Frontinus-Gesellschaft e.V.

Internationale Gesellschaft für die Geschichte der Wasser-, Energie- und Rohrleitungstechnik



Cordial Invitation to the Online Lecture (ZOOM) on 8.12.2022, 6:00 pm (CET)

Azriel Yechezkel

Subterranean Tunnels Tapping Groundwater Resources in Israel During the Roman-Byzantine Periods: Local or Imperial Technology?

(Lecture in English)

Azriel Yechezkel (1984) has submitted his Ph.D. at the Institute of Archaeology of the Hebrew University of Jerusalem. He is a graduate of the Department of Archaeology and the Ancient Near East and the Department of Geography and has a master's degree with honors from the Department of Geography of the Hebrew University of Jerusalem. His interests include Landscape Archeology, mapping & surveying subterranean structures, geoarchaeology and earth-sciences dating methods. So far, he has published two popular books, and some refereed articles. Recently he led the new survey of the Shaft Tunnel of the Biar Aqueduct to Jerusalem, which revealed unique "water architecture".

Azriel Yechezkel about the lecture:

Israel is geographically part of the Fertile Crescent, located at the seam between ancient East and West. Due to water scarcity and other environmental strains in its mountainous regions, hydrogeological and engineering innovations were promoted and implemented throughout history to provide water for its ancient inhabitants. One of the most important innovations was the excavation of a sub-horizontal tunnel (spring tunnel: niqba), designed to extract subsurface water to the surface. This technology appeared in Israel since Iron Age (1,000 BC) till the modern period, with a clear peak in the Roman-Byzantine periods. In the last few years, a thematic survey of this water installation was conducted by the lecturer, documenting more than 210 spring tunnels, from which more than 130 were mapped in detail. This facilitated building of a comprehensive national database of this water technology, including its social and cultural contexts, and chronological aspects. Analysis of this database allows us to discuss the knowledge transfer process and address in the lecture, the following points:

- * On what basis was the Roman-Byzantine peak of this technology defined?
- * What were the circumstances in which these tunnels were built?
- * What Roman 'fingerprints' can be detected in the architecture of Israel's ancient tunnels?

The access data for the online meeting (ZOOM) are as follows:

https://us02web.zoom.us/j/87933930044?pwd=dlk4REZ4S0NnL3k2RGN2TVdtZTd3Zz09

Meeting-ID: 879 3393 0044, Kenncode: 631844

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