Qanats between Menikion and Pangeon Mountains: A forgotten and endangered resource for local water supply

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Due to the growing water shortage in the summer-dry Eastern Mediterranean, the question of water supply has become an important issue. Since antique times subsurface channels (qanats) have been built, which gather groundwater and take it due to the natural slope to places, where the water is needed. In Greece qanat technology has definitely been used during the Ottoman period. After the liberation and the following Greek-Turkish population exchange the knowledge about the systems has disappeared. There is evidence that many of the subsurface galleries are decayed. On the foothills of the Menikion and Pangeon Mountains active qanate systems have been investigated only recently in order to check their activity, contribution to the local water supply and water quality. The results reveal still working qanate systems, which are endangered by regional land use as well as by system-destructive building measures.

Middle Pleistocene rodents (Rodentia, Mammalia) from the fissure filling Kamenjak on Venčac near Arandjelovac (central Serbia)

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In an abandoned limestone quarry (Kamenjak) near Arandjelovac (central Serbia), a fossiliferous fissure filling rich in vertebrate remains has been discovered. The quarry Kamenjak is situated on a ridge of the Venčac Mountains, 500 meters to the west of the top. The fissure is approximately 8 meters long with a maximum width of 70 centimeters, trending in north-south direction. It cuts the layers of weakly metamorphized slates and marbles of the Late Cretaceous age (Turonian-Sennonian). The fissure is filled with bone breccia full of bone fragments in reddish matrix of clay, carbonates and limonite.

In this site several samples of bone breccia were collected in 1980 and 1989. Some bones of large and small mammals were extracted from these samples and preliminary described. In this work remains of the following species of rodents have been identified: *Spermophilus citelloides* (Kormos, 1916), *Microtus nivaloides* Forsyth Major, 1902, *Microtus (Terricola) arvalidens* Kretzoi, 1958, *Arvicola* sp. (cf. cantiana-terrestri), *Clethrionomys glareolus* (Schreber, 1780), *Lagurus* sp., *Cricetus cricetus* Linnaeus, 1758, *Mesocricetus newtoni* Nehring, 1898, *Cricetulus migratorius* (Pallas, 1773), *Apodemus sylvaticus* (Linnaeus, 1758), *Apodemus microps* (van Kolfschoten, 1985)/*A. maastrichtensis* (Kratochvil & Rossicky, 1952), *Mus* cf. *musculus* Linnaeus, 1758, and *Myoxus sackdilligensis* (Heller, 1930). Some other small vertebrates (insectivores, lagomorphs, amphibians, reptiles) have also been found in this site. The fossil collections are stored at the Museum of Natural History in Belgrade.

The absolute predominance (about 75% of all rodent remains) of only one species *(Microtus nivaloides)* suggests relatively harsh conditions during a cold (glacial) period. This species probably preferred open areas, so it can be concluded that such type of environment prevailed in the vicinity of the site. But some forest inhabitants were also present, as well as indicators of more humid conditions (such as shrews).