

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, 97-110, 2010
www.adv-geosci.net/24/97/2010/
doi: 10.5194/adgeo-24-97-2010

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

High resolution satellite ortho-images for archaeological research: different methods and experiences in the Near and Middle East

L. Castrianni¹, G. Di Giacomo², I. Ditaranto¹, and G. Scardozi²

¹University of Salento, Department of Cultural Heritage, Lecce, Italy

²CNR-IBAM, Italian National Research Council – Institute for Archaeological and Monumental Heritage, Lecce, Italy

Abstract. The paper concerns the very significant contribution of satellite ortho-images to archaeological research. The unavailability of cartography, updated or in adequate scale, is a recurring problem for archaeological research operating in urban and territorial contexts, and in the last years interesting experiences have been carried out with the use of satellite ortho-images; they can provide constant support to field work, both excavations and surveys, and to the management of data in archaeological GIS. As an example of this, the paper shows the results achieved by three research projects carried out by CNR-IBAM in the Near and Middle East, the Hierapolis of Phrygia Survey Project, the Tell Tuqan Survey Project and the Iraq Virtual Museum Project in which base-maps and cartographies satellite ortho-images have been widely used. In these projects, the use of very high resolution satellite images was necessary because large scale and updated cartographies and aerial photos are not available. In the examples shown, satellite ortho-images have different uses, often linked to the possibility or not of an accurate ortho-rectification, with the possibility of the collection of Ground Control Points and with the availability of high resolution DEMs. These images were used to create space-maps for the field work, as well as to realize and update archaeological maps and cartographies finalized to archaeological research. In the cases study presented, WorldView-1, QuickBird-2 and Ikonos-2 images, also stereo-pairs, were used.

[Full Article in PDF](#) (PDF, 3017 KB)

Citation: Castrianni, L., Di Giacomo, G., Ditaranto, I., and Scardozi, G.: High resolution satellite ortho-images for archaeological research: different methods and experiences in the Near and Middle East, Adv. Geosci., 24, 97-110, doi: 10.5194/adgeo-24-97-2010, 2010. [Bibtex](#) [EndNote](#) [Reference Manager](#) [XML](#)



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

