COMPARISON OF QUATERNARY SEDIMENTARY SEQUENCES OF THE WEST SEVAN BASIN AND BASINS OF NW ARMENIA

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The Sevan basin is the largest intermountain basin in Armenia. The study of the its sedimentary and volcanic sequences is essential for paleogeographic reconstruction as well as contributes to the tectonic history of the Lesser Caucasus. The most important sedimentary sequences of the Great Sevan Lake are exposed along the western coast of the lake (Noratus village). Previous investigations were supplemented by more detailed description of the outcrops, paleomagnetic sampling and single fauna find. Noratus-1 consists of pebble alluvium at the bottom and horizontally bedded silts with interbeds of reworked volcanic ash and pumice. The lower 5-m portion of Noratus-1 showed reverse magnetic polarity, the rest of sediments showed normal polarity. Black pumice layer above the sediments has the age of 2.30±0.15Ma. Thus, the lower part of the outcrop may be interpreted as Kaena event and the upper – the Gauss epoch. No fauna was found in Noratus-1. Noratus-2 outcrop consists primarily of sandstone. All the Noratus-2 outcrop showed normal magnetic polarity. Within N2 remnants of deer's horn (presumably *Cervus* cf. *elaphus)* was found, it is aged the Pliocene.

Previous investigations revealed that Shirak Basin sequences are subdivided into Karakhch, Ani (~1.25–0.75 Ma) and Arapi (0.7±0.05 Ma) sedimentary units, underlied by effusive rocks of the Gelasian and older volcanic complexes and covered by Leninakan tuff. The age equivalent for Ani and Arapi untits is Kurtan unit (~1.2–0.6 Ma) found in the Upper Akhuryan, Lori and Pambak Basins. The stratotype consists of fine-grained sand, silt and clayey loam. The upper part of the unit has normal polarity, and the downmost part – reverse polarity. In the downmost part a leftover humerus of the elephant *Archidiscodon* ex.gr. *meridionalis* (Nesti) was found. Its stratigraphic range covers the upper part of the low and lower part of the middle Pleistocene. Within the upper part of the unit bones of deer *Praemegaceros* cf. *verticornis* (Dawkins), Bovidae gen. (cf.Bison) as well as of small mammals – *Ochonta* sp., shrubby and gray field voles *Terricola* sp., *Microtus* sp., mole rat *Ellobius (Bramus)* ex.gr. *lutescens* were found. The unit rests on a reworked pumice with ash interbed, which is incised into basaltic complex II with a K-Ar date of 2.08±0.10 Ma. The SIMS U-Pb age of pumice is 1.495±0.021 Ma, of ash – 1.432±0.028 Ma.

Comparison of the Sevan sequences with those of the Shirak basin shows that these two basins have never had direct connection and have been developing separately from one another. In contrast, basins along the Pambak river valley did have connection with the Shirak Basin at least during the Gelasian.

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