



Archaeology  
Data Service

# Introducing the ADS

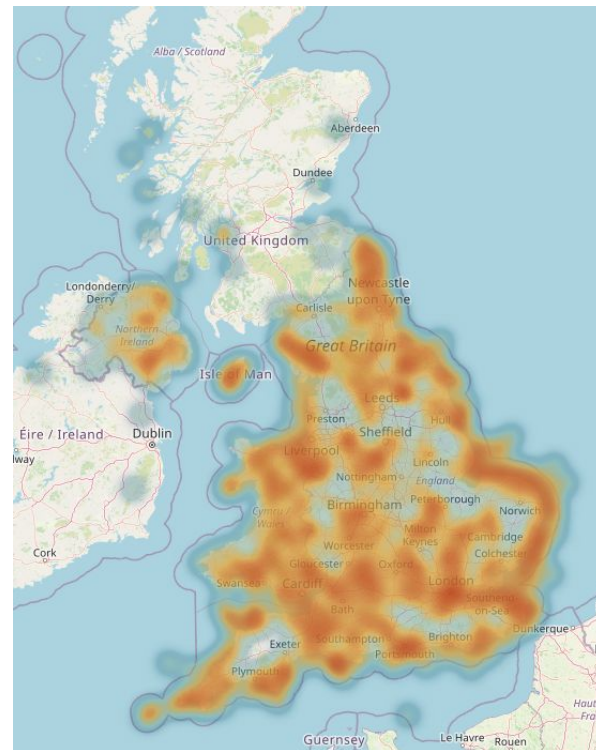
*Dr Tim Evans*

*15/11/2022*



## Introducing the ADS

- Accredited digital archive for UK heritage data
- Founded in 1996
- Based at the University of York
- Data from UK-based projects
- Data from Industry and Higher Education.
- Archive over 3.5 million unique digital objects
- ...In 312 unique formats
- For more information see our [Annual Reports](#)



## Introducing the ADS (people)

- Director (Julian Richards)
- **Four** Managers.
- **Three** application Developers.
- **Seven** Curatorial + Technical staff (CaTs).
- **Three** placement students/interns.
- **One** Internet Archaeology Editor.
- **One** Financial Administrator.
- A cost centre, hosted by the Department of Archaeology at the University of York.



# Rationale

Archaeology generates a lot of data!

Excavation is inherently destructive.

Historic notions of 'Preservation by Record' feed into moral and legal obligation to ensure data is preserved **and accessible**.



Worcestershire Historic Environment and  
Archaeology Service (2011) Wellington  
Quarry.<https://doi.org/10.5284/1000392>

# Open since 1996

No preservation without re-use.

Reduce barriers to access.

Use digital to overcome traditional problems...



Museum of London Archaeology (2019) The Prittlewell princely burial: excavations at Priory Crescent, Southend-on-Sea, Essex 2003.<https://doi.org/10.5284/1050095>

**It is not possible to  
publish everything  
we record in the  
traditional manner.**



# Preservation

Physical media is vulnerable

Technologies change

File formats evolve (obsolescence)

Accidents!



Bill Gates in 1994 showing a CD-ROM could hold more info than a stack of 330,000 pieces of paper.

# Preservation Community

Under the auspices of the Digital  
Preservation Coalition (DPC), we work  
with other institutions

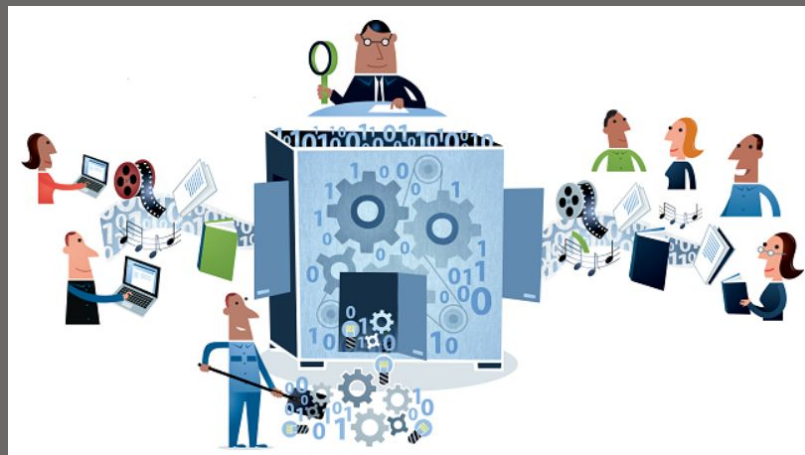


Illustration by Jørgen Stamp  
digitalbevaring.dk CC BY 2.5 Denmark, for  
the Digital Preservation Handbook  
<https://www.dpconline.org/handbook>



# Preservation Standards

Policies!

Preservation Watch!

Accreditation!



## Preservation in Practice

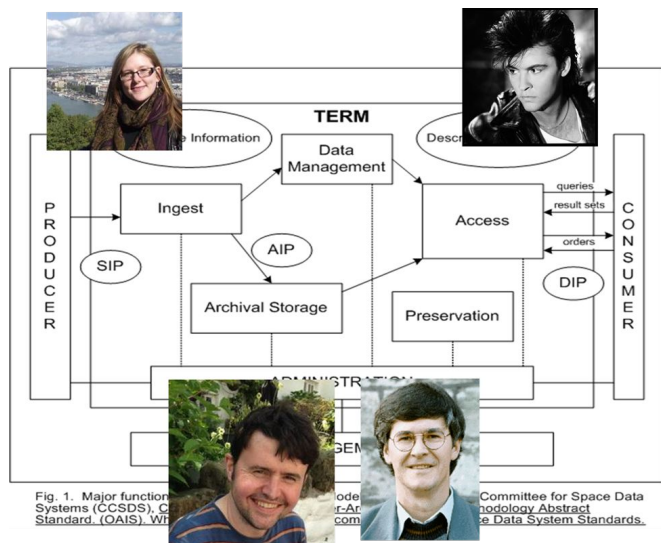
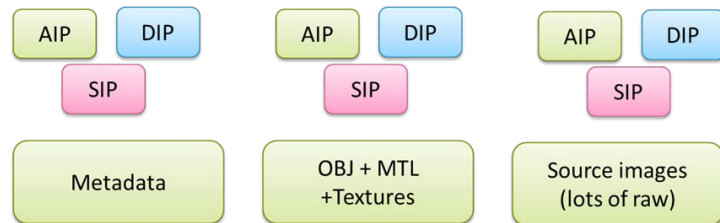
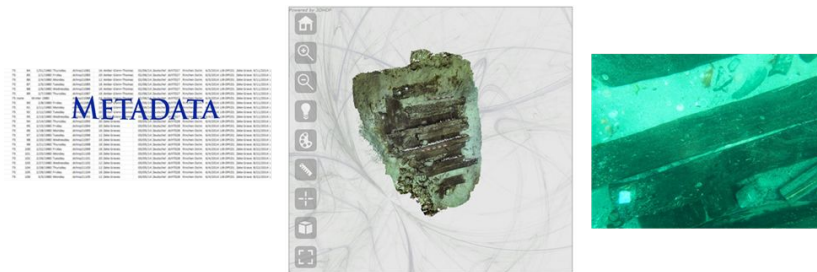


Fig. 1. Major functional blocks of the CCSDS Data System Standards (CCSDS), CCSDS Data System Standards (CCSDS), CCSDS Data System Standards (CCSDS), CCSDS Data System Standards (CCSDS).



REP_ID	PURPOSE	FILE_NAME	FILE_SIZE	CHECKSUM	OBJECT_ID
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3,935,123	Original	Bayo_04_obj3.jpg	2,237,707	b92c8b585a1306524c53fc2a42f53a48	1,640,995

# Traditional data

Datasets for specialist reuse –  
databases, spreadsheets.

Used to support a publication, and now  
commonplace as a form of digital  
appendix (e.g. measurements).

```
msdata:
  id: 20150618_DC5
  version: 1.1.0
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    cv:
      id: MS
      fullName: Proteomics Standards Initiative Mass Spectrometry
      version: 4.1.1
      URI: https://raw.githubusercontent.com/HUPO-PSI/psi-ms-CV/n
    cv:
      id: UO
      fullName: Unit Ontology
      version: 09:04:2014
      URI: https://raw.githubusercontent.com/bio-ontology-research
  fileDescription:
    fileContent:
      cvParam: MS1 spectrum
      cvParam: profile spectrum
    sourceFileList:
      sourceFile:
        id: fid
        name: fid
        location: e:/20150618_DC5/0_I22/1/1SRef
        cvParam: SHA-1, b305b66c1045710c0ea9fda0b6629cfb893175f7
        cvParam: Bruker FID format
        cvParam: scan number only nativeID format
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        id: I22_20150618_DC5_1.mzXML
```

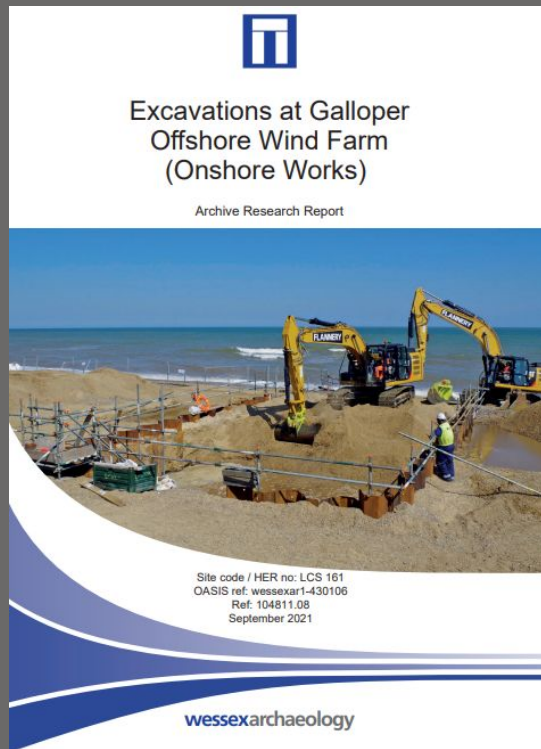
Fiona Brock, Thomas Higham (2018)  
Denisova II Human Bone Fragment  
[data-set]. York: Archaeology Data Service  
[distributor] <https://doi.org/10.5284/1047219>

# Grey literature

“Grey literature is any information that is not produced by commercial publishers”.

Archaeologists: everything not in a conventional publication...

.. which in archaeology is most projects!



Wells, T. (2021). Excavations at Galloper Offshore Wind Farm (Onshore Works) Archive Research Report. Wessex Archaeology.  
<https://doi.org/10.5284/1090262>.

## 3D and Photogrammetry



Fabrizio Galeazzi (2016) *3D Recording Las Cuevas Project* [data-set]. York: Archaeology Data Service [distributor] <https://doi.org/10.5284/1036099><https://doi.org/10.5284/1055116>



Framework Archaeology (2009) The  
Stansted Framework Project [data-set].  
York: Archaeology Data Service [distributor]  
<https://doi.org/10.5284/1000029>

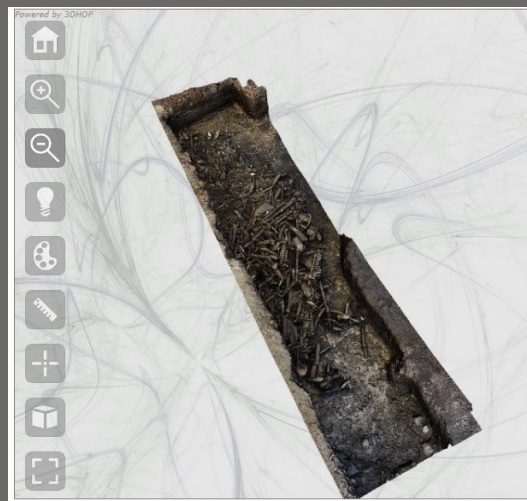


Museum of London Archaeology (2019)  
Stepney Green (Crossrail XRV10)  
[data-set]. York: Archaeology Data  
Service [distributor]  
<https://doi.org/10.5284/1055116>



## Publication + Data

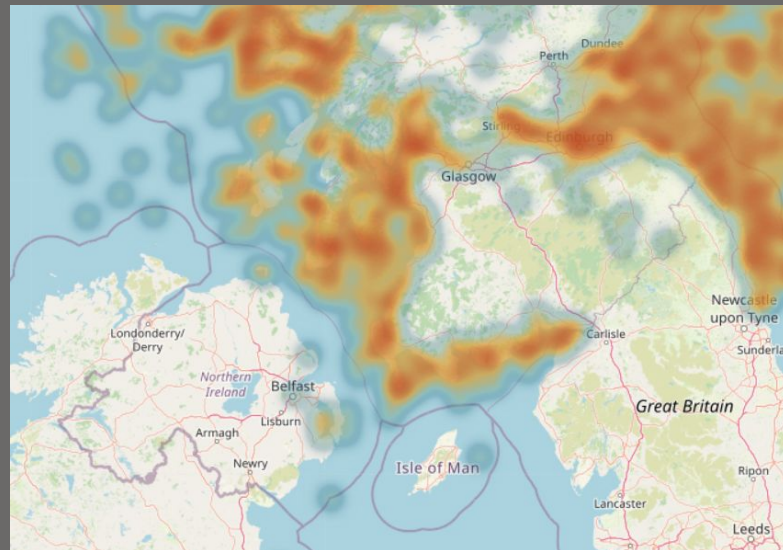
e.g. Milner, N., Conneller, C. and Taylor, B.  
2018. Star Carr Volume 1: A Persistent  
Place in a Changing World. York: White  
Rose University Press  
<https://doi.org/10.22599/book1>



University of York (2018) Star Carr and Lake  
Flixton archives [data-set]. York:  
Archaeology Data Service [distributor]  
<https://doi.org/10.5284/1041580>

# Research + Collaboration

You!





Archaeology  
Data Service

# Thankyou!

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**[www.archaeologydataservice.ac.uk](http://www.archaeologydataservice.ac.uk)**



**[help@archaeologydataservice.ac.uk](mailto:help@archaeologydataservice.ac.uk)**