Digital Preservation at the Archaeology Data Service

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18th March 2022

Background

- Accredited digital archive for UK heritage data
- Founded in 1996
- Based at the University of York
- Predominantly England (work with national agencies)
- Data from Industry and Higher Education
- For more information see our [Annual Reports](#)

Why bother?

- Archaeology generates a lot of data
- Excavation is destructive
- Preservation by Record
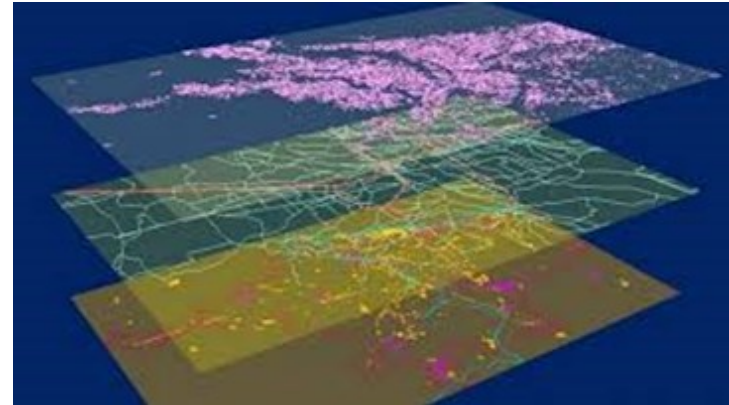- Moral and legal obligation to ensure data is preserved

https://doi.org/10.5284/1000392

Archaeology can produce

Gold!

The Prittlewell princely burial: excavations at Priory Crescent, Southend-on-Sea, Essex 2003
https://doi.org/10.5284/1050095

Background

- ADS archive over 3.5 million digital objects…
- …In 312 unique formats
- 'Bespoke' systems stack not tied to any proprietary or open source preservation system
- For more information see our [Annual Reports](#)

Background

- At the time of writing we are entirely project funded.
- Maintain a core staff of 16.
- Of which 7 are directly/predominantly focussed on Digital Preservation.
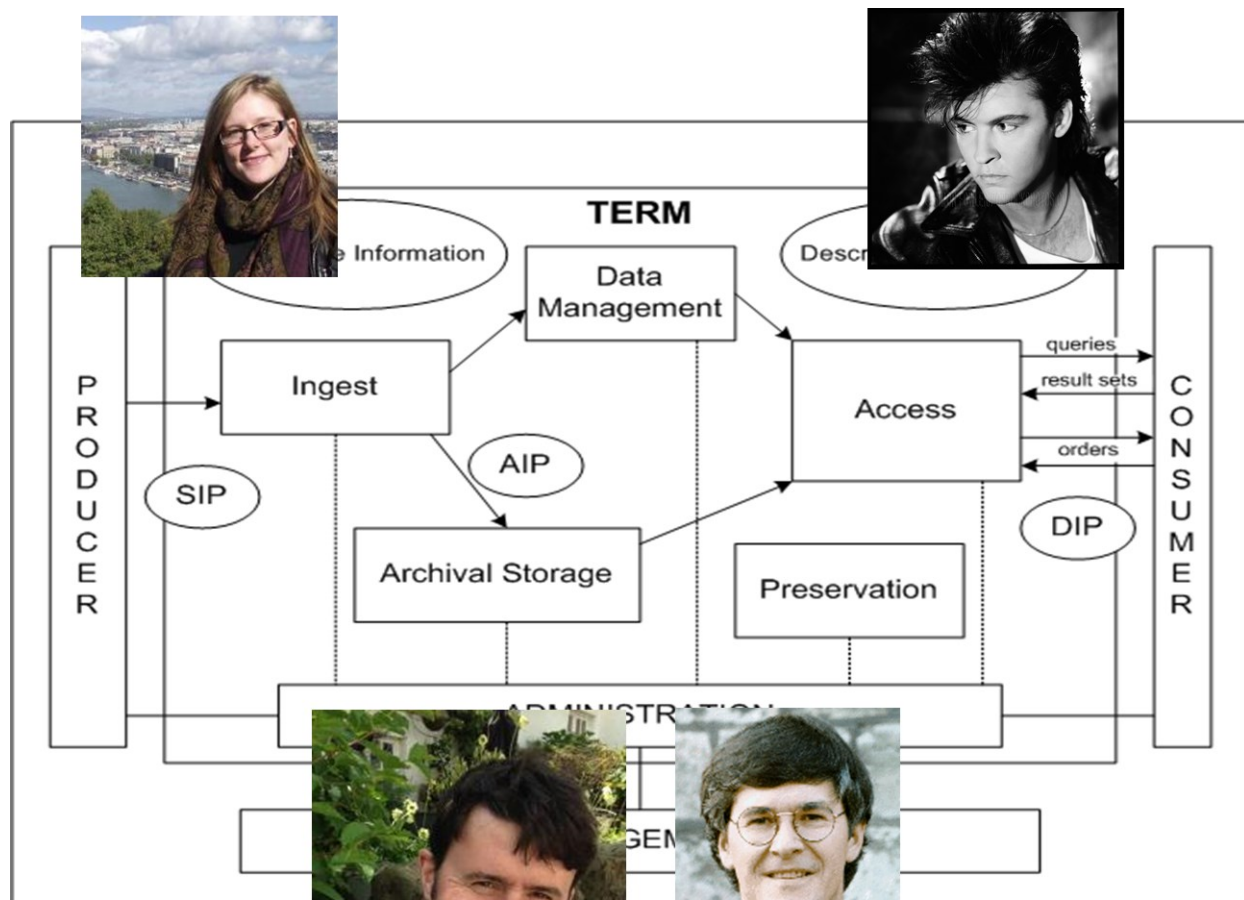- "Curatorial And Technical Staff" or CATs.

TERM

Information   Desc

Data Management

Ingest

AIP

SIP

Archival Storage

Preservation

queries
result sets
orders

P R O D U C E R

C O N S U M E R

DIP

ADMINISTRATION

GEM

Fig. 1. Major function model Committee for Space Data Systems (CCSDS), C er-Ar hodology Abstract Standard. (OAIS). Wh com e Data System Standards.

Preservation via migration

- Every file accessioned preserved as a standardised format e.g. all raster images as uncompressed TIFF, databases as delimited text…
- This is called "normalisation"
- Formats used based on a mixture of technical consideration (e.g. compression = data loss), but also judgements on longevity of format and ease of establishing future migrations.
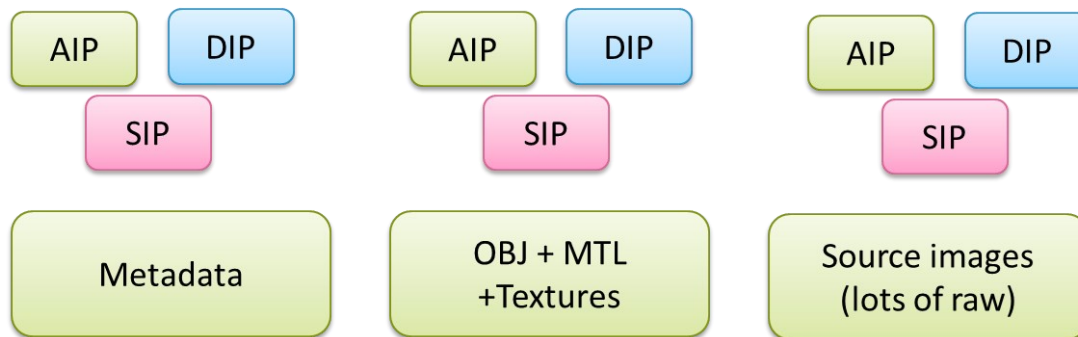
Preservation via migration
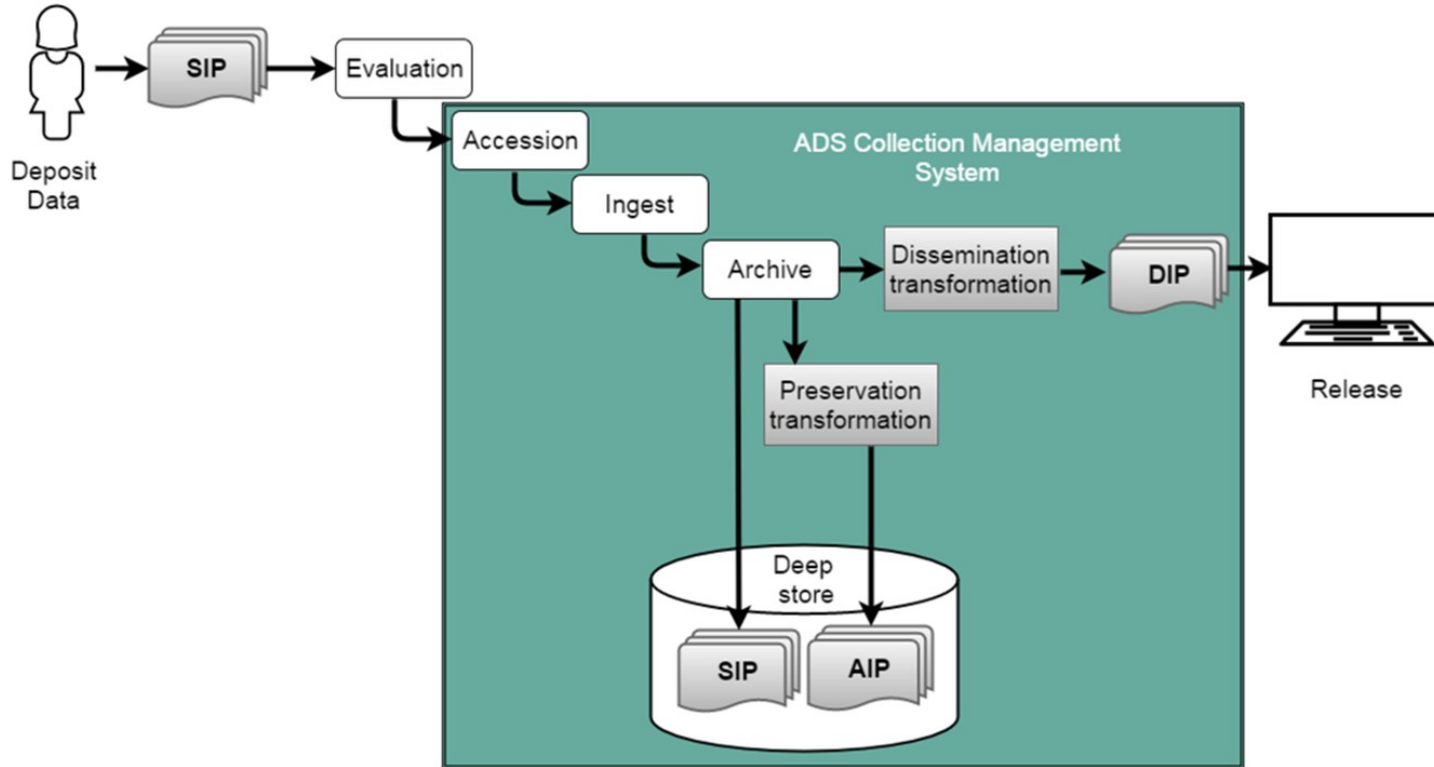
Is that it?

- Increasingly, our work is focussed on understanding what we have, where it is, actively managing risks to that content
  - Checksums: is it the same?
  - Obsolescence: do we need to migrate
  - = understanding what we've done and what we need to do

METADATA

	AIP	DIP			AIP	DIP			AIP	DIP

SIP

SIP

SIP

Metadata	OBJ + MTL +Textures	Source images (lots of raw)

REP_ID	PURPOSE	FILE_NAME	FILE_SIZE	CHECKSUM	OBJECT_ID
3,935,118	Original	Bayo_04_obj.jpg	2,646,743	d82278660faeb15979ce47a2408033fd	1,640,995
3,935,119	Original	Bayo_04_obj.mtl	591	85d7f17485d895259dc47f2b8c7770bd	1,640,995
3,935,120	Original	Bayo_04_obj.obj	62,254,861	52a77f1a869f06d225930d380a92df09	1,640,995
3,935,121	Original	Bayo_04_obj1.jpg	2,286,790	e81f43d7b8b7977ef8d0595617aae964	1,640,995
3,935,122	Original	Bayo_04_obj2.jpg	1,851,007	182af6c0d14222d8cfa9f9cf12644fdc	1,640,995
3,935,123	Original	Bayo_04_obj3.jpg	2,237,707	b92b8b585a1306524c53fc2a42f53a48	1,640,995

METADATA

process.validation

process.virus check

Is Documented In
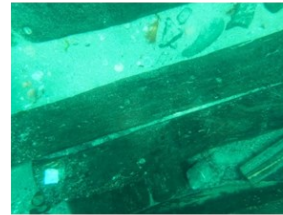
process.normalization

agent.actor.r_moore

agent.software.xnview

process.migration

Is Source of

Internal + External Assessment

- DPC RAM
- CoreTrustSeal (CTS)
- Encourage reflection, and assessment of where we can improve
- Often feed into developing Policy and ensuring workflows are documented.

Collaboration (1)

- National Heritage agencies – giving the same message!
- Other data centres within the Arts and Humanities - ongoing project called CONNECTED led by the BL and with Oxford Text Archive.

Collaboration (2)

- Internationally!
- Sharing metadata: Ariadne https://t.co/Ri32qb8sjq?amp=1
- Working to establish best practice: SEADDA https://www.seadda.eu/

THANK YOU

Archaeology Data Service

http://archaeologydataservice.ac.uk

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