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Multiperiod archaeological reconnaissance in the Debed river valley, north-eastern Armenia

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Introduction

The southern Caucasus is well known for the site of Dmanisi (Republic of Georgia), which provides the earliest well-accepted evidence for a human presence outside Africa around 1.8 million years ago (Gabunia *et al.* 2001), the Kura-Araxes culture, which dominated the area during the Early Bronze Age c. 3500–2400 BC (Smith 2005), and the Iron Age Urartian Empire, which lasted from the mid-ninth century BC until its collapse in the early sixth century BC (Piotrovsky 1969). The modern Republic of Armenia lies at the heart of this dynamic geographic corridor and is therefore poised to play a key role in understanding broader issues of prehistoric and historic human settlement. Here, we report briefly on archaeological surveys conducted by a joint Armenian-American team in the Debed river valley of north-eastern Armenia (Figure 1).

Archaeological work along the Debed dates to the late nineteenth century (Yeritsov 1882; de Morgan 1889). The best-known sites in the area are the impressive Early Bronze Age fortresses that overlook the river (Yesayan 1976) but, apart from very limited reports of stone tools from the area (Chillingaryan 1971), the Palaeolithic occupation of the Debed is virtually unknown. During the summer of 2009 a preliminary survey was conducted along the river between its confluence with the river Dzoraget in the south and the Georgian border in the north. Limited time in the field precluded a complete and systematic survey of the entire stretch, so, guided by GIS predictive modelling (Egeland *et al.* 2010), the survey team was transported by vehicle to high potential localities for pedestrian surveys.

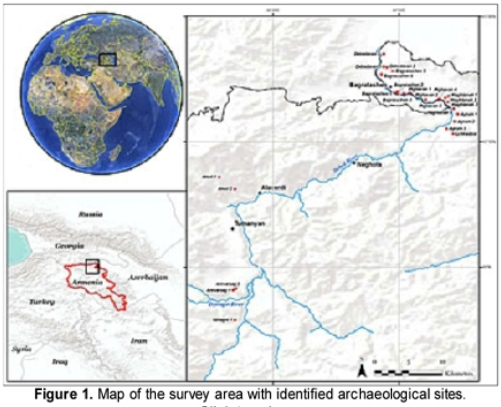

Figure 1. Map of the survey area with identified archaeological sites. *Click to enlarge.*

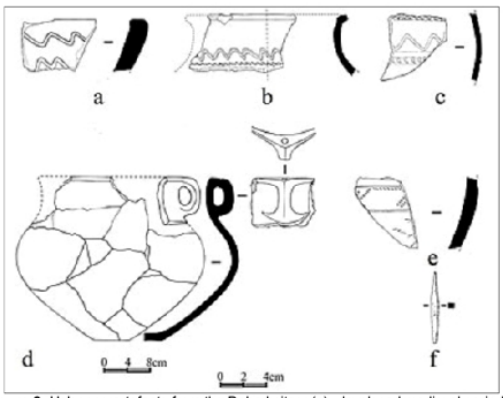

Figure 2. Holocene artefacts from the Debed sites. (a): developed medieval period II ceramic tub rim fragment from Haghtanak 3; (b): developed medieval period II ceramic rim fragment from Bagratashen 1; (c): developed medieval period II ceramic body sherd from Debedavan 2; (d): Early Bronze Age III (27th to 25/24th centuries BC) ceramic pot with lug handle from Arevatsag 1; (e): Early Bronze Age III ceramic body sherd from Arevatsag 1; (f): Early Bronze Age III bronze pick from Arevatsag 1.

Sub-surface tests are currently underway to identify similar material *in situ*.

Survey results

In 2009 a total of 25 sites spanning from the Lower Palaeolithic to the medieval period were identified from surface scatters (Figure 1). Palaeolithic material was recovered on all 25 sites, with a total of 447 lithic artefacts recovered. Lower Palaeolithic items were present on 15 sites (60% of the sites); Middle Palaeolithic artefacts were collected on 24 sites (96%of the sites); and the Upper Palaeolithic was documented on 11 sites (44% of the sites). There are clear differences in raw material choice between Palaeolithic periods, as limestone dominates Lower Palaeolithic assemblages, dacite predominates in the Middle Palaeolithic and flint is dominant among Upper Palaeolithic artefacts. Holocene-period assemblages were discovered at 15 sites, with a total of 136 artefacts documented. Neolithic/Chalcolithic artefacts were present on 4 sites (16% of the sites), Bronze Age objects occurred on 11 sites (44% of the sites), Iron Age material was collected on 4 sites (16% of the sites) and medieval items were recovered on 3 sites (12% of the sites). Obsidian is the dominant raw material for the Holocene lithics, the diagnostic tools being chisels, notched tools, scrapers and sickle fragments. The ceramic material is extremely fragmentary; a single almost complete vessel was recovered (Figure 2). We provide additional details on two of these sites below.

Haghtanak 3

This site lies atop a plateau overlooking the Debed (Figure 3). A total of 117 Palaeolithic (all lithic), 18 Late Chalcolithic (17 lithic, 1 ceramic), and one Late Bronze Age (ceramic) pieces were recovered from the surface. The area is littered with commercial gypsum mining trenches, which are most probably responsible for bringing most of the artefacts to the surface. Although a majority of the diagnostic lithic material is of Middle Palaeolithic age, a handful of artefacts are reminiscent of Lower Palaeolithic chopper forms (e.g. Figure 4).

Figure 3. View of Haghtanak 3 (arrow) looking south.

Figure 4. Chopper-like tool flaked from basalt, Haghtanak 3.

Bagratashen 1

Bagratashen 1 was discovered when lithic material was encountered as it eroded out of a recently built road cutting (Figure 5). The initial hint of the site's presence was a well-made handaxe (Figure 6). A total of 52 Palaeolithic (all lithic), one Neolithic/Chalcolithic (lithic), two Iron Age (lithic), and one Medieval (ceramic) pieces were recovered from the surface. A

small test excavation revealed the presence of in situ Middle Palaeolithic artefacts (Figure 7).

Figure 5. View of Bagratashen 1 looking east.

Figure 6. Handaxe flaked from basalt, Bagratashen 1.

Conclusions

Previous research has documented a long record of prehistoric and historic occupation in the southern Caucasus in general, and in Armenia in particular. The data presented here from the Debed river valley confirms this general pattern. However, the Palaeolithic settlement of the valley has, until now, been virtually unknown. It is clear that the Debed has great potential to provide novel data on this aspect of human settlement.

Figure 7. Test excavation at Bagratashen 1 showing Middle Palaeolithic material *in situ*.

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References

- CHILINGARYAN, S.S. 1971. Pervobitniye pamyatniki Noyemberyanskogo rayona (Prehistoric sites of the Noyemberyan Region). Unpublished PhD dissertation, Institute of Archaeology and Ethnography, Armenian Academy of Sciences.
- DE MORGAN, J.J.M. 1889. *Mission scientifique au Caucase: études archéologiques & historiques, Tome I*. Paris: Ernest Leroux.
- EGELAND, C.P., C.M. NICHOLSON & B. GASPARIAN. 2010. Using GIS and ecological variables to identify high potential areas for paleoanthropological survey: an example from northern Armenia. *Journal of Ecological Anthropology* 14: 87–96.
- GABUNIA, L., S.C. ANTÓN, D. LORDKIPANIDZE, A. VEKUA, A. JUSTUS & C.C. SWISHER. 2001. Dmanisi and dispersal. *Evolutionary Anthropology* 10: 158–70.
- PIOTROVSKY, B.B. 1969. The ancient civilization of Urartu. New York: Cowles.
- SMITH, A.T. 2005. Prometheus unbound: southern Caucasia in prehistory. *Journal of World Prehistory* 19: 229–79.
- YERITSOV, A.D. 1882. Statya A.D. Yeritsova, in I.D. Mansvetov (ed.) *Prilozheniye B, Pyatiy Arxeologicheskiy Sezd v Tiflise I, Trudi Predvaritelnix Komitetov, Pod Redaktsiyey Sekretarya Moskovskogo Predvaritelnovo Komiteta [Fifth Archaeological Meeting in Tbilisi I, Proceedings of the Preliminary Committee]* : 84–93 Moscow: Sinodalnoy Tipografii.
- YESAYAN, S.A., 1976. *Drevnyaya kultura plemen severo-vostochnoy Armenii (III–I tisyacheletiya do n.e.) [Ancient culture of the tribes of north-eastern Armenia (III–I millennia BCE)]*. Yerevan: Armenian SSR Academy of Sciences.

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