

Cyber-research infrastructures in Archaeology EUROCORES BOREAS workshop UNESCO Headquarters, Paris, 19-20 February 2007

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This means three things:

- Preservation
- Standards
- Online access & outreach

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Six steps for digital preservation...

- Planning (at the start of a project)
- Back-up (in the life time of the project)
- Security of data (continuous)
- Documentation of project (continuous)
- Refreshment (beyond the project)
- Migration (beyond the project)





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Digital Data Standards: (1) Metadata

- Digital assets have to be catalogued at the time they are created; otherwise we don't even know that they exist.
- The process of cataloguing digital cultural objects may well be the slowest part of the project.
- METS: "The METS schema is a standard for encoding descriptive, administrative, and structural metadata regarding objects within a digital library, expressed using the XML schema language"
 - Descriptive metadata: e.g. Dublin Core
 - Administrative metadata: e.g. file types; migration history
 - Structural metadata: e.g. file relationships

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AHDS Guides to Good Practice

- What to preserve
- What metadata to record
- Project planning
- Rights management





AHDS Guides to Good Practice

http://ads.ahds.ac.uk/project/goodguides/g2gp.html

- GIS
- CAD
- Geophysics
- Aerial Photography and Remote Sensing
- Excavation and Fieldwork
- Virtual Reality

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AHDS Preservation Manuals



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The importance of metadata for context and structure

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Digital Data Standards: (2) Processes - Open Archival Information System



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Mapping processes to people:



Picture from DLib

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We've come a long way in ten years



But so has technology ...

Volume of data Volume of expectation New data capture tools

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Dissemination: Grey literature library



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... After removing the <layer order="1"> humus layer, of the usual thickness of <layer_depth size="0.3"> 30 cm. </layer_depth><layer/>, <layer order="2"> a <color> yellowish </color> soil followed, evidently of <geology type="alluvial"> alluvial nature</geology> more than <layer_depth size="1"> one meter thick <layer_depth> </layer>; then <layer order="3"> there appeared <intepretation> remains of ancient dwellings, with <description> walls built in big blocks of yellow tuff, a local rock </description> </interpretation>...

XML tagging of semantic content

<name type="place" id="n1">Wasteland</name>

1. A place identified by a name documented in n1.

- 2. A person identified by a name documented by n2.
- 3. A time identified by a date documented in d1.
- 4. An event (the excavation) documented in e1.
- 5. An event (the breaking) documented in e2.
- 6. An object (sword) documented in o1.

CIDOC:

CRM

- 7. Dr. Diggey participated in the excavation
- 8. Dr. Diggey and the sword participated in the breaking

<ab id="el">excavation in

<date id="d1">2005</date>

The

</ab> in

9. The excavation took place at the place identified by a name documented in n1 and at a time identified by a date documented in d1.

E7 Activity	> P2 Has type	> E55 Type ¹				
	> P14 Carried out by	> E21 Person	> P131 ls identified by	> E82 Actor appelation ²	> P70 Is documented in	> E31 Document ³
	> P4 Has time-span	> E52 Time- span	> P78 Is identified by	> E50 Date ⁴		
	> P70 ls documented in	> E31 Document ⁵			~	

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Dissemination: Project archives

http://ads.ahds.ac.uk/catalogue/

http://ads.ahds.ac.uk/catalogue/resources.html?spitalfields_var_2001



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LEAP: Linking Electronic archives and publications



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NSF Cyber-infrastructure projects



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ECAI: TimeMap

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ARENA: Archaeological Records of Europe: Networked Access.























Archaeological Records of Europe - Networked Access

Welcome to the ARENA search portal.

Please select a flag from the right to start searching in your language

The ARENA search portal allows you to search for archaeological sites and monuments from six European countries: Demark, Great Britain, Norway, Iceland, Romania and Poland.



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This is the search interface of the ARENA project. It allows you to search archaeological resources from six European countries by period, theme and place.

You can build your search by selecting below. Choose a Period (When)and a Theme (What), remembering to store your selection. You may wish to use the where option to select a place and refine your search.

Warning! Searches are limited to 5,000 hits. If your search exceeds this limit use the where option to narrow your search.

When	What	Where
You can choose to search for site within a certain period range. Choose a type of monument/site from a list of archaeological themes		Using a map of Europe choose the area you would like to search
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Search
Choose what and when	Clear all values Help on searching	

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## Conclusion

- The challenge digital preservation
- The opportunity digital access
- Changing models of publication and dissemination
  - Quality control peer review of archives
  - Increased access blurring the distinction between publication and archiving
  - Distributed access metadata harvesting, OAI, etc
  - Deep access data mining, semantic web etc
  - Promotion of access outreach: workshops, newsletters, CAL teaching packs, finding aids, portals

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