must have destroyed the organic superstructure, which fell into the pit from the east. Two charcoal samples (CH 96= ETH-45335; CH97= ETH-45336) of this earliest occupation have been dated. After the fire, the pit had been completely filled in by sediment hardly distinguishable from the natural soil. The structure was then expanded to the west and clearly used as a habitation (Locus 5).

Locus 5 (Fig. 2) is a large round or oval structure, which extends for 2.40 m from the western profile to the east and about 1.40 m from the southern profile to the north. If it was oval it should continue N-S for at least another 1.40 m, or 3 m if it was a round structure with a diameter of 4.40 m. It had been dug 40-50 cm into the soil. A possible entrance lay on the northern border. To the east and west of this entrance curving depressions were bending to the southeast and west, res-

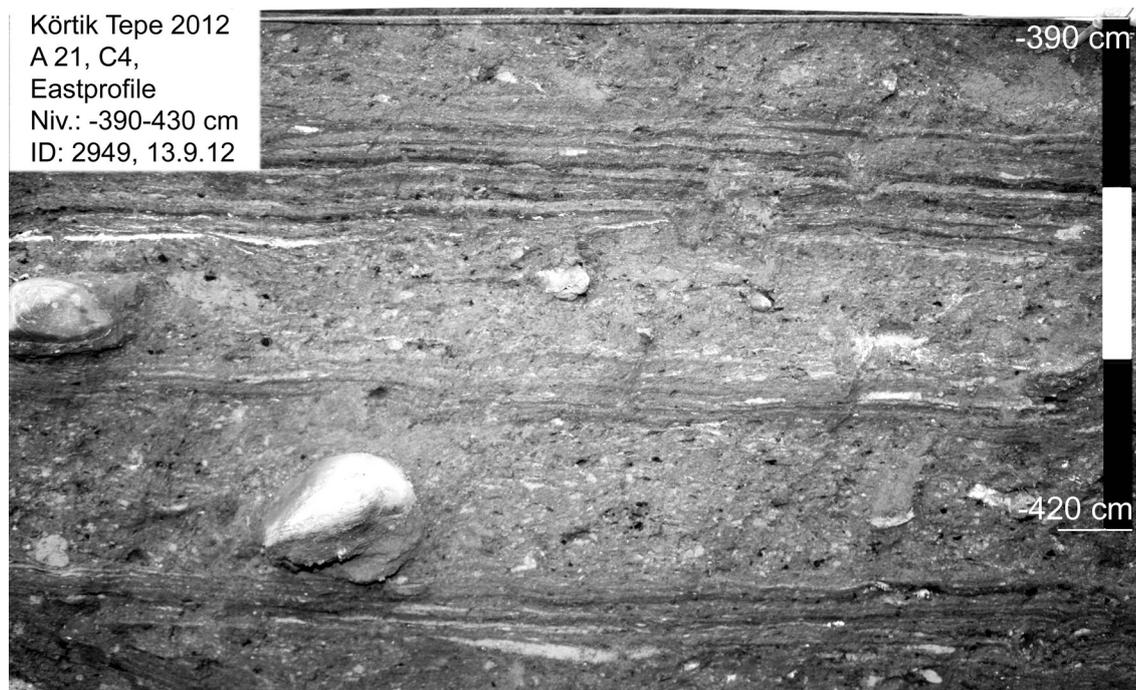


Fig. 4 Three alternating occupation layers with filling layers inside the habitation of Trench A21. East profile (Photo: M. Benz).

layer was encountered in the eastern part of the trench. Though the excavation continued down to -455 cm, the bottom of this layer could not be reached. It contained a huge amount of stones, animal bones, and several lenses of sterile clay. In contrast, in the northwestern part, outside the construction, natural soil was encountered at +/- 442 cm, suggesting that the living spaces were dug partly into the residual soil.

In the eastern part of the tell, remains of the earliest occupation were discovered in a limited test cut (1.20 x 2 m), in Trench A83. The earliest remains consist of two pits that were spaced from each other by about 20 cm (Locs 2 and 6). The upper fill layer of Loc. 2 includes many river pebbles, very few animal bones without any sign of burning, and a few flints. Below that fill, at -537 cm, there is a light brown sterile layer 2-3 cm thick. From that layer down to the bottom of the pit, at about -545 cm, is a very ashy layer with hardly any piece of charcoal and a few stones at the bottom. The shape of the pit was round to oval, with a width

of about 35-40 cm and a length of 32 cm. Loc. 6 was filled with dark brown earth, almost devoid of finds. Its shape was round with a diameter of ~22 cm.

Both pits had a similar depth of about 30 cm. The loamy sediment into which they were dug did not show any traces of burning, making the function as fire pits improbable. The filling of the northern pit might hint at a possible function as a cooking pit into which an organic container was placed and filled with heated stones.

The two pits were covered by a dark brown layer very rich in flints, obsidian, bone tools, and animal bones. Above that, was a thin clay floor, sloping slightly to the west. Construction details such as post-holes were not discovered, but this is likely due to the limited space that was excavated. Nevertheless, it can be concluded that these remains definitely contrast with the more massive stone buildings of the Holocene occupation and support the observations in the other deep cuts.

Table 1 Radiocarbon data of the deep cuts in Trenches A80 and A104. ETH 45336 and ETH 45335 (Trench A104) date the same cultural layer. The same holds true for ETH 45340 and ETH 45344. ch=charcoal.

Lab-Code	Trench/ Location ID	Material	Depth cm	BP	Δ 13C	cal BC (68.2%/ 95.4%)	cal BC modeled (68.2%/95.4%)
ETH-45340	A80; C5 CH51	indet. dicotyl.	-521	10030±40	-25.1±1.1	9740-9440/ 9810-9370	*5
ETH-45344	A80; C4 CH52	Fragm. of bark	-525	10090±40	-26.4±1.1	9870-9460/ 10050-9450	
ETH-45333	A104;Loc.5 CH85	Indet. ch.	-459	10155±50	-23.7±1.1	10030-9770/ 10100-9650	10026-9818/ 10079-9693
ETH-45334	A104;Loc.5 CH92	Populus/ Salix	-468	10205±40	-27.2±1.1	10080-9870/ 10120-9800	10089-9892/ 10118-9861
ETH45335	A104;Loc.5_2 CH96	Populus/ Salix	-507	10330±70	-34.1±1.1	10430-10090/ 10600-9850	10190-10025/ 10425-9885
ETH-45336	A104;Loc.5_2 CH97	Indet. ch.	-512	10270±95	-26.1±1.1	10450-9850/ 10500-9650	
KIA-44648	A 84, BP 191-2, B/C 5	Secale sp. seed	-374	10250±60	24.4±1.1	10156-9877/ 10427-9804	

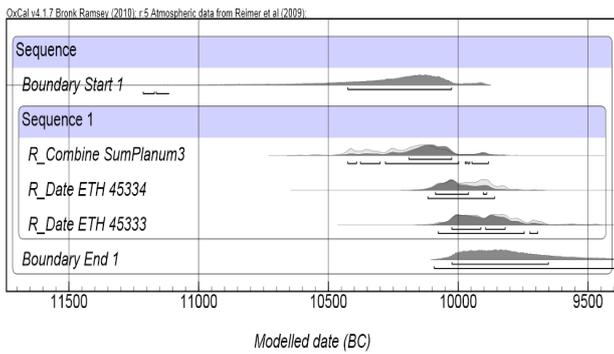


Fig. 5 Sequence of radiocarbon data of the earliest occupation in Trench A104. ETH 45335 and 45336 were combined because they come from the same cultural layer. Graphs in dark gray indicate the modeled range.

Radiocarbon Data from Trenches A104, A80, and A84

New radiocarbon data of Phase VIII in Trench A80, Phase VI in A84 and of Trench A 104 confirm our earlier suggestion of the site's occupation during the Younger Dryas (Tab. 1; Benz et al. 2012). If the results of radiocarbon data in Trench A104 were sequenced, they would range between 10190 calBC to 9800 calBC (68.2%) (Fig. 5). Without sequencing, the date for the earliest occupation would be extended back to 10400 calBC. The date of a rye seed from Trench A84 is in good accordance with a Younger Dryas beginning (Öz-kaya and Coşkun 2011). Although radiocarbon data for Trench A21 and the eastern part of the tell are still missing, the character of the discoveries is in support of a pre-Holocene occupation there, too.

Preliminary Results of the Archaeobotanical Analyses

The results of studies on the ecology and subsistence are preliminary since the analysis is still on-going. All studied samples of the Younger Dryas occupation derive from the pit (Loc.1) and the two fireplaces (Loc. 2 and 3) in Trench A104 (Fig. 2).

Family	Taxa	n
Poaceae	Rye (cf. <i>Secale</i>)	17
	Einkorn, wild type (cf. <i>Triticum boeoticum</i>)	20
	Rye/Wheat (<i>Secale/Triticum</i>)	11
	Barley (cf. <i>Hordeum</i>)	12
	Polygonaceae	Buckwheat (<i>Fagopyrum esculentum</i>)
	Dock (<i>Rumex</i>)	36
Chenopodiaceae	Goosefoot (<i>Chenopodium album</i>)	53
Papaveraceae	Opium poppy (<i>Papaver somniferum</i>)	12
Sum	Sum of all identified remains: n= 855	175

Table 2 Distribution of potentially cultivated plant remains of the Younger Dryas occupation in Trench A104.

Thirteen different plant families were identified among twenty samples (from 140 liters of sediment) with 855 plant remains. 16 charcoal samples (n=454 fragments) from these floated samples have been investigated so far. From early Holocene layers 10 charcoal samples have been examined (n=1859 fragments). Cruciferous plants (Brassicaceae) constitute more than a third of all the seeds (Fig. 6), and grasses (Poaceae) represent nearly 30% of the seeds. Goosefoot (Chenopodiaceae) and knotweed (Polygonaceae) families as well as poppy (*Papaver* sp.) seeds are also relatively frequent. A few grains of rye, einkorn, and barley were also identified (Tab. 2), but compared to the seed finds in the early Holocene levels (Riehl et al. 2012), *Triticum*-type species are much less frequent.

In general, the seed assemblage of the Younger Dryas indicates a vegetation of predominantly steppe and riverine woodland. Grasses (Poaceae) and goosefoot (Chenopodiaceae) favor open and dry areas (Hillman 1996). This spectrum of seeds corroborates the results of the charcoal analysis (Fig. 7). Deciduous oak (*Quercus*) is absent from the samples of the deep cut, but present in the layers of the early Holocene. Similarly, pistachio (*Pistacia* sp.), hackberry (*Celtis* sp.), buckthorn (*Rhamnus* sp.), fig (*Ficus* sp.), and alder (*Alnus* sp.) only appear within the Holocene levels, and charcoals of almond (*Amygdalus* sp.), ash (*Fraxinus* sp.)

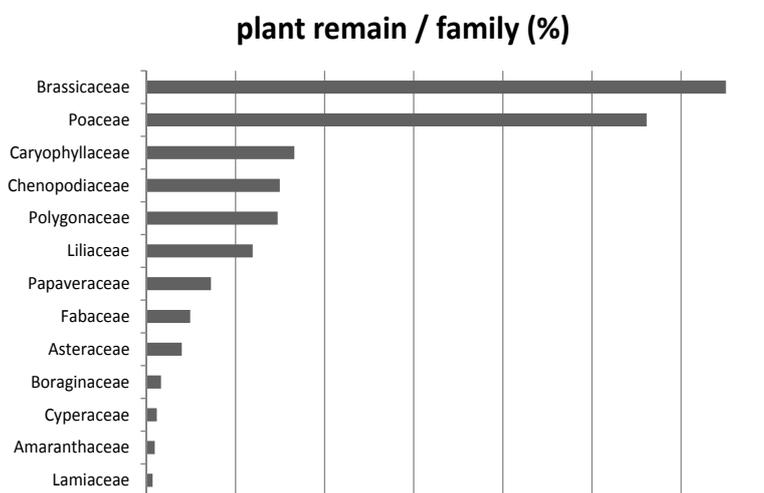


Fig. 6 Distribution of Younger Dryas plant remains (Trench A104) per plant family in %; crucifer and grasses are the most prominent (graph by C. Rössner).

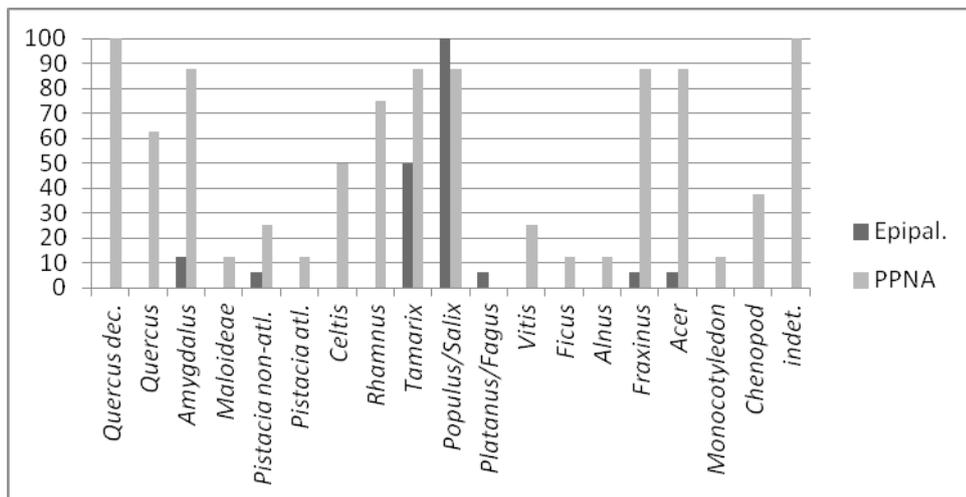


Fig. 7 Percentages of charcoal taxa from Younger Dryas (Epipal.) and early Holocene samples (PPNA) (graph by K. Deckers).

and maple (*Acer* sp.) then also clearly increase. In contrast, riverine trees or shrubs such as tamarisk (*Tamarix* sp.) and poplar/willow (*Populus/Salix* sp.) were present in both the Younger Dryas and the early Holocene. The impact of the Younger Dryas thus seems likely: while the grasses and (open) oak park woodland species were relatively rare during the Younger Dryas, Körtik Tepe may have belonged to the open oak park woodland zone during the early Holocene, with a higher density of Poaceae species as has been suggested by Hillman (1996). The current state of our archaeobotanical research, however, does not allow any conclusion about whether or not some of the wild plants had already been cultivated or not.

Discussion

Reoccupation of the same space and continuity in the activity zones at Körtik Tepe suggest a repeated, perhaps permanent, use of the same locations already during the Younger Dryas. The burial of a perinatal individual beneath a floor and the continued occupation of that area underline the close commitment to the site.

The steppe and riverine environments of the Younger Dryas had a diversified spectrum of use by the hunter-fisher-gatherer community. First results of isotope analyses from human remains of the early Holocene layers hint at a mixed diet with meat and predominantly C-3 plants and to a local origin of most inhabitants (Siebert n.d.). These results correspond well with the broad spectrum of animals used at Körtik Tepe (Özkaya *et al.* 2011) and with data from other permanent sites of hunter-gatherer communities (*e.g.*, Savard *et al.* 2006). First results of our archaeobotanical studies show a clear impact of the climatic change from the drier and colder conditions of the Younger Dryas to the warmer and probably moister conditions during the early Holocene (*cf.* Peasnell 2000:70). A similar impact of the Younger Dryas was observed in the Van Sea Pollen Core, though reforestation started only later there (Litt *et al.* 2009). However, further analyses of samples of the deep cuts are necessary to confirm these preliminary observations.

Conclusions

In light of the “Epipalaeolithic” occupation at Körtik Tepe it is likely that results of earlier surveys in the Batman region concerning the “Epipalaeolithic” should be revised. Flints from surveys of the ridges overlooking the Upper Tigris and the Batman Çayı, which were previously classified as Paleolithic, may in fact be Epipalaeolithic.

Because the analyses of flint and obsidian tools are still in progress, it is premature to decide whether the development of the early Holocene communities was based on external influences or local origins. However, the Epipalaeolithic occupation at Körtik Tepe supports a repeated and possibly continuous commitment to the site from the Younger Dryas to the early Holocene and suggests a permanent living on the site if not for all, then at least for a substantial part of the community. Despite the pronounced changes in ecology at the transition from the Younger Dryas to the early Holocene, the inhabitants of Körtik Tepe stayed at that location and their settlement flourished during the early Holocene before they abandoned it forever.

Endnotes

¹ The German team is grateful to Vecihi Özkaya and his team for their cooperation and to Nevin Soyukaya for her valuable help. Analysis of seed remains, isotopes and the chronological analysis were financed by the German Research Foundation (BE 4218/2-2; AL 287/9-2), to whom we offer our thanks. Katleen Decker’s research was possible thanks to a Margarethe-von-Wrangell habilitation fellowship funded by the European Social Fund in Baden-Württemberg.

² All samples from Körtik Tepe were analysed by Irka Hajdas, ETH Laboratory of Ion Beam Physics, Zürich. The site of Hallan Çemi, about 60 km farther northeast on the western border of the Sason Çayı, was first dated to the Younger Dryas, but new AMS data from that site are almost exclusively of the earliest Holocene (Rosenberg 2011). Radiocarbon data from Hallan Çemi

and Körtik Tepe are given in the open access data base PPND (Coşkun et al. 2010).

³ In that publication the site is referred to as “Demirci Höyük”.

⁴ Because the pit was cut through by the test cut, its northern extension cannot be determined precisely.

⁵ Sequencing in Trench A80 does not enhance the accuracy of the data for Phase VIII because Phase VII could not be dated. The data of Phase VIII would thus be biased to a more recent age (see Benz et al. 2012).

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References

- Algaze G., Breuninger R., Lightfoot C.H., and Rosenberg M.
1991 The Tigris-Euphrates Archaeological Reconnaissance Project: A preliminary report of the 1989-1990 seasons. *Anatolica* 17: 173-211.
- Algaze G., Breuninger R., and Knudstad J.
1994 The Tigris-Euphrates Archaeological Reconnaissance Project: Final report of the Birecik and Carchemish Dam survey areas. *Anatolica* 20: 1-96.
- Benz M., Coşkun A., Rössner C., Deckers K., Riehl S., Alt K.W., and Özkaya V.
n.d. First evidence of an Epipalaeolithic hunter-fisher-gatherer settlement at Körtik Tepe. *Arkeometri Sonuçları Toplantısı* 35.
- Benz M., Coşkun A., Hajdas I., Deckers K., Riehl S., Alt K.W., Weninger B., and Özkaya V.
2012 Methodological implications of new radiocarbon dates from the early Holocene site of Körtik Tepe, southeast Anatolia. *Radiocarbon* 54/3-4: DOI: 10.2458/azu_js_rc.v54i3-4.16140.
- Coşkun A., Benz M., and Özkaya V.
2010 Körtik Tepe, *PPND-Platform for the Publication of Neolithic Radiocarbon Dates*. https://www.exorient.org/associated_projects/ppnd_site.php?s=81, accessed 20.6.2012.
- Garrad A., Conolly J., McNabb J., and Moloney N.
2004 Palaeolithic-Neolithic survey in the Sakçagözü region of the north Levantine rift valley. In: Aurenche O., Le Mièrre M., and Sanlaville P. (eds.), *From the river to the sea*. Studies in honour of Lorraine Copeland. BAR International Series 1263. Oxford, Archaeopress: 145-164.
- Hauptmann H.
2011 The Urfa Region. In: Özdoğan M., Başgelen N., and Kuniholm, P. (eds.), *The Neolithic of Turkey*. Vol. 1. Istanbul, Archeology and Art Publications: 85-138.
- Hillman G.C.
1996 Pleistocene changes in wild plant-foods available to hunter-gatherers of the northern fertile Crescent: possible preludes to cereal cultivation. In: Harris D.R. (ed.), *The origins and spread of agriculture and pastoralism in Eurasia*. London, UCL Press: 159-203.
- Kartal M.
2003 Anatolian Epi-Paleolithic period assemblages: problems, suggestions, evaluations and various approaches. *Anadolu (Anatolia)* 24: 35-61.

- Litt T., Krastel S., Sturm M., Kipfer R., Örcen S., and Heumann G.
2009 Lake Van Drilling Project 'PALEOVAN', International Continental Scientific Drilling Program (ICDP): Results of a recent pre-site survey and perspectives. *Quaternary Science Reviews* 28/15: 1555-1567.
- Özkaya V. and Coşkun A.
2011 Körtik Tepe. In: Özdoğan M., Başgelen N., and Kuniholm P. (eds.), *The Neolithic of Turkey*, Vol.1. Istanbul, Archeology and Art Publications: 89-127.
- Özkaya V., Coşkun A., Benz M., Erdal Y.S., Atıcı L., and Şahin F.S.
2011 Körtik Tepe 2010. Yılı Kazısı. *Kazı Sonuçları Toplantısı* 33/1: 315-338.
- Peasnell B.L.
2000 *The Round House Horizon along the Taurus-Zagros Arc: a synthesis of recent excavations of late Epipaleolithic and early aceramic sites in southeastern Anatolia and northern Iraq*. UMI Microform 9965539. Ann Arbor, Bell & Howell Information and Learning Company.
- Riehl S., Benz M., Conard N., Deckers K., Fazeli H., and Zeidi, M.
2012 The modalities of plant use in three PPN sites of the northern and eastern Fertile Crescent – A preliminary report. *Vegetation History and Archaeobotany* 21/2: 95-106.
- Rosenberg M.
2011 Hallan Çemi. In: Özdoğan M., Başgelen N., and Kuniholm P. (eds.), *The Neolithic of Turkey*, Vol. 1. Istanbul, Archeology and Art Publications: 61-78.
- Rosenberg M. and Toğul H.
1991 The Batman River Archaeological Site Survey, 1990. *Anatolica* 17: 241-251.
- Savard M., Nesbitt M., and Jones M.
2006 The role of wild grasses in subsistence and sedentism: new evidence from the northern Fertile Crescent. *World Archaeology* 38/2: 179-196.
- Siebert A. *et al.*
n.d. Living on the edge in Körtik Tepe - insights on mobility and dietary habits of a PPNA-population on its way to sedentism (working title, in prep.).