Protecting Your Digital Information Legacy

ads
ARCHAEOLOGY DATA SERVICE

Built Legacy: Preserving Historic Buildings Data

Archaeology Data Service
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Outline

- Conservation Practice and Digital Data

- Built Legacy Research Project

- Context
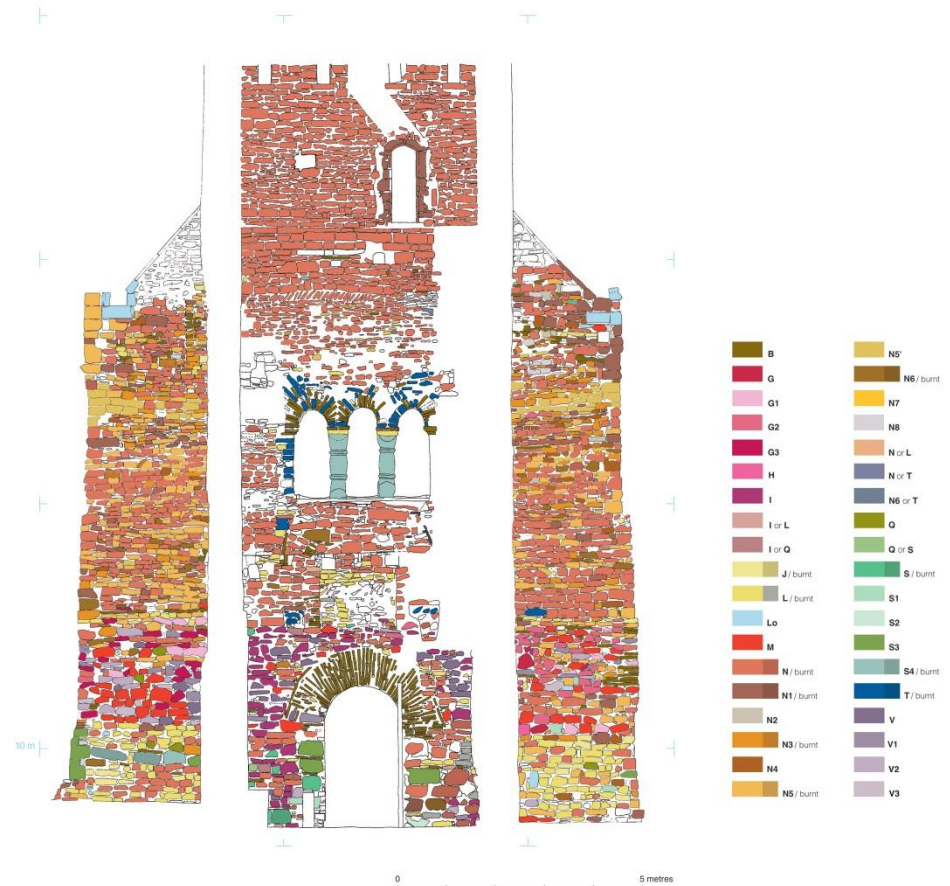
- Findings

- Recommendations

Image © Dr David Parsons, Alex Turner, George Hammerschmidt, Christina Unwin, Dr D S Sutherland
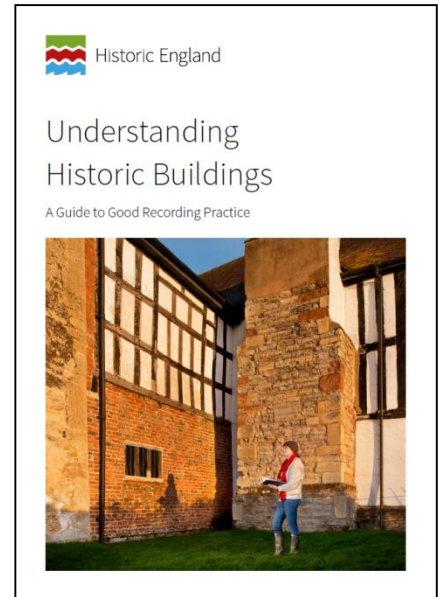
Conservation

- Archaeology is **destructive**, record of field work is of understood value

- Conservation - **Management of Change**

- Demolition – Preservation by Record

- Repairs or Adaptation – Opportunities to record

- Increase Understanding

- Inform Design Decisions

- Now and in the future

Image © Souterrain Archaeological Services Ltd

Historic Buildings Data

- Historic Building Recording

- Building Investigation resulting in drawn records in CAD

- Photographic Survey

- Laser Scans

- Dendrochronology

- Geographic Information System (GIS) Files

- Area Characterisation

Department of of Archaeology University of York

Historic England

Understanding Historic Buildings

A Guide to Good Recording Practice

Digital Data

- Easy to update and share with project teams

- Easy to issue and access

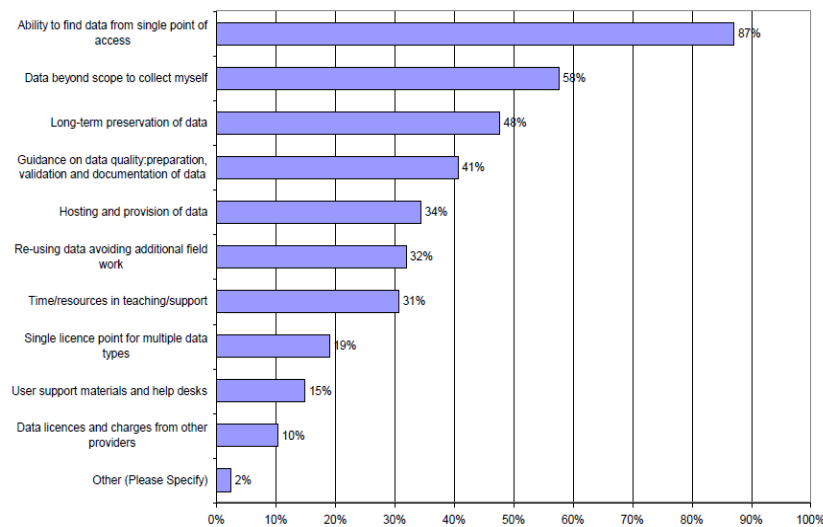- Perception of longevity, archiving is not backing up

- HBIM

Digital Born Data - data created in digital format

Digitised Data - hardcopy converted to digital

Context of Research

UNIVERSITY *of York*

- External Engagement Award funded by the University of York

- ADS Impact Report Beagrie & Houghton , 2013

Figure A13: Areas of savings for respondents resulting from accessing ADS (N=241)

Category	Percentage
Ability to find data from single point of access	87%
Data beyond scope to collect myself	58%
Long-term preservation of data	48%
Guidance on data quality:preparation, validation and documentation of data	41%
Hosting and provision of data	34%
Re-using data avoiding additional field work	32%
Time/resources in teaching/support	31%
Single licence point for multiple data types	19%
User support materials and help desks	15%
Data licences and charges from other providers	10%
Other (Please Specify)	2%

Source: ADS Impact Report Beagrie & Houghton, 2013

Research Methodology

- Online survey
- Telephone interviews
- Requests for information to local planning authorities

https://pixabay.com/en/team-spirit-team-question-mark-437507/

Conservation Professionals

- Register of Architects Accredited in Building Conservation (AABC) (many were also on RIBA Conservation Register)
- Conservation Accreditation Register for Engineers (CARE)
- Conservation Accredited Chartered Surveyors (RICS)
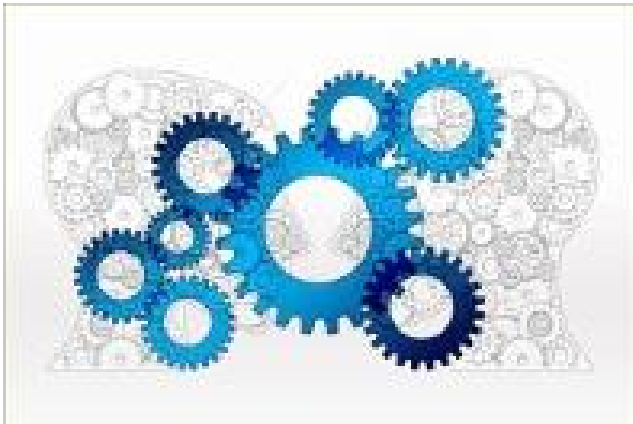- Architectural Technologists (CIAT) on Conservationist Register

Participants by Professional Affiliation
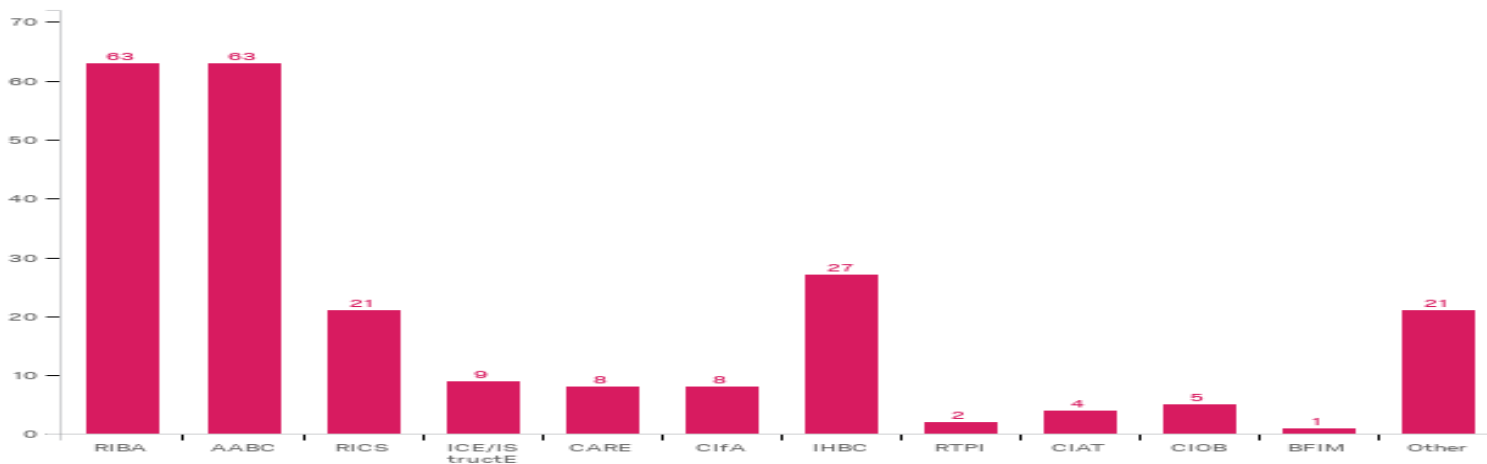
ADS EEA Built Legacy
Matthews, Creswick 2016

Others

- Heritage Consultants
- Conservation Officers
- Buildings Archaeologists
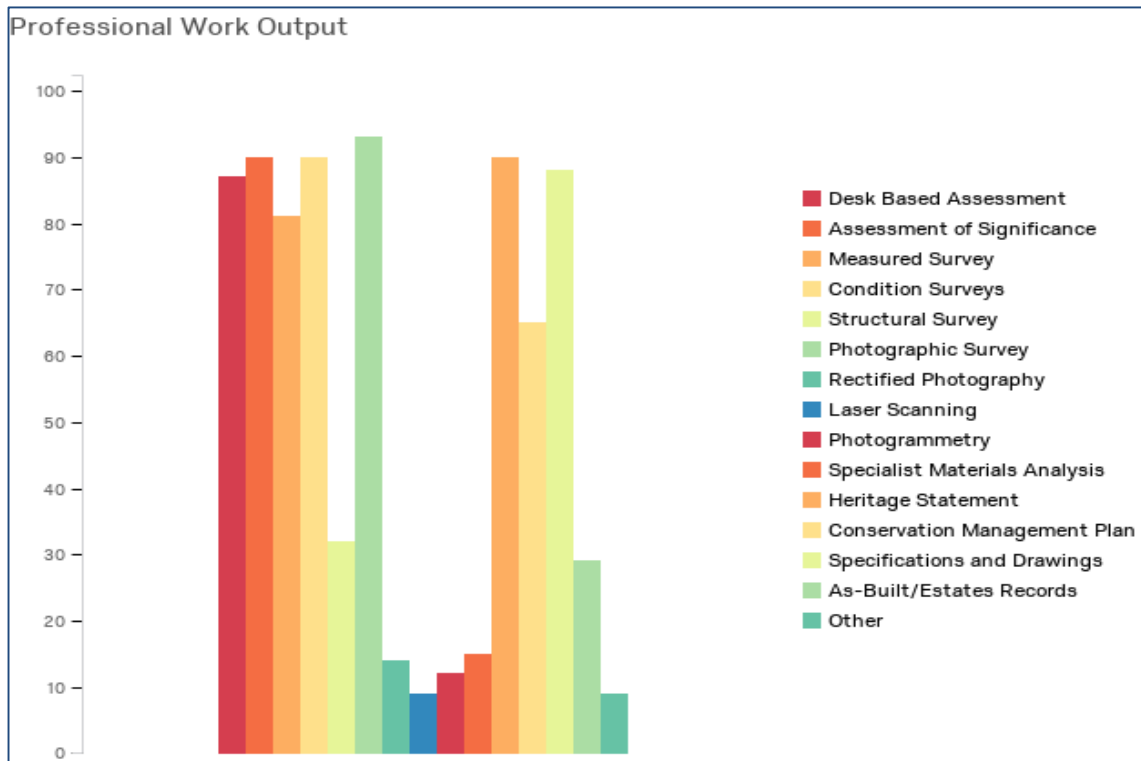- Specialist Investigators
- Architectural Historians

https://pixabay.com/en/mechanics-gear-gears-blue-1501859/

Photo from the U.S. Bureau of Reclamation, of the U.S. Department of the Interior, Public Domain, https://commons.wikimedia.org/w/index.php?curid=146749

Historic Buildings Information

Professional Work Output

Legend:
- Desk Based Assessment
- Assessment of Significance
- Measured Survey
- Condition Surveys
- Structural Survey
- Photographic Survey
- Rectified Photography
- Laser Scanning
- Photogrammetry
- Specialist Materials Analysis
- Heritage Statement
- Conservation Management Plan
- Specifications and Drawings
- As-Built/Estates Records
- Other

ADS EEA Built Legacy Matthews, Creswick 2016

- Terminology varied
- 'Events' = 'Investigations or Intervention'
- 'Contractor' = 'Professional carrying out the investigation'
- Specialist work sub-contracted
- Quality and Validation

Who commissions vs. who writes the brief

Clients commission and pay for investigation

BUT

Various people are responsible for defining the brief including:

- The investigating professionals themselves

- Other project team members

- And sometimes local authority conservation officers

Why is this important?

https://pixabay.com/en/window-hand-magnifying-glass-search-1231894/

What is the information used for?

- The planning process or a faculty petition is the major trigger for historic building investigation and analysis

- It is often used to inform decisions by clients and the rest of the project team.

- And some times used for funding applications.

Is future use and public access to the information a consideration?

Archiving Practice

Where is the Historic Buildings Data Kept?
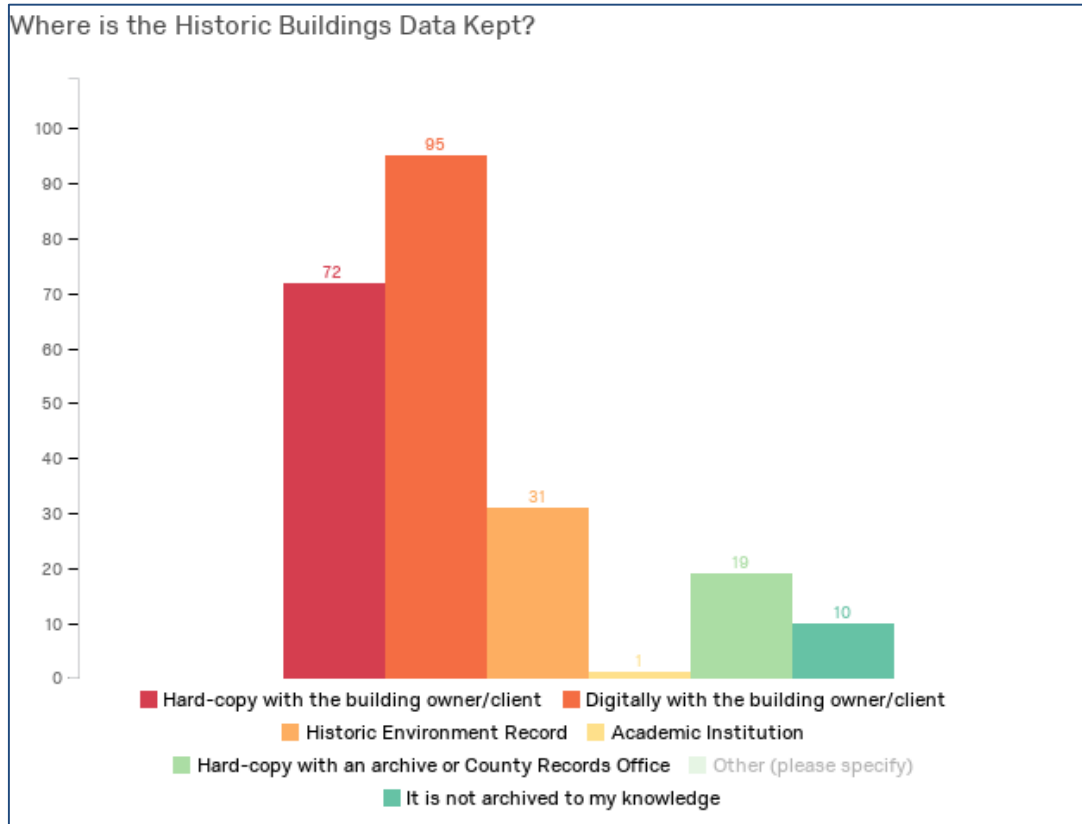
ADS EEA Built Legacy Matthews, Creswick 2016

- Majority issued digitally

- HER/ County Records have some impact

- 10% stated that their work was not archived to their knowledge!

- Clients are depending on their consultants.

Where will the information be in 10 years' time?

- *'Who knows? We cannot operate as the County Archive.'*

Lost?

- *'Cynically, on a scratched out of date CD in the back of a cupboard in a probably damp vestry.'*

- *'If past experience is anything to go by, forgotten. Clients have short memories.*

http://www.officesuppliesblog.co.uk/2015/07/06

Where will the information be in 10 years' time?

Obsolete?

- *'Digital Scans are generally retained by the survey company; however we don't currently require them to hold this data (and curate it to ensure it remains legible to future software versions) for any period of time.'*

- *'We have projects 15 years old for which we no longer can read the electronic data.'*

Reduced local capacity

- *'I cannot see archives and records being much of a priority in the public sector, certainly not a local level where cuts and closures are rife'*

Where will the information be in 10 years' time?

So much information to validate and curate

- *'I am concerned that some Heritage Statements, which contain important new research are within reports primarily aimed at supporting Planning Applications and therefore look like advocacy documents so may not be archived.'*

Who's responsibility is it?

- *'Quite possibly in our own archive, but not guaranteed.'*
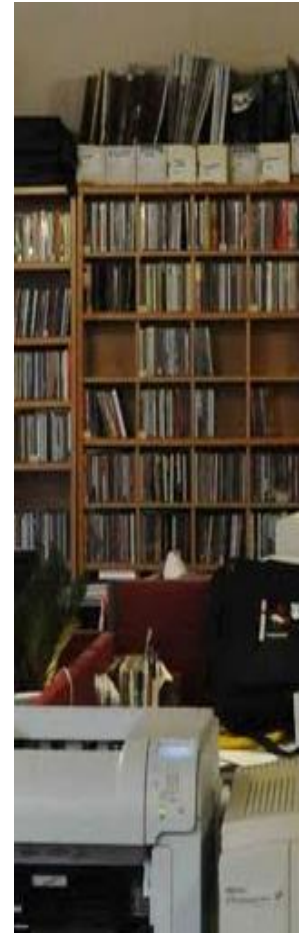
What information would you like to access?

- Drawings and specifications of all previous interventions, something like a log book.

- A national database of Heritage Statements, Statements of Significance and Heritage Asset Condition Reports.
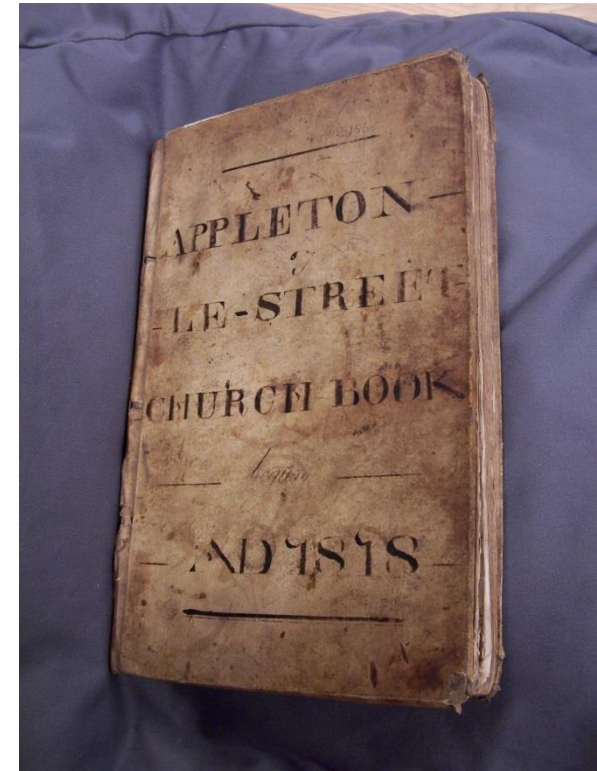
A Creswick courtesy of Borthwick Institute

Impact of Free and Open Access to Data

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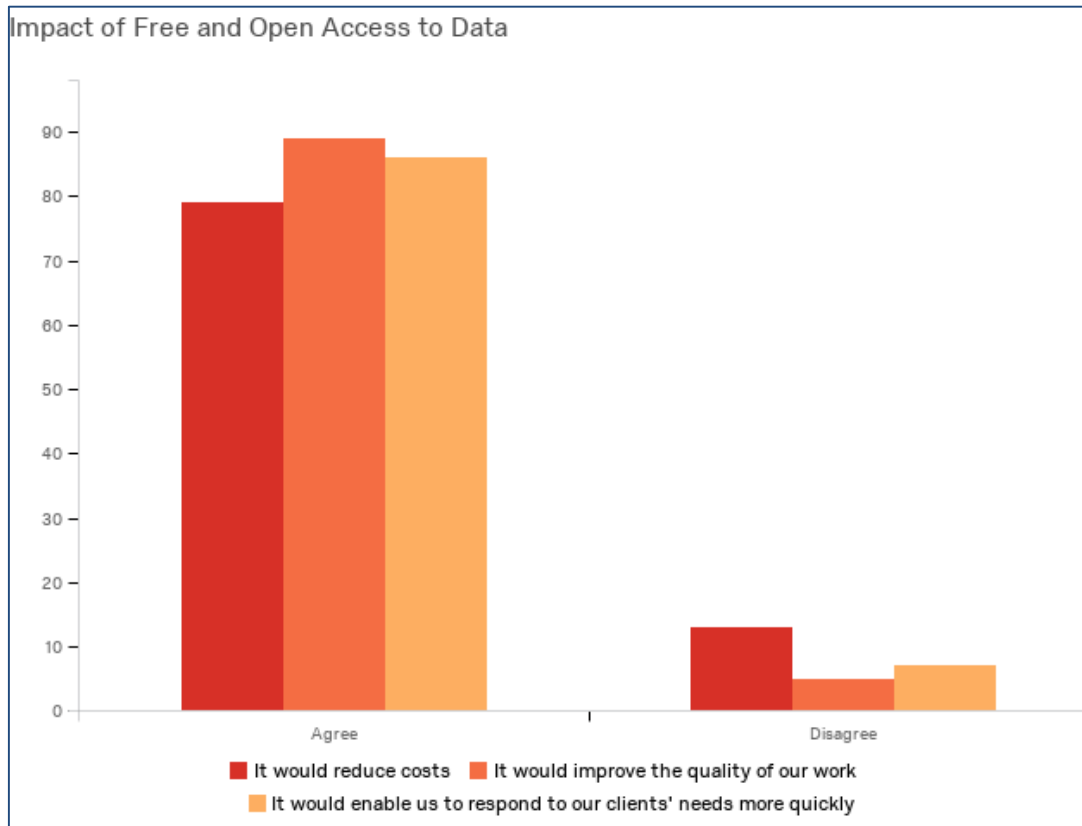
ADS EEA Built Legacy Matthews, Creswick 2016

- It would improve the quality of our work.

- It would enable them to respond to our clients' needs more quickly.

- It would reduce costs.

So what are the other advantages to deposition?

1. It demonstrates **good practice** in terms of making a contribution the historic buildings community.
2. It provides a **secure, long-term, future-proof** archive of work
3. It provides **accessibility** to the information for clients and the project team.
4. There is **commercial** advantage through demonstration of professionalism in a market where trust is important.

ADS has had major impact on the recording and dissemination of archaeological information in the last 20 years. What about historic buildings?

Have you used ADS to access information about built heritage?

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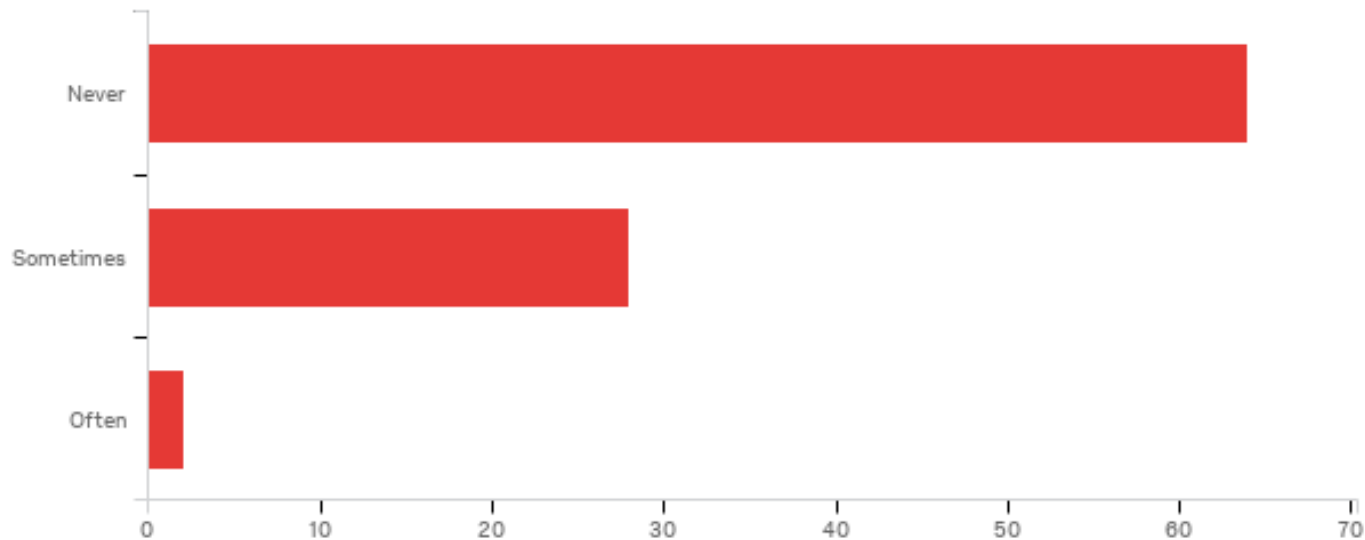
Do conservation architects and their teams know that you can report historic building investigations through OASIS?

Awareness of OASIS

49%
I have never heard of it

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What's the impact of the NPPF on historic building data?

*'Local planning authorities should **make information about the significance of the historic environment** gathered as part of plan-making or development management **publicly accessible**. They should also require developers to **record and advance understanding of the significance of any heritage assets to be lost (wholly or in part)** in a manner proportionate to their importance and the impact, and to make this **evidence (and any archive generated) publicly accessible**.' NPPF*

So what is happening in practice?

www.gov.uk/local government and history
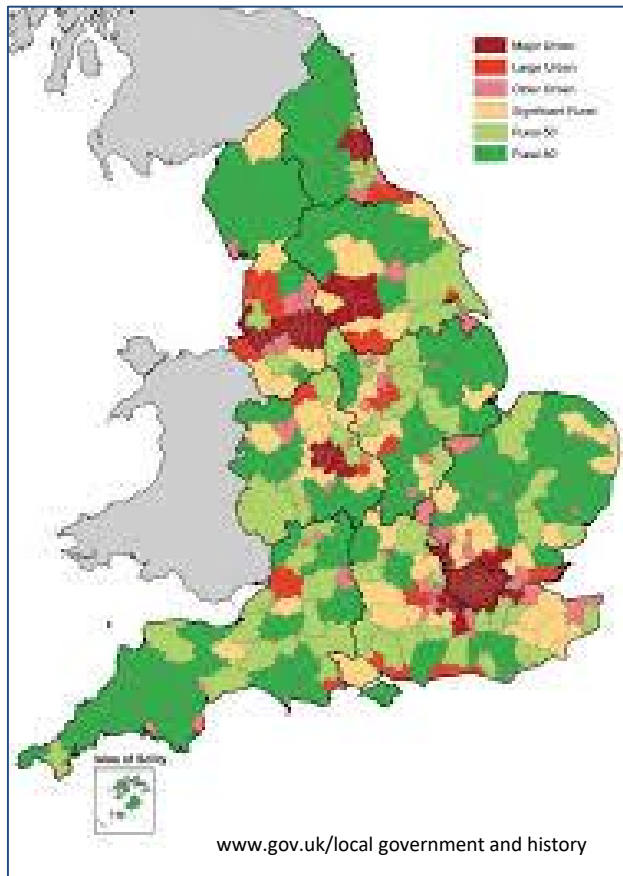
- 332 local planning authorities were consulted

- 33,600 + listed building consent applications in 2015

- Only 40% could respond to questions on supporting information about significance

- 65% reported it is validation requirement or is submitted in ≥ 95% cases

Is future reuse or public accessibility a consideration?

www.gov.uk/local government and history

So what is happening in practice?
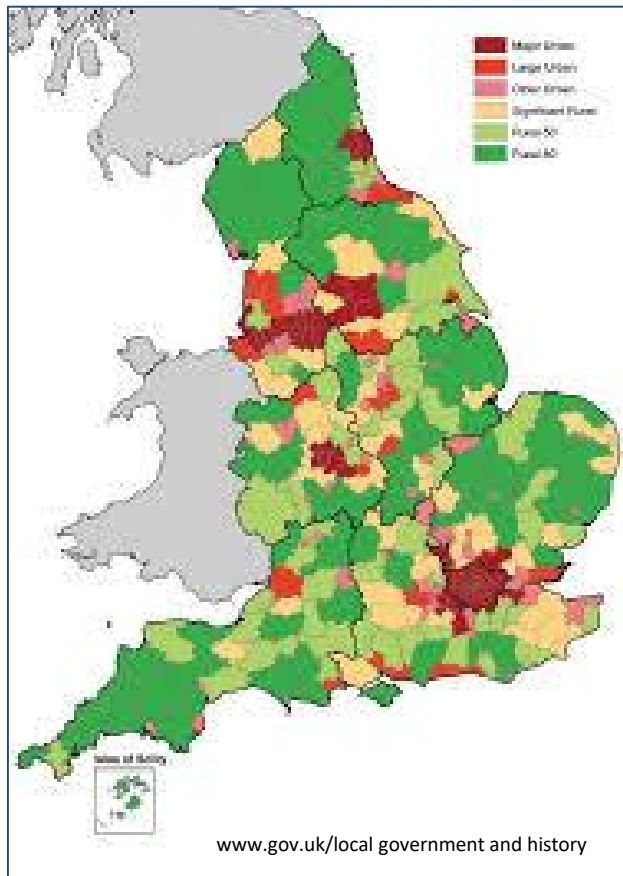
- 101 LPAs reported imposing a condition to record, usually in cases of demolition or substantial loss

- 247 individual conditions to record

Is future reuse or public accessibility a consideration?

- 19% referred to HER

Only 36% include a condition to digitally archive!

So what is happening in practice?

Public Access Planning Portal

'for the foreseeable future'

 'the council does not currently have the capacity to digitally archive documents'

'kept forever'

'listed building applications are kept for 3 years'

'viewed in perpetuity'

'the information is not archived'

'there is no expected end to this information being available'

'all applications are available on the website however after 6 months a majority of the documents will 'drop off' the website'

So what is happening in practice?

Public Access Planning Portal

'Following a system failure and in the light of new data management systems, it was agreed that only the most urgent reports would be salvaged, and the above reports were not among them.'
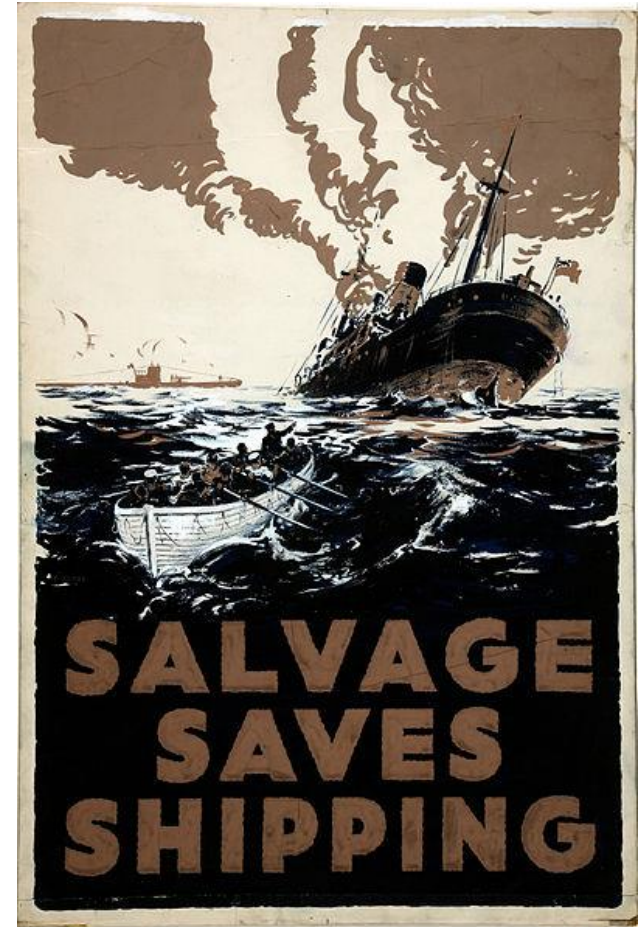
https://commons.wikimedia.org/wiki/File:INF3-207_Salvage_Salvage_saves_Shipping_(torpedoed_ship_sinking)_Artist_E_Oliver.jpg
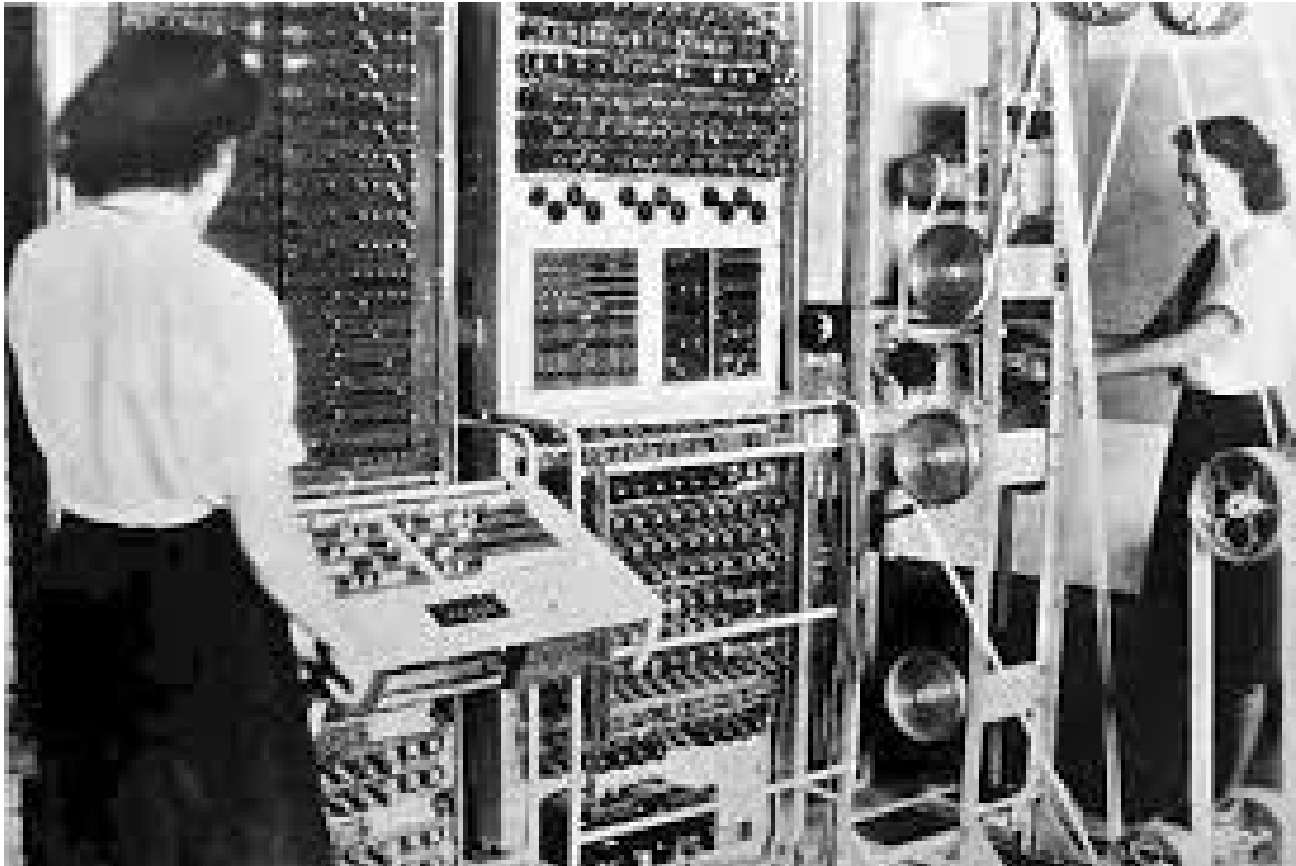
http://archaeologydataservice.ac.uk

https://en.wikipedia.org/wiki/Bombe
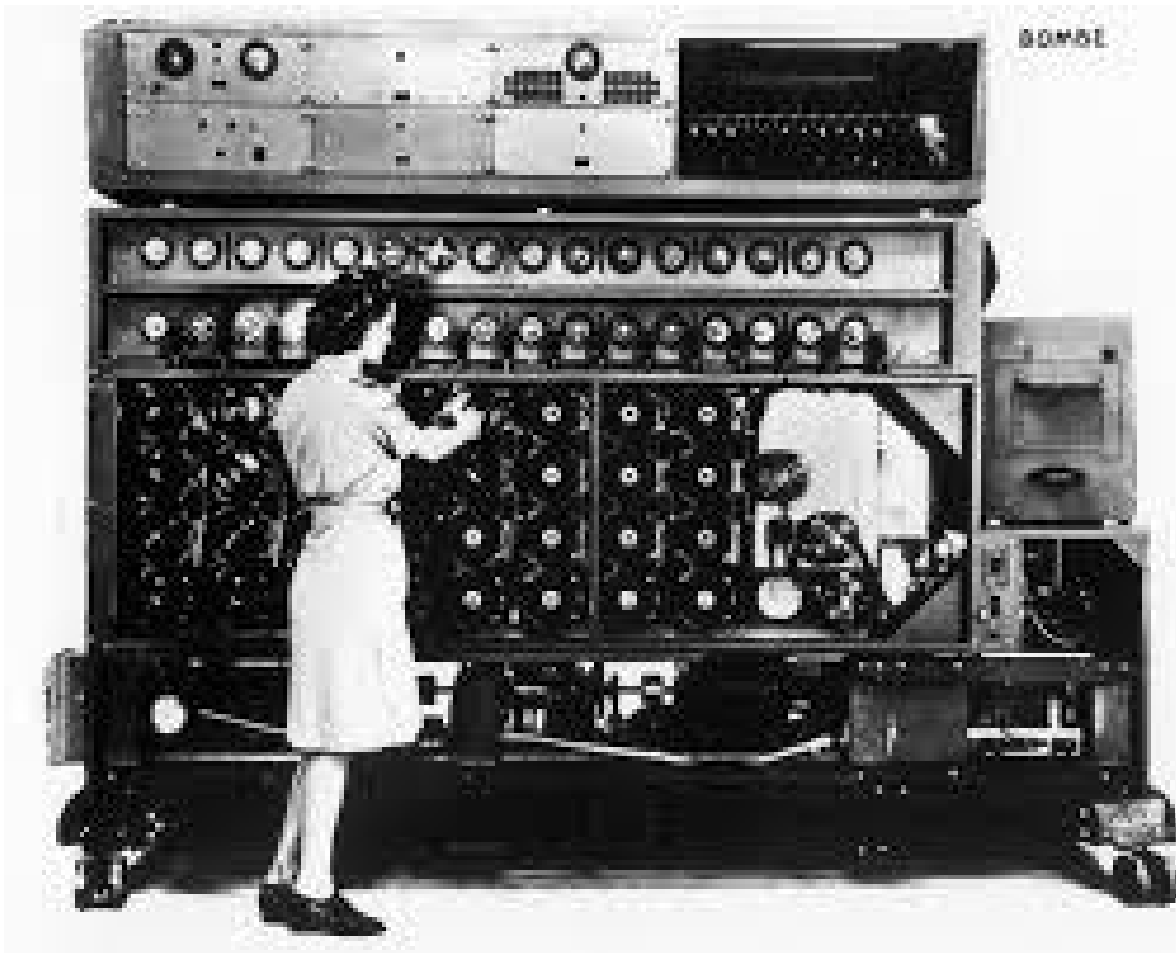
https://en.wikipedia.org/wiki/Colossus_computer

Bézier, P. E. "Example of an Existing System in the Motor Industry: The Unisurf System." *Proceedings of the Royal Society of London. Series A, Mathematical and Physical Sciences* 321.1545 (1971): 207-18. Web.

Technology

- Hardware experiences rapid change

- As does storage media

4mm Tape

DVD-ROM

G2000 Tape

9-Track Reel

Smart Media

DC4_120

8" Floppy

3.5" Floppy

QIC DC600

Punch Tape

CD-ROM

xD Picture Card

Rectangular Hole
Punch Card

Floptical Disk

5.25" Floppy

Travan

IBM 3480

DG90M Tape

Memory Stick

5.25" Optical Disk

8mmD-eight

Cassette tape

Click!

Sparq Disk Cartridge

12" Optical Disk

Ditto Max

MultiMedia Card

SD Memory Card

DLT Tape

CompactFlash

Zip Disk

Jaz Disk

You have each been given a data storage item

- Put it on our time line

- Can you tell the group something about it?

- How would you go about using the information on it?

Digital Data

- Easy to create
- Easy to update
- Easy to access

But Fragile!

- Digital data is encoded
- Digital data requires software and technology to present content
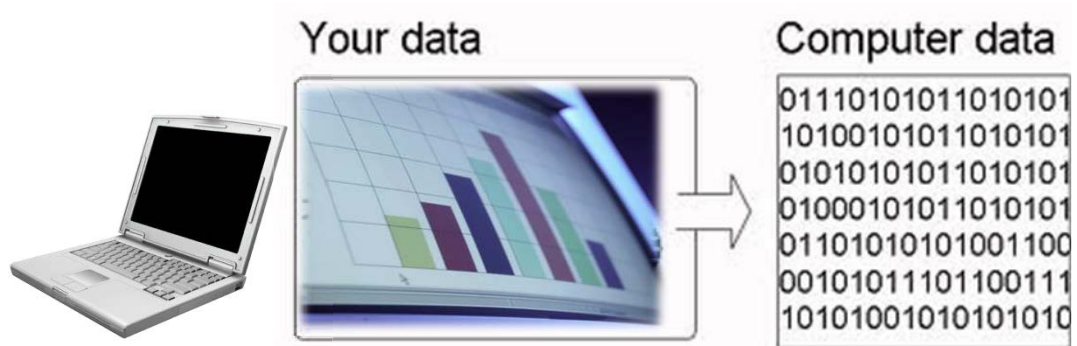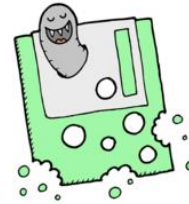
Why is Digital Data Fragile?

Why is Digital Data Fragile?

- **Deterioration** of the storage medium

  – Degrade – Bit rot!

  – Can be easily damaged
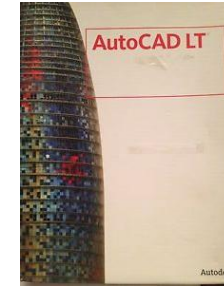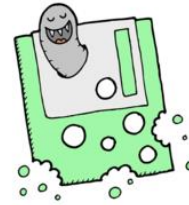
  – Can be easily overwritten
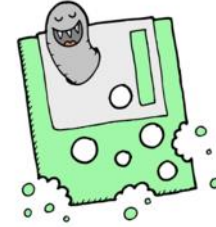
Why is Digital Data Fragile?

- **Deterioration** of the storage medium

- Obsolescence of the **software**
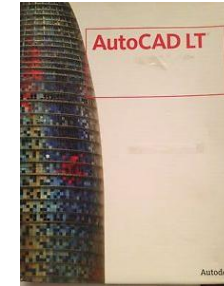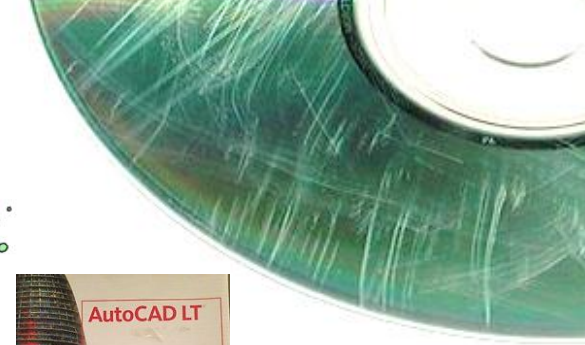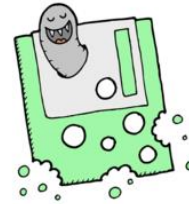
Why is Digital Data Fragile?

- **Deterioration** of the storage medium

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- **Obsolescence** of the storage medium

AutoCAD LT

5.25" Floppy

Why is Digital Data Fragile?

- **Deterioration** of the storage medium

- Obsolescence of the **software**

- **Obsolescence** of the storage medium

- Obsolescence of the **hardware**

5.25" Floppy

Why is Digital Data Fragile?

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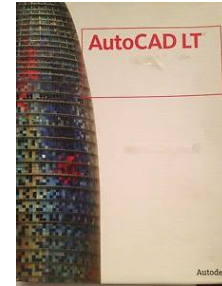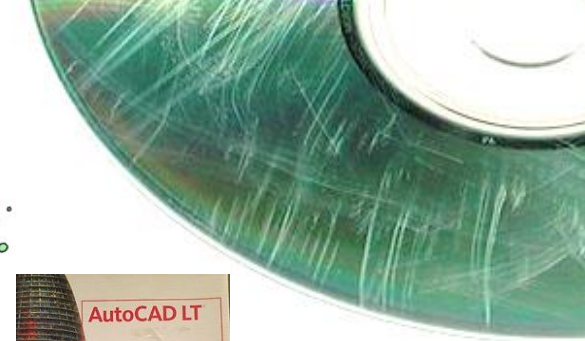
- Obsolescence of the **hardware**

- Failure to **document** data adequately

AutoCAD LT

5.25" Floppy

RETIRED !

Pr661_ArchiveInformation
Pr661_Metadata
Pr661_Photogrammetry_Topcon
Pr661_PostExcavationImages
Pr661_SiteImages

Pr661_AutocadDrawings
Pr661_DigitisedSiteDrawings
Pr661_DigitisedTopconProjects

Pr661_2007_Drawing-5001_Archive_v02.dwg
Pr661_2007_Drawing-5004-Sheet4-a_Archive_v02.dwg
Pr661_2007_Drawing-5004-Sheet4-b_Archive_v02.dwg
Pr661_2007_Drawing-5012-5017-5019-Sheet13_Archive_v02.dwg
Pr661_2007_Drawing-5015-Sheet14_Archive_v02.dwg
Pr661_2007_Drawing-5016-Sheet15_Archive_v02.dwg
Pr661_2007_Drawing-5018-Sheet16_Archive_v02.dwg
Pr661_2007_Drawing-5020-Sheet17_Archive_v02.dwg
Pr661_2007_Drawing-5021-Sheet18_Archive_v02.dwg
Pr661_2007_Drawing-5022-Sheet19_Archive_v02.dwg
Pr661_2007_Drawing-5024-Sheet21_Archive_v02.dwg

Digital Data

"Digital information lasts forever - or five years, whichever comes first."

(Jeff Rothenberg, RAND Corp., 1997)

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Historic Building Data

Years in the making

3 days to record

Backed up in 10 seconds

Lost forever?

How can we prevent this?

http:??dx.doi.org/10.5284/1037859 © Andy Aukland

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© Digital Preservation Business Case Toolkit

Protecting Digital Data

- Recognise data is fragile

- Stop archiving data as objects rather than computerised information

- Professionally archive digital material

GOOD DATA MANAGEMENT IS ESSENTIAL

ads easy ads

KEEP CALM AND ARCHIVE ON-LINE