

HERITAGE SURVEY IN ESTONIA

Aerial and ground-based evidence in partnership

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Background and objectives

Traditional field survey techniques are well developed in Estonia but less use has been made in the past of geophysical prospection and virtually none of aerial survey, whether for exploration or for conservation. The Culture 2000 project has allowed the National Heritage Board of Estonia to take the first steps in training Estonian archaeologists in the techniques and uses of exploratory air survey, air-photo interpretation and mapping, including the establishment during the project of a limited programme of active aerial survey. Throughout the project the aerial work will be linked closely to ground-based observation and geophysical prospection in a complementary application of techniques not previously attempted in Estonia. Selective fieldwork and aerial observation are being carried out on carefully chosen sites, mostly in the north and north-eastern coastal areas where forest cover is less dense and wrecks and other features may be recordable in shallow water.

Progress to the end of 2005

A four-member team has been established for the project – Mr Ants Kraut, the Board's Chief Inspector of Archaeological Monuments, who has wide experience in the field, Ms Riin Alatalu, Head of the Board's Division of Supervision, administering the finances, Mr Endel Grensmann, managing the photography and technical support, and Armin Rudi as in the role of overall coordinator. Dr Valter Lang, Professor of Archaeology at Tartu University and Dr Marika Mägi, Head of the Department of Archaeology of the Estonian Institute of History, have also been involved as consultants.

So far, the main activities have been the testing of various methods of aerial archaeology in the particular environmental circumstances of Estonia, including the discovery of new sites from the air and the inspection of already-known sites (both archaeological and architectural) for the more precise definition of their boundaries and states of preservation. The aerial work has been matched by extensive ground-inspection of the sites and areas under study. To the end of 2005 approximately 6 hours of aerial reconnaissance have produced about 130 photographs of 32 sites and locations, many of them not previously recorded from the air. Ground-based visits have been made to approximately 65 individual sites as well as to large tracts of landscape of potential heritage significance.



Aerial inspection in the project's chosen study-area in N Estonia has been impeded by the prevalence of extensive tracts of forest and mire (aerial observation normally works best in 'open' landscape). Nevertheless, large bogs are not without interest, aerial inspection within the project having helped to reveal the courses of ancient sledge routes, as in Saarte bog (left). The study of historical maps will also



make an invaluable contribution to the identification of historical communication routes. To achieve the best results, reconnaissance flights will continue in the autumn and winter as well as at other times of year.

During the first season of aerial exploration several complex aggregations of archaeological features have been photographed, notably the ruins of a medieval feudal stronghold overlying a Viking Age settlement site at Angerja, northern Rapla County (above left). Further experience is needed to achieve success in some aspects of the project, especially in areas where the natural conditions are unfavourable. For example, attempts to use aerial survey to establish the precise location of buildings on archaeological sites have so far had limited success, though patches of darker soil indicating intensive human activity have been detected on numerous occasions. In the majority cases the reconnaissance flights have been preceded by on-ground inspection, and all seemingly positive results need to be cross-checked through follow-up visits on the ground.

For the project team a particular interest has focused on manorial estates, as at Hagudi (above right). At such estates the air photography has provided good overviews of the often extensive complexes and of the exact relationship of individual buildings to one another. Aerial views are even more valuable in establishing the condition of the parkland belonging to the manorial estates. Photographs have been used as illustrations in several publications, notably the overviews of the local cultural heritage published by rural municipalities.

Aerial and ground-bases survey in 2006

2006 will see the continuation of new and repeat-flights over the areas of greatest archaeological interest. The study area will also be broadened and related ground-observation will continue, along with mapping of archaeological features detected on the aerial photographs. Further use will be made of the photographs in publications, both for specialists and for the general public. A wholly new technical solution will also be tried for the first time, the utilisation of a stable, cable-operated, helium balloon for photographing particular archaeological features such as ancient field systems.

Aerial Archaeology Workshop

A key event in the Estonian part of the project will be an international seminar and workshop on ***Aerial archaeology and maritime landscapes*** on 26–29 October 2006 at Tallinn and Saaremaa. This will explore the potential of aerial photography for research into maritime landscapes, and will enable discussion of research methods with colleagues from other institutions in the Baltic countries.

Network contacts and meetings

Project members will continue to take part in meetings in partner-countries to broaden their experience through discussion with photographers and landscape archaeologists from other parts of Europe (as at meetings in Munich and Leuven in September 2004 and 2005).