

Remote Sensing for Archaeological Heritage Management in the 21st century

An EAC Symposium

Reykjavik, Iceland, 25 – 27 March 2010

This symposium will examine Remote Sensing for Archaeological Heritage Management at the start of the 21st century. The key themes to be explored will be: the registration of monuments; the creation of reliable monuments records; approaches to large-scale mapping; monitoring and management of monument condition; and applications of historic imagery. Well-established approaches and techniques will be set alongside new technologies and data-sources, with discussion covering relative merits and applicability. Approaches to be considered will include aerial photography, both modern and historic, LiDAR, satellite imagery, multi- and hyper-spectral data, sonar and geophysical survey. Both terrestrial and maritime contexts will be addressed.

Organised by:

Dave Cowley (AARG/RCAHMS)

Kristín Huld Sigurðardóttir (EAC/The Archaeological Heritage Agency of Iceland)

Wednesday 24 March – Pre-symposium evening Reception

Otto Braasch 30 years aerial reconnaissance in Europe and beyond – and thoughts on future developments

Arni Einarsson Landscapes of Northern Icelandfrom the air

DAY 1

Thursday 25 March

09.00 – 12.30 EAC Board Meeting and Heritage Management Seminar (EAC members and invited guests only)

12.30 – 13.30 Lunch

13.30 – 13.45 Iceland Minister of Culture to open symposium
Introduction: Dave Cowley and Kristín Huld Sigurðardóttir

13.45 – 15.00 Making Remote Sensing work for Archaeology

These papers will present the progress and successes of remote sensing for archaeology in the late 20th century, identifying the challenges for the future.

13.45 – 14.15	Dave Cowley	Remote sensing for European archaeology – site discovery, registration, interpretation and management
14.20 – 14.50	Stefano Campana	Towards ‘Total Archaeology’ – integrating techniques and multi-scale approaches to the landscape

15.00 – 15.30 Tea and coffee

15.30 – 18.00 Exploring the archaeological resource base

Reliable inventories or databases are key to informed management of the cultural heritage. These papers explore the value of national or regional mapping programmes that aim to create extensive and consistent baseline datasets and the ways in which these inform management. The importance of integrating new technologies and historic imagery is stressed. Collections of historical aerial photographs are an immensely valuable resource for the archaeologist and landscape historian, especially in recording the landscapes of Europe before the massive changes of the second half of the 20th century.

15.30 – 15.55	Pete Horne	The English Heritage National Mapping Programme
16.00 – 16.25	Wlodek Raczkowski	Integrating survey data – the Polish AZP and beyond
16.30 – 17.00	Jörg Bofinger	National Mapping from LiDAR
17.05 – 17.30	Lesley Ferguson	The Aerial Reconnaissance Archives – a shared European resource

DAY 2

Friday 26 March

9.00 – 12.20 New Platforms and Technologies – challenges and potential

The engagement of archaeologists with new platforms and technologies has often been irregular, with problems of costs and a lack of appropriate skills amongst the principal problems. Papers in this session will explore new, but none-the-less well-established techniques, such as LiDAR, alongside more speculative research that is on the cutting edge of archaeological prospection.

09.00 – 09.25	Michael Doneus	LiDAR
09.30 – 09.55	Robert Shaw	High resolution LiDAR for mapping and managing archaeological monuments
10.00 – 10.25	Fabio Remondino	3D surveying for cultural heritage

10.30 – 11.00 Tea and coffee

11.00 – 11.25	Chris Gaffney	Geophysical survey
11.30 – 11.55	Vince Gaffney	2D/3D seismic survey in North Sea and Irish Sea
12.00 – 12.25	Antony Firth	Marine geophysics
12.30 – 12.55	Anthony Beck	Multi-spectral data – challenges and potential

13.00 – 14.00 Lunch

14.00 – 15.00 Using Remote Sensed Data: interpretation and understanding

The creation of robust datasets that can be relied on by heritage managers and archaeological researchers requires an understanding of the source data. Papers will introduce issues of the interpretation and application of remotely sensed data, through case studies exploring local contexts, but also referencing broadly applicable issues. The importance of integrated approaches and specialist input are addressed.

14.00 – 14.20	Lis Helles Olesen	An aerial view of the past - Aerial archaeology in Denmark
14.25 – 14.40	Martin Gojda	Approaches to the integrated study of archaeological sites, architectural monuments and historical urban units in the Czech Republic
14.45 – 15.05	Rog Palmer	Interpretation and map making
15.10 – 15.25	Chris Musson	Training and development: the next phase?

15.30 – 16.00 Tea and coffee

16.00 – 17.30 Integrated approaches to archaeological prospection

16.00 – 16.40	Dominic Powlesland	Keynote/Summing up address on integrated approaches
16.40 – 17.30	Round-table discussion	

DAY 3

Saturday 27 March

A field trip around historical and cultural sites in Iceland.