

ADS Annual Report 1st August 2011 – 31st July 2012

The Archaeology Data Service (ADS) supports research, learning and teaching with free, high quality and dependable digital resources. It does this by preserving digital data in the long term, and by promoting and disseminating a broad range of data in archaeology. The ADS promotes good practice in the use of digital data in archaeology, it provides technical advice to the research community, and supports the deployment of digital technologies. The ADS was established at the University of York in 1996, and currently has a staff of fifteen.

1. Highlights of the Year

This has been an outstanding year for external recognition of the work of the Archaeology Data Service. At a reception at St James' Palace on 24 November 2011 it was announced that the Department of Archaeology of the University of York had been awarded a Queen's Anniversary Prize for Higher and Further Education. The Archaeology Data Service featured extensively within the nomination statement and many stakeholders provided letters of support. On 23 February ADS Director, Julian Richards and Deputy Director, Catherine Hardman, attended a state banquet with several guests of the Department and ADS. The following day Julian Richards, and York's Vice-Chancellor, Brian Cantor, attended Buckingham Palace where they were presented with the award by her Majesty Queen Elizabeth II and His Royal Highness Prince Philip.

Back in York, on 18 May, the Department and ADS were awarded a Vice-Chancellor's Award for Outstanding Achievement at a meeting of the University Court, and on 21 June Julian Richards and Catherine Hardman attended a reception for award winners.

Then, on 9 July at the British Archaeological Awards Ceremony at the British Museum we learnt that the ADS had won the Award for Best Archaeological Innovation for 2012 for the grey literature library. The recent implementation of Digital Object Identifiers (DOIs) and geo-spatial mapping have radically enhanced the usability of what was already a very important resource, which now stands at more than 17,000 reports. Michael Charno, Tim Evans, Catherine Hardman, and Julian Richards attended the ceremony, and received the award from Lloyd Grossman.

2011-12 has also been a good year for securing future funding for ADS. We have received an additional allocation of funding from AHRC, as part of the BIS investment in research infrastructure, and have initiated two new projects for the JISC. Firstly SWORD-ARM has been funded under JISC's Research Data Management programme; it is developing systems and protocols for automating many aspects of data deposit and ingest, including an on-line costing tool. Secondly we are working with Charles Beagrie Ltd and Professor John Haughton on a study of the Impact of the ADS. We anticipate that it will provide timely and valuable evidence for the economic benefits of the ADS. We were also very pleased to learn that ARIADNE

had been funded under the European Union's Infrastructure programme. ARIADNE will provide digital research infrastructure for European archaeologists and the ADS is playing a lead role in a consortium of 24 project partners, spread across 16 European countries. The project, which starts in February 2013, will run for 4 years.

Finally, to add to our Data Seal of Approval, the ADS has been accredited as a Data Archiving Centre (DAC) for the Marine Environmental Data and Information Network (MEDIN), becoming the first heritage agency to be awarded this status.

2. Collections Development

Outline of significant new collections

Heathrow Terminal 5 Excavation Archive doi:10.5284/1011888

Framework Archaeology is a Joint Venture agreement between Oxford Archaeology (OA) and Wessex Archaeology (WA) to provide archaeological services to the British Airport Authority (BAA).



Framework Archaeology is committed to a particular archaeological philosophy developed by BAA's archaeological consultants, Gill Andrews and John Barrett. This is concerned with understanding how people inhabited past landscapes: archaeology as a study of people rather than deposits or objects. Between 1996 and 2000 archaeological work in advance of a fifth passenger terminal ("T5") at Heathrow Airport took place from 2002 onwards. The results of the project have been published in several formats. The monograph provides an interpretative narrative as the means of presenting an understanding of the humans who lived around Heathrow. Detailed description is limited to those areas of the narrative requiring explicit supporting evidence or where the narrative touches on areas of regional or national interest. Accompanying the monograph and freely downloadable since publication, there is the Framework Free Viewer, a distilled version of the digital archive presented as a Microsoft Windows installable geographic information system. A full copy of the digital archive, including an interactive database of selected site photographs, has now been available from the ADS. The digital archive for the Framework excavations at Stansted is also held by the ADS.

The Geophysical Survey Database

The English Heritage Geophysical Survey Database was created in 1995 to provide a publically accessible index of all the geophysical surveys of archaeological sites undertaken by English Heritage. Shortly after its inception its remit was expanded to include information about all surveys carried out over scheduled monuments and protected for which a licence is required under Section 42 of the Ancient Monuments and Archaeological Areas act 1979. A further pilot project in the late 1990s to record details of surveys in England carried out in the commercial and academic sectors added details of over a thousand new surveys to the database. However, it was not possible to continue this project and make the database a fully comprehensive record of English geophysical surveys. Nevertheless, by the end of 2011 the database contained records of more than 2700 surveys stretching back to the late 1960s.

In 2006 a geophysical survey sub-form was developed for the OASIS database in consultation with English Heritage and the data structure for this was based on that used for the English Heritage database. This lead to the decision in 2011 to merge the English Heritage database with OASIS to create a more comprehensive record of UK archaeological geophysical surveys. As part of the merger, this new survey database resource was created to provide more flexible searching of geophysical records.

Wealden Houses Database doi:10.5284/1011977

The Wealden House is a distinctive medieval structural type, found most commonly in Kent and Sussex. The term 'Wealden' apparently came into use among members of the Vernacular Architecture Group in the 1950s, reflecting the concentration of examples in the Kentish Weald.



The database has been compiled from previously published lists, from a substantial list compiled by S. E. Rigold and J. T. Smith, from listed buildings including 'Wealden' in their descriptions and from personal communication by many Vernacular Architecture Group members. The version of the database made available by ADS includes 817 entries. Each contains information on the names, grid references, state as buildings and bibliographic references for the Wealden houses, and (incompletely) their listed building grades and Images of England references, together with limited information about their character.

Number of new negotiations by month and funder

	Date	Funder	Title
1	August 2011		Abingdon Archaeological Geophysics: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms
2	August 2011		Viking burials in the British landscape
3	August 2011	Joint Information Systems Committee	Digitised Diseases
4	September 2011	English Heritage	Vale of Pickering project archives (Seamer Carr)
5	September 2011	English Heritage	English Heritage Archaeological Monographs
6	September 2011	English Heritage	Birmingham City Heritage Gateway
7	September 2011	English Heritage	Tyne and Wear EUS
8	September 2011		Socio-economic patterns in Roman Britain
9	October 2011	English Heritage	Weoley Castle
10	October 2011	Aggregates Levy Sustainability Fund	Gill Mill Quarry, Oxfordshire
11	October 2011	AHRC	The Archaeobotany of Vaihingen an der Enz, Baden-Württemberg, Germany
12	November 2011	English Heritage	Clodgy Moor environs lithic recording project
13	November 2011		Archiving Roundhouses project
14	November 2011		Winchester Research Unit Data
15	November 2011	University of York	Heslington East Excavation Archive
16	November 2011		The Things that Matter Most
17	November 2011	English Heritage	West Penwith Survey Archive
18	November 2011	English Heritage	Geophysical survey at the Rectory by the Jane Austen Society
19	November 2011	English Heritage	Whitley Castle Geophysics Survey
20	November 2011	English Heritage	Prehistoric Pottery Production in Charnwood Forest Leicestershire
21	November 2011	English Heritage	Revised research framework of Post Roman Ceramic studies in Britain
22	December 2011	English Heritage	Marches Archaeology digital archive
23	December 2011	English Heritage	Distribution and significance of urban waterlogged deposits in Berwick-upon-Tweed
24	December 2011	English Heritage	Terrestrial Mineral Resource Assessment (Northumberland)

25	December 2011	English Heritage	North Yorkshire HLC
26	December 2011	Arts and Humanities Research Council (AHRC)	Medieval Warfare on the Grid
27	December 2011		Medieval Pottery from Northumberland and Tyne and Wear
28	December 2011	English Heritage	Calstock Roman Fort
29	December 2011	English Heritage	Twyford School, Twyford, Hampshire
30	December 2011	English Heritage	Wor Barrow: radiocarbon dating programme
31	December 2011	English Heritage	Stratton Deserted Medieval Village
32	January 2012		Cynthia Gaskell Brown: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms
33	January 2012	English Heritage	Clampgate Road, Fishtoft, Lincolnshire
34	January 2012		Derek Simpson Excavation Archive
35	January 2012	English Heritage	Excavations at Simpson's Malt, Pontefract, West Yorkshire
36	January 2012		Medieval Settlement Research Group Publications
37	January 2012		Prittlewell
38	January 2012		Dennis Payne: Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms
39	January 2012		Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms: Kim Watkins
40	January 2012		Oakford Archaeology: Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms.
41	January 2012		Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms: West Coast Archaeological Services
42	January 2012		White Young Green Environment: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms:
43	January 2012		Nottingham Tree-ring Dating Laboratory: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms.

44	January 2012		Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms: MAS
45	January 2012		Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms: Stuart Farrell
46	January 2012		Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms: Richard Parker Historic Building Recording and Interpretation
47	February 2012	Aggregates Levy Sustainability Fund	Identification and quantification of archaeological projects arising from aggregate extraction in Hampshire, Surrey, East Sussex and West Sussex
48	February 2012	English Heritage	West Berkshire Aggregate Resource Assessment
49	February 2012	Aggregates Levy Sustainability Fund	Assessment of archaeological resource in aggregate areas in Bath and North East Somerset
50	February 2012	British Academy (BA)	Ceramics and Society: Early Tana Tradition and the Swahili Coast
51	February 2012	English Heritage	Profiling the Profession
52	February 2012		Identifying activity areas in Neolithic sites
53	March 2012	AHRC	The Origin and Spread of Stock-Keeping in the Near East and Europe
54	March 2012		Swash Channel Wreck
55	March 2012		Traders, looters or settlers? Constructing a chronology for the Westward Viking expansion
56	March 2012		Atlantic Europe in the Metal Ages
57	March 2012		Zebra River Gorge, Namibia
58	March 2012		AC Archaeology Backlog Sites
59	March 2012	English Heritage	Greater Manchester Urban Historic Landscape Characterisation Project (HLC)
60	March 2012		Barnhouse
61	March 2012	English Heritage	Merseyside Historic Characterisation Project (MHCP)
62	March 2012	English Heritage	Silbury Hill
63	March 2012	CAA	Computer Applications in Archaeology Conference Proceedings

64	March 2012		Mike Jarvis Archaeological Services: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms or through backlog scanning projects
65	March 2012		Study Group for Roman Pottery Bibliography
66	April 2012		Cambridge Antiquarian Proceedings
67	April 2012	English Heritage	Wiltshire and Swindon Aggregate Resource Assessment
68	April 2012		ArcheoDB
69	April 2012	Wessex Archaeology	Southampton Police Station and Magistrates Court
70	April 2012	AHRC	The Prehistoric Stones of Greece
71	April 2012	English Heritage	Birmingham Archaeology (BUFAU) Digital Archives
72	April 2012	University of York	Cross Slab Grave Monuments
73	May 2012		Lake District National Park Survey
74	May 2012	AHRC	Stepping stones to the Neolithic? Islands, maritime connectivity and the 'western seaways' of Britain, 5000-3500 BC
75	May 2012	English Heritage	Wroxeter Conservation Plan
76	May 2012		Stratford upon Avon Buildings
77	May 2012		Transactions of the Cumberland & Westmorland Antiquarian & Archaeological Society
78	May 2012		An Archaeological Excavation at Boldrewood Campus, University of Southampton, Southampton (OASIS ID johnmoor1-115601)
79	May 2012		Cumnor Hurst
80	May 2012		Schippluiden
81	June 2012		Haltwhistle War Memorial Hospital Archaeological building Recording (OASIS ID gbbuild1-129159)
82	July 2012		Highland Encounters

Number of collections released with month of deposition/accession and month of start of service, by funder.

	Accession Date	Release Date	Funder	Title
1	May 2011	Aug-11	Southampton City Council	The 'Coach House', The New Inn, 16 Bevois Valley Road, Southampton

2	May 2011	Aug-11	Southampton City Council	Woolston Riverside, Southampton
3	April 2011	Aug-11	English Heritage	Identifying coastal archaeology using multi-spectral satellite imagery of the intertidal zone
4	May 2011	Aug-11	Southampton City Council	20-26 College Street, Southampton (OASIS ID thamesva1-40314)
5	July 2011	Aug-11	English Heritage	Historic Seascape Characterisation: Bristol Channel and Severn Estuary
6	May 2011	Aug-11	Self	The Waite Nuneaton Private Collection
7	January 2012	Aug-11		Abingdon Archaeological Geophysics: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms
8	August 2011	Aug-11	English Heritage	Essex Aggregates Archaeology Resource Assessment
9	May 2011	Aug-11	English Heritage	A Review of Animal Remains from the Neolithic and Early Bronze Age of Southern Britain
10	April 2011	Sep-11	English Heritage	Faunal Remains from Stafford Castle Excavations 1978-1998
11	August 2011	Sep-11	English Heritage	Midlands purple and Cistercian-type wares in the west Midlands in the 15th-16th centuries
12	April 2011	Sep-11	Aggregates Levy Sustainability Fund	Bedfordshire Aggregates Archaeological Resource Assessment
13	July 2011	Sep-11	Aggregates Levy Sustainability Fund	Historic Seascape Characterisation: The Irish Sea (English sector)
14	February 2008	Sep-11	English Heritage	Wroxeter: The Webster Excavation Archive Project
15	July 2011	Oct-11	Mellon Foundation	The Virtual Amarna Project
16	October 2011	Oct-11	English Heritage	Historic Seascape Characterisation: Hastings to Purbeck and Adjacent Waters
17	October 2011	Oct-11	English Heritage	Oxfordshire Aggregates and Archaeology Assessment
18	March 2011	Oct-11	Aggregates Levy Sustainability Fund	Maritime and Marine Historic Environment Research Framework
19	February 2006	Oct-11	British Academy (BA)	Parts and Wholes: object categorisation and fragmentation in prehistoric context

20	November 2011	Nov-11	Aggregates Levy Sustainability Fund	Derbyshire and the Peak District Archaeology and Aggregates Resource Assessment
21	June 2011	Nov-11	English Heritage	Town and Country in Roman Essex: Settlement Hierarchies in Roman Essex
22	November 2011	Nov-11	English Heritage	Historic Seascape Characterisation: Newport to Clacton and Adjacent Waters
23	July 2011	Nov-11	British Airport Authority	Framework Archaeology Heathrow Terminal 5 Excavation Archive
24	October 2011	Dec-11	AHRC	The Archaeobotany of Vaihingen an der Enz, Baden-Württemberg, Germany
25	November 2011	Dec-11	English Heritage	Weoley Castle Ruins
26	November 2011	Dec-11	English Heritage	Identification and Quantification of Projects Arising From Aggregates Extraction: Derbyshire, Nottinghamshire and Oxfordshire
27	November 2011	Dec-11	English Heritage	Aggregates Extraction and Archaeology Backlogs: North-West Region
28	December 2011	Dec-11	Aggregates Levy Sustainability Fund	Archaeological Potential of Cave and Fissure Deposits in Limestone
29	January 2010	Jan-12	Aggregates Levy Sustainability Fund	Understanding water table dynamics and their influence on the buried archaeological resource in relation to aggregates extraction
30	August 2011	Jan-12	English Heritage	AMAP2 - Characterising the Potential for Wrecks
31	December 2011	Jan-12	English Heritage	Hulk Assemblages: Assessing the national context
32	July 2010	Jan-12	Heritage Lottery Fund	England's Past for Everyone: Historic Environment Research
33	June 2011	Jan-12	English Heritage	Mystery Wreck Project (Flower of Ugie)
34	November 2008	Jan-12	Natural Environment Research Council (NERC)	Agricultural innovation at Qasr Ibrim, Egypt, 1000 BC - AD 1800
35	December 2011	Jan-12	English Heritage	Whitley Castle Geophysics Survey
36	January 2012	Jan-12	Department for International Development	Infernal Traffic: Excavation of a Liberated African Graveyard in Rupert's Valley, St Helena

37	November 2011	Feb-12	Institute for Aegean Prehistory	The Antikythera Survey Project
38	November 2011	Feb-12	Southampton City Council	Archaeological Watching Brief with Option to Excavate at Test Park Community Sports Facility, Lower Brownhill Road, Southampton.
39	November 2011	Feb-12	Aggregates Levy Sustainability Fund	Gill Mill Quarry, Oxfordshire
40	January 2012	Feb-12	English Heritage	Essex Seaside Resort Project
41	February 2012	Feb-12	Aggregates Levy Sustainability Fund	Identification and quantification of archaeological projects arising from aggregate extraction in Hampshire, Surrey, East Sussex and West Sussex
42	November 2011	Feb-12	Arts and Humanities Research Council (AHRC)	Californian Basketry Traditions
43	March 2012	Mar-12		Ric Tyler: Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms.
44	March 2012	Mar-12		Oakford Archaeology: Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms.
45	March 2012	Mar-12		NP Archaeology: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms.
46	March 2012	Mar-12		Nottingham Tree-ring Dating Laboratory: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms.
47	March 2012	Mar-12	English Heritage	Wharram Percy Archive
48	February 2012	Mar-12	Aggregates Levy Sustainability Fund	Forest of Dean Archaeological Survey: LiDAR Survey
49	February 2012	Mar-12	English Heritage	Revised research framework of Post Roman Ceramic studies in Britain
50	September 2011	Mar-12	English Heritage	The Geophysical Survey Database

51	May 2012	May-12		Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms: British Museum
52	April 2012	May-12	English Heritage	Wiltshire and Swindon Aggregate Resource Assessment
53	March 2012	Jun-12	Arts and Humanities Research Council (AHRC)	The Origin and Spread of Stock-Keeping in the Near East and Europe
54	May 2012	Jun-12	Self	Memorials from the Isle of Man TT Races
55	July 2012	Jul-12	English Heritage	Wroxeter Conservation Plan

Number of new editions (i.e. uploads including Grey Literature Library and Journals)

1. January 2012 ... Bibliography of the Vernacular Architecture Group updated
2. December 2011 ... Archaeological Archives Forum Papers updated
3. August 2011 ... Post-Medieval Britain and Northern Ireland updated
4. August 2011 ... Medieval Britain and Ireland updated
5. August 2011 ... Cruck database updated
6. August 2011 ... Bibliography of the Vernacular Architecture Group - updated
7. August 2011 ... Assessing the Research Potential of Grey Literature in the study of Roman England - archive updated

Number of new collections with special interfaces

1. March 2012 ... The Geophysical Survey Database: An online database that incorporates the English Heritage Geophysical Survey Database and geophysical events recorded in the OASIS system.
2. January 2012 ... Wealden Houses Database: An online database of Wealden houses (a distinctive medieval structural type), compiled by the Vernacular Architecture Group.
3. January 2012 ... England's Past for Everyone: Historic Environment Research : England's Past for Everyone was a five-year project that focused on studies of particular localities such as Parham House in West Sussex and survival in the unpropitious landscape of Exmoor. A key element of the project was the concept of ethnicity and English identity. Reports and images relating to the project work are available to download for 9 of the localities studied.
4. November 2011 ... Framework Archaeology Heathrow Terminal 5 Excavation Archive: Archaeological work in advance of a fifth passenger terminal ("T5") at Heathrow Airport took place from 2002 onwards.

3. Collections Management and Preservation

Systems developments

- Funding opportunities have allowed a major investment in upgrading storage capabilities
 - In York we have purchased a Hewlett Packard P4500 G2 12TB MDL SAS (Serial Attached SCSI) Storage System space. This choice of system allows the server to become part of the University of York storage cluster. The cluster is configured so that data is spread across all 7 servers. It is configured with "network raid 5" which means that any one of the 7 servers can be taken offline for patching or maintenance without losing access to the data. In addition, each server has 12 disks. Within the cluster the disks in each server are grouped into two sets of 6 disks in a RAID 5 configuration so each server can survive disk failures without loss of service. The cluster and server are managed by IT Services at the University. The storage is mounted read/write on a virtual server which is managed and accessed by ADS staff.
 - In Essex we now have a Thecus SAN 8 bay server with 6 x 3TB drives in a RAID 6 configuration (9TB storage); again to fit in with the UK Data Archive architecture. This is fronted by a Dell M710-HD blade server with mirrored boot disks and running Windows 2008 R2. Microsoft Volume Shadow Copy takes regular snapshots of the data. This is augmented by monthly tape backup. All is housed in a recently completed UKDA Data Centre. It should be noted that at time of writing this is work in progress and details may change.
- A replacement public access (frontline) server – minerva3.york.ac.uk - is now active. The system purchased is a Dell PowerEdge R710 server running under Solaris 10 (9/10) for X86 systems. Main features include 12 virtual processors (2 * Intel Xeon X5650 processors), 32GB RAM and 4 * 500GB drives. The latest versions of Solaris support ZFS file systems which are very configurable in terms of failsafe mechanisms. Currently the drives are set up as mirrored pairs. The gradual move from Oracle (Sun) Solaris Sparc machines to X86 systems is cost driven with significant savings.
- A new Dell PowerEdge R410 server – memnon.york.ac.uk – has been acquired. This is running under the Linux Ubuntu v. 10.04.3 operating system. This purchase was necessitated as software we use in Linked Data (http://en.wikipedia.org/wiki/Linked_data) projects does not run under Solaris. It also reflects the general move away from Solaris by the University since its acquisition by Oracle. This OS is still free but it is increasingly expensive in terms of support.
- The new servers will allow us to repurpose their predecessors as dedicated development machines.
- Four new PCs were purchased. All staff PCs are now running under Windows 7.
- A further staff netbook was purchased, bringing the total available to three.

Curation

- The third generation Collections Management System (CMS) developed as part of the ADS+ project is now fully operational. The CMS is closely linked with other systems with, for example, collects level metadata directly populating ArchSearch and file level metadata into Fedora. File identification tools such as DROID and PRONOM are also built into the CMS.
- All deposited datasets were accessioned into the CMS.
- During the course of the year preservation and resource discovery metadata was prepared for all new collections.
- Preservation copies of all data continue to be synchronised offsite into our deep storage facility within the UK Data Archive at the University of Essex.
- The ADS curatorial team are continuing to use a series of checklists to audit completion of all ingest tasks; datasets are signed off by the appropriate project manager on completion of preparation and delivery.
- Preservation manuals and internal data procedures were kept under ongoing review.

System uptime

Unplanned downtime

Server	Date	Downtime (hour.min)	Comment
minerva2	6 Oct 2011	0.38	Swap space issues
minerva2	19- 20Oct 2011	13.17	Swap space – increased
minerva2	30 Nov 2011	1.05	Swap space – increased
all	5 Dec 2011	3.45	Power loss data centres and most of University of York campus
minerva3	12-13 Apr 2012	16.00	Some Oracle services unavailable
minerva3	27-28 Jun 2012	15.30	Glassfish down (hence ADS website)

Most services now moved to minerva3 which seems largely stable.

Planned downtime

Date	Downtime (hour.min)	Comment
none		

Patching of recent servers requires minimal downtime as recent versions of the Solaris operating system supports Live Update where a root clone is patched and then mounted. Patching of older servers took place during the Tuesdays 8-9am (UK time) advertised 'at risk' period.

4. Advisory services

New guidelines

Work on the main phase of revision and development of the new Guides to Good Practice has been completed and the Guides are available at <http://guides.archaeologydataservice.ac.uk>. Work will continue on inserting additional case studies. In addition ADS was commissioned by Digital Antiquity to produce a hard copy summary of the key information on core data types and this will go to press with Oxbow Books in 2012-13, along with an hardcopy version of the Geophysics Guide, revised by Armin Schmidt.

Number of AHRC projects seeking advice (meeting/email/phone):
40 emails covering c.20 projects

Number of AHRC Technical Appendices Assessed
19 technical appendices were assessed on behalf of AHRC.

Workshops

CARARE International Content Providers workshop
Hosted during the CAA, University of Southampton, UK. 26th-29th March, 2012, there were 12 non-CARARE attendees at this workshop. Led by CARARE project partners the ADS and the DCU (Athens) this workshop was an opportunity for the international archaeological community to explore the work of the CARARE project and its relationship with Europeana. The workshop consisted of demonstrations of Europeana, the CARARE tools for data ingestion, the CARARE metadata repository, and CARARE data standards. This was followed by a wide-ranging question and answer session with the CARARE team covering international data aggregation projects and the future directions that Europeana and CARARE might follow.

5. Publicity and promotion

Conference Appearances:

In addition to conference attendance members of staff from the ADS presented 26 papers at 22 different conferences, workshops and seminars throughout the year. These included major international conferences such as CAA Southampton (the ADS co-organised a session on archiving and access with Dr Graeme Earl), the Digital Humanities Symposium in York, DPC workshops at the National Archives and the SAA Annual Congress in Memphis, as well as UK conferences such as the IfA and the HER Forum and the Research Data Managers Forum. A full list of conferences, workshops and other significant meetings attended is available in Appendix E.

Email Lists:

ADS general list ads-all@jiscmail.ac.uk (and ads-dep@jiscmail.ac.uk)
c10 posts (>1500 members). This has grown hugely over the last year, over 800 new, members due to the new website registration process.

British Archaeology discussion list (CBA moderated) britarch@jiscmail.ac.uk

5 posts (>1400 members)

Other lists posted to regularly include Antiquist, HER Forum, the FISH mailing list and the IfA IMSIG. The ADS RSS news feed continues to run with an average of three new news items per month (c.40 in the last year) and is consumed by Wessex Archaeology amongst others.

ACE Exhibition Publicity

From January to March 2012 the ADS hosted a photographic exhibition as part of the ACE project, including an exhibition launch attended by around 50 people from all archaeological sectors.

University of York promotion/press release: <http://www.york.ac.uk/news-and-events/news/2012/events/archaeology-exhibition/>

As a result of the press release a BBC Radio York Interview given by Stuart Jeffrey to Elli Fiorentini 9th January and an article was published in The Press, York's Newspaper, January 7th 2012, Avg. 2011 circulation 26,000: http://www.yorkpress.co.uk/leisure/exhibitions/9458819.Exhibition_shows_archaeologists_at_work/ . The exhibition was also reviewed online: at 'One and Another':

York Website review: <http://www.oneandanother.com/articles/review-york-archaeological-exhibition/>

BAA Innovation Award Press Release

The BAA Innovation Award was widely promoted via the usual channels and a University of York press release produced: <http://www.york.ac.uk/news-and-events/news/2012/quality/archaeology-data-service/>.

The Yorker: <http://www.theyorker.co.uk/news/features/12079>

Queen's Anniversary Prize for Higher and Further Education, Press Release

The Department of Archaeology at the University of York was awarded a Queen's Anniversary Prize for Higher and Further Education for 2011. The University's submission highlighted the work of the ADS. Introduced following the 40th Anniversary of the Queen's reign in 1992, the prizes, which rank alongside the Queen's Awards for Industry are awarded biennially for "work of exceptional quality and of broad benefit either nationally or internationally"

<http://www.york.ac.uk/news-and-events/features/archaeology-qap/>

Social Media:

Twitter: We now have 1032 followers on twitter (up from 505 in 2010/11), this year has seen much more activity by the ADS on twitter. All new archive releases and major GLL updates are announced via our corporate channel (ADS_Update) and a separate channel (ADS_Chatter) has been established for less formal communications at conferences etc. Regular ADS announcements are frequently re-tweeted and the announcement of the recent **BAA Innovation Award** was re-tweeted 23 times reaching a potential audience of **13,764** 'twitterers'.

http://twitter.com/#!/ADS_Update

and

http://twitter.com/#!/ADS_Chatter

Facebook: The ADS reached 100 likes early in the year and converted to an 'organisation' facebook page. We currently have **404** (205 in 2010/11) followers. This channel is updated in synch' with the ADS RSS, but with additional content

<https://www.facebook.com/archaeology.data.service>

ADS Blog - Sound Bytes from the ADS

This year saw the 'soft' launch of an additional promotional channel, the ADS Blog 'Sound Bytes from the ADS'. This blog compliments project specific blogs, such as the one for the SWORD-ARM project, and is intended as a platform for ADS staff to write short articles discussing technical issues as well as disseminating updates on ADS research activities. So far this year articles have been published on the DataCite project, technical questions around PDF/A, the ADS Impact project and a report on the migration of CBA research reports to a new format.

<http://archaeologydataservice.ac.uk/blog/>

6. Resource discovery

Interoperability

The ADS continued to develop its service-orientated architecture approach throughout the year both internally and externally. Both the TAG and ARENA2 services have been maintained via our main interface ('external' services) demonstrating interoperability at a service level with partner institutions in the US and in Europe. However, as work is scheduled to continue on this approach to cross-searching via forthcoming European projects, enhanced services are likely to be given more prominence. The ADS also hosts seven web service targets for the English Heritage (Heritage Gateway).

A number of new OAI-PMH services were developed during the year, notably for MEDIN and for NERC which now consume resource discovery metadata from the ADS directly via these services into their own aggregators/portals. The ADS became an accredited MEDIN DAC in March this year. The development of OAI-PMH targets for direct/aggregated consumption by Europeana via the CARARE project have progressed this year four major datasets have been ingested into the CARARE metadata repository (MORE, hosted by the NTUA in Athens), these are the Amrara project 3D PDF data, England's Rock Art, image and 3D, Archaeology Imagebank and the Grey Literature Library. All these are awaiting aggregation into Europeana, ex-MORE, this is scheduled to be before the end of 2012.

Resource Discovery metrics:

Service	Number	Comments
Total Records Aggregated:	1,131, 170 (1,157,133)	-c.26,000 this is a direct result of a re-indexing to remove duplicates and rationalise records
External Data Sources	33 (33)	Including the monuments inventories for England, Scotland, Wales and NI.
Web services hosted	21 (15)	2 OAI PMH, 13 SOA (including FISH interoperability Toolkit, GLL, OASIS, ADS Archives(NERC, LAARC), Bibliographic Service)
Web services consumed	4 (4)	TAG, EH Heritage Gateway test service, two ESRI WMS
External aggregators	6(3)	Intute and ADS RD Metadata bulk loaded to MICHAEL – Multilingual Inventory of

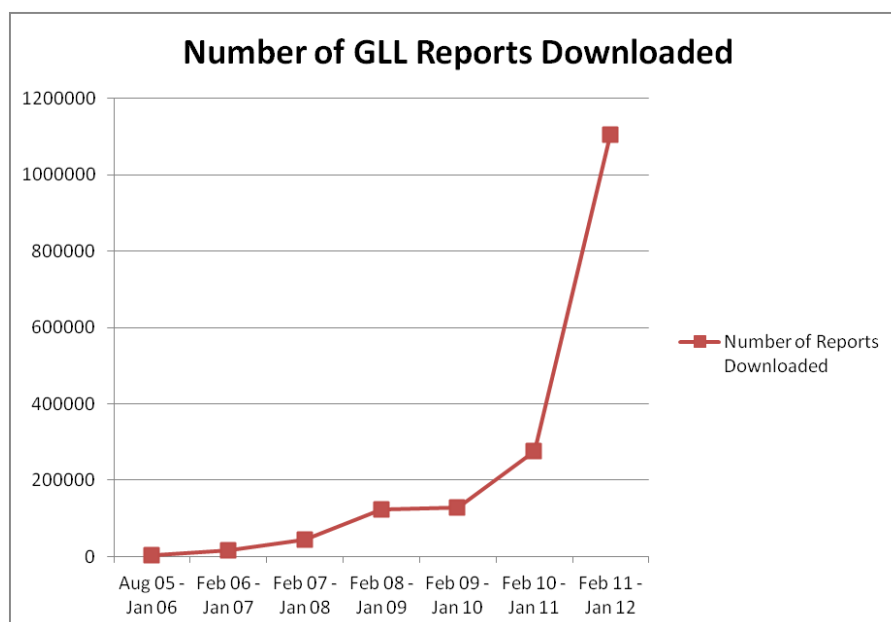
		Cultural Heritage in Europe. CARARE service, NERC, MEDIN, Keeper's Registry,
ADS Triple Store	640,000 triples	Test data from STELLAR, awaiting Intrasis ingest from EH: http://data.archaeologydataservice.ac.uk

(Previous year's figures in brackets).

7. Resource delivery

User Interface developments:

There have been a number of important developments in the ADS user interface during 2011-12. The most significant of these has been the integration of the Grey Literature Library into Archsearch and the deployment of Digital Object Identifiers. It was these innovations that earned the ADS the BAA Award for Archaeological Innovation in July this year. This was achieved by the mapping of the GLL descriptive metadata to the existing site and event description standards. This means that Grey Literature can be integrated into the faceted classification search. Extraction and conversion of geospatial information from the metadata of the Grey Literature, now allows it to be both allocated the appropriate up-to-date 'County, District, Parish' facet, but also to be plotted the ArchSearch mapping interface. The integration of Grey Literature into ArchSearch is a huge step forward in making this material discoverable, directly in conjunction with monument inventory records, associated archives and other resources likely to be of interest. As can be seen in the graph below we have already seen a massive relative increase in traffic to the GLL download site as result of this innovation.



A graph showing the steady increase in GLL usage, followed by the massive leap in usage as a result of the ArchSearch redesign, integration of GLL into the geospatial search and the assignment of DOIs in 2011. Download to use figures vary from approximately 2-10%

In the second major innovation ADS have been working in close association with the British Library on the international DataCite programme which uses a system of Digital Object Identifiers (DOIs) to assign permanent, trusted, de-referenceable citations to data sets held by trusted digital repositories. The authority to assign DOIs represents major achievement for the ADS and one which required a rigorous process of validation as a data centre. We are now able to assign a DOI to each item of Grey Literature held in the GLL, this in essence transforms it from its 'grey' status to being a research data resource with a permanent citable on line presence, the metadata being maintained by the ADS via the British Library.

Amongst other changes ArchSearch has been enhanced to allow searching by associated IDs, for example the original records HER number or OASIS ID. This was a feature that was much requested by professional ADS users. The ability to download results datasets, up to maximum of 100 records, in CSV or XML has also been re-instated, for registered users only. Finally ADS archives have also been integrated in ArchSearch and, along with other major resources, added to a 'resource' facet in ArchSearch allowing users to use all the research tools applied to a specific resource of interest simply by selecting it in the facet tree.

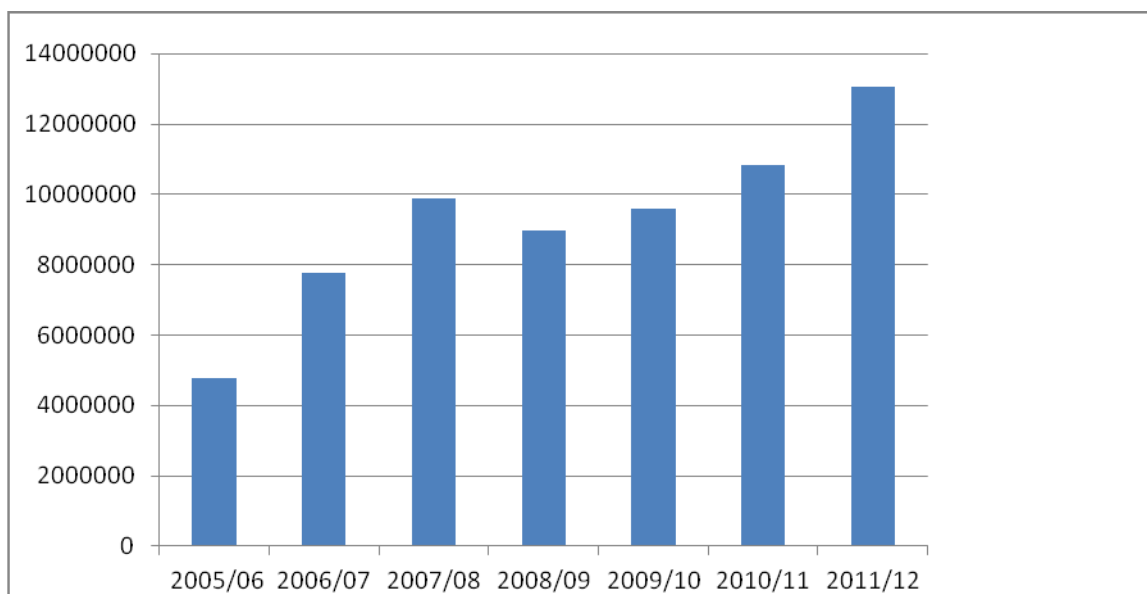
Linked Data

Following on from previous work with the University of Glamorgan in the STELLAR project, the ADS now hosts a linked data endpoint at:
<http://data.archaeologydataservice.ac.uk>.

This open resource currently holds around 644,000 triples generated from STELLAR test data (using ADS archived datasets). It is hoped that larger datasets, for example English Heritage Intrasis data, can be integrated into this resource in the near future, creating a major new means of access to archived data held at the ADS. The linked data can be explored via a web browser at the URL above, or the underlying triple store can be interrogated directly via the SPARQL endpoint [<http://data.archaeologydataservice.ac.uk/sparql/repositories/archive>] with a SPARQL client. A web interface for interrogating the SPARQL endpoint is also available at <http://data.archaeologydataservice.ac.uk/query>.

Access statistics

The total number of adjusted page requests for 2011/12 was **13,071,322**. As with the figures given in the 2010/11 annual report, this figure is potentially misleading due to the changes in the number of pages served between the old and new ADS websites. In March 2012 we made the significant change from recording statistics in Analog to using a local instance of the web metrics application Piwik (<http://piwik.org/>). This is an open source tool that records in some detail user behaviour on the site, such as time, actions, search terms, downloads and referring sites (some examples are given below). This means that the latest page access statistics in the table below are calculated using Piwik analytics in order for us to compare levels of access year on year.



Raw figures for page request 2005-2012, figures for 2010-2012 are adjusted to compensate for differing recording methods.

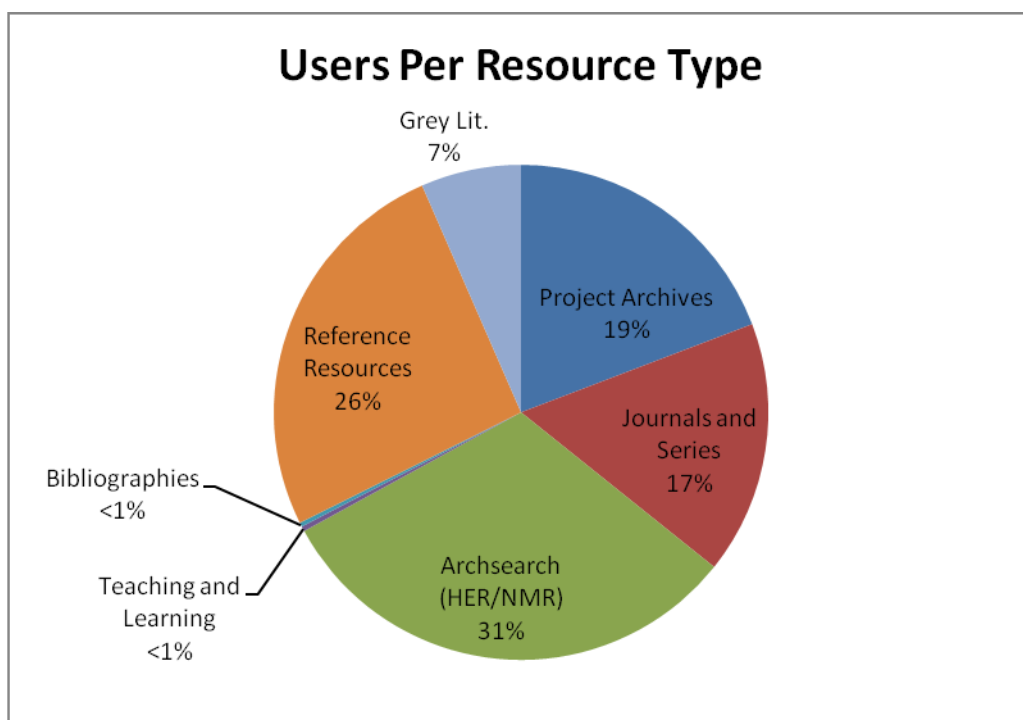
Example Piwik statistics for the last three available full months:

Month	Pageviews	Unique Pageviews	Visits	Unique Downloads
May 2012	183425	88815	18130	12606
June 2012	165515	81102	15967	10545
July 2012	171189	85467	16385	11838

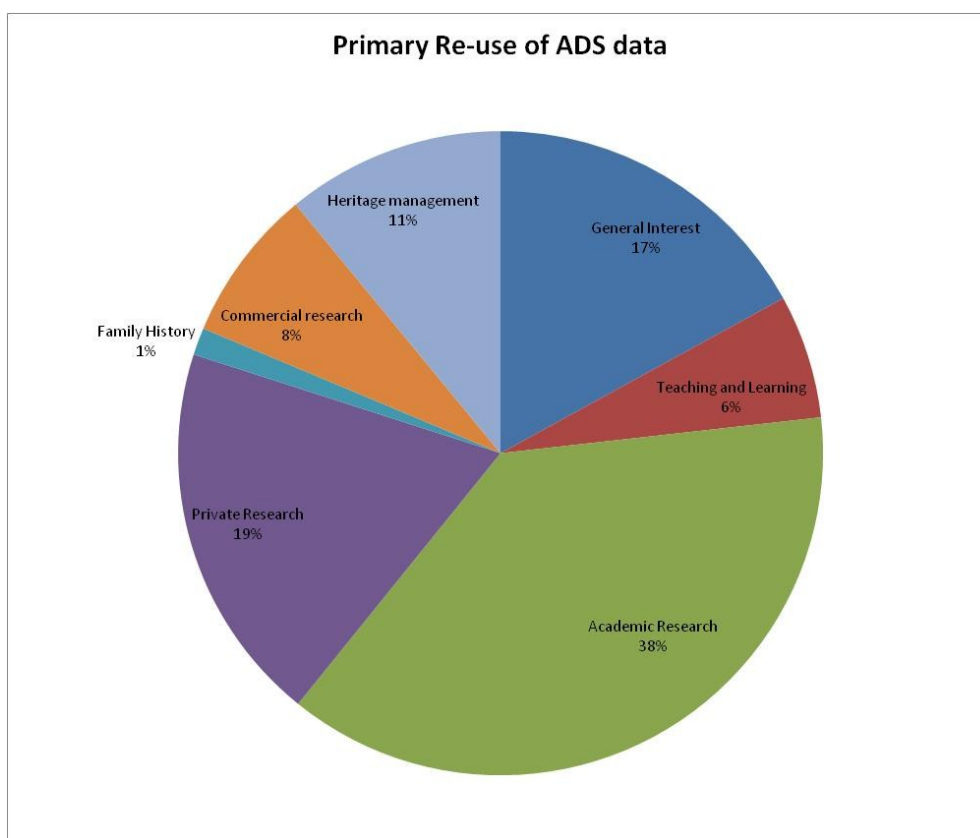
Registered users for the new website have now reached **2654** compared with 1448 this time last year, a substantial figure especially when bearing in mind that registration is entirely optional. The registration process in combination with Piwik gives us the opportunity to look a little more closely at the make-up of our user base and how they use our resources.

For example - **45%** of all visits are return visits, **35%** of visits remain on the site for more than 10 minutes, **65%** of all visits view two or more pages – the headline bounce rate for all visits is 35%, when adjusted for returning visits (direct entry to a single resource) the actual bounce rate is **21%**. Based on the data from Piwik for April to July 2012 the predicted number of visits for the calendar year 2012 (excluding bounces and adjusted for monthly variation) will be in the region of **200,000**. Unlike previous statistic based on page requests, this figure represents visits to the site by real users, performing real research functions.

User resource use by type, from Piwik:



ADS Registered Users – primary use of ADS data:



User feedback:

As well as the usual informal feedback channels the ADS Helpdesk handled 165 requests for assistance in 2011/12, down from 188 last year. In keeping with previous years there is no significant pattern in the queries that would inform us that major changes were needed in a particular resource. The decrease potentially reflects users becoming more comfortable with the new interface as in 2010/11 there was some increase in queries from the previous year. Last year's changes to the new site-reporting mechanism for Defence of Britain sites continue to mean that far fewer Defence of Britain 'reports' have been spuriously channelled through the helpdesk than in previous years.

The ADS Impact project which carried out value perceptions of the ADS users and depositors has supplied a wealth of information of user behaviours and expectations as well as their perception of the economic value of the ADS. It also, through the free text comment boxes, supplied some extremely useful user feedback. The project is still on going and will not start to report formally until November 2012 when analysis and comment will be shared with ADS stakeholders. Because one element of this project is to gauge any change in perception of the ADS amongst stakeholders prompted by the economic analysis it is not possible to share either comments or analysis until the base-line survey of stakeholders is complete in September.

Selected user comments:

"Thanks for all of your help, it's been invaluable and has probably saved me days of work (and some shoe leather)"

DS Richard Clarke, CID West Midlands Police (The Defence of Britain Database was used as part of a crime enquiry), January 2012

"Thank you very much for your response from which I was able to identify the volume required. We have a full set of PSAS and although I did recognise the first few items in the Index page, I just could not put a 'home' to it. However, I am delighted to have your prompt reply and compliment you on your web-page which is very clear and easily negotiable"

Mr A.C. Stuart Donald Keeper of the Diocesan Library & Honorary Archivist, Aberdeen, November 2011

"I'm pleased to say that the end of 2011 saw 'Recycled Landscape', the second report of the Black Country Historic Landscape Characterisation, pass the 5,000 downloads mark (18 months after its publication). This is obviously really encouraging and I just wanted to say thanks again to everyone who has supported us through the project."

Paul Quigley, Landscape Archaeologist. Black Country Archaeology Service. Email to colleagues cc'd to ADS, January 2012

"Why is this site charging for something that you provide free?..... I use your site frequently for my research and it is invaluable. Thank you."

Comment on the ARCHI site and ADS, Mrs June Banks, January 2012

"Dear Dr Dickinson, I am writing to briefly pass on my appreciation regarding the above mentioned work. I found it via the Archaeological Data Service, which has proven to be invaluable to me.....as a wargamer and modelmaker I am keen to make my subjects both exciting and historically accurate, as far as reasonably possible."

Mitch Kelly BSc CChem MRSC, email to Dr Tania Dickinson, March 2012

Blogs: The ADS also amassed **881 Blog mentions** in the last year, this a very large rise from 255 the previous year. The majority of these were simply descriptive of our service or services or listed us in a go-to resource section, comments on the service tend to have been generally positive:

Blog -Mitch's Wargaming and Modelmaking

The Archaeology Data Service website (archaeologydataservice.ac.uk) is a fantastic free resource, with tons and tons of information and inspiration. Go to the archive section then into the journals, series and books area for as much reading matter as you can manage in quite a while!

Blog – Why IT Matters in Higher Education, EDUCAUSE

"Digging into Archaeological Data - Among the various types of electronic resources for the study of the ancient world, open access collections of primary archaeological data—for example, the Archaeology Data Service (<http://archaeologydataservice.ac.uk/>) and the Archaeobotanical Database (<http://www.cuminum.de/archaeobotany/>)—are a particular boon for researchers, especially those for whom annual fieldwork may not always be possible, in that these collections bring large quantities of raw data directly to the researchers' fingertips . "

Blog - Geospatial Modeling & Visualization

*"List of Helpful Websites and Publications for Close-Range Photogrammetry
Learn more about the ADS Guides to Good Practice for close-range photogrammetric documentation: Barnes, A; J. Cothren, K. Niven (2011) Guides to Good Practice: Close-Range Photogrammetry. Archaeology Data Service / Digital Antiquity: Guides to Good Practice."*

Blog - Women of History - Dedicated to the women who have graced the pages of history, from ancient to modern times.

"From the Archaeology Data Service comes an article by Francis A Pritchard - "[Late Saxon Textiles From the City of London](#)":Archaeological investigations in the City of London have produced an important collection of late 9th- to early 12th-century textiles manufactured from wool, goat hair, silk and flax."

Blog - Mapping the Blitz Bomb Census, A JISC funded project to map the Blitz Bomb Census in London

"Defence of Britain Dataset: About the data we are using part 3One of the datasets we are including in the tools is the [Defence of Britain data set](#) collected by the [Council for British Archaeology](#) and stored in the [Archaeology data Service Archive](#). The dataset describes the anti-invasion defences built primarily between 1940 and 1941 to defend against a German Invasion."

Blog – The Open Knowledge Foundation Blog

"In the summer, the Archaeology Data Service released as part of [Data Train](#), a set of open access teaching materials for the management of research data for Archaeology postgraduate students."

8. Partnerships and collaboration

United Kingdom

- Our work with NERC continues, in particular we have finalised our contribution to the NERC Data Catalogue Service (DCS). The DCS allows users to search a catalogue of metadata to discover and gain access to NERC's data holdings and information products. The metadata are prepared to a common NERC Metadata Standard and are provided to the catalogue by the NERC Data Centres, including the ADS' NERC funded holdings. The DCS is supplied with ADS metadata via an OAI harvest.
- The Marine Environmental Data and Information Network (MEDIN) is a partnership of UK organisations committed to improving access to marine data. The ADS was the first of the proposed Historic Environment Data Archive Centres (DACs) to receive accreditation early in 2012. The ADS has recently released 5 MEDIN funded archives of Wessex Archaeology's work under the protection of Wrecks Act. These have afforded the ADS the opportunity to work closely with the BGS where the large geophysical files from these archives are housed. We have also created two OAI targets based on maritime data, the first from OASIS and the second pointing at our maritime archives, which is harvested by the MEDIN data discovery portal.
- We have been pleased to begin a relationship with the Heritage Lottery Fund to enable the archiving of digital data derived from HLF-funded projects which fall within our collecting area. From June 2012 the HLF has changed its policy so that it can now fund stand-alone digital projects. HLF-supported projects will be asked to make their digital content widely available at no charge and to use a Creative Commons licence so anyone can access and reuse content for non-commercial purposes. The HLF are prepared to fund the costs of digital archiving with project applications and has designated the ADS as an appropriate archive for archaeological data.
- We have continued our involvement in a number of UK networks of digital archives. Including the Digital Preservation Coalition, and the Research Data Management Forum. Under the auspices of the DPC representatives of ADS, English Heritage, RCAHMS, and RCAHMS met in Bedern Hall in York in October 2011 to discuss areas for future collaboration and shared practices. It was agreed to develop a joint statement of the Bedern Group to emphasise the importance of digital preservation in the archaeology and heritage sectors.
- We have continued to work with other heritage information bodies within FISH (the Forum for Information Standards in Heritage) and HEIRNET, which now meet together twice a year, one meeting focussing on strategic issues, the other on more routine matters. Having completed our work for English Heritage on the FISH interoperability toolkit we were involved in a number of training activities for toolkit users.
- We are working with English Heritage and ALGAO on 'Informing the Future of the Past 2' which will be delivered via a wiki hosted by ADS.
- We continue to be an active member of the Archaeological Archives Forum. The AAF now meets once a year to work towards promoting archives within the archaeological community. The AAF focus over the past year has been the production of supplementary information for the publication 2011: Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation (revised edition). AAF

have also supported an ongoing project to update the Map of archaeological archives collecting areas, to be hosted by the ADS and continues to consider options to try and address the issues surrounding limited museum/store facilities for archaeological archives.

- We have continued to work with English Heritage, the Royal Commission on the Ancient and Historical Monuments of Scotland, ALGAO, and the Archaeological Investigations Project at Bournemouth University to maintain OASIS. English Heritage have confirmed that they wish to fund a project which will develop the next version of OASIS. The first phase will be a user consultation, to be conducted in 2012-13.
- We continue to host the online library catalogue of the Society of Antiquaries of London, as well as their online catalogue of prints and drawings.
- We continued to host the national database of the Parks and Gardens Partnership Trust during 2011-12, but have taken steps to help them transfer their database to a commercial provider during 2012-13.
- We have worked with Ubiquity Press and the *Journal of Open Archaeological Data* to act as a trusted digital repository for data sets described in this new journal.

Europe and Scandinavia

- The ADS has continued to work towards the Archaeology of Contemporary Europe (ACE) objectives and Julian Richards attended meetings of the ACE partners in Poznan in October 2011 and Frankfurt in June 2012. During 2011-12 the ADS hosted six ACE mobility bursaries, which have allowed colleagues at other European institutions, including Uppsala University, Aristotle University of Thessaloniki, INRAP (France) and DANS (Netherlands), to spend time at the ADS and exchange ideas and methodologies. From January to March 2012 the ADS hosted the ACE photographic exhibition in King's Manor.
- The EAC prepared a successful application the European Culture programme, for ARCHES, a project to develop archiving guidelines for a number of European member states. The ADS role in this project is to host the guides which will be developed using wiki technology based on our experience in developing the new editions of the G2GPs.
- In May 2012 the ADS hosted a visit from representatives of the DAI (the German Archaeological Institute), which is undertaking a scoping study on what would be required to establish a digital data archive for archaeological data.

North America

- The ADS continues to work closely with the Digital Antiquity consortium in the United States, and Julian Richards is a member of the Board of Directors, participating in quarterly meetings via Skype, and attending the annual face-to-face meeting in Tempe, Arizona in March 2012.

Australia

- The ADS is an international partner in FAIMS (Federated Archaeological Information Management System), a highly ambitious project led by the University of New South

Wales, and funded by the Australian Government's NECTAR programme. FAIMS is a 12-month project which aims to "assemble a comprehensive information system for archaeology. This system will allow data from field and laboratory work to be born digital using mobile devices, processed in local databases, extracted to data warehouses suitable for sophisticated analysis, and exchanged online through cultural heritage registries and data repositories." ADS may develop interoperable cross-search with the FAIMS consortium as the Australian Historical Archaeology Database is running on an instance of tDAR, with which we have already developed a web service.

9. Research and development

- Work has continued throughout the year on **CARARE**, a best practice network funded by the European Commission's ICT Policy Support Programme. CARARE brings together heritage agencies and organisations, archaeological museums and research institutions and specialist digital archives from all over Europe to establish a service that will make digital content for Europe's unique archaeological monuments and historic sites interoperable with Europeana. It aims to add the 3D and Virtual Reality content to Europeana. As well as leading the CARARE Sustainability Working Group, we are members of the Europeana Council of Content providers (CCPA) Sustainability Working Group which has a remit to look at this topic for Europeana and all its constituent projects and also the CCPA Legal Working Group. The ADS was also represented at the CARARE international technical workshop in Mykonos in May this year at the session on GeoSpatial and 3D applications. In addition to work on sustainability, the ADS is a content provider for CARARE and has moved on from testing of the CARARE MINT mapping tool, to the mapping of several sets of actual metadata for digital resources currently within the ADS archives.
- In October 2011 work commenced on **SWORD-ARM** (SWORD and Archaeological Research Management). This is an 18-month project funded by JISC under its Research Data Management Programme. ADS will work with a number of HE institutions (the Universities of Southampton, Glasgow and Manchester) to refine and enhance ADS's ingest and charging process by creating a SWORD client (subsequently christened ADS-easy) to streamline and automate deposit. This will strengthen the ADS data management systems and business infrastructure, and deliver real benefits to depositors in terms of their ability to deposit data, create and validate metadata, engage in selection and retention, manage multiple deposits and, crucially, to manage cost estimate and charging processes. SWORD-ARM therefore represents an enhancement to ADS's role as a discipline-based repository, and an embedding of our role in a number of HE institutions. SWORD-ARM will significantly improve the ability of ADS to handle increasing volumes of data and to charge directly for deposit. It will improve the service offered to our depositors in terms of cost transparency, ease of use and speed of deposit. Progress is on schedule and a beta version of ADS-easy has been produced.
- In February 2012 work commenced on an 18-month project to examine the **Impact of the Archaeology Data Service**: a study and methods for enhancing sustainability. The project is funded by JISC and is in collaboration with Centre for Strategic Economic Studies (Victoria University) and Charles Beagrie Ltd. The project will analyse and survey perceptions of the value of digital collections held by the Archaeology Data Service and how those perceptions of value can be measured. As part of this work, we will assess and quantify the economic impact of those collections with the ultimate objective of improving their prospects for sustainability. We will explore a

range of methods and sources of data including investigating data from 1996-2011 on the growth of collections and users at ADS and how return on investment grows with the collections. A focus of the project is disseminating our findings and recommendations to the wider JISC and research data communities. The project is progressing to plan, with online surveys and first round stakeholder interviews completed. Interviews and economic analysis are ongoing.

10. Service management

During the year 1 August 2011 - 31 July 2012 the ADS had total income of £1,131,756 and total expenditure of £696,815, including £22,000 which was transferred to reserves. An additional £31,213 was received as the ADS share of University of York overheads, but £35,000 of overhead income was set aside as the ADS contribution to EU projects. A credit balance of £72,070 was carried forward from the 2010-11 financial year, leaving a credit balance of £500,888 to carry forward to 2012-13. The majority of this relates to income received in advance of work undertaken. Additionally, £164,593 is now held in the ADS reserves account. The full accounts for 2011-12 are available as a separate document.

The internal management team held quarterly meetings to review finances, and all ADS staff met for project updates on a monthly basis, with separate meetings of the curatorial and technical staff to resolve specific issues.

After nine years with ADS Jen Mitcham left us in June 2012, to take up the position of Digital Archivist at the Borthwick Institute for Archives, within York University Library. We were pleased to welcome Jo Gilham in her place, returning to ADS after 6 years as a Learning technologist at the University of Sheffield. We were also pleased to welcome back Holly Wright, on completion of her PhD on semantic web applications for vector graphics in archaeology.

Appendices

(A) STAFFING LIST

Prof J D Richards, Director
T Austin, Systems Manager
M Charno, Applications Developer
T Evans, Digital Archivist
J Gilham, Digital Archivist (from July 2012)
C Hardman, Deputy Director (Collections)
S Jeffrey, Deputy Director (Access)
J Mitcham, Digital Archivist (until July 2012)
R Moore, Digital Archivist
K Niven, Data Standards Editor/ Digital Archivist
D Page, Administrator
H Wright, Digital Archivist (from March 2012)
L Xia, Applications Developer

(B) MANAGEMENT COMMITTEE MEMBERSHIP

Met on 27 September 2011 and 20 March 2012

Corresponding members are indicated with an asterisk

Tim Darvill OBE	Chair, Bournemouth University
Mike Heyworth MBE	Vice-Chair, Council for British Archaeology
Jeremy Huggett	Vice-Chair, University of Glasgow
Diana Murray	Vice-Chair, RCAHMS
Gail Lambourne	Arts and Humanities Research Council
Peter Halls	Association for Geographic Information
Gail Falkingham	Association of Local Government Archaeological Officers
Barry Cunliffe*	British Academy
Dan Pett*	British Museum
Nick Poole	Collections Trust
Marion Meek*	Dept of the Environment for Northern Ireland
William Kilbride	Digital Preservation Coalition
Keith May	English Heritage
Mike Evans	English Heritage (NMR)
John Walker	Federation of Archaeological Managers and Employers
Armin Schmidt	GeodataWIZ
Anthony Sinclair	Higher Education Academy
Noel Fojut	Historic Scotland
Edmund Southworth	Manx National Heritage
Mark Thorley	Natural Environment Research Council
Gary Lock*	Oxford University
David Thomas	RCAHMS
Ortrun Peyn	Society of Antiquaries of London
Simon Gilmour	Society of Antiquaries of Scotland

Paul Miller	The Cloud of Data
Clive Orton	University College London, Institute of Archaeology
Vince Gaffney*	University of Birmingham
Graeme Barker	University of Cambridge
Richard Higgins	University of Durham, Archives and Special Collections
Nick Ryan	University of Kent at Canterbury
Mark Gillings*	University of Leicester
Sam Turner	University of Newcastle
Graeme Earl	University of Southampton, Dept. of Archaeology
Steve Mills*	University of Wales - Cardiff, School of History and Archaeology
John Local	PVC, University of York

(C) NEW COLLECTIONS RELEASED

Wroxeter Conservation Plan

The Wroxeter Conservation Plan (WCP) offers a full consideration of the evidential, historical, cultural and aesthetic significances of the site, alongside management information, characterisation of the resource and the recommendations resulting from the extensive consultation process with stakeholders at all levels.

Memorials from the Isle of Man TT Races

The Isle of Man TT (or Tourist Trophy) Races, a motorcycling event raced over the 60.7km (37¾m) of public roads, has achieved notoriety as one the most dangerous motor racing events in the world. This 'darker side' of the event has seen the death of some 136 men and women during the events 105 year history. This archive presents a catalogue of the memorials raised to the memory of some of those individuals who have lost lives whilst competing at the event, but also includes those erected to the memory of fans, spectators and officials.

The Origin and Spread of Stock-Keeping in the Near East and Europe

For decades there have been major debates as to the nature of the spread of agriculture westwards into Europe. With specific reference to the spread of livestock this research represents the largest and most systematic survey of published/archived archaeological zooarchaeological data ever undertaken, re-examining the evidence for the origins of stock-keeping in the Near East and its spread into Europe during the Epipalaeolithic and Neolithic periods, c.12,000 to 6,000.

Wiltshire and Swindon Aggregate Resource Assessment

An Archaeological Resource Assessment of the Aggregates Producing Areas of Wiltshire and Swindon was undertaken by Cotswold Archaeology - the project report is available to download.

Forest of Dean Archaeological Survey: LiDAR Survey

The digital archive for this ALSF project comprises the final project report, database and shapefiles. The results of the LiDAR survey form a discrete body of work of enormous significance to an understanding of the archaeology of the area.

Revised research framework of Post Roman Ceramic studies in Britain

This Research Framework provides a focus for post-Roman ceramic studies in England, Scotland and Wales for the next five years. Its aim is to inform all archaeologists during the development of local, regional and national research programmes, as well as period-specific strategies.

The Geophysical Survey Database

An online database that incorporates the English Heritage Geophysical Survey Database and geophysical events recorded in the OASIS system.

Wharram Percy Archive

The primary aim of the project has been to disseminate, by the most appropriate means, the results of the excavations carried out at the deserted medieval village site of Wharram Percy, North Yorkshire, between 1950 and 1990. The current phase of the project began in 2000, and has resulted in thirteen publications detailing the principal findings of excavations carried out in various parts of the village site between 1950 and 1990.

Californian Basketry Traditions

The dataset reproduced here forms the basis of a paper that examines the relationship between language transmission and craft traditions amongst the Californian Indian, and focuses on the basketry traditions of the western United States (Jordan and Shennan 2003).

Identification and quantification of archaeological projects arising from aggregate extraction in Hampshire, Surrey, East Sussex and West Sussex

The project aimed to identify and quantify past archaeological investigations arising from hard and soft aggregates extraction in Hampshire, Surrey, East Sussex and West Sussex, which currently have incomplete or inappropriately low levels of dissemination. The archive contains the report and database for this project.

Gill Mill Quarry, Oxfordshire

The Post-excavation assessment covering 12 years of excavations at Gill Mill Quarry in Oxfordshire. Evidence has been uncovered for late prehistoric/Roman settlement with associated burials.

Essex Seaside Resort Project

The Seaside Heritage Project is a series of reports whose purpose is to examine, explore and explain the growth and consolidation of Essex coastal resorts and to outline recommendations for the future conservation of its distinct character zones.

The Antikythera Survey Project

The Antikythera Survey Project (ASP) was an interdisciplinary programme of fieldwork, artefact study and laboratory analysis that addressed the long-term history and human ecology of the small Greek island of Antikythera.

Wealden Houses Database

An online database of Wealden houses (a distinctive medieval structural type), compiled by the Vernacular Architecture Group.

Whitley Castle Geophysics Survey

The geophysics data from the survey of a Roman fort near Alston, Northumberland.

Agricultural innovation at QasrIbrim, Egypt, 1000 BC - AD 1800

Data from the NERC funded archaeobotanic analysis of material from QasrIbrim, Egypt.

England's Past for Everyone: Historic Environment Research

England's Past for Everyone was a five-year project that focused on studies of particular localities such as Parham House in West Sussex and survival in the unpropitious landscape of Exmoor. A key element of the project was the concept of ethnicity and English identity. Several studies, particularly 'Bristol: Ethnicity and the City, 1000-2001', an account of one thousand years of migration to Bristol, detailed the history of ethnic populations in order to understand their impact on the local environment. Reports and images relating to the project work are available to download for 9 of the localities studied.

Mystery Wreck Project

Data relating to the study and investigation of a Mystery Wreck discovered in the Eastern Solent in 2004.

Bibliography of the Vernacular Architecture Group updated

Updates and corrections have been made to this resource.

Infernal Traffic: Excavation of a Liberated African Graveyard in Rupert's Valley, St Helena

This project relates to archaeological investigations of the 'Liberated African' graveyards in Rupert's Valley, on the island of St Helena in the South Atlantic.

AMAP2 - Characterising the Potential for Wrecks

The project sought to improve the management of the marine historic environment by enhancing our understanding of the relationship between shipwrecks and their surrounding environment.

Hulk Assemblages: Assessing the national context

The project sought to create a method for quantifying known hulk assemblages in England, and to create a nationwide database of hulk assemblages, that could be used to identify thematic, geographic and temporal gaps in the known data.

Chronology of British aggregates using amino acid racemization and degradation archive updated

The archive has been updated to include the project database. The project assessed the utility of a novel method of amino acid racemization analysis and interpretation on the calcitic opercula of the gastropod *Bithynia*.

Understanding water table dynamics and their influence on the buried archaeological resource in relation to aggregates extraction

This report presents the results of hydrological monitoring and modeling of groundwater conditions at the site of Newington, in the Idle River valley, Nottinghamshire.

Archaeological Potential of Cave and Fissure Deposits in Limestone

This project undertook a study of the archaeological potential of cave and fissure deposits and assessed current protection to such deposits as afforded through the planning process.

Aggregates Extraction and Archaeology Backlogs: North-West Region

This project comprised a desk-based study of aggregate sites in the north-west of England. The study covered the counties of Lancashire, Greater Manchester, Cheshire and Merseyside. The study was undertaken to identify and quantify archaeological projects arising from aggregates extraction which currently have incomplete or inappropriately low levels of dissemination.

Identification and Quantification of Projects Arising From Aggregates Extraction: Derbyshire, Nottinghamshire and Oxfordshire

A pilot study has been carried out as part of an ALSF commission to assemble a database of known archaeological fieldwork projects on hard and soft aggregates extraction sites in Derbyshire, Nottinghamshire and Oxfordshire. The aim of the project was to identify those sites with incomplete or inadequate levels of dissemination, and to assess the potential of these sites.

Archaeological Archives Forum Papers updated

The collection of papers has been updated with the 2011 (Second Edition) of 'Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation'.

Weoley Castle Ruins

Weoley Castle is a fortified, medieval manor-house situated four miles to the southwest of Birmingham city centre, two campaigns of archaeological excavation were undertaken; between 1932 and 1940 and 1955 and 1962. The digital archive consists of a series of reports on the archaeological archive, the ceramic finds and the small (portable) finds etcieval manor-house situated four miles to the southwest of Birmingham city centre.

The Archaeobotany of Vaihingen an der Enz, Baden-Württemberg, Germany

The dataset is the result of a large-scale analysis of charred macrobotanical remains (seeds/fruits, chaff) from the extensively excavated and sampled LBK site Vaihingen an der Enz. The aims of the study were to investigate the use and management of plants in this early farming settlement and the social implications of these practices.

Framework Archaeology Heathrow Terminal 5 Excavation Archive

Between 1996 and 2000 Framework Archaeology undertook extensive excavations of an important prehistoric and Roman landscape at Perry Oaks sludge works, Heathrow, Middlesex. Further archaeological work in advance of a fifth passenger terminal ("T5") at Heathrow Airport took place from 2002 onwards, and the results of those excavations will be integrated with the data contained in this archive.

Historic Seascape Characterisation: Newport to Clacton and Adjacent Waters

The Newport-Clacton Historic Seascape Characterisation (HSC) Project forms part of the second round of implementation of a national HSC methodology to the England's coastal and marine zones.

Town and Country in Roman Essex: Settlement Hierarchies in Roman Essex

The Town and Country in Roman Essex project is a large scale regional study based on correspondence analysis of finds assemblages, including coins, pottery, registered finds, animal bone and vessel glass. The database includes linked tables on small finds, glass, pottery and coins, as well as for the following aspects of the animal bone assemblages: NSIP, MNI, tooth-wear, MNE and metrics for bone elements.

Derbyshire and the Peak District Archaeology and Aggregates Resource Assessment

The Derbyshire and Peak District Aggregates Resource Assessment Project was undertaken to develop the historic environment evidence-base and assist in future management and decision-making in relation to archaeology and aggregate extraction.

Parts and Wholes: object categorisation and fragmentation in prehistoric context

The digital archive from the British Academy-funded Parts and Wholes project undertaken by John Chapman and Biserka Gaydarska of Durham University. The project was concerned with the relationship between complete objects and their fragments, and studied the artefact assemblages from Chalcolithic sites at Dolnoslav tell and the Durankulak and Varna cemeteries in Bulgaria.

Late Quaternary Landscape History of the Swale - UreWashlands archive updated

The existing project archive has been updated with the addition of data from the various scientific analyses.

Maritime and Marine Historic Environment Research Framework

This project produced a resource assessment and research agenda for England's maritime and marine historic environment, which is the first, key stage in developing a full research framework.

Oxfordshire Aggregates and Archaeology Assessment

The project quantified and reviewed the archaeological potential of the aggregate areas in Oxfordshire in order to provide an assessment of the threat to the archaeological resource from future aggregate extraction.

Historic Seascape Characterisation: Hastings to Purbeck and Adjacent Waters

The project resulted in a GIS-based characterisation of the project area, extending from Hastings, Kent, to Purbeck, Dorset, along the coast and seaward across adjacent waters to the Median Line with France.

The Virtual Amarna Project

This archive resulted from the 3D digitisation of objects from the ancient Egyptian city of Amarna using a Konica Minolta Vivid 9i system. Data includes images, 3D PDF files, meshes (obj) and point clouds (ascii). This archive was undertaken in conjunction with an electronic publication through the LEAP II project and the corresponding article (Limp et al, 2011) can be found in Internet Archaeology 30.

Wroxeter: The Webster Excavation Archive Project

This archive comprises the database created as a curatorial and research tool during the post-excavation and publication work on Graham Webster's excavations at Wroxeter 1955-1985.

Historic Seascape Characterisation: The Irish Sea (English sector)

The project comprises a GIS-based historic seascape characterisation (HSC) of the English sector of the Irish Sea.

Bedfordshire Aggregates Archaeological Resource Assessment

The aim of this project is to improve knowledge of the archaeological resource of the aggregate producing areas of the historic county of Bedfordshire; thereby providing the appropriate tools to facilitate decisions regarding strategic planning, management and preservation of archaeological sites and historic landscapes within those areas.

Midlands purple and Cistercian-type wares in the west Midlands in the 15th-16th centuries

This project studied Midlands purple and Cistercian-type wares, some of the commonest wares on late medieval to post-medieval sites in the west Midlands.

Faunal Remains from Stafford Castle Excavations 1978-1998

The bones are from Site B (inner bailey) adjacent to the motte from Phases 1 to 6, dating from c.1070 to c. 1650 with the largest groups Phases 2 and 3 from c.1070 to c. 1425, the time of the timber castle and the early years of the stone castle built in 1348.

Essex Aggregates Archaeology Resource Assessment

This report provides the results of an assessment of the archaeological resource threatened by the extraction of aggregate minerals within Essex.

A Review of Animal Remains from the Neolithic and Early Bronze Age of Southern Britain

This project is a review of the animal bone evidence from Neolithic and Early Bronze Age sites in southern England. A Regional Review report, for which this database serves as an online appendix, has been written which synthesises the faunal assemblages and discusses their implications for husbandry, hunting, meat consumption and ritual activities.

Post-Medieval Britain and Northern Ireland updated

This on-line searchable database has been updated with 500+ new entries of fieldwork in 2009. Some entries are illustrated and many more contain links to relevant reports within the Library of Unpublished Fieldwork Reports.

The Waite Nuneaton Private Collection

The Waite Project constitutes a record of potentially-Palaeolithic lithic surface finds from the Nuneaton area, Warwickshire, retrieved in fieldwalking by Mr Ron Waite of Nuneaton over many decades, and kept in his own private collection between 2005 and 2008.

Historic Seascape Characterisation: Bristol Channel and Severn Estuary

This project is one of four projects commissioned to implement the national HSC Method, extending and applying the principles already underpinning Historic Landscape Characterisation (HLC) to a range of areas of the English coast, seas and adjacent waters.

Medieval Britain and Ireland updated

This database has been updated with 286 new entries of fieldwork in 2009.

Cruck database updated

This database has been updated, and now contains over 6000 records of cruck buildings in England and Wales.

The 'Coach House', 16 Bevois Valley Road, Southampton

A building recording report by Southern Archaeological Services Ltd, released as part of the Southampton's Designated Archaeology Collections Programme.

Woolston Riverside, Southampton

A field evaluation by Thames Valley Archaeological Services, released as part of the Southampton's Designated Archaeology Collections Programme.

20-26 College Street, Southampton

A field evaluation by Thames Valley Archaeological Services, released as part of the Southampton's Designated Archaeology Collections Programme.

Identifying coastal archaeology using multi-spectral satellite imagery of the intertidal zone

This English Heritage funded project explored the use of multispectral satellite imagery for archaeological investigations in the intertidal zone.

Bibliography of the Vernacular Architecture Group – updated

This online database has been updated with new records, and revisions to existing records.

Assessing The Research Potential of Grey Literature in the study of Roman England - archive updated

This archive has been updated with the results of Stage 2 of the project, a more detailed assessment of the ability of grey literature to enhance academic understanding of specific aspects of Roman Britain, using Essex, Somerset, Warwickshire and South and West Yorkshire as case studies.

(D) PUBLICATIONS

Jeffrey, S., Xia, L., Richards, J., Kintigh, K., Pierce-McManamon, F., Brin, A., Bateman, J. 2012 The Transatlantic Archaeology Gateway: Bridging the digital ocean. *Proc. 36th Int. Conf. on Computer Applications and Quantitative Methods in Archaeology (CAA)*, Beijing, China, 2011. In Press 2012.

Jeffrey, S. 2012, The ADS: What Is It All About? *The Post Hole* Issue 23, 5th June 2012 <http://www.theposthole.org/read/issue/23/>

May, K., Binding, C., Tudhope, D., Jeffrey, S. 2012 Semantic Technologies Enhancing Links and Linked Data for Archaeological Resources. *Proc. 36th Int. Conf. on Computer Applications and Quantitative Methods in Archaeology (CAA)*, Beijing, China, 2011. In Press 2012.

Mitcham J. & Hardman C. 2011 ADS and the Data Seal of Approval – case study for the DCC *Digital Curation Centre - Case-Studies*

<http://www.dcc.ac.uk/resources/case-studies/ads-dsa> 

Richards, J.D., Jeffrey, S., Ciravegna, F., Waller, S., Chapman, S., and Zhang, Z., 2011 The Archaeology Data Service and the Archaeotools project: faceted classification and natural language processing. In Witcher-Kansa, S., Kansa E.C. & Watrall, E. (Eds.), *Archaeology 2.0 and Beyond: New Tools for Collaboration and Communication*, Los Angeles: Cotsen Institute of Archaeology. <http://escholarship.org/uc/item/1r6137tb>

Richards, J.D., Winters, J., & Charno, M. 2011 Making the LEAP: Linking Electronic Archives and Publications. In Jerem, E., Redö, F. & Szeverényi, V. (eds.) *On the Road to Reconstructing the Past*, Proc. 36th Int. Conf. on Computer Applications and Quantitative Methods in Archaeology (CAA), Budapest, Hungary, 2008, 141-6.

(E) CONFERENCES & PRESENTATIONS

19th July	DPC Links that Last	Attended by Michael Charno
9th June	15 years of Open Access Archiving at the ADS, Open Access Archaeology Conference, Mappa Project Conference, Pisa, Italy (via videolink)	Presentation by Stuart Jeffrey
22nd May	Barriers to Participation in Archaeology Online - UCL	Attended by Stuart Jeffrey
18th May	DPC Annual Planning Day, Bedern Hall, York.	Attended by Tim Evans
16th May	IFA Archaeological Archives Forum, Reading. Pilot Workshop.	Attended by Tim Evans
20th April	20th April, IfA Conference Oxford, Developing archives SWORDARM	Presentation by Catherine Hardman
20th April	Developing a 3D Digital Heritage ecosystem- SAA Memphis	Presentation by Julian Richards
19th April	The Guides to Good Practice for Creating and Caring for Digital Archaeological Archives - SAA Memphis	Presentation by Julian Richards
18th April	IfA Conference Oxford, IMSIG session: International cooperation in archaeological data sharing	Presentation by Stuart Jeffrey
28th March	Why the SWORD is mightier than the pen: automated ingest and the SWORD-ARM project - CAA Southampton	Presentation by Ray Moore
27th March	Archiving Three-Dimensional Archaeology: New Technologies, New Solutions? In Three-dimensional archaeology: Recording, Analysis and Visualisation, - CAA Southampton	Presentation by Stuart Jeffrey
27th March	Private information exchange and commercial interest in social media. In Digital Humanities and Archaeological Computing workshop - CAA Southampton	Presentation by Stuart Jeffrey
27th March	The STELLAR project, the ADS triple-store and the semantic-web - CAA Southampton	Presentation by Michael Charno

26th March	CARARE International Workshop, the ADS Experience - CAA Southampton	Presentations by Stuart Jeffrey and Holly Wright
8th March	Postgraduate Seminar on Digital Archiving in archaeology	Presentation by Stuart Jeffrey
7th March	JISC GECO Workshop, London	Presentation by Michael Charno
6th March	Visualising Digital Archives - IFA Archives Group AGM	Presentation by Catherine Hardman
23rd February	Virtual Archaeology: New Technologies, Old Problems? Digital Humanities Symposium - Virtualisation and Heritage, Humanities Research Centre, University of York	Presentation by Stuart Jeffrey
26th February	Surviving the Digital Dark Ages: Fifteen Years of Digital Archiving at the ADS. Archaeological Archives as a Resource: Creation, Curation & Access, Royal Irish Academy, Dublin,	Presentation by Stuart Jeffrey
8th February	Linked Data and GeoSPARQL Workshop, York	Attended by Michael Charno
27th February	The ADS and digital archives in archaeology, CBA Winter AGM, London	Presentations by Julian Richards and Michael Charno
8th February	Linked Data and GeoSPARQL Workshop, York	Attended by Michael Charno
7th December	HER Forum, Birmingham	Attended by Tim Evans
28th November	DPC/TNA The Future of File Format Identification: PRONOM and DROID User Consultation, The National Archives, Kew	Presentation by Jenny Mitcham [2011]
14th November	Postgraduate Seminar at the University of Liverpool	Presentation by Stuart Jeffrey
11 th November	Keynote address to CAA Sweden inaugural meeting, University of Uppsala	Presentation by Julian Richards
7th October	UCD Postgrad seminar, Dublin	Presentation by Michael Charno

27-29th September	DPC/OPF Practical Tools for Digital Preservation: A Hack-a-thon, Science Park, York	Attended by Jenny Mitcham and Michael Charno
14th September	University of Chester, undergraduate seminar	Presentation by Stuart Jeffrey
9th September	Presentation on the ADS and Digital Archiving to Manx Heritage and invited guests	Presentation by Julian Richards
19th August	Guides to Good Practice for Laser Scanning and Photogrammetry, International Society for Photogrammetry and Remote Sensing conference, King's Manor, York	Presentation by Stuart Jeffrey