



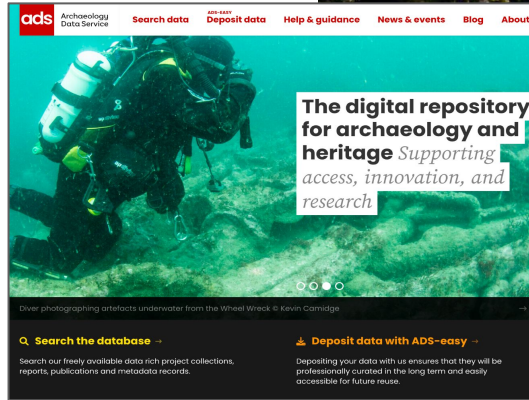
Archaeology
Data Service

Keeping High Speed 2 on Track: managing a decade of asynchronous archiving and dissemination

Teagan Zoldoske and Holly Wright
Archaeology Data Service



Archaeology Data Service



Website © ADS

- Established in 1996
- University of York, UK
- CoreTrustSeal Accredited
- 45+ terabytes of data
- Preservation through migration



Image © University of York

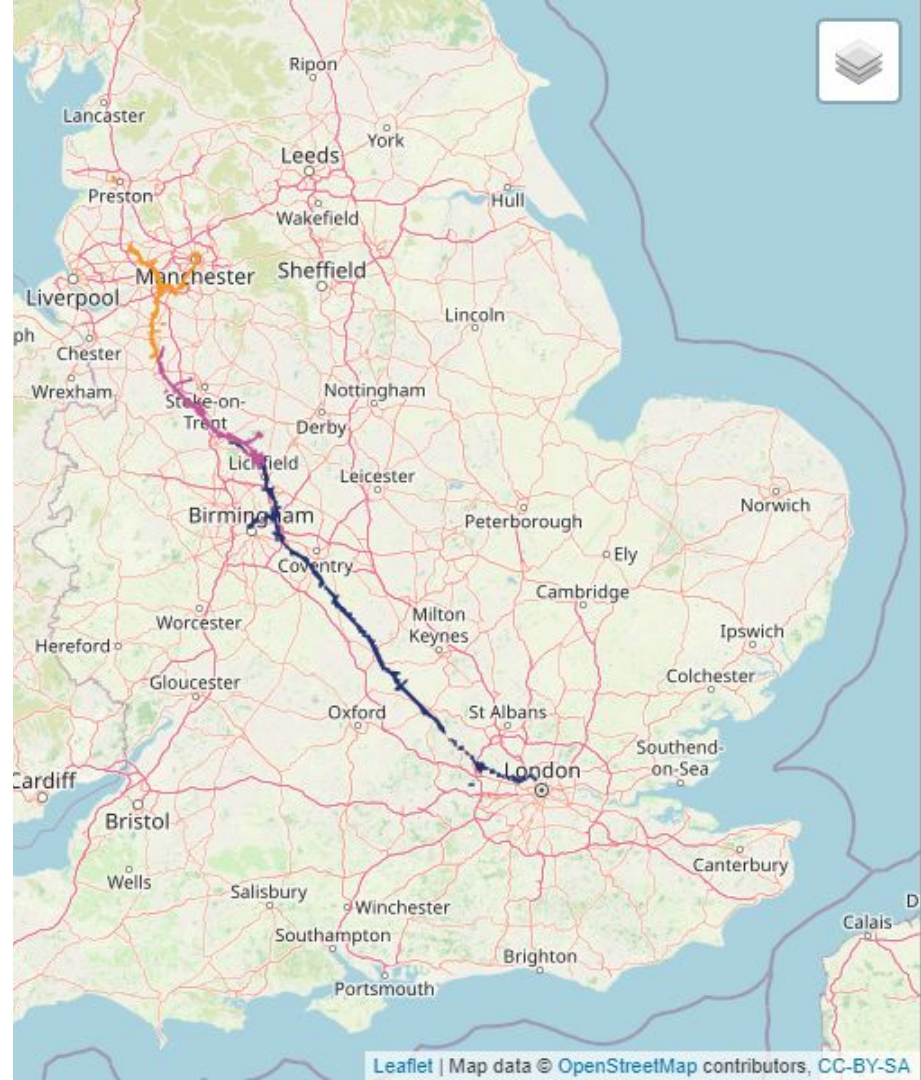


High Speed Two Railway

- UK's largest linear infrastructure project
- Unprecedented opportunity

Historic Environment Research and Delivery Strategy Objective 03:

To develop and deliver a highly accessible archive and outstanding archival legacy that will be actively promoted.



High Speed 2 Digital Archive

15+ TB of data **expected** at the start of the project

Data types: 3D data (LIDAR, Laser Scans, Photogrammetry, RTI, CT Scans), Video and Audio, Databases, Spreadsheets, Documents, Photographs, Geophysics, (Mag, Res, GPR) CAD, GIS, Scientific data, X Ray, etc.

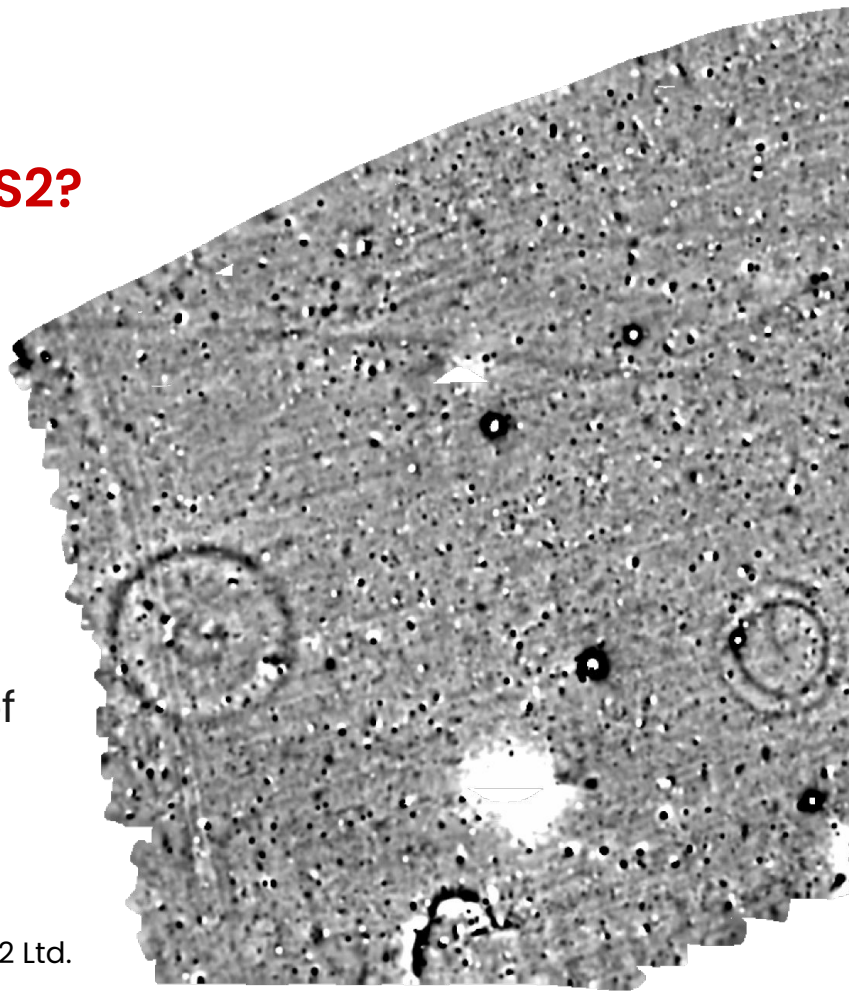


What data does the ADS hold from HS2?

ADS has data from 360 sites

- Total size: 16.2 TB
- Largest site: 2.9 TB
- Average Size: 8.7 GB (without the largest)

ADS holds geophysics and LiDAR data for all of Phase 1 and receives updates to the GIS map across all of HS2 every 6 months



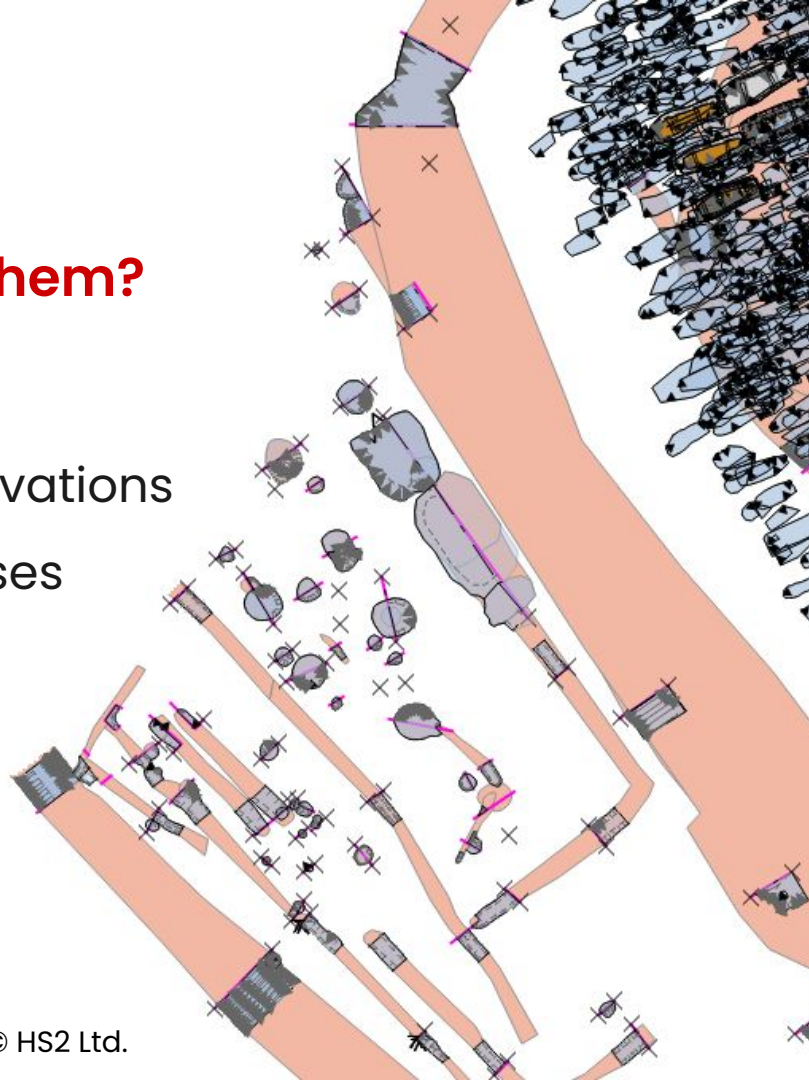
What do these archives have in common?

- Collection level metadata
- Standardised metadata
- HS2 approved report
- A selection decision record

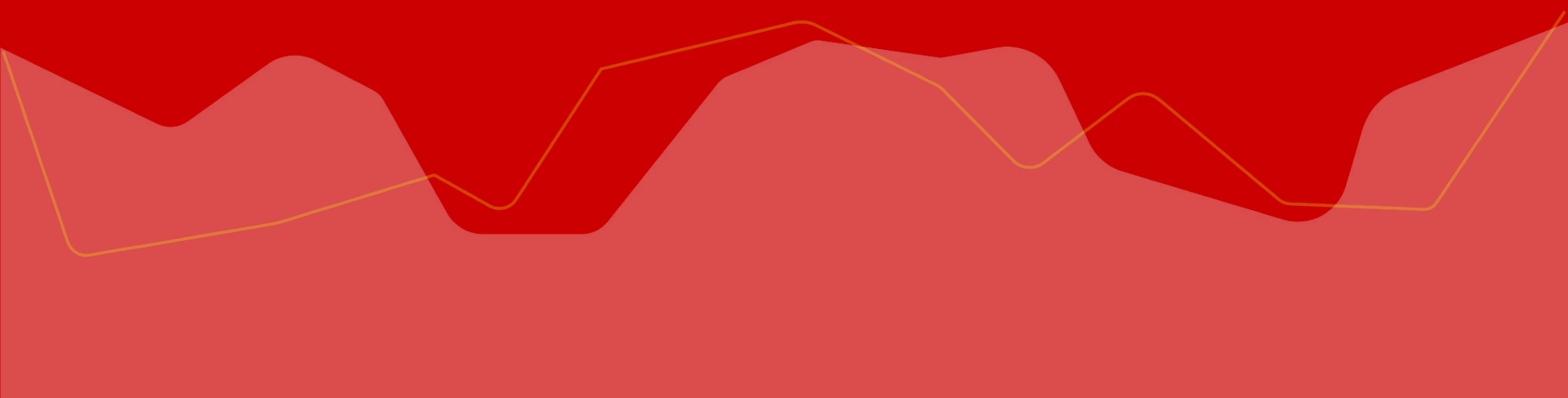
All archives are expected to follow **ADS deposit requirements** as well as data type specific **technical specifications** set out by HS2.

What are major differences between them?

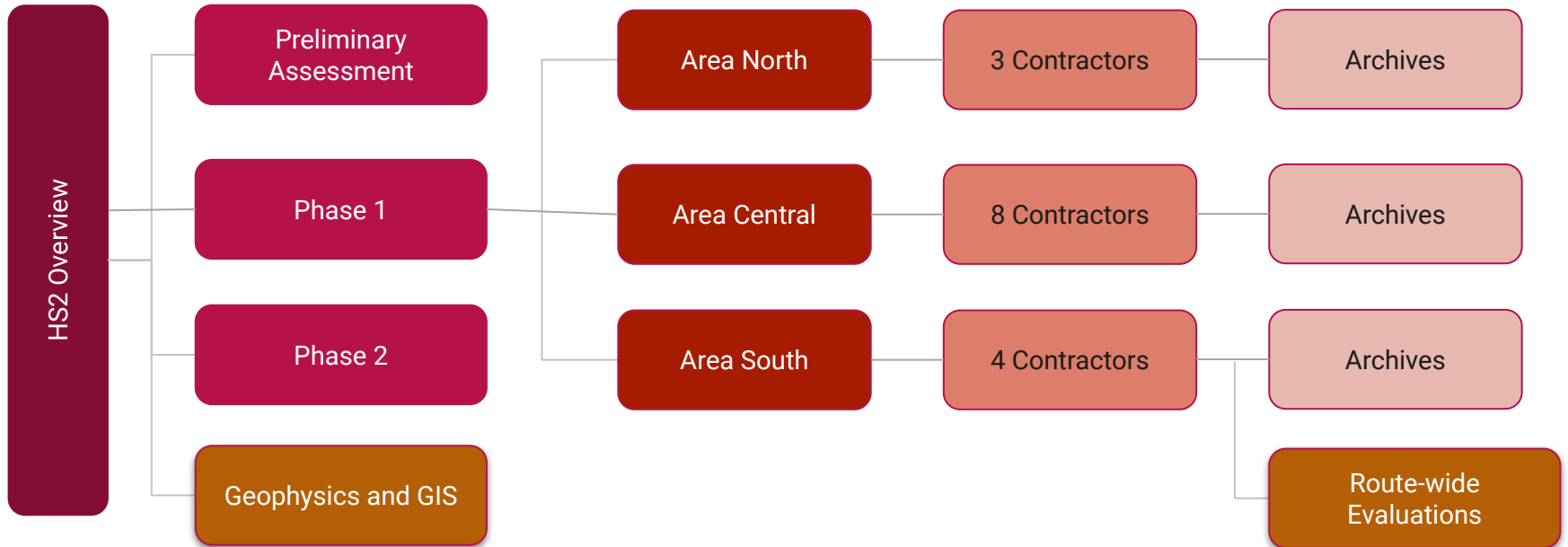
- Types of archives
 - Building surveys, cemeteries, excavations
 - Photogrammetry/Videos/Databases
- Need for special interfaces
- Different Depositors
- Size of archives



**How do we manage
these archives?**



Organise based on what's known

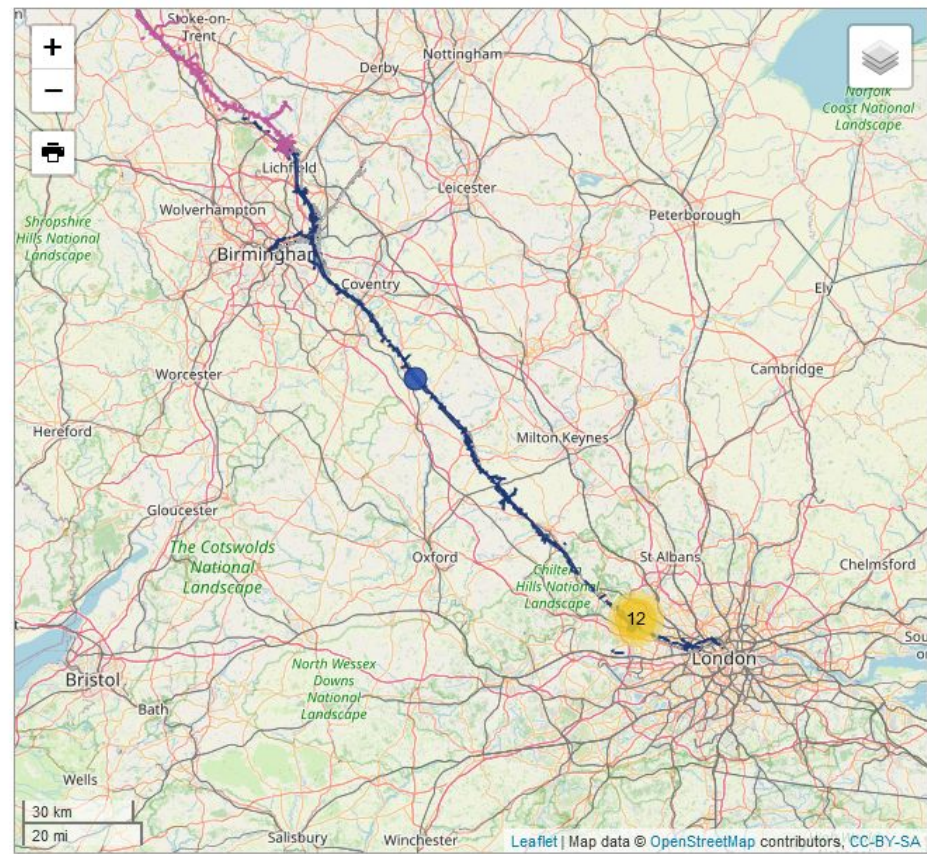


Site Overview

- Spatial extents of each Phase
- Location of Archives
- Further information on each site
- Lidar of the route
- Geophysics of the route

Map of sites

Below is a map of the project area. This map provides a preview of the phases of HS2. Use the layers button in the top right corner of the map to navigate the different previews. Once a layer is displayed on the map, you can zoom in to investigate or click the area to go through to the phase directly.

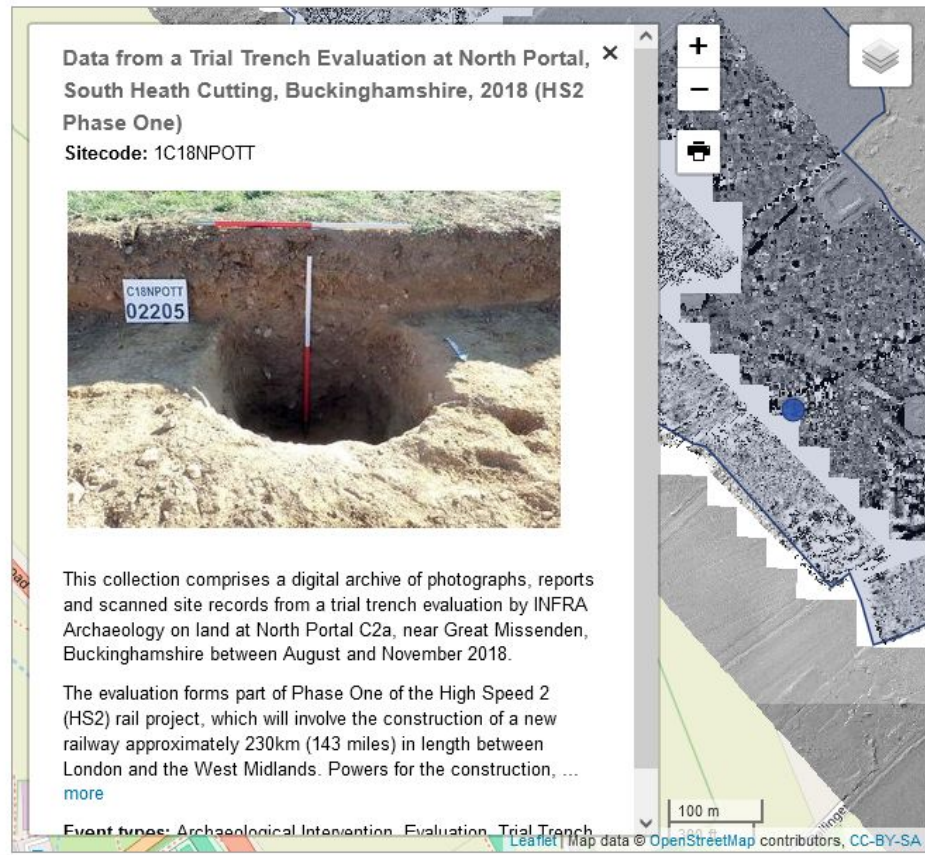


Site Overview Details


- Spatial extents of each Phase
- Location of Archives
- Further information on each site
- Lidar of the route
- Geophysics of the route

Map of sites

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Data from a Trial Trench Evaluation at North Portal, South Heath Cutting, Buckinghamshire, 2018 (HS2 Phase One)
Sitecode: 1C18NPOTT



This collection comprises a digital archive of photographs, reports and scanned site records from a trial trench evaluation by INFRA Archaeology on land at North Portal C2a, near Great Missenden, Buckinghamshire between August and November 2018.

The evaluation forms part of Phase One of the High Speed 2 (HS2) rail project, which will involve the construction of a new railway approximately 230km (143 miles) in length between London and the West Midlands. Powers for the construction, ... [more](#)

Event types: Archaeological Intervention, Evaluation, Trial Trench

Map data © OpenStreetMap contributors, CC-BY-SA

Site List

- Spatial extents of each Phase
- Location of Archives
- Further information on each site
- Lidar of the route
- Geophysics of the route

Map of sites | List of sites


List of Sites


Event type:


Phase:


[Search site list](#)


Sites: 14

 **Data from an Archaeological Recording at Welsh Road, Boddington, Cherwell, Northamptonshire, 2021-2022 (HS2 Phase One)**
Sitecode: 1C20WRBAR
Event types: Open Area Excavation, Photographic Recording

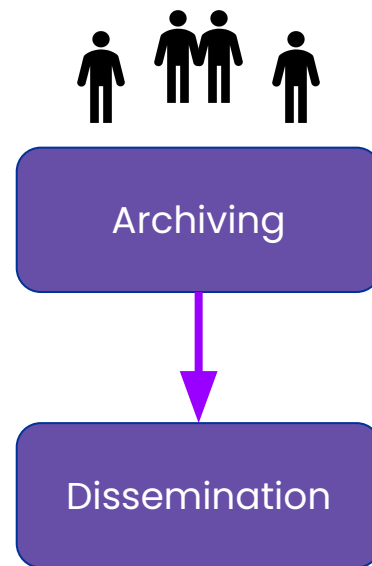
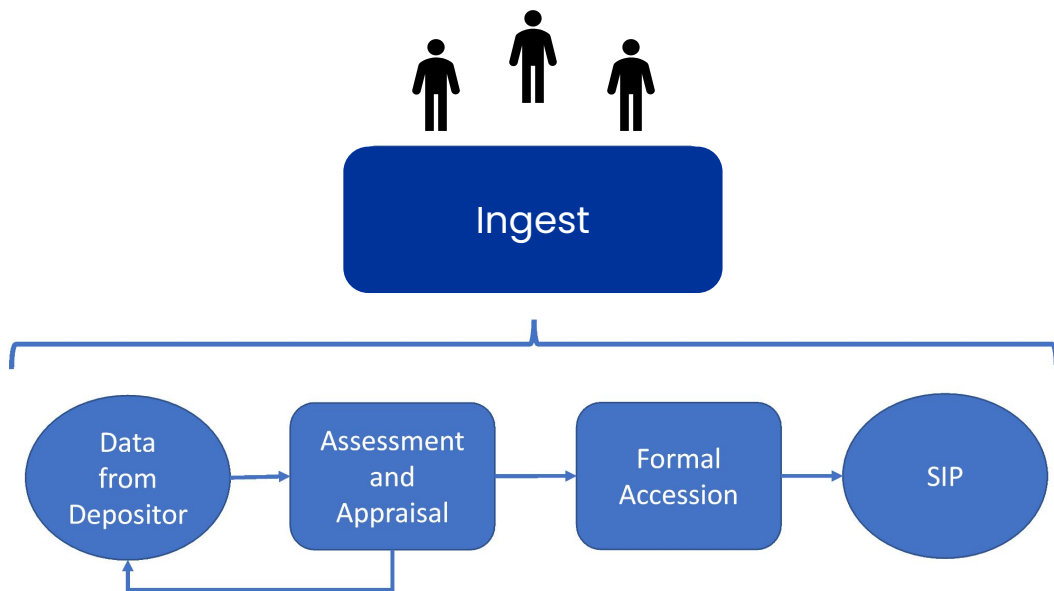
 **Data from a Trial Trenching at Cophall North Fields CNC and CND, Hillingdon, 2019 (HS2 Phase One)**
Sitecode: 1S19CHNTT
Event types: Trial Trench

 **Data from a Trial Trenching at Newyears Green, Hillingdon, 2019 (HS2 Phase One)**
Sitecode: 1S19NYGTT
Event types: Trial Trench

 **Data from a Historic Building Recording at the Insull Wing of the National Temperance Hospital, Camden, Greater London, 2017-2021 (HS2 Phase One)**
Sitecode: 1s19nthbs
Event types: Building Survey

 **Data from a Test Pitting at Cophall North Field CNB, Hillingdon, 2019 (HS2 Phase One)**
Sitecode: 1S21CGNTP/1s21CHNTT_TP
Event types: Trial Trench

Asynchronous Archiving and Dissemination



Managing Data

- Interface specific to needs of the archive
- Objects interconnected by creating relationships
- Metadata enhanced for better discoverability

Object ID	2277153	
Object Title	Photo 4275 Grave post ex 605722	
File name	1C19ERHAR_Photo_4275.jpg	
Format	JPG	
Format Type	JPEG File Interchange Format	1.01
Checksum	8c244a1c1f2e57269b9d1840d8a8a3c7	
Created	07-Sep-2020	
Last Modified	22-Sep-2022	
File size	13 Mb	
		Download

Data Type	Image	
Title	Photo 4275 Grave post ex 605722	
Creator	INFRA Archaeology	
Copyright	© HS2 Ltd.	
Location	LOCATION	Ellesborough Road Hospital
	LOCATION	England
	LOCATION	Buckinghamshire
	LOCATION	Wendover
Coordinates	Latitude Longitude	51.75879148 -0.746816843
Subject	MONUMENT/OBJECT	Burial
	MONUMENT/OBJECT	Inhumation
	MONUMENT/OBJECT	Grave
Period	MIDAS	Early Medieval
Dates (BCE/CE)	410 to 1066	

Associated Metadata:

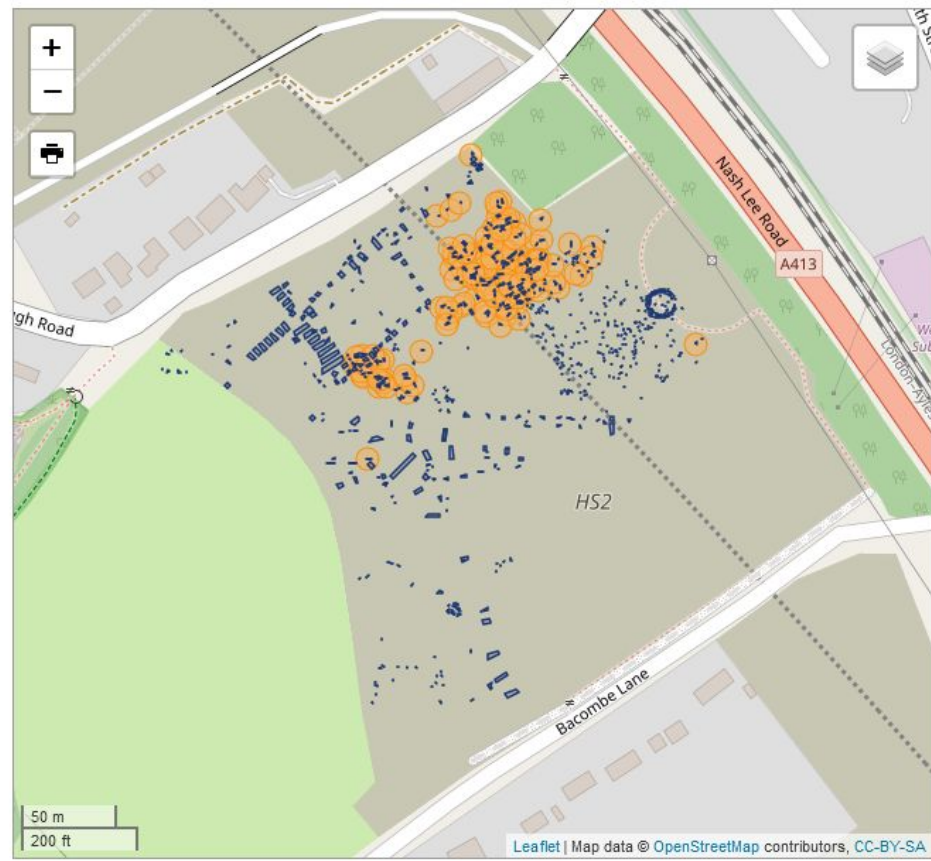
Image and drawing metadata	XLSX	847 Kb
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Managing Data

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- Objects interconnected by creating relationships
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Excavation Map

Below is a map of the project area. This map provides a view of all the skeletons that were digitally recorded with photogrammetry. The 'Excavated sites' layer shows key areas of excavation. Please note that not all grave cuts are included in this layer.



Managing Data

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Excavation Map

Below is a map of the project area. This map provides a view of all the skeletons that were digitally recorded with photogrammetry. The 'Excavated sites' layer shows key areas of excavation. Please note that not all grave cuts are included in this layer.

The screenshot shows a web-based map interface. On the left, a white popup window displays detailed information for a specific feature. The popup title is "Adult Individual 605723 (See Model 66)" with a close button (X). The "Burial Type" is "Inhumation". The popup lists the following details: Feature (cut) number: 605722; Deposit (fill) number: 605724; Skeletal condition: Good; Skeletal completeness (%): 75-100; General age: Adult; Narrowed age: 17-29 years; Sex assessment possible?: Not provided; Pathology present?: Yes; Grave orientation: NW-SE; Small finds: Cu alloy strap end (RF 1274); Context page numbers: 115-117; Sample numbers: None recorded; Drawing number: N/A; Comments: None recorded. On the right, a map shows a site plan with numerous orange circular markers and blue rectangular markers. The map includes navigation controls (plus, minus, print, layers) and a 50m scale bar. At the bottom right, there is a copyright notice: "Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA".

Adult Individual 605723 (See Model 66) X

Burial Type: Inhumation

Feature (cut) number: 605722

Deposit (fill) number: 605724

Skeletal condition: Good

Skeletal completeness (%): 75-100

General age: Adult

Narrowed age: 17-29 years

Sex assessment possible?: Not provided

Pathology present?: Yes

Grave orientation: NW-SE

Small finds: Cu alloy strap end (RF 1274)

Context page numbers: 115-117

Sample numbers: None recorded

Drawing number: N/A

Comments: None recorded

50 m

Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA

Keeping things on track

- Dedicated team for dedicated tasks
- Organise based on what is known and update when something changes
- Make things multifunctional



Thank you!



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