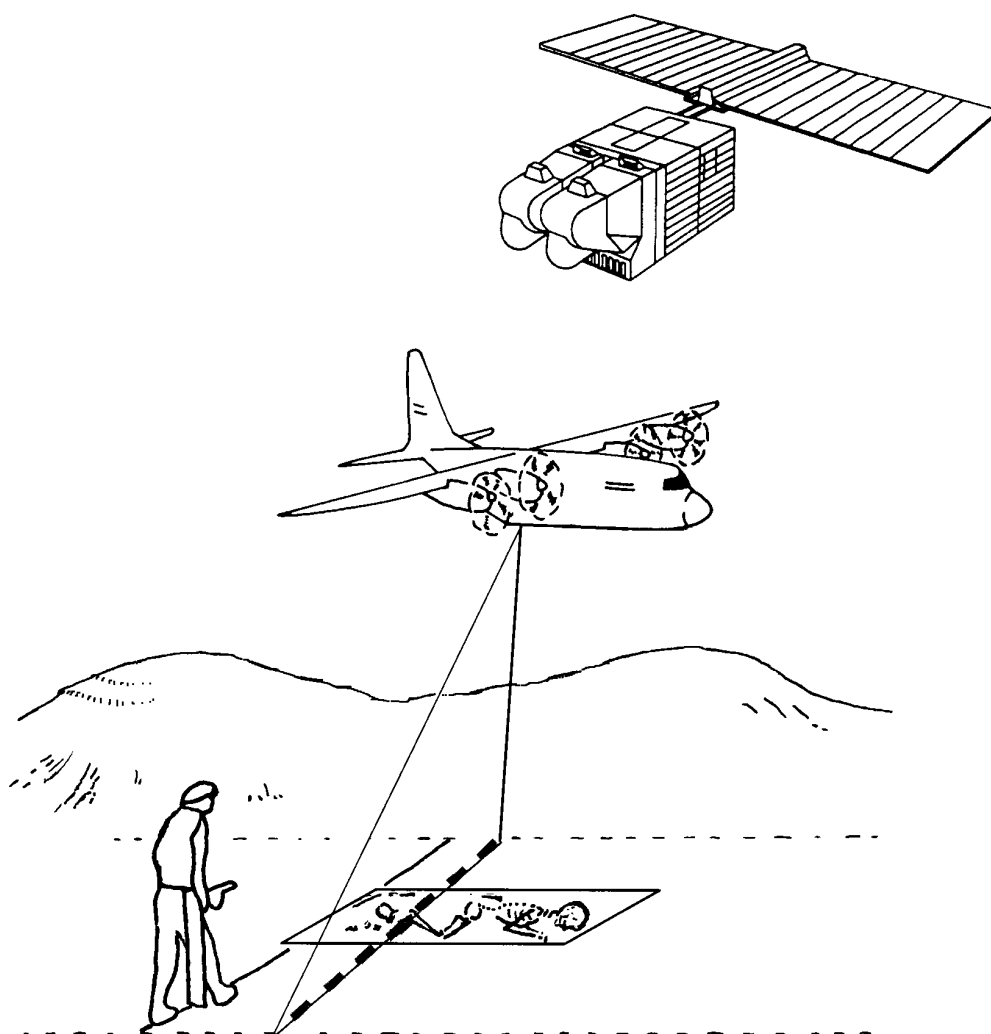


REMOTE SENSING SOCIETY
ARCHAEOLOGY
SPECIAL INTEREST GROUP
NEWSLETTER



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CONTACTS

Convenor:

Dr Christopher J Brooke
 University of Nottingham
 c/o 3 Woodland View
 Southwell
 Nottinghamshire
 NG25 OAG
 UK
 tel: +44 (0) 116 265 7063
 fax: +44 (0) 116 265 7965
 email: Chris.Brooke@nottingham.ac.uk
 WWW: <http://www.ccc.nottingham.ac.uk/~tazsecjb/gbrs.html>

Treasurer:

Dr Anthony Denniss, NRSC Ltd
 Arthur Street
 Barwell
 Leicestershire.

U.K.

Tel. +44(0)1455 849219
 Fax +44(0)1455 841785
 email: adenniss@nrsc.co.uk

Newsletter Editor:

Alison Caldwell
 Luckley Oakfield School
 Wokingham
 Berks
 RG40 3EU
 email: AlisonCaldwell@compuserve.com

Assistant Editor:

Samantha Amos

RSS Archaeology Special Interest Group web site:

<http://www.the-RSS.org/arch-sig/index.htm#start>

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Spot satellite adapted from figure 5.21 Curran, 1985, Principles of Remote Sensing, published by Addison Wesley Longman Ltd.
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Aims of the SIG

This group has been established as a response to a perceived need - to bring people working in the field of remote sensing and archaeology together, to learn from one another and to encourage a coherent rather than disparate approach to research work in this area.

Editorial

From the group convenor

Despite a quiet year for the RSS Archaeology SIG, much has evidently been taking place by way of research worldwide. In particular, GIS seems now to have been established as a mainstream tool for archaeological data integration and interpretation, and new ideas being developed in other remote sensing fields herald the promise of powerful analytical tools for the future.

Whilst the detection of new sites remains the primary goal of most archaeological remote sensing practitioners, the value of re-interpreting known areas is rapidly gaining popularity, and a multidisciplinary strategic approach is reaping the reward of more accurate hypotheses.

In British archaeology, the NERC funded MS data acquisition from the medieval battlefield of Bosworth in Leicestershire looks set to produce a fitting sequel to work earlier undertaken at West Heslerton in Yorkshire, with a large number of potential archaeological anomalies being apparent from the earliest stages of interpretation. Work on ground-based systems also continues, especially in the area of thermal infra-red examination of buildings by Robert Demaus, and the University of Nottingham's continuing

research on the development of laser profiling methods.

However, much archaeology worldwide remains threat-driven, with major development, natural erosion, and deliberate destruction being the most significant factors in the determination of where precious funds are spent. The advent of higher resolution aerial and space borne imaging systems is to be much welcomed, as it will permit a clearer visualization of archaeology in remote and inaccessible areas. This possibility must continue to be a high priority for archaeologists, as must the affordability of data and software products, especially for developing countries.

The Archaeology SIG Steering Committee will ensure that at least one meeting takes place annually and that a regular Newsletter is forthcoming. I hope you will enjoy reading this second Newsletter and look forward to seeing you all at future meetings.

Dr Christopher J Brooke

ArchSIG NEWS

Do you have any news of products/services or personnel that could be shared with the rest of the community? Send in your items to the Editor.

Introducing the Archaeology Data Service

What is the Archaeology Data Service?

The aim of the Archaeology Data Service is to collect, describe, catalogue, preserve and provide user support for digital resources that are created as a product of archaeological research. The Data Service also has a responsibility for promoting standards and guidelines for best practice in the creation, description, preservation and use of spatial information across the Arts and Humanities Data Service as a whole. For those classes of archaeological data where there are existing archival bodies, the role of the Archaeology Data Service will be to collaborate with the appropriate national and local agencies and to promote greater use of existing services.

Why an Archaeology Data Service?

Archaeology is in a special position, in that much of the creation of its data results from destruction of primary evidence, making access to data all the more critical in order to test, assess and subsequently reanalyse and reinterpret both the data and the hypotheses arising from them. Over the years, archaeologists have amassed a vast collection of fieldwork data archives, a significant proportion of which remains unpublished. Access to data, even those which are published, is often difficult or inconvenient at best. The Archaeology Data Service will be providing an integrated on-line catalogue which will provide access to its own collections as

well as those of its AHDS partners and other archival bodies.

How is the Archaeology Data Service organised?

The Data Service is managed by a consortium of UK institutions, led by the University of York, and including the Universities of Birmingham, Bradford, Glasgow, Kent at Canterbury, Leicester, Oxford and Newcastle, with the Council for British Archaeology and the Royal Commissions on the Historical Monuments of England (on behalf of the Royal Commissions of England, Scotland and Wales). It is based in the Archaeology Department of the University of York, but its structure recognises that archaeological data archives are dispersed and that the Internet means that they need not be brought together in one single physical location in order to make them available to the wider community.

What services are provided by the Archaeology Data Service?

Holdings:

The Data Service will be seeking to work with the national and local archaeological agencies and those research councils involved in the funding of archaeological research, to negotiate deposition of project data. This will include data derived from fieldwork as well as desk-based studies. The types of data involved include: text reports, databases (related to excavated contexts or artefacts, for example), images (including aerial photographs, remote sensing imagery, photographs of sites, features and artefacts), digitised maps and plans, numerical datasets related to topographical and geophysical surveys, and other locational data, as well as reconstruction drawings.

Services to users:

For archaeological researchers and teachers, the Archaeology Data Service will be seeking to make data sets available to support your work. Our on-line catalogue will enable you to search for relevant data sets, either just as in archaeology, or more widely, across the humanities as a whole, by headings such as author, title, subject, area or period.

Services to data creators and depositors:

If you or your organisation creates archaeological data in an electronic form, then you should consider using the Archaeology Data Service to provide permanent cataloguing, storage and curation of your data. Our collection policy will be available shortly, and we will be happy to negotiate an access agreement with you. The Data Service will hold data which is to be made available for open public or limited access, and that which is to be stored and maintained but not yet released. Collection managers may wish to make use of our integrated catalogue to advertise existing archives.

Services to funding and other agencies:

The Data Service will be seeking to promote standards and best practice in the creation, description preservation and use of electronic information. We will be contributing to an AHDS series of Guides to Good Practice, with forthcoming titles including geophysics, aerial and satellite imagery and GIS.

How do I find out more about the Archaeology Data Service?

Contact: ***The Archaeology Data Service***
 Dept of Archaeology, University of York
 Kings Manor, York, YO1 2EP, UK
 tel +44 (0)1904 433954
 fax: +44 (0)1904 433939
 email : info@ads.ahds.ac.uk
 web pages: ASD - <http://ads.ahds.ac.uk/>
 AHDS - <http://ahds.ac.uk/>

African Legacy Challenge

African Legacy is an organisation which aims to set the record straight about Africa on a number of issues and it is prioritising the survey of Africa's visible archaeology as an end in itself, not just as a means of finding excavation sites. At best only 10% of Africa's visible archaeology has been mapped and most are at risk from destructive processes.

Response: anyone interested please contact -

Patrick Darling, African Legacy UK
 46A Ophir Road, Bournemouth, Dorset,
 BH8 8LT, UK.

email: africanlegacy@compuserve.com

tel: (0) 1202 554735

Web site:

[http://www.members.tripod.com/~african legacy\](http://www.members.tripod.com/~african%20legacy/)

**LETTERS and EMAILS**

Your opportunity to express your views and raise questions - write in to the editor or send via email.

**NET INTEREST**

Are there web sites you would like to comment on? Either loved or hated. Send in the address and your views to the Editor. The following have been chosen by Armin Schmidt:

An Invitation to Surf

by **Armin Schmidt**

Department of Archaeological Sciences,
University of Bradford

Connecting to the Internet is no longer a privilege for people in academia and the use of the World Wide Web (WWW) is widespread amongst all professionals and the interested public. It is no wonder then that the amount of information available on Web pages is increasing exponentially leading to a mass of mainly unstructured resources - some of impressive quality, others less exciting. This article is an annotated list of Web sites that are of particular interest to the archaeological remote sensing community. Such a list cannot be exhaustive and all web pages featured in this article (and more!) can be found on the Archaeological Prospection Resources page on the University of Bradford Web server (<http://www.brad.ac.uk/acad/archsci/subject/archpros.htm> or [archpros_nf.htm](http://www.brad.ac.uk/acad/archsci/subject/archpros_nf.htm) without frames).

Archaeological Geophysics

Archaeological Geophysics Survey Data Base and Reports from the Ancient Monuments Lab of English Heritage (EH AML)

<http://www.eng-h.gov.uk/SDB/> and
<http://www.eng-h.gov.uk/reports/>

The AML has undertaken archaeological geophysical surveys for a long time and hence accumulated a vast amount of survey reports. The essence of these reports is available in a database through a user-friendly Web interface. If, for example, you want to know which magnetic susceptibility surveys were undertaken over Bronze Age barrows, this site is for you. In addition, about 50 AML survey reports are available on-line with text and images, providing an

illustration of archaeological geophysics in England.

Archeo Prospections, including an archive of geophysical survey data, University of Vienna

<http://www.univie.ac.at/Projekte/Idea/Prosp/>

The archaeological prospection group associated with the University of Vienna has gathered a large number of high resolution geophysical survey data that are presented in interesting reports. Some, like the one for the Neolithic ring ditch at Schletz, also contain excavation photographs that compare nicely with the geophysical findings. Selected magnetometer data were used to calculate ground models which are presented as appealing 3D images (e.g. for Puch).

Wroxeter Hinterland Project, Geophysical Surveys, BUFAU, Birmingham

<http://www.bufau.bham.ac.uk/newsite/projects/WH/Tours/geophysics.html>

Magnetometer surveys were undertaken at Wroxeter Roman Town by several field teams. The total area covered must be the largest magnetic survey ever undertaken. This site summarises the findings and also provides valuable information about other techniques used (GPR, wheeled resistance array).

Near Surface Geophysics and Archaeometry, University of Kiel

<http://www.geophysik.uni-kiel.de/wwwing/home.html>

The Web pages of this research group at the University of Kiel in Germany demonstrate the use of various techniques (magnetic, earth resistance, EM, GPR). Of particular interest are the magnetic findings at the Hittite village Kusakli that allow an excellent evaluation of the buried fortifications of this site.

Archaeological Prospection Research Group, University of Bradford

<http://www.brad.ac.uk/acad/archsci/depart/resgrp/archpros>

This group has undertaken geophysical research for many years starting with the work of Arnold Aspinall. The site summarises recent survey work and also provides a link to the course “MSc in Archaeological Prospection”.

Archaeological Prospection, a journal published by Wiley

<http://www.interscience.wiley.com/jpages/1075-2196/>

The Web pages provide information on this specialist journal, including instructions for authors. Full digital access to the publications (pdf files) is available for subscribers through Wiley’s Interscience Web site.

Simulation of resistance anomalies, TLTP, Glasgow

<http://www.gla.ac.uk/Inter/Computerpast/archtlt/tp/geosurvey/geosurv.html>

This link leads to the Web version of an earth resistance simulation that is part of a Computer Aided Learning software for archaeological geophysics. On related Web pages additional information is provided for the whole computer package which is available to UK Universities.

Archiving Aerial Photography and Remote Sensing Data: A Guide to Good Practice from the Archaeology Data Service

<http://ads.ahds.ac.uk/project/goodguides/apandrs/index.html>

This guide discusses issues pertinent to the archiving and reuse of digital remote sensing data in archaeology (aerial photographs and satellite images). A comprehensive source of information,

whether you decide to archive your data with the Archaeology Data Service (ADS) or in-house.

Aerial Archaeology Research Group (AARG)

<http://rs6000.univie.ac.at/AARG/>

The web pages of this UK based international research group provides a number of useful resources, like abstract of conferences, information on map projections and links to related sites.

Austrian Aerial Photography Archive, University of Vienna

<http://www.univie.ac.at/Luftbildarchiv/>

A very comprehensive site that explains the history and practice of aerial photography. Of special interest are sections on possible problems encountered in air photographic interpretation and the combination of air photographs with geophysical results. The site also hosts a useful introduction to photogrammetry. These Web pages are a “must-see” for everyone interested in aerial archaeology.

Satellite Remote Sensing and Archaeology, by Martin Fowler

<http://ourworld.compuserve.com/homepages/mjff/homepage.htm>

A site that provides links to stunning satellite images of archaeological features, like the Pyramids of Giza and Stonehenge (both KVR-1000). The extensive bibliography is an excellent resource to explore the rapidly growing literature on the subject.

The Archaeological Remote Sensing Consortium

<http://eleftheria.stcloud.msus.edu/arsc>

An American site that is dedicated to the application of remote sensing techniques to archaeology, providing links to technical guides, data sources and software.

NASA: Remote Sensing for Archaeology

<http://www.ghcc.msfc.nasa.gov/archeology/>

These are nicely presented Web pages which use well documented and illustrated case studies to highlight the benefits that remote sensing (satellite and airborne) can bring to archaeological research. It contains the images that were published in the New Scientist 1992 (25 Jan 92, Vol. 133, 42-46).

Satellite Imagery, a collection of links, University of Bradford

<http://www.brad.ac.uk/acad/archsci/depart/modules/siteass/sat.html>

This Web page is a collection of useful links for all those who want to start exploring technical material on satellite imagery. The links range from basic information on the currently active satellites to archaeological applications that become increasingly feasible.

Editor: Visit the **RSS Arch-SIG** Web Site at:

<http://www.the-RSS.org/arch-sig/index.htm#start>

**CALL FOR PAPERS****Internet Archaeology**

The editors of Internet Archaeology (<http://intarch.ac.uk/>) are seeking exciting new material for forthcoming issues.

Internet Archaeology is a highly varied electronic publication with the ability to utilise the WWW medium to the full. The journal has a truly international readership, with over 13 000 registered users to date and since going on-line in Autumn 1996, we have successfully published five issues full of quality academic papers.

The editors of Internet Archaeology are keen to publish material from all points on

the archaeological spectrum; research papers, excavation reports, theoretical discourse, data sets, reviews, topical issues, and anything else that might stimulate debate and contemplation.

We particularly welcome articles that can be incorporated with all manner of visual aids (colour photographs, drawings, interactive maps and diagrams etc.). All published papers are archived with the Archaeology Data Service

Whether it is to discuss a proposal or just for further information, please contact Internet Archaeology's friendly and approachable staff at:

Internet Archaeology
Department of Archaeology
University of York
King's Manor
York
YO1 7EP

Tel: +44 1904 433 955

Fax: +44 1904 433 939

Email: editor@intarch.ac.uk

URL: <http://intarch.ac.uk/>

Email discussion list:

<http://www.mailbase.ac.uk/lists/intarch-interest/>

**Forthcoming Issues**

In future we hope that the newsletter will be a platform for the publication of papers given at the Annual Meeting. This will provide a proceedings-type document and will form a convenient and useful record of these meetings. Other contributions, are of course, welcome - especially for the **Net Interest, ArchSIG News and Letters & Emails sections.** Editor.

