

ADS Annual Report

1st August 2010 – 31st July 2011

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 ten.

1. Highlights of the year

During 2010-11 we were able to make some significant enhancements to our preservation infrastructure, including the complete overhaul of the ADS internal Collections Management System, and the implementation of a Fedora-based digital repository architecture for file level management. Although these changes are largely invisible from an end-user perspective, they provide a robust and sustainable preservation architecture for the future, and will facilitate enhanced search facilities.

One of the changes has been the publication of a unique Digital Object Identifier (DOI) for every ADS archive and every grey literature report, in collaboration with DataCite at the British Library. The DOI is an internationally agreed means of providing a persistent identifier for digital resources. It will remain unchanged even if the physical address of the object is altered, and it provides users with a permanent means of citation when referencing ADS resources.

In March 2011 the ADS was accredited with the Data Seal of Approval, an international 'kite-mark' for digital repositories, becoming only the second UK repository to gain this recognition, after the UK Data Archive at the University of Essex.

We have also been looking to extend our preservation services to other organisations and during the year the ADS embarked upon a couple of pilot projects to provide digital archiving services for developer-funded archaeology. Southampton City Council now requires contractors to deposit digital data with the ADS, and the OASIS form is used to keep costs down by providing metadata about the archive to ADS and to Southampton Arts and Heritage, who are the final recipient of the physical archive. We have also worked with Wessex Archaeology and a number of Wiltshire and Hampshire Museums to provide archiving for digital photographs of fieldwork projects, again using the OASIS form for the core metadata. The ADS web site provides access to the photographs, by site, with a link to the grey literature report.

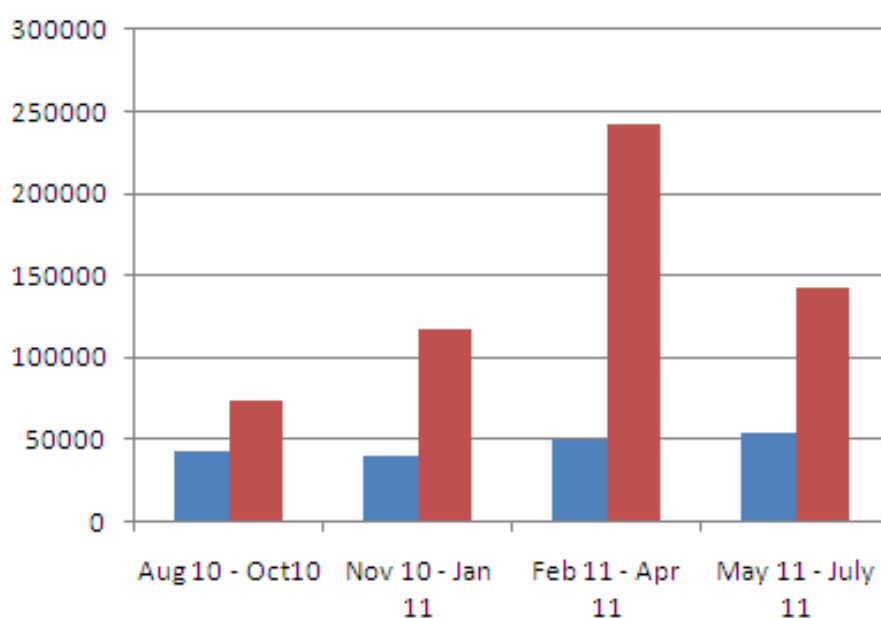
By the end of the year the ADS grey literature library contained over 11,000 unpublished fieldwork reports.

2. Collections Development

Significant New Collections

The Grey Literature Library: The grey literature library has continued to grow at an increasing rate both in the numbers of reports being accessioned and the numbers of downloads of the reports by users. The number of reports accessioned into the archive from the OASIS system reached 3610 over the reporting year; an average of 300 per month. In addition to this the grey literature library has been enhanced with the inclusion of the grey literature reports from the Alan Vince Archive and elements of the Highways Agency backlog archive. A preliminary batch of reports from Lincolnshire have also been included, as a forerunner to the c.4000 reports we expect to accession in Autumn/Winter 2011.

Usage of the grey literature library is similarly healthy, with a steady increase in its use month-on-month. The peak in the quarter February-April 2011 may be an anomaly related to indexing by Google.



Number of visits to the library (blue) and reports downloaded (red).

Southampton Museums archives: Southampton Arts and Heritage is the final recipient of all archives generated by archaeological fieldwork within the Southampton city boundary. Its role is to store and care for the objects and the paper, photographic and digital records which provide the permanent record of any excavation, watching brief or building recording. The increasing amount of digital data in archives from archaeological fieldwork presents particular problems for long term archiving. The need to refresh and migrate data presented them with particular problems with increasing pressure on resources. Working with the ADS ensures that digital data from fieldwork in Southampton can be made available to the widest possible audience. The cost of the archiving is passed on to the developer and the charges are transparent at the point of tendering for work, so can be factored into the unit's expected costs.

Alan Vince Archive: Alan Vince transformed the study of Saxon, medieval and early modern ceramics by applying geological and archaeological techniques. He examined the petrological composition of pots, comparing their constituents with rocks from known geological deposits. Working from microscope slides and later also with chemical analysis of the clay, he could deduce the geographical origin of the pot - sometimes even the precise kiln that had produced it centuries ago. Alan compared tens of thousands of potsherds, from dozens of sites, deploying statistical techniques to transform our understanding of conditions in English towns. One issue arising from the sad and untimely death of Alan Vince in 2009 was the fate of the material, data and documentation he collected during his working life. Amongst this archive is digital material, scientific data and samples (in the form of thin sections and the results of ICPS analysis), correspondence and reports, that retains research potential and is of value to future archaeological enquiries. Much of this material relates to the study of medieval ceramics, both pottery and ceramic building material, although other periods from prehistoric to post medieval are also represented. Amongst this work are three major projects funded by English Heritage - the UK Thin Section Database, Northern White Wares Project, and the Northumbrian Anglo-Saxon Pottery Project. In his lifetime Alan Vince amassed some 5,000 thin sections and scientific samples. In collaboration with the Medieval Pottery Research Group the ADS has made the thin section database, the pottery catalogue and chemical composition database, and numerous unpublished reports and project archives available online.

Number of new negotiations by month and funder

	New negotiations	Month	Funder
1	Cambridgeshire County Council Digital Archives	July 2011	Developer
2	Salisbury Cathedral	July 2011	
3	Northamptonshire Archives Online	July 2011	Developer
4	Early Post-Medieval transitional wares in the West Midlands	July 2011	EH
5	Southern Archaeological Services Ltd: Excavation data deposited according to instruction from Southampton City Council	July 2011	Southampton CC
6	Thames Valley Archaeological Services Ltd: Excavation data deposited according to instruction from Southampton City Council	July 2011	Southampton CC
7	Exeter Archaeology Grey Literature	June 2011	
8	Cattewater Wreck Archive	June 2011	EH
9	Mystery Wreck	June 2011	EH
10	The 'Coach House', The New Inn, 16 Bevois Valley Road, Southampton	May 2011	Southampton CC
11	Woolston Riverside, Southampton, Hampshire	May 2011	Southampton CC
12	20-26 College Street, Southampton, Hampshire (OASIS ID thamesva1-40314)	May 2011	Southampton CC
13	A Review of Animal Remains from the Neolithic and Early Bronze Age of Southern Britain	May 2011	EH
14	West Coast Palaeolandscape Project	May 2011	ALSF

15	Assessment of archaeological resource in aggregate areas in the London borough of Havering	May 2011	ALSF
16	The Lukis Archive	May 2011	Higher education
17	Essex Aggregates Archaeology Resource Assessment	May 2011	ALSF
18	Evaluating and enhancing the geoarchaeological resource of the Lower Severn Valley	April 2011	ALSF
19	Unlocking Early Anglo-Saxon Girdle-Hangers	April 2011	None
20	Headland Archaeology site archives	April 2011	Headland
21	Cotswold site/image archives	April 2011	Cotswold
22	Central Zagros Archaeological Project	April 2011	
23	Aggregates Extraction and Archaeology Backlogs: Cambridgeshire	April 2011	ALSF
24	Mammal and bird bones from Stafford Castle Excavations 1978-1998	April 2011	EH
25	Bedfordshire Aggregates Archaeological Resource Assessment	April 2011	ALSF
26	Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms: Historic Environment Projects, Cornwall Council	March 2011	OASIS
27	Assessing Boats and Ships 1860-1950	March 2011	ALSF
28	The Waite Nuneaton Private Collection	March 2011	None
29	Maritime and Marine Historic Environment Research Framework	March 2011	ALSF
30	RTISAD	March 2011	
31	Identifying coastal archaeology using multi-spectral satellite imagery of the intertidal zone	March 2011	EH
32	Landscape and Identities: English Landscape 1500 BC - AD 1086	March 2011	ERC
33	Assessment of archaeological resource in aggregate areas on the Isle of Wight	March 2011	ALSF
34	Archaeological Evaluation of the Anglo-Saxon and Viking site at Torksey Lincolnshire	February 2011	
35	Home Farm, Harmondsworth Lane, Hillingdon	February 2011	ALSF
36	Unlocking the Potential: Exploring the Archaeology of Suffolk's Aggregate Landscapes	February 2011	ALSF
37	England's Historic Seascapes: Demonstrating the Method	February 2011	ALSF
38	Historic Seascape Characterisation (HSC) Hastings to Purbeck and Adjacent Waters	February 2011	ALSF
39	Historic Seascape Characterisation: Bristol Channel and Severn Estuary (English sector)	February 2011	ALSF
40	Historic Seascape Characterisation: The Irish Sea (English sector)	February 2011	ALSF

41	Our Marine Historic Environment: Enhancing the National Monument Record	February 2011	ALSF
42	Identification and quantification of archaeological projects arising from aggregates extraction in Greater London.	February 2011	ALSF
43	Wroxeter (Webster excavations)	February 2011	
44	Staffordshire Hoard	February 2011	EH
45	North East Lincolnshire HER on the Heritage Gateway	February 2011	EH
46	Glastonbury Abbey: Archaeological Archive Project	February 2011	
47	Feeding Stonehenge: provisioning henges and households in southern Britain in the 3rd millennium BC	February 2011	
48	Rupert's Valley (St Helena)	February 2011	CBA
49	The Deanery, Chapel Road, Southampton (1)	February 2011	Southampton CC
50	Wessex Images	February 2011	Wessex
51	Framework Archaeology Heathrow Terminal 5 Excavation Archive	February 2011	BAA
52	Spitalfields - animal bones database	January 2011	TAG
53	Rural Settlement of Roman Britain	January 2011	EH
54	York Archaeological Trust Fascicules	January 2011	None
55	The Deanery, Chapel Road, Southampton (2)	January 2011	Southampton CC
56	Stricklands, Chapel Road, Southampton	January 2011	Southampton CC
57	Greater Thames Research Framework	December 2010	EH
58	Leper Bones Project	December 2010	
59	A database of Upper Palaeolithic Sites based on Wymer and Bonsall, 1977	December 2010	None
60	Newport Medieval Ship	December 2010	EH
61	Keysham Digitisation project	December 2010	HLF
62	Viking Jewellery Collections Database (PhD)	December 2010	None
63	Heslington East York: Preserved Human Brain Remains	December 2010	YAT
64	Lincolnshire Grey Literature	December 2010	Lincolnshire CC
65	Archaeolandscapes of Ireland	December 2010	
66	Dog Kennell Bridge	December	

		2010	
67	Strategic Stone Survey	December 2010	
68	Alan Vince - Thin Section Archive	December 2010	EH
69	On the beach: new discoveries at Harlyn Bay, Cornwall	December 2010	None
70	International Marine Aggregates Management Strategic Review	November 2010	EH
71	Lithics: The Lithics Studies Society Journal	November 2010	Lithics
72	Brecon to Turley High Pressure Gas Pipeline (Network)	October 2010	
73	Milford Haven to Aberdulais High Pressure Gas Pipeline	October 2010	
74	CAA UK 2008	September 2010	
75	Alder Archaeology: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms	September 2010	OASIS
76	Ouse Valley Survey Project	September 2010	
77	Rombalds Moor Rock Art project	September 2010	HLF
78	ACE Publications and Outputs	September 2010	ACE
79	Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms: Mouchel (Heritage)	August 2010	OASIS
80	Cresswell Associates: Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms	August 2010	OASIS
81	Intervention Reports deposited according to the digital instruction contained within all submitted OASIS forms: Archaeological Consultancy Limited	August 2010	OASIS
82	Garton Wetwang Slack	August 2010	EH
83	Ross & Cromarty Archaeological Services: Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms	August 2010	OASIS
84	Intervention reports, deposited according to the digital instruction contained within all submitted OASIS forms: Cameron Archaeology	August 2010	OASIS

Number of collections released with month of deposition/accession and month of start of service, by funder (with new editions italicised)

	Resource title	Released	Accession	Funder	Special interface
1	Norfolk: assessment of archaeological resource in aggregate areas	August 10	August 10	EH ALSF	
2	Surrey Archaeological Collections - volumes 1 to 32	August 10	July 10	Surrey Archaeology Society	
3	ALSF Dissemination: Benchmark Report Theme 4C. Outreach: The Sands of time, Aggregates and the public	September 10	August 10	EH ALSF	
4	Archaeological Cropmark Landscapes of the Magnesian Limestone	September 10	July 10	EH ALSF	
5	Till - Tweed Aggregates and Archaeology Project	September 10	February 10	EH ALSF	
6	The South Lanes, Carlisle: Specialist Fascicules	October 10	February 10	EH	
7	East Sussex: assessment of archaeological resource in aggregate areas	October 10	September 10	EH ALSF	
8	Suffolk: assessment of archaeological resource in aggregate areas	October 10	October 10	EH ALSF	
9	The Excavation of the Southern Defences of the Caerleon Legionary Fortress 1982	October 10	April 10	CADW	
10	The Mucking Anglo-Saxon cemeteries	November 10	September 10	EH	
11	Alan Vince Archive	November 10	November 09	EH	Yes
12	The Marsh of time: the saving of Sutton Common	November 10	March 09	EH	
13	International Marine Aggregates Management Strategic Review	December 10	November 10	EH ALSF	
14	On the beach: new discoveries at Harlyn Bay, Cornwall	December 10	December 10	EH	
15	Greater Thames Research Framework	January 11	January 11	EH	
16	<i>Middle Thames Northern Tributaries archive</i>	<i>January 11</i>	<i>December 10</i>	<i>EH ALSF</i>	

	<i>updated</i>				
17	<i>National Ice Age Network archive updated</i>	<i>January 11</i>	<i>January 11</i>	<i>EH ALSF</i>	
18	<i>Rapid Coastal Zone Assessment: North East archive updated</i>	<i>January 11</i>	<i>September 10</i>	<i>EH ALSF</i>	
19	<i>Archaeological Survey of Mineral Extraction Sites around the Thames Estuary archive updated</i>	<i>January 11</i>	<i>December 10</i>	<i>EH ALSF</i>	
20	<i>Royal Anne Galley Marine Environmental Assessment archive updated</i>	<i>February 11</i>	<i>January 10</i>	<i>EH</i>	
21	<i>Dendrochronology database updated</i>	<i>February 11</i>	<i>December 10</i>	<i>Unfunded</i>	
22	<i>Predictive Modelling of Multi-Period Geoarchaeological Resources at a River Confluence</i>	<i>February 11</i>	<i>December 10</i>	<i>EH</i>	
23	The Deanery Chapel Road, Southampton (1)	February 11	January 11	Developer	
24	The Deanery Chapel Road, Southampton (2)	February 11	January 11	Developer	
25	Stricklands Chapel Road Southampton	February 11	January 11	Developer	
26	Medieval Pottery Research Group Bibliography	March 11	December 10	MPRG	Yes
27	Northumberland Extensive Urban Survey	March 11	December 10	EH	
28	England's Historic Seascapes: Demonstrating the Method	March 11	February 10	EH	
29	A database of Upper Palaeolithic Sites based on Wymer and Bonsall, 1977	March 11	December 10	Unfunded	
30	Home Farm, Harmondsworth Lane, Sipson, London borough of Hillingdon	March 11	February 11	EH ALSF	
31	Identification and quantification of archaeological projects arising from aggregates extraction in Greater London	March 11	February 11	EH ALSF	
32	Excavations at St Peter's Church, Barton-upon-Humber	March 11	February 11	EH	

33	Meols: The Archaeology of the North Wirral Coast	March 11	August 10	National Museums Liverpool	Yes
34	<i>Maritime Archaeology Access and Learning Workshops - archive updated</i>	<i>March 11</i>	<i>March 11</i>	<i>EH ALSF</i>	
35	<i>BMAPA Protocol for reporting finds of archaeological interest - archive updated</i>	<i>March 11</i>	<i>March 11</i>	<i>EH ALSF</i>	
36	<i>Sussex Archaeological Collections Volume 145</i>	<i>March 11</i>	<i>November 10</i>	<i>Sussex Archaeological Society</i>	
37	The Augustinian Priory of St Mary, Norton Priory, Runcorn, Cheshire	March 11	February 11	EH	
38	Blackstone, Worcestershire	April 11	August 10	EH	
39	Unlocking the Potential: Exploring the archaeology of Suffolk's aggregate landscapes	May 11	February 11	EH ALSF	
40	Our Marine Historic Environment: Enhancing the National Monument Record	May 11	February 11	EH ALSF	
41	Assessing Boats and Ships 1860 - 1950	May 11	March 11	EH ALSF	
42	Assessment of archaeological resource in aggregate areas on the Isle of Wight	May 11	March 11	EH ALSF	
43	Evaluating and enhancing the geoarchaeological resource of the Lower Severn Valley	May 11	April 11	EH ALSF	
44	Aggregates Extraction and Archaeology Backlogs: Cambridgeshire	May 11	April 11	EH ALSF	
45	People and the environment: a geoarchaeological approach to the Yorkshire Wolds landscape (PhD)	May 11	March 11	Unfunded	
46	Wellington Quarry	May 11	May 11	EH ALSF	
47	Creswell Crags Limestone Heritage Area Management Action Plan	May 11	May 11	EH ALSF	

48	Chronology of British aggregates using amino acid racemization and degradation	May 11	May 11	EH ALSF	
49	North Sea Palaeolandscape Project	June 11	May 11	EH ALSF	
50	West Coast Palaeolandscape Project (Pilot Project)	June 11	May 11	EH ALSF	
51	Camel Estuary Wreck	June 11	April 11	EH	
52	Assessment of archaeological resource in aggregate areas in the London borough of Havering	June 11	May 11	EH ALSF	
53	Heddingham Ware Pottery Database	June 11	May 11	EH	
54	York Archaeological Trust Fascicules	June 11	January 11	Unfunded	
55	Proceedings of the Society of Antiquaries of Scotland 133 and 134	June 11	January 11	Soc of Ants Scotland	
56	Tales of the Frontier: political representations and practices inspired by Hadrian's Wall	June 11	March 11	AHRC	
57	Welton-le-Wold, Lincolnshire: An understanding of the Ice Age	June 11	June 11	EH ALSF	
58	Unlocking Early Anglo-Saxon Girdle-Hangers	June 11	April 11	Unfunded	
59	The BTC Pipeline Archaeological Excavations in Azerbaijan	June 11	May 11	LEAP II	
60	Conflict in the Pre-industrial Landscape	July 11	April 11	EH	
61	A GIS aided study of agriculture and landscape in Midland England	July 11	August 09	AHRC	Yes
62	Wessex Image Archive	July 11	April 11	Wessex Archaeology	
63	<i>Bibliography of VAG</i>	<i>July 11</i>	<i>July 11</i>	<i>Unfunded</i>	

In addition we have uploaded **3610** reports into the grey literature library via the OASIS system, bringing the total to over 11,000. We have added seven commercial units to those already represented in the grey literature library.

3. Collections Management and Preservation

Systems developments

- 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 Sun Solaris Sparc to Solaris X86 systems is cost driven with significant savings.
- Our dedicated spatial server was also replaced by mapserver.york.ac.uk. This is a Dell PowerEdge R410 running under Windows Server 2003 R2. The server has a higher specification than its predecessor in order to support increasing numbers of map-based archives. Features include two Intel Xeon E5506 processors each with 4 cores, 4GB memory for two CPU (2 * 2GB dual rank UDI) and two 250GB hard drives; these are a mirrored pair.
- All servers have been relocated to two new Data Centres (machine rooms) purpose built by the University of York. Benefits include a diesel standby generator, resilient power and cooling, full monitoring, increased security and a centre wide uninterruptible power supply (UPS).
- The new servers will allow us to repurpose their predecessors as dedicated development machines.
- Five new PCs were purchased, all currently running under Windows XP. The University is moving to Windows 7 during the summer recess. All staff PCs are of high enough specification to undergo the migration to Windows 7.
- New and repurposed monitors have been acquired to allow staff to use a dual monitor setup. This can increase productivity significantly.

Curation

- All deposited data sets were accessioned into the ADS Collections Management System.
- 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 AHRC-funded project ADS+ has allowed the development of a third generation Collections Management System (CMS) which is integrated with file level metadata in a Fedora Commons repository management system. Development is ongoing.
- DROID and PRONOM (developed by The National Archives) are now routinely being used by curatorial staff to identify files and create file level metadata as part of the

ingest process. We are working with the National Archives to create new file signatures so that a greater proportion of files within our archive can be identified by DROID.

- The ADS continues to refine levels of compliance to the Trustworthy Repositories Audit & Certification: Criteria and Checklist. The ADS has become the second UK digital repository to be awarded a Data Seal of Approval (<http://www.datasealofapproval.org/>)
- 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.
- A major revision was made to our Ingest Manual and Repository Operations Manual and they have now been made publically available on-line within a new 'preservation' section of the website.

System uptime

Unplanned downtime: minerva2 (main production server)

Date	Downtime (hour.min)	Comment
1 Sep 2010	16.45	Motherboard failure. This was fixed ahead of contractual 'next working day'
1 – 2 Sep 2010	13.38	Unfortunately the ethernet cable was not replaced properly following above repair
30 Nov – 1 Dec 2010	15.38	Glassfish out of memory
15 Dec 2010	6.47	Glassfish out of memory
7 – 8 Mar 2011	28.10	Glassfish out of memory

After various problems with Glassfish during development and testing of the new user interfaces, it now appears to be stable following various configuration changes.

Planned downtime

Date	Downtime (hour.min)	Comment
15 Mar 2011	2.26	minerva2 move to new data centre
15 Mar 2011	2.58	mapserver move to new data centre
15 Mar 2011	2.25	medea move to new data centre

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 revision and development of the new Guides to Good Practice has continued with substantial content being revised and developed across the range of guidelines. Significant changes have been made in the introductory sections to the Guides (covering digital preservation, archival strategies and project-level issues) together with the development of the six new 'Basic Components' guides and new Close Range Photogrammetry and Laser Scanning guides.

This phase of the Guides project is now complete at ADS, although there has been some final minor editing by partners at Digital Antiquity in the United States:

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

A second phase of work will involve promotion and promulgation amongst key bodies, as well as possible hard copy publication of specific guides.

New guidelines on the selection of material for deposit and archive have also been created and can be found at:

<http://archaeologydataservice.ac.uk/advice/selectionGuidance>

Number of AHRC projects seeking advice (meeting/email/phone):

19 emails

5 phone calls

(Covering c. 10 planned projects)

Number of AHRC Technical Appendices Assessed

20 technical appendices were assessed on behalf of AHRC.

Advice has also been provided to a small number of NERC and British Academy projects, at pre-application stage.

Workshops

The ADS convened and hosted a specialist workshop on digital archiving for geophysics practitioners on the 9th of November 2010. Gathering together a broad range of experts from the commercial, academic and government sectors it was an opportunity for the ADS to address some of the perceived barriers to archiving within this sector of the heritage community. Attended by 15 participants the day was considered a success both by those attending and by the ADS. It was also an early opportunity to promote the Geophysics Guide to Good Practice and to reach some of the most influential people in archaeological prospection and put the case for the necessity of coherent digital preservation strategies.

As part of the ADS's participation in the STELLAR project in collaboration with the University of Glamorgan a second workshop was hosted in the King's Manor on 16 February following on from the 2009 STAR/STELLAR workshop. Drawing together around 20 leading experts in the areas of natural language processing and Linked Data in a heritage context, project results were presented and a series of productive discussions were held to inform future work on the STELLAR project.

5. Publicity and promotion

Conference Appearances:

In addition to conference attendance members of staff from the ADS presented 31 papers at 26 different conferences, workshops and seminars throughout the year. These included major international conferences such as CAA Beijing, the VAST 3D Conference at the Ecole De Louvre, the SAA Annual Congress in Sacramento, and the TAG Faunal Remains workshop in Washington DC, as well as UK conferences such as the IfA and the HEA. A full list of conferences, workshops and other significant meetings attended is available in Appendix E.

Newsletter:

Issue 24 of ADS News was published in the spring: Launching ArchSearch III (RedSquid)

Lists:

ADS general list ads-all@jiscmail.ac.uk
10 posts (>700 members). This has grown by over 500 members due to the new website registration process.

British Archaeology discussion list (CBA moderated) britarch@jiscmail.ac.uk
9 posts (>1400 members)

Other lists posted to regularly include Antiquist, HERForum, 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 broadly consumed, by Wessex Archaeology amongst others.

Social media:

The ADS has also engaged more broadly with social media since the launch of the updated website. We have an established Twitter feed and Facebook presence which further allows us to monitor user responses to our site and resources. These have so far been generally positive, although neither resource is ideal for in-depth comment given space constraints and the nature of the media.

At the end of 2010-11 the ADS had 505 followers on Twitter (http://twitter.com/#!/ADS_Update) and 205 friends on Facebook (<https://www.facebook.com/archaeology.data.service>).

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 were made available via our main interface ('external' services) demonstrating interoperability at a service level with partner institutions in the US and in Europe. Workload again delayed the full launch of the HEIRNET Java Universal Discovery, Description and Integration server although it is currently in use for the ARENA and TAG projects. The ADS now host 7 web service targets for the English Heritage (Heritage Gateway).

The development of OAI-PMH targets for direct/aggregated consumption by Europeana via the CARARE project have progressed this year and a test load was aggregated into the CARARE service in July, the full service is scheduled for launch in the Autumn and will access large volumes of the ADS data including images, text and 3D.

The ImageBank web image OAI PMH discovery service is now accessible via JISC Mediahub, <http://jiscmediahub.ac.uk/>

Resource Discovery metrics:

Service	Number	Comments
Total Records Aggregated:	1,157,133 (1,064,792)	+c.90,000 on 2009/10
External Data Sources	33 (28)	Including the monuments inventories for England, Scotland, Wales and NI
Web services hosted	15 (9)	2 OAI PMH, 13 SOA (including FISH interoperability Toolkit)
Web services consumed	4 (4)	TAG, EH Heritage Gateway test service, two ESRI WMS
External aggregators	3(2)	Intute and ADS RD Metadata bulk loaded to MICHAEL – Multilingual Inventory of Cultural Heritage in Europe. CARARE test service

(Previous year's figures in brackets).

7. Resource delivery

User Interface developments:

This year saw the switch over from the longstanding **ads.ahds.ac.uk** domain to our new website hosted on the **archaeologydataservice.ac.uk** domain. The new site was extensively trailed and tested which meant there was a minimum of disruption to services both at the time of changeover and subsequently. User feedback on the new design and the usability of the site has generally been very positive; although inevitably there has been some feedback that indicates some users are taking time to get to grips with the new site's functionality. Interestingly a number of users have been prompted to ask for functionality that was not available in the original system, but is planned for the new.

The site's position on Alexa rankings has recovered well from the changeover, from c.48k originally to c.55k currently. However we have only recovered around 20% of links-in. This has no effect on users as all links to ads.ahds.ac.uk are mapped to archaeologydataservice.ac.uk pages and therefore resolve gracefully. However, external links are known to have an impact on Google's PageRank algorithm and as a result it is expected that our main site visibility will slip in that search engine for a month or two. Having said that archaeologydataservice.ac.uk was re-indexed by Google within a month including deep indexing giving the site a hierarchically structured result i.e.

Archaeology Data Service: Homepage

[archaeologydataservice.ac.uk/](#) - [Cached](#)

Please contact the **ADS Helpdesk** if you require further information regarding the new site or future testing programs. We use Firefox browser for development ...

Collections History

[archaeologydataservice.ac.uk/.../collect...](#)

A building recording report by ...

Learning

[archaeologydataservice.ac.uk/learning](#)

The **Archaeology Data Service** ...

Discovery and Excavation in ...

[archaeologydataservice.ac.uk/.../des/](#)

Archaeology Data Service logo ...

Login

[archaeologydataservice.ac.uk/login.jsf](#)

Forgot your login? Don't have an ...

The Urban Landscapes of ...

[archaeologydataservice.ac.uk/...](#)

/merv_...

Introduction. Ancient Merv, in ...

Archaeology Data Service

[archaeologydataservice.ac.uk/...](#)

/Preser...

The **Archaeology Data Service** ...

[More results from archaeologydataservice.ac.uk »](#)

Whilst the launch of the new website marks a major landmark in the development of the ADS interface, there remain a number of enhancements that will be progressed in 2011/2, including NGR and proximity searching, plus the integration of individual grey literature reports into the geospatial interface.

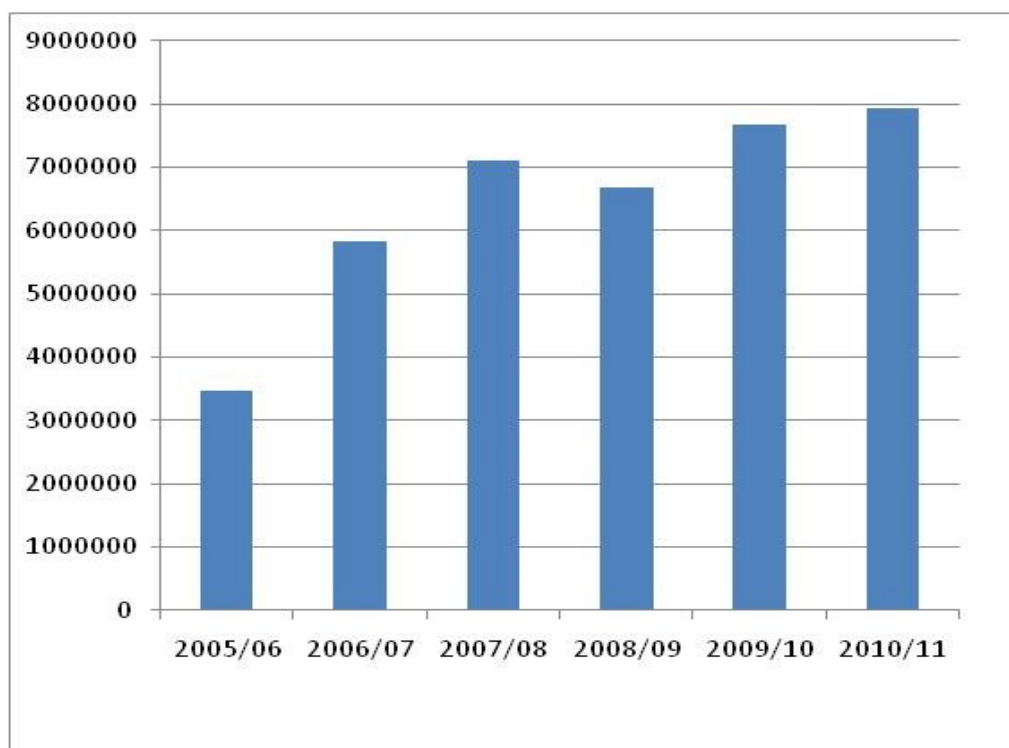
Access statistics

The total number of adjusted page requests for 2010/11 was 9,478,099. This figure however is misleading due to the changes in the number of pages served between the old and new ADS websites. It was an important part of the design paradigm that the ADS pages were part of a CMS (wiki) structure and that efforts were made to

minimise the browsing time for users to access a particular resource. As a result raw page requests dropped immediately that the switch to the new site was made – this does not reflect a change in levels of usage. As can be seen from the table below May, June and July, when the new site was launched there was a reduction in what we would expect for the level of page requests. The graph below shows the comparable months, up to the point of switch over for the years 2005 – 2011 and it is clear that usage continues to rise. It is an unfortunate side-effect of the new site's release that we will be unable to make direct comparisons between page requests year-on-year and will have to look at other metrics such as distinct hosts and data volume.

	2009/10	2010/11
August	756,999	615,330
September	781,327	704,288
October	930,339	1,219,353
November	848,606	931,682
December	875,337	770,774
January	828,964	869,972
February	928,747	1,037,432
March	924,834	1,004,165
April	801,820	786,543
May	790,732	665,597
June	540,340	439,530
July	569,773	433,433
Totals	9,577,818	9,478,099

The raw page requests for comparable months (Aug – April) 2005-2011 showing the continuing upward trend in ADS usage.



We can roughly quantify the change in raw numbers caused by the change in the way that pages are served by comparing the last two quarters:

Feb - April 2011

Distinct hosts served: 139,658

Data transferred: **1.00** terabytes

Successful requests for pages: 2,828,140

May - Jul 2011

Distinct hosts served: 138,404

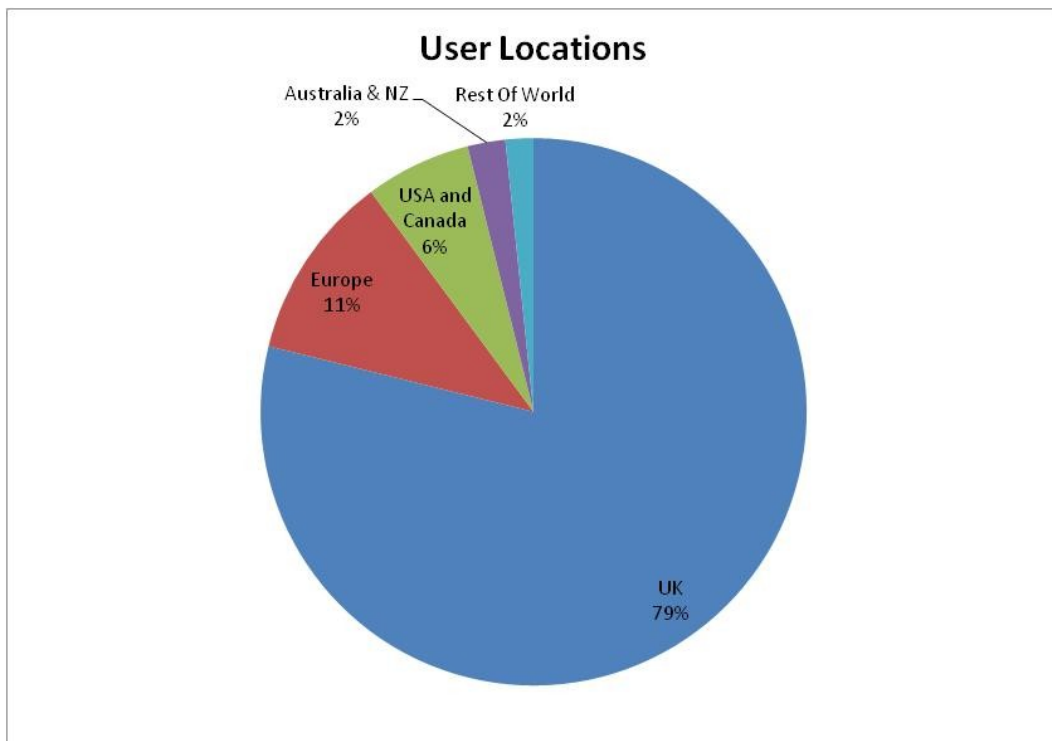
Data transferred: **1.03** terabytes

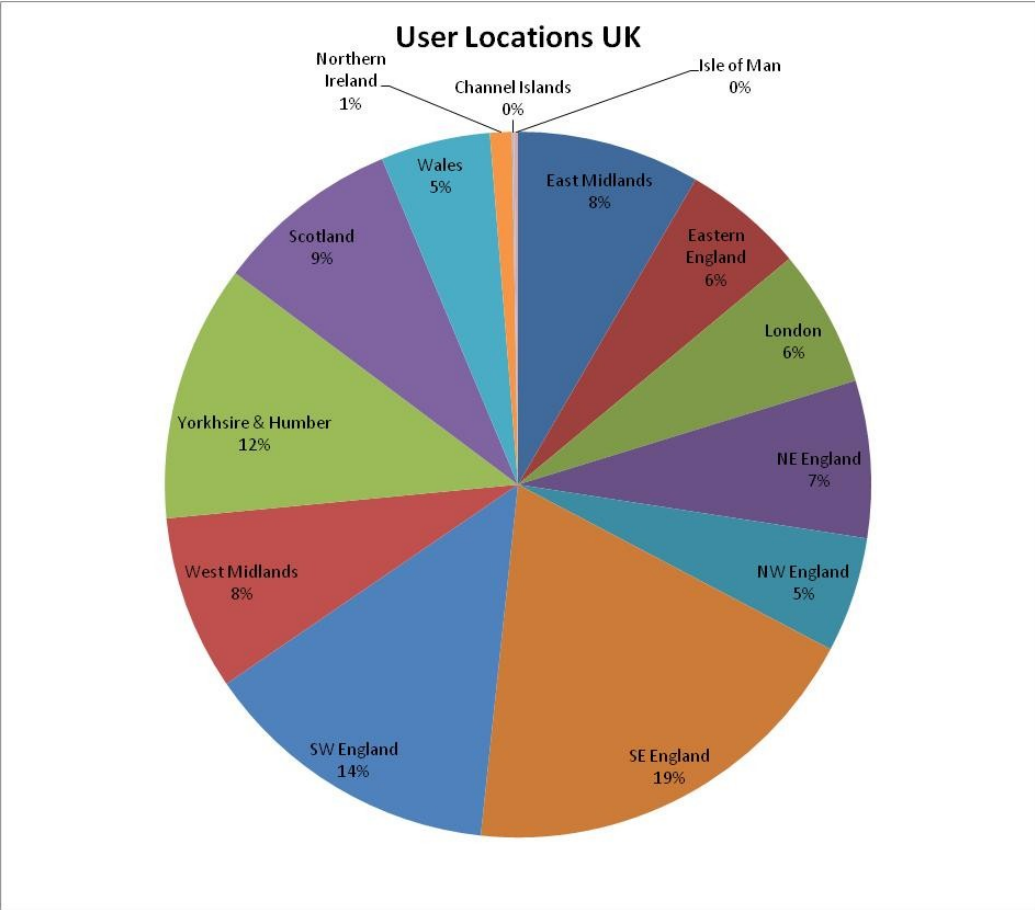
Successful requests for pages: 1,616,398

As can be seen both the number of distinct hosts served and the actual volume of data transferred are as we would expect in both quarters, whilst the number of requests for pages has dropped by over a third since the new site was launched. This does not reflect a drop in usage, only a difference in the way the old and new sites serve pages and, hopefully, a decrease in the number of pages a user is required to visit before they find what they are looking for.

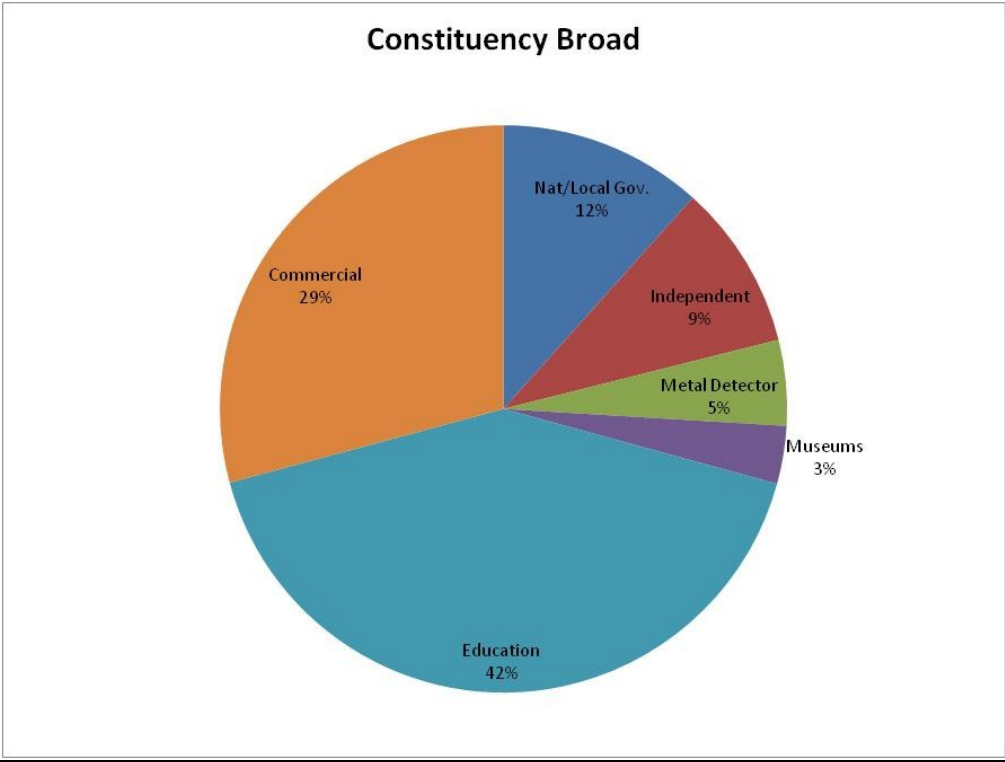
Registered users for the new website have now reached **1448**, a substantial figure to reach within three months of the beta site launch, especially when bearing in mind that registration is entirely optional. The registration process gives us the opportunity to look a little more closely at the make-up of our user base and how they use our resources:

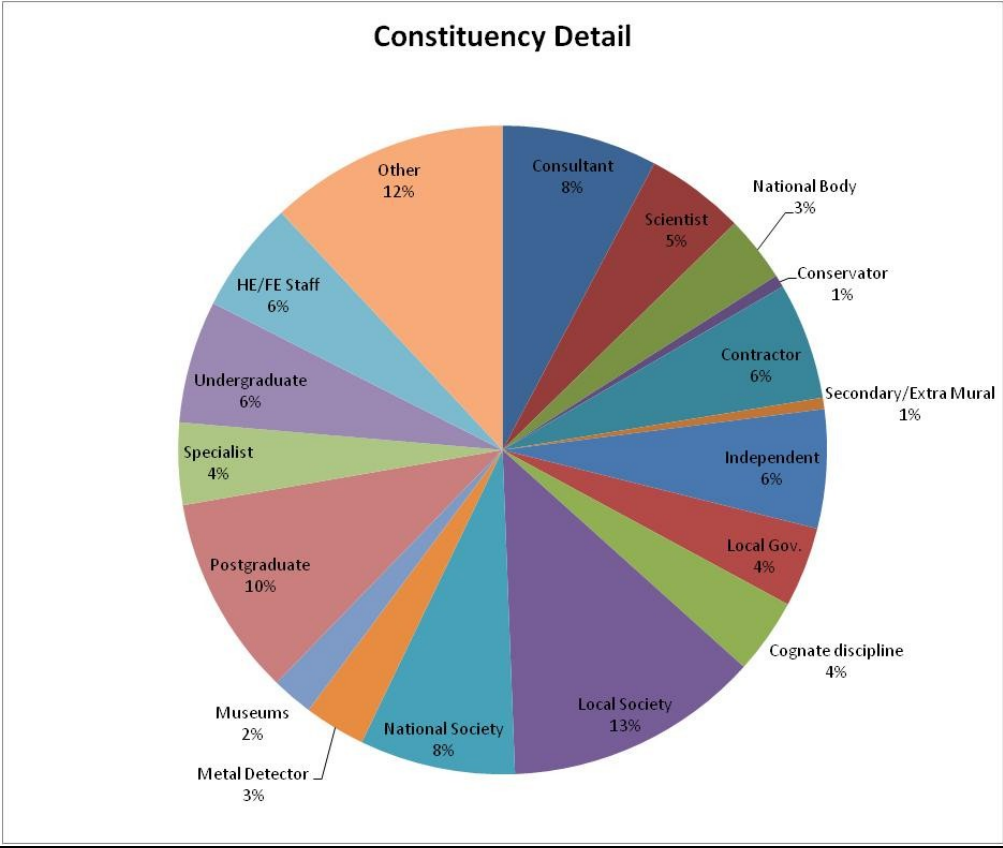
ADS Registered Users - Location



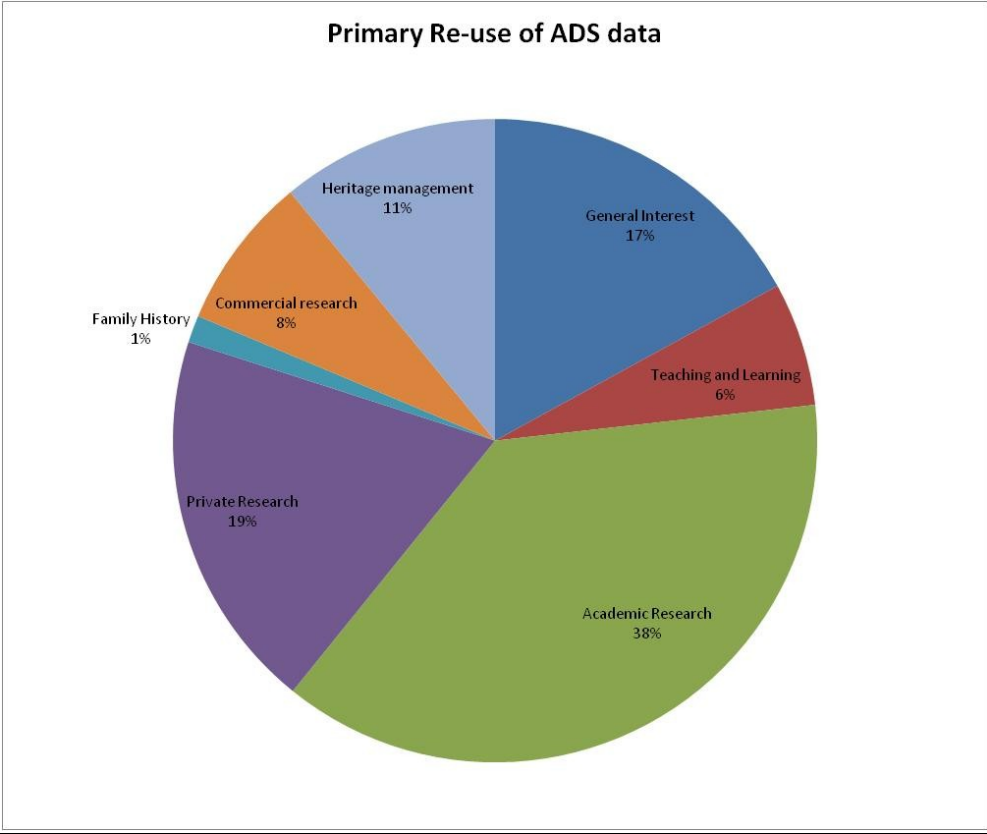


ADS Registered Users – Constituencies





ADS Registered Users – primary use of ADS data:



User feedback:

As well as the usual informal feedback channels the ADS Helpdesk handled 188 requests for assistance in 2010/11, up from 126 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 increase does not reflect increased querying over the new interface, there has been very little traffic on this topic. Earlier 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.

Selected user comments:

"I am finding the website very friendly and easy to use, it is encouraging me to look at more of the content and facilities the website has to offer. I like the myADS section with the theme colour changer. All in all very nice website, well done!"
Ben Wallace, Historic Environment Record Manager, Sept. 2010

"Look and feel: very clear, simple to look at, and 'calm' in choice of colours and layout - so it seems to suggest immediately that you will have a good, direct search experience - it's very very inviting. I should add that though I have a good level of computer literacy in general (I have used ArcMap for work alot, for example, and have designed simple websites/pages) I can get absolutely stumped by things that should be simple like how to tag people in notes in Facebook. So that fact that I got all the way round this site without squealing in frustration once is a Very Good Thing. Actually I'd say it was fantastic - and I really look forward to using it when it's up and running fully."

Lara Band, Sept 2010

"Thanks to you ...for all the hard work that you put into the ADS such a great service. My students make constant use of it and it really gives them confidence in their ability to research information from databases. Peter Price, Farnborough College, Jan 2011

The new website looks super...the old listings of resources, while fantastic in their coverage, are also somewhat overwhelming for newcomers unless they have someone to hold their hands...The more structured, thematic approach of the new site is far more helpful in that respect – Congratulations".

Dr Hugh Denard, King's Visualisation Lab, CCH. Feb.2011

"Comparing data this is actually the most useful thing ever!"

Satisfied University Student, ABMAP questionnaire response, April 2011

"I had originally found the articles through random searches on google, now that you have directed me to the source I realise just how much information is available on things Scottish."

Comment on PSAS, Maurice McMullan, May 2011

I understand the scale of the work – it's a fantastic resource and well worth the slog!

Comment on Grey Literature Library, Alison Cameron, Archaeological Consultant

Sample positive comment via Facebook:

"The ADS is an invaluable resource, I refer people to it all the time but warn them that they could be there for weeks. I still haven't plumbed it entirely, there's so much out

there yet to find. Our specialty is glass beads and it's a fairly low-interest field compared to some others so any resource is a bonus to us. If other contractors offer the same access that Wessex has it will be good for archaeology and also give people the sort of access that could only be imagined ten years ago. Many thanks again!"

Su Poole, via Facebook, May 2011

Sample positive comments via Twitter:

RT [@ADS Update](#): ADS proud to become 2nd UK repository to be awarded Data Seal of Approval <http://bit.ly/8KQyLk> <= good work! William Kilbride, Director of the DPC.

[@ADS update](#) congrats on your seal of approval. Keep up the good work, making information available outside the confines of academia, Jamie Hall (Primitive Method).

[@ADS Update](#) and their amazing digital resources! Just downloaded *Craft, Industry and Everyday Life: Finds from Medieval York* - what a find! Gary Bankhead.

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

I forgot to mention previously that you can find out about known archaeological sites on [ArchSearch](#) on the Archaeology Data Service website...It helped me find out about the two prehistoric circles that I photographed last weekend.

Meerstone on Notes on Kite Aerial Photography Blog, Nov 2010.

However, there is a lot of active blogging on Open Knowledge and Linked Data topics that challenge academic data providers, including the ADS, to take a more active role embracing these technical approaches (see the ADS/Glamorgan STELLAR project)

The ADS contributed three posts to the "Day of Archaeology 2011" - <http://www.dayofarchaeology.com/> - blog event supported by CBA, PAS, L-P Wessex Archaeology, UCL and others.

8. Partnerships and collaboration

United Kingdom

- We have continued our involvement in a number of UK networks of digital archives. Including the Network of Centres, and the Research Data Management Forum.
- We continued to work in partnership with Charles Beagrie Ltd, OCLC Research, the UK Data Archive, ULCC, UKOLN and others on Keeping Research Data Safe, funded by JISC. During 2010-11 we helped develop two KRDS factsheets and a benefits analysis toolkit: <http://www.beagrie.com/krds.php>
- During 2010-11 we worked with Cambridge University Library on the DataTrain project, developing a training programme in research data management, with funding provided by the JISC. The aim is to equip first year post-graduate archaeology students with essential skills in looking after their research data for their PhD, including how to prepare these data for archiving and secure its long-term preservation. The material is designed for leaders of post-graduate core research skills courses to re-use and build-upon to suit the requirements of individual university departments: <http://archaeologydataservice.ac.uk/learning/DataTrain>
- We have continued to be an active member of the DPC, and as well as presenting at a 'Getting Started in Digital Preservation' event in York, we have attended several DPC workshops: 'Digital Preservation for Forensics', 'Preserving Digital Sound and Vision' and 'JPEG 2000 for the Practitioner'. We have also joined the editorial board for the new Technology Watch Reports and become a member of the Task Force for Peer Review and Repository Improvement.
- In June 2011 Jenny Mitcham and Catherine Hardman authored a guide to be published by the Digital Curation Centre on our experiences of applying for the Data Seal of Approval.
- We have continued to work with other heritage information bodies within FISH (the Forum for Information Standards in Heritage) and HEIRNET.
- 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, most recently contributing to the report of the Southport Group. The AAF focus over the past year has been the production of reports concerning the state of maritime archives, to which the ADS has contributed.
- We have continued to support the development of the Heritage Gateway in collaboration with the English Heritage NMR Heritage Gateway team, including provision of web services for the Lake District National Park HER, and the Oxford and Exeter UADs.
- 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 develop OASIS. It has been agreed that OASIS will play a key role in the supply of maritime heritage event records to MEDIN (the Marine Environment Data & Information Network) for the coastal waters of England, Scotland and Wales. To this end a Welsh version of

OASIS has been produced in collaboration with RCAHMW, who are now represented on the OASIS Management Committee. The Council for British Archaeology (representing community archaeologists) and Collections Trust (representing Museums) also joined the Committee during 2010-11.

- We continue to maintain the Archaeology Image Bank in collaboration with the HEA and during 2010-11 have undertaken work to streamline the accessioning and validation of image upload.
- 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 continue to host the national database of the Parks and Gardens Partnership Trust.

Europe and Scandinavia

- The ADS has continued to work towards the Archaeology of Contemporary Europe (ACE) objectives and Julian Richards and Stuart Jeffrey attended meetings of the ACE partners in The Hague in September 2010 and Brussels in May 2011. ADS has advertised the availability of several ACE mobility bursaries which will allow archaeologists from other European countries to spend two weeks with ADS as an introduction to digital archiving. The internships will also contribute case studies to the Guides to Good Practice and ensure that they are relevant throughout Europe. The first internees will come to York in January 2012. In July 2011 the ADS hosted a professional photographer who has been contracted by the ACE project to develop an exhibition which reflects the diversity of European archaeology.
- The EAC continues to meet and is current preparing a European bid to develop archives guides for a number of European member states. The ADS role in this project would be to act as host to the website and guides which will be developed using wiki technology based on our experience in developing the new editions of the G2GPs.
- In June 2011 ADS hosted a visit from SND, the Swedish National Data Service, which is planning to commence archiving of 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 bi-monthly meetings via Skype or Access grid, and an annual face-to-face meeting in Tempe, Arizona in March 2011.
- During 2010-11 we worked with Digital Antiquity at ASU, Sustainable Archaeology at the University of Western Ontario and the Museum of Ontario Archaeology, the Metadata Research Center at the University of North Carolina, DANS and the University of Leiden in the Netherlands, and the University of Glamorgan on a new project entitled TAPAS (Theory and Practice in Archaeological Scholarship). The proposal was submitted to a consortium of funding bodies under the 2011 *Digging into Data Challenge*. If successful it will focus on data mining of archaeological literature (including historic journals, grey literature, and conference abstracts) using natural language processing.

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. The ADS has specific responsibility for CARARE Work Package 7 – Sustainability. We successfully completed our first deliverable, an extensive report on existing sustainability models “CARARE: A Review and Analysis of the Sustainability of Digital Curation and Access to Digital Heritage”. This was very well received and is the benchmark for future work on CARARE sustainability. The ADS also managed a subsequent deliverable led by partners in the Netherlands, which was a questionnaire and response analysis of CARARE stakeholders on their current sustainability models and their perception of both the issues and opportunities for future sustainability models for a CARARE aggregation service. 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. In addition to work on sustainability, the ADS is a content provider for CARARE and work has been ongoing throughout the year to create file level metadata (required for Europeana) and we have been both commenting on and testing the CARARE ingest tool created by the NTUA in Athens.

From 1 March 2010 to 31 March 2011 we worked on **ADS+**, funded by the Arts & Humanities Research Council (AHRC) under the Digital Equipment and Database (DEDEFI) call. The project has improved the sustainability of the ADS by implementing Fedora (Flexible Extensible Digital Object Repository Architecture). This is a world-leading open source digital repository application which allows the streamlining of many ADS curatorial functions, according to the Open Archival Information System (OAIS) Reference Model (ISO 14721:2003). This will help ensure the long term preservation of all ADS digital archives, as well as making the ADS archival procedures more cost-effective. The implementation of Fedora will also allow file-level searching within the ADS catalogue, and work is ongoing on bringing some of these enhancements into service.

In June 2011 work has completed on **TAG: the Transatlantic Archaeology Gateway**, and a final report has been provided to JISC/NEH. The primary aim of the Transatlantic Archaeology Gateway (TAG) project was to develop tools for transatlantic cross-searching and semantic interoperability between ADS and tDAR, the digital repository being developed at Arizona State University on behalf of the Digital Antiquity consortium. The TAG portal has enabled collection level resource discovery across both repositories. Deeper level cross-searching within faunal remains proved more challenging, although we were able to use the collection level search to identify those resources which had been mapped to the TAG faunal ontology and which were available for integration. The user can then go to tDAR to carry out analysis across UK and North American datasets, e.g. for 19th-century urban occupation in Spitalfields UK and Alexandria USA.

In July 2011 we were also able to bring **Making the LEAP II: A Transatlantic LEAP** to a successful conclusion. LEAPII was an ADS/*Internet Archaeology* project funded by the Andrew W Mellon Foundation. The aim of the project was to publish four exemplars (based upon projects hosted in North American institutions) of multi-

layered e-publications in *Internet Archaeology*, and to make the underlying data available via a digital archive in such a way so that readers are provided with the opportunity to 'drill down' seamlessly from the publication into the archive to test interpretations and develop their own conclusions. The first exemplar, on the Shala Valley project in Northern Albania, was published in the previous reporting period, and three further exemplars have been published during 2010-11:

- “Placing Immateriality: Situating the Material of Highland Chiriquí”, by Karen Holmberg, with links to digital archive held in tDAR;
- “Archaeological Excavations on the BTC Pipeline, Azerbaijan”, by Paul Taylor and David Maynard, with links to digital archive held by ADS;
- “Developing a 3-D Digital Heritage Ecosystem: from object to representation and the role of a virtual museum in the 21st century”, by Fred Limp, Angie Payne, Katie Simon, Snow Winters and Jack Cothren. This paper links to two archives of 3-D laser scans held at ADS and tDAR.

The **STELLAR** project is a collaboration between the ADS and co-investigators at the University of Glamorgan and English Heritage, to enhance the discoverability, accessibility, impact and sustainability of ADS datasets and STAR project outcomes (services and data resources) by enhancing the interoperability between resources using the latest integration technologies and development of semantic search facilities and associated user interfaces. STELLAR built on outcomes and tools from the previous AHRC-funded STAR project. The ADS hosted both the original STAR workshop and the follow on STELLAR workshop in February this year as well as carrying out extensive testing of the online and local STELLAR tools for RDF generation on ADS datasets. In the final stages of the project in May and June the finalised tool (along with the required templates) were used to generate meaningful RDF from real world datasets held in the ADS archives, notably a number of CTRL datasets. The ADS was then tasked with making available the outputs from these conversions (and others generated externally) as Linked Data. The ADS set up a Linked Data server (PUBBY) sitting on top of, and accessing, a graph database which we implemented using an AllegroGraph triple-store. This is accessible via a new sub-domain specifically for ADS linked data: data.archaeologydataservice.ac.uk. STELLAR was a successful project for the ADS on a number of fronts giving us our first experience in hosting and serving Linked Data. This is likely to be an increasingly used approach in making data available more widely in the future.

The ADS delivered an updated version of the **FISH Interoperability Toolkit** in June, funded by English Heritage and the National Trust, this web-based application has been developed by the Forum on Information Standards in Heritage to assist with the process of moving information between the wide variety of information systems used to record the historic environment. MIDAS XML is at the heart of the Toolkit and is a W3C XML schema which provides a common format for the storage and exchange of heritage data. Building on existing schema the new version covers all the information currently included in the MIDAS standard issued by FISH. Other elements of the toolkit include web-based applications to validate MIDAS XML files, to convert geospatial coordinates, and to create concordances between files. A very significant element of the new toolkit is the XML Mapping tool, powered by MINT, a European Commission commissioned open source web application. This tool element allows the upload of a non-MIDAS XML file. This file is then 'mapped' to a selected MIDAS XML Schema, i.e. a visual interface guides the user in specifying which field, or fields, in the original file relate to the equivalent field in the selected MIDAS XML Schema. This mapping is then permanently stored in an Extensible Style sheet Language (XSL) file. The XSL can then be applied to the original XML file resulting in a valid MIDAS XML representation of the original. The XSL is stored in the tool and associated with the

user's registration details. It can therefore be used multiple times via this tool. All elements of the Toolkit are hosted and maintained by the ADS under a service level agreement with English Heritage.

10. Service management

During the year 1 August 2010 – 31 July 2011 the ADS had total income of £726,203 and total expenditure of £672,016, including £27,500 which was transferred to the preservation legacy fund. An additional £23,963 was received as the ADS share of University of York overheads. A deficit of £16,729 was carried forward from the 2009-10 financial year, leaving a credit of balance of £61,422 to carry forward to 2011-12. Approximately half of this relates to income received in advance of work undertaken. The full accounts for 2010-11 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 technical issues.

Dr Paul Young left at the end of March, on the conclusion of his fixed term contract to work on the ADS+ project. Jon Bateman tendered his resignation from April 2011, to take up a VLE support role with the Hull York Medical School. Ray Moore and Kieron Niven agreed to reduce their working hours from the beginning of the 2011-12 financial year. Compulsory redundancies were avoided. All staff had performance reviews, in accordance with University of York procedures.

Appendices

(A) STAFFING LIST

Prof J D Richards, Director
T Austin, Systems Manager
J Bateman, Curatorial Officer (until April 2011)
M Charno, Curatorial Officer
T Evans, Curatorial Officer
C Hardman, Deputy Director (Collections)
S Jeffrey, Deputy Director (Access)
J Mitcham, Curatorial Officer
R Moore, Curatorial Officer
K Niven, Data Standards Editor/ Curatorial Officer
D Page, Administrator
L Xia, Applications Developer
P Young, Fedora Developer (until March 2011)

(B) MANAGEMENT COMMITTEE MEMBERSHIP

Met on 29 September 2010 and 22 March 2011

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
Graeme Barker	Arts and Humanities Research Council
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
Isabel Holroyd*	British and Irish Archaeological Bibliography
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
Anthony Sinclair	Higher Education Academy
Noel Fojut	Historic Scotland
Edmund Southworth	Manx National Heritage
Mark Thorley	Natural Environment Research Council
Gary Lock*	Oxford University
Hilary Malaws	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
Armin Schmidt	University of Bradford
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

A GIS aided study of agriculture and landscape in Midland England

This is a study of the Midland landscape from prehistoric times to the nineteenth century, using digital mapping and GIS to investigate the relationship between agricultural technology, field systems, environment and social structure. Using a wide range of sources, both archaeological and documentary, the project addresses two key areas: the origins and development of the medieval landscape of nucleated villages and extensive open fields; and the dissolution of that landscape through enclosure and land use change.

Conflict in the Pre-industrial Landscape

This project set out to ascertain how material evidence for military action and the landscape in which it took place can be better integrated into the investigation and management of the UK's historic environment.

Wessex Image Archive

The Wessex Image Archive interface was released with the first 8 photographic site archives. This trial was initiated in recognition that analogue photography is a diminishing technology and that digital photography and associated technologies bring many benefits especially in terms of accessibility.

ACE Publications and Outputs

The ACE network aims to promote contemporary archaeology at a European wide level, by emphasising its cultural, scientific, and economic dimensions, including its manifold interest for the wider public.

The BTC Pipeline Archaeological Excavations in Azerbaijan

The Baku-Tbilisi-Ceyhan and South Caucasus Pipelines (BTC), constructed through Azerbaijan, Georgia and Turkey during the period 2003-5, included over 40

excavations on sites of varying date together with surveys of different pipeline route options and the study of numerous sites while crossing the country. The archaeological sites covered a range of periods and types including Chalcolithic and Bronze Age settlements and cemeteries and Antique cemeteries. Medieval sites were represented by a potential Christian chapel and associated cemetery together with a number of rural settlements of varying complexity. A key result of this project was the appearance of Chalcolithic sites that dramatically extended the limited corpus of known sites in Azerbaijan.

Unlocking Early Anglo-Saxon Girdle-Hangers

This project focuses on a poorly studied artefact from the early Anglo-Saxon period - girdle-hangers - that are most often found in female burials in south-eastern England from the late 5th to early 7th century AD. With the aim of contextualizing girdle-hangers within the female costume and within the early Anglo-Saxon society at large, the project consolidates available evidence concerning 118 girdle-hangers from 36 sites.

Welton-le-Wold, Lincolnshire: An understanding of the Ice Age

This ALSF project applied a multi-disciplinary approach to further understand and enhance the archaeological and geological resource at Welton-le-Wold former sand and gravel quarry.

Tales of the Frontier: political representations and practices inspired by Hadrian's Wall

The archive consists of an image gallery of locations, archaeology and objects discovered along the length of Hadrian's Wall, which were recorded as part of the Tales of the Frontier project.

Proceedings of the Society of Antiquaries of Scotland 133 and 134

Volumes 133 and 134 have been made available to download.

York Archaeological Trust Fascicules

Several of the published YAT fascicules are now out-of-print; some of these are now being made available here as an online resource.

Heddingham Ware Pottery Database

This is a database of a study of the Heddingham pottery industry based in north-central Essex. Its main products were decorated and glazed fine wares, mainly jugs, and, typically, grey-firing coarse wares, produced between the 12th and 14th centuries.

Assessment of archaeological resource in aggregate areas in the London borough of Havering

This project archive consists of the final report, providing analysis of Havering's archaeological resource in areas of past, present and potential future aggregates extraction.

Camel Estuary Wreck

This project presents the results of the emergency recording and undesignated site assessment of the possible wreck of the barque Antoinette, Camel Estuary, Padstow, Cornwall.

West Coast Palaeolandscape Project (Pilot Project)

The West Coast Palaeolandscapes Project builds upon the results of comparative work carried out within the Southern North Sea as part of the North Sea Palaeolandscape Project. The west coast of Britain was identified as one area where any information derived on existing palaeolandscapes would have a significant impact on our understanding of the Mesolithic and, potentially, the Palaeolithic in England and Wales, whilst also informing the archaeological records of Ireland, Scotland and the Isle of Man.

North Sea Palaeolandscape Project

The North Sea Palaeolandscapes Project sought to utilise existing 3D seismic data to generate information on the Mesolithic Landscape of the North Sea. The project utilised a variety of geophysical data sources, in conjunction with more traditional map data to record the Mesolithic landscape of this region.

Chronology of British aggregates using amino acid racemization and degradation

The project assessed the utility of a novel method of amino acid racemization analysis (Intracrystalline Protein Degradation, or IcPD, analysis of intracrystalline proteins) and interpretation on the calcitic opercula of the gastropod *Bithynia*.

Creswell Crags Limestone Heritage Area Management Action Plan

The project created an integrated archaeological, palaeontological, ecological and access Management Action Plan for the main limestone vales and gorges within the Creswell Crags Limestone Heritage Area.

Wellington Quarry

This post-excavation project undertaken by Worcestershire Historic Environment and Archaeology Service was commissioned by English Heritage through the Aggregates Levy Sustainability Fund to bring to publication the results of 10 years of work at Wellington Quarry in Herefordshire.

Aggregates Extraction and Archaeology Backlogs: Cambridgeshire

The project assessed the full spectrum of archaeological records and interventions on the Cambridgeshire Gravels, and the degree to which backlogs of analysis and publications exist.

Evaluating and enhancing the geoarchaeological resource of the Lower Severn Valley

This collaborative project aimed to improve methodological approaches and baseline information underpinning strategic planning, individual application decisions and

evaluation and mitigation strategies relating to mineral extraction in the Lower Severn Valley.

Assessment of archaeological resource in aggregate areas on the Isle of Wight

The primary aims of the project were to improve knowledge of the archaeological resource of the aggregate producing areas of the Isle of Wight.

Assessing Boats and Ships 1860 - 1950

The project provides supplementary guidance on the key themes and interests represented by wrecks of this period. This guidance, in the form of synthesised period reports, can be used to inform advice and decisions regarding importance and mitigation.

Our Marine Historic Environment: Enhancing the National Monument Record

This project compares the wreck data maintained by the National Monuments Record (NMR) and United Kingdom Hydrographic Office (UKHO) datasets and, where applicable, suggest solutions as to how any discrepancies should be overcome.

Unlocking the Potential: Exploring the archaeology of Suffolk's aggregate landscapes

The archive contains the report and teaching materials from an ALSF funded project to disseminate the results of archaeological excavations on gravels and the role of archaeology and extractive industries to the public.

Blackstone, Worcestershire

The archive contains the post-excavation assessment of a pre-PPG16 excavation that was undertaken in the 1970s at Blackstone in north Worcestershire. The excavation focussed upon a later Iron Age enclosure.

The Augustinian Priory of St Mary, Norton Priory, Runcorn, Cheshire

The dataset comprises databases of stratigraphic data, finds (including copper alloy, iron, and lead objects, bone, ivory, wooden and leather objects), glass and pottery generated by the excavations undertaken between 1970 and 1987 at Norton Priory, Cheshire. The digital material was created during the post-excavation analyses carried out prior to publication of the excavations in 2008.

Sussex Archaeological Collections Volume 145

The articles and supplementary materials for Volume 145 of the Sussex Archaeological Collections have been released.

BMAPA Protocol for reporting finds of archaeological interest - archive updated

This ALSF archive has been updated to include reports and materials from later stages of the project,

Maritime Archaeology Access and Learning Workshops - archive updated

This ALSF archive has been updated to include a report from the extension of the project (2008-2011).

Meols: The Archaeology of the North Wirral Coast

During the 19th century thousands of ancient finds were recovered from the north Wirral coast at Meols and were collected by antiquarians. The objects range in date from the Mesolithic period to the 18th century AD, and include important Iron Age, sub-Roman and Viking material, while the substantial volume of later medieval finds is only second in importance to the collection from London. The dataset consists of a database of the extant finds which are now in museum collections, or in a few cases private ownership, presented with digital photographic or scanned images.

Excavations at St Peter's Church, Barton-upon-Humber

Excavations at St Peter's Barton-upon-Humber ran from 1978 to 1984 under the direction of Warwick Rodwell. The archive contains digital elements of the published Volume 1, and the database that was created and maintained during the post-excavation project.

A database of Upper Palaeolithic Sites based on Wymer and Bonsall, 1977

This database consists of data for all the Upper Palaeolithic (Earlier and Later) sites with positional data in England and Wales derived from the Gazetteer of Mesolithic sites in England and Wales (Wymer and Bonsall, 1977), issued as Council for British Archaeology Research Report 20, along with a Gazetteer of Upper Palaeolithic sites.

England's Historic Seascapes: Demonstrating the Method

The HSC: Demonstrating the Method Project, funded by the ALSF, marks the initial implementation of a rigorous, repeatable methodology for Historic Seascape Characterisation, applying the principles already underpinning Historic Landscape Characterisation (HLC) to the coastal and marine zones.

Northumberland Extensive Urban Survey

The Northumberland Extensive Urban Survey Project was carried out between 1995 and 2008 as part of a national survey to help local authorities, English Heritage and others to care for the fabric of our towns and cities. Some 18 settlements were studied for the project ranging from large urban centres to smaller towns and villages.

Medieval Pottery Research Group Bibliography

The Medieval Pottery Research Group Bibliography is a national bibliography of published reports, books and articles on post-Roman ceramics which has been gathered together by volunteer compilers from across Britain. This is being made available by the ADS as a searchable on-line database.

Predictive Modelling of Multi-Period Geoarchaeological Resources at a River Confluence

This archive has been updated with the dataset created by the geophysics and GIS analysis. This has formed an 'exemplar archive' to inform the second version of the ADS Guides to Good Practice.

Identification and quantification of archaeological projects arising from aggregates extraction in Greater London

The project aimed to identify and quantify past archaeological investigations arising from hard and soft aggregates extraction in Greater London, which currently have incomplete or inappropriately low levels of dissemination.

Home Farm, Harmondsworth Lane, Sipson, London Borough of Hillingdon

Archaeological excavations/watching briefs were undertaken by Museum of London Archaeology in phases between 1999 and 2002, on the site of Home Farm, Harmondsworth. The watching brief was commissioned by SITA in response to an application to extract gravel.

Stricklands, Chapel Road, Southampton (OASIS ID wessexar1-92058)

This project records the results of an archaeological excavation of the footprint of the proposed building at Chapel Road, Southampton. A total of four archaeological features were identified within the Site. These comprised two ditches and two inter-cutting pits of early medieval date.

The Deanery, Chapel Road, Southampton (OASIS ID wessexar1-92410)

This is the record of the full excavation at The Deanery, Chapel Road, Southampton.

The Deanery, Chapel Road, Southampton (OASIS ID wessexar1-97044)

Wessex Archaeology was commissioned to carry out archaeological field work on land at The Deanery, Chapel Road, Southampton (NGR 442700 111550). The excavation confirmed the continuity of activity associated with Mid-Saxon Hamwic (7th - 9th centuries AD)

Dendrochronology database updated

This resource has been updated, and now contains over 2900 tree-ring dates for buildings in the United Kingdom, ranging from cathedrals to cottages and barns. The database holds period, location and reference information for each record. It also includes a few buildings that have been dated by high precision radiocarbon dating, and the names of buildings for which dating was attempted but not successful.

Royal Anne Galley Marine Environmental Assessment archive updated

The project archive has been updated to include the report, survey data and photographs from the Phase II survey of the wreck of the Royal Anne Galley, situated off the Lizard, Cornwall.

Archaeological Survey of Mineral Extraction Sites around the Thames Estuary archive updated

The project archive has been updated to include the GIS files, in addition to the original project reports. The project aimed to establish up to date information on the historic environment in extant and former mineral extraction sites on both sides of the Thames estuary in Kent and Essex, around the Thurrock / Dartford / Gravesend area.

Rapid Coastal Zone Assessment: North East archive updated

The project archive has been updated to include the GIS files, report and photographs from the second phase - field survey - of this project.

Greater Thames Research Framework

A review of the current framework by the Greater Thames Estuary Archaeological Steering Committee.

National Ice Age Network archive updated

The project archive has been updated to include the GIS files, in addition to the original project reports and educational material.

Middle Thames Northern Tributaries archive updated

The project archive has been updated to include the GIS files; the project was concerned with research and curatorial management of the important archaeological and alluvial deposits located within the Middle Thames Northern Tributaries.

On the beach: new discoveries at Harlyn Bay, Cornwall

The digital archive held by the ADS consists of two specialist reports - cremated bone and residue analysis - from studies of a Trevisker Ware vessel found at Harlyn Bay, Cornwall in 1990.

International Marine Aggregates Management Strategic Review

This report compares the marine element of the UK Aggregates Levy Sustainability Fund (ALSF) historic environment programme with other international management policies relating to heritage assets, in the context of the international marine aggregates industry.

The Marsh of time: the saving of Sutton Common

This project contains the archive of the large-scale excavations undertaken between 1998 and 2003 at Sutton Common, north of Doncaster in South Yorkshire. The excavations revealed a 4th-century BC 'marsh-fort'.

Alan Vince Archive

Upon the sad and untimely death of Dr Vince in 2009, the Medieval Pottery Research Group - funded by English Heritage - undertook a project to secure key elements of Alan's archive. This archive includes the AVAC ceramic catalogue, Ceramic

Chemical Composition Database and Alan Vince's unpublished grey literature reports.

The Mucking Anglo-Saxon cemeteries

The Anglo-Saxon cemeteries at Mucking, Essex, represent the burials of over 800 individuals from the 5th to early 7th centuries AD. The digital archive available here comprise processed basic data about the cemeteries and the grave goods, including comprehensive spreadsheets with details of grave goods and burials attributes.

The Excavation of the Southern Defences of the Caerleon Legionary Fortress 1982

In 1982 Cadw's predecessor (the Ancient Monuments Division of the Department of the Environment) carried out consolidation work on the rampart wall of the Roman legionary fortress at Caerleon. The excavations produced an important dated sequence tracing the development of the defences which furthermore allowed reconstructions of how the defences would have appeared in the first to third centuries.

Suffolk: assessment of archaeological resource in aggregate areas

The Suffolk aggregate resource project was funded by English Heritage from the Aggregates Levy Sustainability Fund (ALSF). The project studies the historic environment across the areas of sand and gravel aggregate resource, including areas of past, present and future aggregate extraction.

East Sussex: assessment of archaeological resource in aggregate areas

The East Sussex aggregate resource project was funded by English Heritage from the Aggregates Levy Sustainability Fund (ALSF). The project studies the historic environment across the areas of sand and gravel aggregate resource, including areas of past, present and future aggregate extraction.

The South Lanes, Carlisle: Specialist Fascicules

The original excavations at South Lanes, Carlisle ran from 1978 to 1982 and were located in a densely built-up area of approximately 2.8ha within the north-east angle of the medieval city defences. The digital archive presented here contains the three - previously unpublished - fascicules that were to accompany the monograph which was published in 2000.

Till-Tweed Aggregates and Archaeology Project

Till-Tweed Project was based around the reaches of the two rivers, the Till and the Tweed in north Northumberland, England and was funded through the ALSF. The project included three major fieldwork elements: Geomorphological mapping and palaeoenvironmental sampling, aerial photograph transcription, and field walking.

Archaeological Cropmark Landscapes of the Magnesian Limestone

The project, funded by the Aggregates Levy Sustainability Fund between March 2005 and March 2007, was devised to investigate the prehistoric and Romano-British archaeological landscapes of the eastern parts of South and West Yorkshire, including the adjacent parts of North Yorkshire and North Nottinghamshire.

ALSF Dissemination: Benchmark Report Theme 4C. Outreach: The Sands of time, Aggregates and the public

The third in this series of reports examines the impact that ALSF outreach projects have had in explaining archaeology, the historic environment and aggregate extraction to the widest possible audiences.

Watermead Country Park, Leicestershire

The specialist reports from this multi-phase prehistoric site, discovered during gravel extraction of a pre-PPG16 permission quarry in Watermead Country Park, Leicestershire in 1996.

Surrey Archaeological Collections - volumes 1 to 32

Volumes 1 to 32 of Surrey Archaeological Collections are now available to download as a series of pdf files. These volumes date from 1858 to 1919. Further backlog volumes will be released in due course.

Norfolk: assessment of archaeological resource in aggregate areas

The assessment consists of a consideration of the archaeology within the aggregate producing areas of the county, through analysis of data held within the Norfolk Historic Environment Record and a systematic air photo interpretation survey.

(D) PUBLICATIONS

Bateman, J. & Jeffrey, S. (2011) 'What Matters about the Monument: reconstructing historical classification', *Internet Archaeology, Issue 29*
http://intarch.ac.uk/journal/issue29/bateman_index.html

Hardman, C. (2010) Our grey literature legacy: opportunity of headache? *The Archaeologist*, Summer 2010, Number 76, 40-41

Mitcham, J, Niven, K, Richards, J. (2010) 'Archiving Archaeology: Introducing the Guides to Good Practice' In A. Rauber, M. Kaiser, R. Guenther & P. Constantopoulos (Eds.) 2010, *Proceedings of the 7th International Conference on Preservation of Digital Objects. iPRES 2010. Vienna, Austria, September 19-24,2010*, Austrian Computer Society, Vienna.

Richards, J., Austin, T. and Hardman, C. (2010) 'Covering the Costs of Digital Curation' in *Heritage Management, Volume 3, Issue 2, Fall 2010, The Dollars and Sense of Managing Archaeological Collections*, 255-263, Left Coast Press, Walnut Creek, California.

Tudhope, D., Binding, C., Jeffrey, S., May, K. & Vlachidis, A. (2011) 'A STELLAR Role for Knowledge Organization Systems in Digital Archaeology' *Bulletin of the American Society for Information Science and Technology* Vol. 37, No. 4, April/May 2011 http://www.asis.org/Bulletin/Apr-11/AprMay11_Tudhope_etAl.html

(E) CONFERENCES & PRESENTATIONS

1st July	FAME annual meeting, York - Digital Archiving, light at the end of the tunnel?	Presentation Catherine Hardman
16th June	Preservation of Complex Objects Symposium, King's College London	Presentation by Jenny Mitcham
28 th June	Digital Preservation for Forensics	Attendance by Jenny Mitcham
29th June	Launch of the FISH Interoperability Toolkit, HER forum, Birmingham	Presentation Catherine Hardman, training session by Kieron Niven
31st May	Virtual Cities, Centre for Japanese Studies, UEA - Accessing digital data in archaeological archives	Presentation by Stuart Jeffrey
15th April	Getting Started in Digital Preservation, DPC and British Library Preservation Advisory Centre workshop - York Science Park	Presentation by Jenny Mitcham
12-16th April	CAA Beijing - Revive the Past. Paper: The Transatlantic Archaeology Gateway: Bridging the digital ocean	Presentation by Lei Xia
8th April	Preserving Digital Sound and Vision, DPC Briefing Day - British Library	Attended by Jenny Mitcham
1-2nd April	CAA UK - The Future of Data Management at the ADS - Birmingham	Presentation by Michael Charno
29th-30th April	TAG Urban Faunal Workshop - Washington DC	Attended by Michael Charno
4th April	DataCite Service User Workshop - The ADS Implementation of DOIs - British Library	Presentation by Michael Charno
1st March	DCC Road show, University of Leeds, the DataTrain project	Presentation Stuart Jeffrey
15th March	Liverpool University, Post Graduate workshop on the ADS and Digital preservation in Archaeology.	Presentation Stuart Jeffrey
31st March – 1 st April	SAA Annual Congress, Sacramento, USA	Presentations by Julian Richards
15th February	Oxford eResearch centre, University of Oxford, International archive discovery and sharing in the archaeological domain	Presentation Stuart Jeffrey
16 th February	Cambridge University Archaeological Field Club	Presentation by Julian Richards
23rd February	University of Southampton Post Graduate workshop on the ADS and Digital preservation in Archaeology.	Presentation Stuart Jeffrey
25th February	Reflectance Transformation Imaging conference, University of Oxford	Presentation Stuart Jeffrey
17th December	Theoretical Archaeology Group Conference, Durham, TAG Fishing from the Pond	Presentation by Jon Bateman (speaker) and Stuart Jeffrey

9th November	Geophysical Data Archiving Workshop, ADS	Presentations by Stuart Jeffrey, Jenny Mitcham, Catherine Hardman, Kieron Niven
5th November	UCD Dublin, UG training	Guest lecture by Stuart Jeffrey
20th October	HEA, University of Exeter	Presentation by Tim Evans
4th October	English Heritage Aggregates Levy Sustainability Fund Conference, Burlington House, London	Presentation by Tim Evans
19th October	Developing Geographic Information Standards for use in Historic Environment Records - English Heritage	Attended by Michael Charno
19th September	iPRES 2010 - 7th International Conference on Preservation of Digital Objects, Vienna University of Technology, Vienna	Presentation by Jenny Mitcham
22nd September	VAST 3D, Ecole De Louvre, Paris, France, Archiving 3D data	Presentation by Stuart Jeffrey
16th September	CARARE plenary, Pisa, Italy , MIDAS	Presentation by Stuart Jeffrey
13th September	Higher Education Academy Conference, Liverpool, Teaching with Grey Literature	Presentation by Stuart Jeffrey
10th September	Higher Education Academy new lecturers training session, ADS as a teaching resource	Presentation by Stuart Jeffrey