

Home

Online Library

- Recent Papers
- Volumes
- Library Search
- Title and Author Search

RSS Feeds

General Information

Submission

Review

Production

Subscription

Journal Metrics

 not applicable

SCOPUS[®] SNIP 0.287

SCOPUS[®] SJR 0.054

Definitions

ARCHIVED IN

 PORTICO

[Volumes](#) [Contents of Volume 24](#)

Adv. Geosci., 24, 45-68, 2010
www.adv-geosci.net/24/45/2010/
doi: 10.5194/adgeo-24-45-2010

© Author(s) 2010. This work is distributed
under the Creative Commons Attribution 3.0 License.

Archaeological geophysics in Israel: past, present and future

L. V. Eppelbaum

Dept. of Geophysics and Planetary Sciences, Raymond and Beverly Sackler
Faculty of Exact Sciences, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, Israel

Abstract. In Israel occur a giant number of archaeological objects of various age, origin and size. Different kinds of noise complicate geophysical methods employment at archaeological sites. Geodynamical active, multi-layered, and geologically variable surrounding media in many cases damages ancient objects and disturbs their physical properties. This calls to application of different geophysical methods armed by the modern interpretation technology. The main attention is focused on the geophysical methods most frequently applying in Israeli archaeological sites: GPR and high-precise magnetic survey. Other methods (paleomagnetic, resistivity, near-surface seismics, piezoelectric, etc.) are briefly described and reviewed. The number of employed geophysical methodologies is constantly increasing, and now Israeli territory may be considered as a peculiar polygon for various geophysical methods testing. Several examples illustrate effective application of geophysical methods over some typical archaeological remains. The geophysical investigations at archaeological sites in Israel could be tentatively divided on three stages: (1) past (1990), (2) present (1990–2009), and (3) future (2010). The past stage with several archaeoseismic reviews and very limited application of geophysical methods was replaced by the present stage with the violent employment of numerous geophysical techniques. It is supposed that the future stage will be characterized by extensive development of multidiscipline physical-archaeological databases, employment of all possible indicators for 4-D monitoring and ancient sites reconstruction, as well as application of combined geophysical multilevel surveys using remote operated vehicles at low altitudes.

[Full Article in PDF](#) (PDF, 9604 KB)

Citation: Eppelbaum, L. V.: Archaeological geophysics in Israel: past, present and future, Adv. Geosci., 24, 45-68, doi: 10.5194/adgeo-24-45-2010, 2010. [Bibtex](#) [EndNote](#) [Reference Manager](#) [XML](#)

 Copernicus Publications
The Innovative Open Access Publisher

Search ADGEO

Full Text Search [»»](#)

Title Search [»»](#)

Author Search [»»](#)

News

- Please Note: Updated Reference Guidelines

Recent Papers

01 | ADGEO, 22 Nov 2010: Tropopause and jetlet characteristics in relation to thunderstorm development over Cyprus

02 | ADGEO, 22 Nov 2010: Probabilistic prediction of raw and BMA calibrated AEMET-SREPS: the 24 of January 2009 extreme wind event in Catalunya

03 | ADGEO, 15 Nov 2010: Investigation of trends in synoptic patterns over Europe with artificial neural networks

