

AERIAL ARCHAEOLOGY AND REMOTE SENSING FROM THE BALTIC TO THE ADRIATIC

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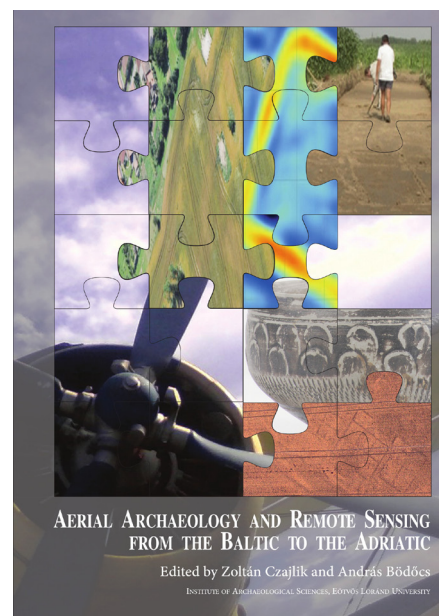
The AARG (Aerial Archaeology Research Group) was formed in 1980 in Great Britain, and in 1996 first organized a forum related to aerial photography for archaeology in Hungary. Today, the research group holds conferences annually due to increasing interest. After Poznań, the group held its professional gathering in the fall of 2012 in Budapest, organized by the Eötvös Loránd University Faculty of the Humanities' Institute of Archaeological Sciences.

The papers selected from the conference's presentations were split into two thematic sections: in the first part of the volume there are articles looking into the methodology of aerial archaeology and remote sensing, while the second section contains case studies concerning particular archaeological periods. The authors of the essays are British, French, Croatian, Polish, Hungarian, Romanian and Slovenian researchers. In the section on methodology, it is primarily the work of the foreign researchers that appears, while the case studies were mostly by Hungarians.

With the first, and only French language article in the volume, the editors and the author, Alexandra Cordier (a researcher from the University of Bourgogne), pay their respects to lieutenant colonel René Goguy, who introduced aerial photography for archaeological purposes to Hungary following the democratic transformation. The essay outlines the international and Hungarian history of archaeological aerial photography from the point of view of the work of Goguy, who is listed amongst others as a co-author, with particular attention to the technical background.

Following this fitting opening we travel from the Velebit Mountains in Croatia, through Hungary and Slovenia to Suwałki County in northern Poland. Amongst other topics in the section on methodology, the role played by and the problems encountered in aerial photography and remote sensing in archaeological survey are discussed. The essay by Zoltán Czajlik and Balázs Holl can be taken as an example, where through archival and new images they examine the extent of Iron Age tumulus burials at the Nagyberki-Szalacska site that have been spotted from aerial photographs, as well as looking at the use of "fuzzy logic", taken from mathematics, for this subject.

Three articles found their way into the book that discuss the techniques of aerial laser scanning (LiDAR vs. ALS) that can be utilized in numerous areas in the realm of archaeological survey. Two essays using Polish examples present the application of ALS for archaeology in areas that are difficult to access due to vegetation or terrain. Since a relatively new technique is talked about, the authors also touch upon the early "growing pains" of the method. The Slovenian researcher Dimitrij Mlekuž provides a look into landscape archaeological analysis of mountain defiles detected through LiDAR images.



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The section on methodology is followed by case studies organized by archaeological periods, which provide a great deal of valuable information despite the fact that in a couple of instances aerial photography and remote sensing methods receive less emphasis. This is evened out by the fact that the other non-invasive land-based methods employed (field walks, geoarchaeological methods, etc.) served to verify the methods appearing in the book's title, or complemented them with supplementary data.

Gábor Bertók and Csilla Gáti summarize the results of their research on Neolithic, Lengyel culture settlements surrounded by networks of trenches in Baranya County, mentioning magnetometer surveys in addition to aerial photography. In a joint essay, four authors report on their geoarchaeological research related to the Bronze Age settlement of Vatyá at Perkáta-Forrás-dűlő, which was supported by terrain models prepared with the aid of ALS, as well as on the information gained during this work.

The section on prehistory is followed by one on the Roman period. From these case studies the usefulness of comparing the information from airborne techniques of archaeological survey with the results from investigations performed on the surface is revealed. A good example of this is the research into the system of cadastres related to *Savaria* (Szombathely), for which András Bődöcs provides new data through field walks, analysis of geographic information systems and aerial photographs.

Staying with Roman period cities, Florin Fodorean's essay can instead be defined as a treatise on the settlement topography of Potaissa, located in present-day Romania. The essay written by László Rupnik and Zoltán Czajlik on the *canabae* (military city) and fortress of *Brigetio* (Komárom-Szőny), which were investigated using aerial photography, sheds light on the current status of the research, with quite interesting maps from the perspective of settlement topography.

Moving from cities to the countryside, Máté Szabó discloses similarly important information on the site plan of the late Roman villa identified near the town of Cserdi in Baranya County. The contours of the villa that were photographed from a "robocopter" are clearly outlined due to indications in the vegetation, and the images were even able to be used for the functional differentiation of the former buildings.

The section on the Middle Ages contains two essays. Zsuzsa Miklós concentrates primarily on methodological elements in connection with Árpád period earthwork forts, while András Sófalvi deals with the identification and dating of earthworks in Transylvania in the closing article of the book.

This volume, richly illustrated with black-and-white as well as colour pictures, is the final result of a successful conference, presenting the methodology and employment of aerial photography and remote sensing from a new perspective: through archaeological practice. The information acquired from "out of the blue" is never alone after all, it always must be verified and made more precise through field work on the surface.