



ARCHAEOLOGY  
DATA SERVICE



UNIVERSITY  
*of York*

# 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



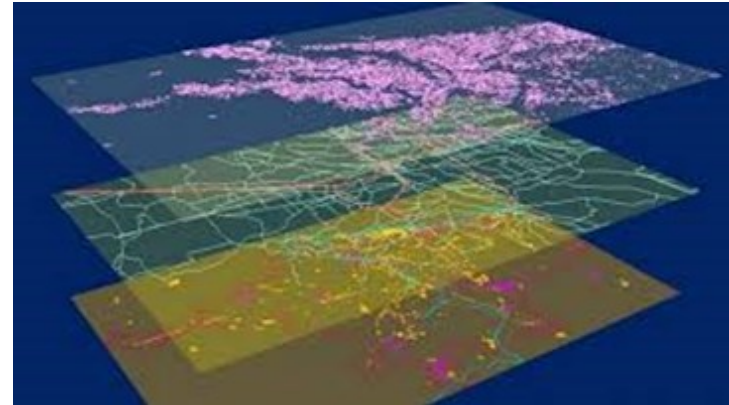
<https://doi.org/10.5284/1000392>

# Archaeology can produce

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dyderental> select title, release_year, length, replacement_cost from film
dyderental> where length > 120 and replacement_cost > 20.50
dyderental> order by title desc;
```

title	release_year	length	replacement_cost
West Lion	2006	159	20.50
Virgin Galaxy	2006	179	20.50
West Side Story	2006	172	20.50
Tracy Cedar	2006	142	20.50
Song Hedwig	2006	165	20.50
Slacker (slabson)	2006	179	20.50
Bossy Packer	2006	164	20.50
Yves Outlaw	2006	140	20.50
Eight Cranes	2006	153	20.50
Quest Mussolini	2006	177	20.50
Powerton Forever	2006	158	20.50
Laughing Legally	2006	140	20.50
Limited Vision	2006	181	20.50
Jingle Signorish	2006	124	20.50
Jericho Mulas	2006	171	20.50
Japanese Run	2006	135	20.50
Glennys Billed	2006	165	20.50
Flatts Garden	2006	146	20.50
Fantasia Park	2006	131	20.50
Extraordinary Conqueror	2006	122	20.50
Everyone Craft	2006	163	20.50
Witty Ace	2006	147	20.50
Clyde Theory	2006	139	20.50
Clockwork Paradise	2006	143	20.50
Ballroom Rockingbird	2006	173	20.50

(15 rows)



# Gold!



The Prattlewell 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.



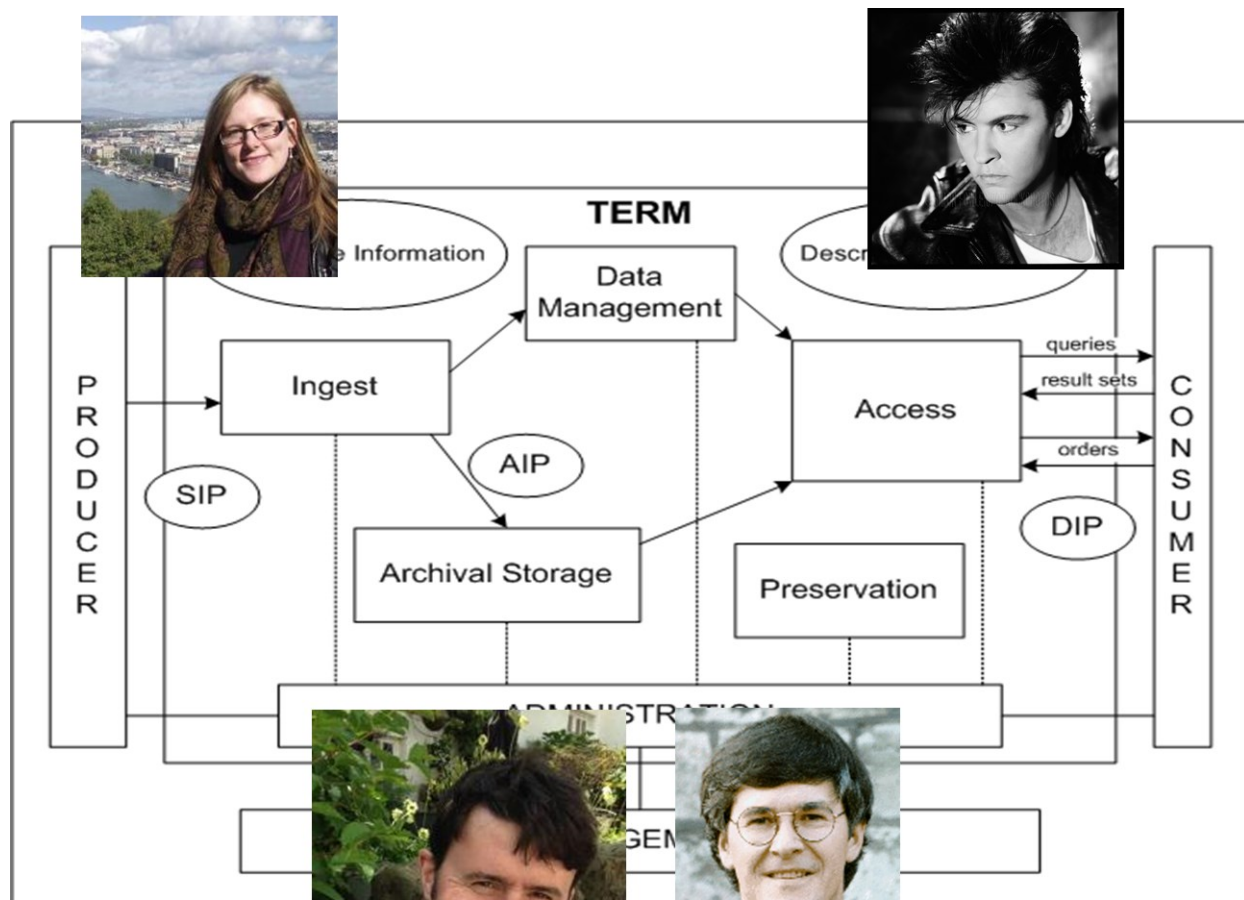


Fig. 1. Major function  
Systems (CCSDS), C  
Standard. (OAS). Wh

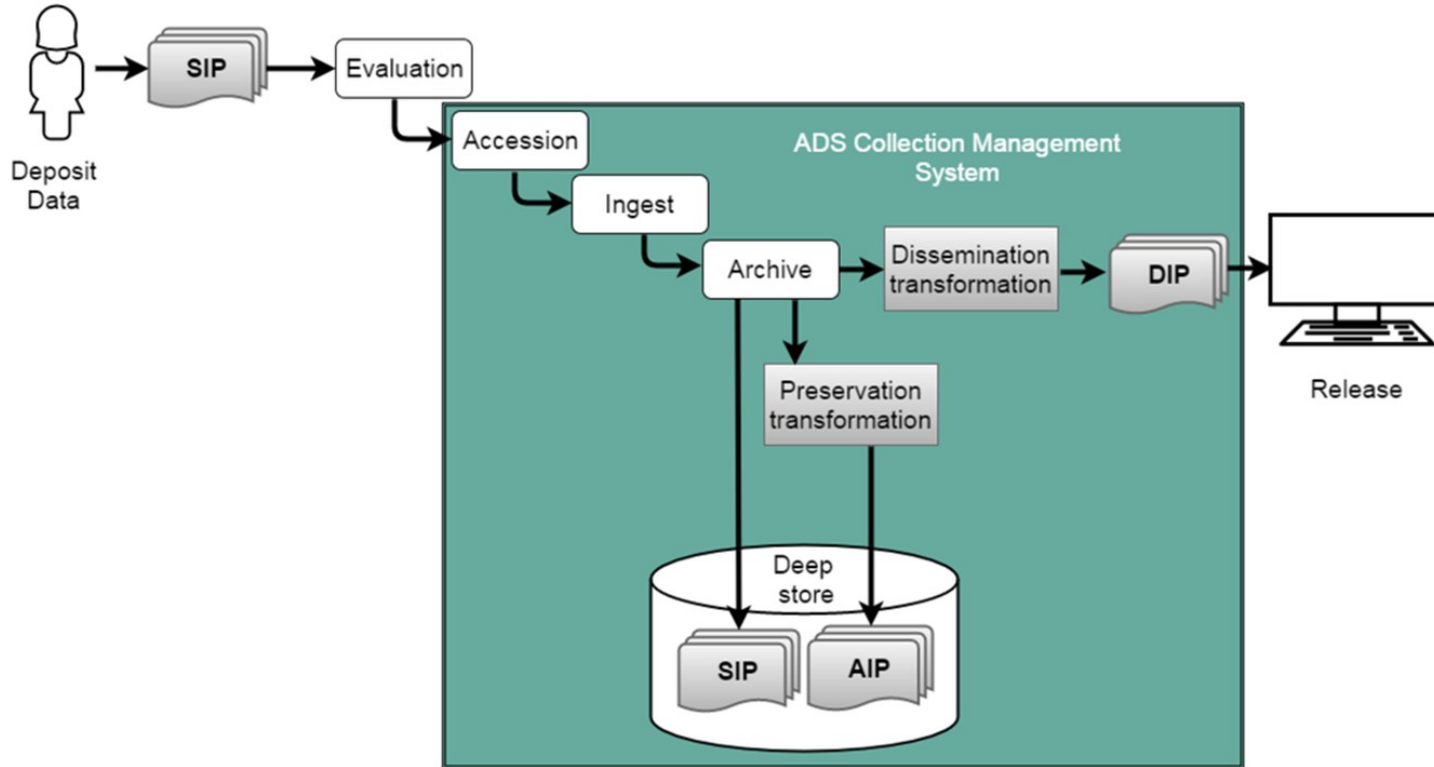
Comittee for Space Data  
nology Abstract  
e Data System Standards.



# 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

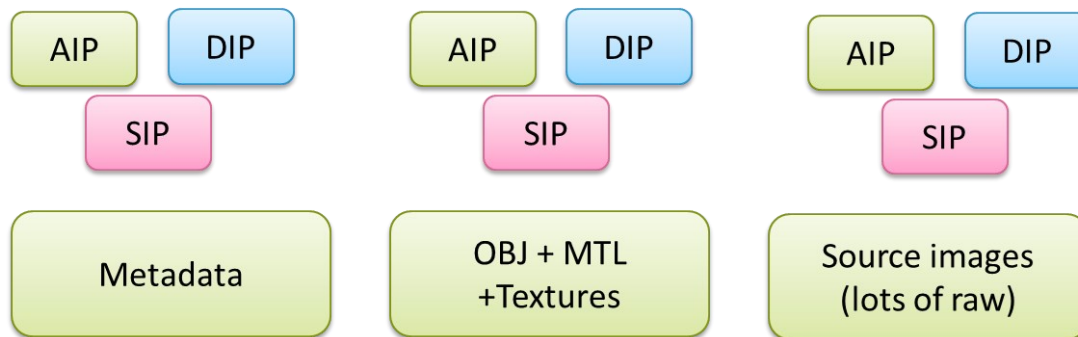


# Is that it?

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

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JPEG File Interchange Format	1.02	fnt44
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JPEG File Interchange Format	1.02	fnt44
Tagged Image File Format	<null>	fnt353
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Exchangeable Image File Format (Compressed)	2.1	x-fmt390
Exchangeable Image File Format (Compressed)	2.1	x-fmt390
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JPEG File Interchange Format	1.02	fnt44
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Exchangeable Image File Format (Compressed)	2.1	x-fmt390
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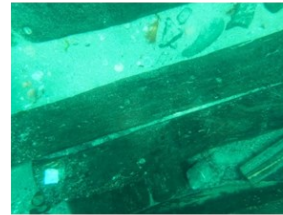


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process.validation

process.virus check

Is Documented In

[illegible]

process.normalization

agent.actor.r\_moore

agent.software.xnview

Is Source of

process.migration



# 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.



HISTORIC  
ENVIRONMENT  
SCOTLAND

ÀRAINNEACHD  
EACHDRAIDHEIL  
ALBA



Historic England



UK Research  
and Innovation



## Collaboration (2)

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



**Archaeology Data Service**

<http://archaeologydataservice.ac.uk>

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# THANK YOU

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[https://twitter.com/ADS\\_Update](https://twitter.com/ADS_Update)  
[help@archaeologydataservice.ac.uk](mailto:help@archaeologydataservice.ac.uk)