## LANDSCAPE SURVEY, PRESENTATION AND PROTECTION IN BARANYA COUNTY, HUNGARY

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## Background and objectives

Aerial photography and other modern methods such as GIS and computer-based research databases have not yet found a regular place in archaeological research and museum work in Hungary, despite recognition of their importance by Hungarian archaeologists. As a result, the aerial image and its interpretation in explaining and presenting the landscape and archaeological heritage of Hungary has been little used in museums or other institutions.

Through the Culture 2000 project the Directorate of the Museums of Baranya County, based at Pécs in SW Hungary, aims to demonstrate the use and importance of aerial photography and non-destructive archaeological methods such as geophysical survey for the presentation and protection of the national heritage. By doing so the Museum will improve the quality of its own work, both in research and in the presentation of the landscape and archaeological heritage to schoolchildren and the general public. The Museum is pursuing these objectives in four main ways.

- Through a 3-year landscape survey project in Central Baranya County, involving aerial
  and field survey and archaeological landscape mapping. Use is being made of heritage
  information from the County and National Museums as well as air photographs from the
  University of Pécs, with whom the Museum is working on many aspects of the project.
- By setting up a *GIS-based database* for publication on the Internet, making the results of the project immediately available to young people, the general public and researchers.
- By creating a *travelling exhibition* on the importance of aerial survey and other non-destructive methods in the interpretation and understanding of the landscape heritage.
- By taking part in *meetings and exchanges* with Culture 2000 partners and (in Year 3) by organising a workshop to summarise the results of the Museum's Culture 2000 work.

Finally the better availability of the Museum's research results, along with the demonstrated economy and effectiveness of aerial survey, will encourage the long-term use of air survey in Hungary for archaeological and landscape research, presentation and conservation.

## Progress to the end of 2005

Work has begun in the chosen study area, using both aerial photography and ground-based methods. The GIS database has been initiated and revised after testing. Preliminary work has been done for exhibition work and advice has been obtained from Culture 2000 partners.

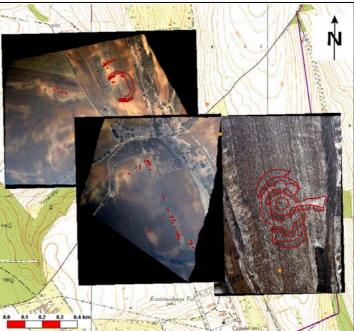
**September 2004** Participation in first meeting of the Culture 2000 co-partners and annual meeting of the Aerial Archaeology Research Group, both in Munich. Discussions then and later with air photographers, photo-interpreters and landscape archaeologists from elsewhere in Europe to strengthen the basic structure of the project in Hungary.



October 2004—January 2005 Work in the County Museum and the National Heritage Protection Bureau to identify, study and transcribe archival data on the study area. Purchase by the Museum of laptop, PDA with GPS, and Geomedia GIS package. Framing contract with the local flying club. Acquisition of permits for aerial and field survey.

**February–March 2005** Setting up of the GIS database for the archaeological heritage of the study area. Two exploratory flights to record archaeological sites in snow or as soilmarks. Field-walking of some of the sites recorded from the air (left).





Left: Air photograph of a large multiple ring-ditch, possibly a Neolithic henge monument. Right: Rectified air photographs, with mapped archaeological features marked in red.

**April-May 2005** Creation of a small air-photo exhibition for a larger display in Vienna on the World Heritage Site of Pécs, candidate as Cultural Capital of Europe in 2010 (useful experience for creation of the travelling exhibition in Baranya County later in the project). Refinement of GIS database. Further field-walking, photo rectification and transcription, site mapping and insertion of the resulting information into the GIS.

**June 2005** Three aerial survey flights during the cropmark season, bringing the total number of photographs to *c*600, mostly of sub-surface archaeological features but also of urban and industrial heritage sites and characteristic natural features. Aerial monitoring of major construction sites within the study area. Three sites were subsequently selected for detailed non-destructive survey, including boring and soil-sampling, geophysical survey and the creation of detailed elevation maps and site reconstructions.

**July-August 2005** Further mapping of air photo sites. Arrangements for an exhibition in late 2006-early 2007 in the largest shopping mall in the centre of Pécs. Interview on the project with the local branch of the national radio station. A further air-photo flight at the end of August to explore the possibility of cropmark evidence in the late summer period.

**September–October 2005** Project co-ordinator involved in field survey in Syria. Culture 2000 experience allowed the first approaches to be made for possible future air survey there.

October–December 2005 Continued work on transcribing the 2005 aerial photographs (105 potential archaeological phenomena and landscape features). Pottery from field-walking identified and inventoried. Report for 2005 activities submitted to the Cultural Heritage Protection Bureau. Arrangements for the 2006 permit for archaeological research. Agreement with a boring and soil sampling company for sampling on two selected sites in summer 2006. First steps to transfer the GIS database to the web server of the Museums of Baranya County.

## **Future plans**

The Museum is considering the organisation of a Workshop with Culture 2000 co-partners, including colleagues from Hungary and neighbouring countries, in2006 or 2007 to compare the results achieved within the Culture 2000 project and to discuss future possibilities.