

# Why we need a Spatial Data Infrastructure for Archaeology

Peter McKeague  
Historic Environment Scotland



## Themes

- **Legislation and best practice**
  - INSPIRE – making Protected Sites data available online
  - to promote knowledge about the historic environment
- **Are we making the most of the data archaeologists create?**
  - access and licensing
  - multiple data creators
  - format
- **Sensitivity**
  - who should access data and to what level of accuracy  
(-charging policies)
- **Why does it matter?**



<http://blueeyedennis-siempre.blogspot.co.uk/2011/10/i-wouldnt-start-from-here.html>

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# The legislative bit...



INSPIRE sets down the general rules for establishing an infrastructure for spatial information in Europe for the purposes of Community environmental policies and policies or activities which may have an impact on the environment

A Protected Site is defined as an

“Area designated or managed within a framework of international, Community and Member States' legislation to achieve specific conservation objectives”  
[Directive 2007/2/EC].

“..a Protected Site is an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or ***other effective*** means.”

[International Union for the Conservation of Nature]

**Some historic environment data is covered within INSPIRE under the Protected Sites Theme**

# INSPIRE compliant metadata and web services available through the Scottish Spatial Data Infrastructure Portal

The screenshot shows the SSDI (Scottish Spatial Data Infrastructure) Metadata Portal. The search results for 'historic environment' are sorted by relevancy, showing 1-20 of 43 results. The left sidebar contains filters for 'TYPE OF RESOURCES' (Dataset: 30, Service: 14), 'TOPICS' (Environment: 23, Boundaries: 8, Society: 7, Planning cadastre: 4, Health: 2), 'INSPIRE THEMES', 'KEYWORDS' (Environment: 23, Protected sites: 21, InfoMapAccessService...: 10, Boundaries: 8, Society: 7), 'CONTACT FOR THE RESOURCE' (Historic...: 24, Angus Council: 3, City of Edinburgh...: 3, Scottish Government: 3, Scottish Natural...: 2), and 'SOURCE CATALOGUE' (48e84e1c-d7ac-4c19-a...). The main content area displays four search results:

- National Record of the Historic Environment: Defining Scotland's Places**: Defining Scotland's Places (DSP) aims to define the known extent of the archaeological sites and monuments in the National Record of the Historic Environment at Historic Environment Scotland, John Sinclair House, Edinburgh. The polygons created through Defining Scotland's Places.
- National Record of the Historic Environment: Historic Land use**: The Historic Land use Assessment (HLA) is a technique for helping understand the historic aspects of the landscape around us from an archaeological perspective. The HLA records the historical origins of the various components that make up the landscape, showing how they interrelate.
- Historic Marine Protected Areas (DATASET)**: Historic Marine Protected Areas 'Historic MPAs' are designated under Section 67 of the Marine Scotland Act 2010 to protect marine historic assets (e.g historic shipwrecks) of national importance within Scottish territorial waters. The Scottish Government is committed to clean, healthy,
- Historic Environment Scotland Download Service (Atom Feed)**: This dataset is available for download via our Atom Feed. It includes information on historic buildings, conservation areas, and landscapes.

# But designation data is also directly from the Historic Environment Scotland spatial download page


The screenshot shows the 'Downloads' page on the Historic Environment Scotland website. The page title is 'Downloads' and it includes a navigation menu with 'Home', 'Search', and 'Downloads'. The main content area states: 'The following datasets are available for download and provide links to additional resources. You can also find the downloads via our [Atom Feed](#), or [Web Feature Service](#).' Below this, a note says: 'Please note that some devices may require additional software to use Atom feeds.' A list of datasets is provided:

- All
- Listed Buildings
- Scheduled Monuments
- Gardens and Designed Landscapes
- Battlefields
- Historic Marine Protection Areas
- Conservation Areas
- World Heritage Sites
- Properties in Care
- Historic Landuse Assessment

The 'Listed Buildings' section is expanded, showing: 'This dataset comprises the statutory addresses and supplementary information for listed buildings in Scotland. Listing is the recognition that a building or structure is of 'special' interest. We also provide web services and an Atom Feed.' A button labeled 'Download Listed Building spatial data' is visible. A 'More Information' section provides links for 'Further Details', 'Web Mapping Service', 'Web Feature Service', 'Atom Feed', and 'More Information About Listed Buildings'. A final note states: 'To find out when the dataset was last updated go to Further Details and look for the Dataset Reference Date under Additional Information.'

# The INSPIRE Geoportal

About | Contact | Privacy policy | Legal notice | Cookies English (en)

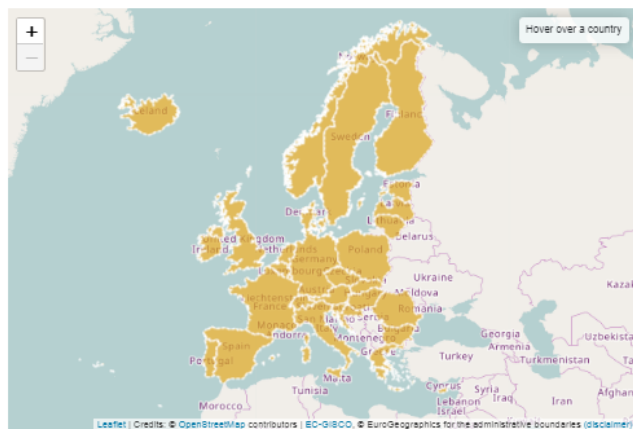


INSPIRE GEOPORTAL  
Enhancing access to European spatial data

European Commission > INSPIRE > Geoportal > INSPIRE Thematic Viewer

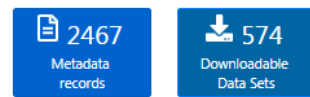
Home Priority Data Sets Viewer INSPIRE Thematic Viewer Harvesting status Find out more about

## Data Sets - Protected sites of Europe



Show: Downloadable Viewable

### INSPIRE Geoportal Data Set Statistics



### Select a COUNTRY

Austria 63   50   61	Finland 66   3   1	Latvia 6   3   3	Portugal 28   11   10
Belgium 18   16   17	France 841   283   294	Liechtenstein 20   1   1	Romania 4   2   2
Bulgaria 3   2   1	Germany 383   110   152	Lithuania 1   1   1	Slovakia 8   1   1
Croatia 5   0   0	Greece 3   0   3	Luxembourg 8   8   8	Slovenia 9   5   0
Cyprus 3   0   0	Hungary 6   0   1	Malta 5   5   5	Spain 9   8   9
Czech Republic 8   6   7	Iceland 3   1   0	Netherlands 15   11   10	Sweden 18   13   14
Denmark 9   7   6	Ireland 11   0   0	Norway 9   6   1	Switzerland 17   0   0
Estonia 3   3   2	Italy 438   0   8	Poland 15   2   0	United Kingdom 432   16   9

Select the whole EUROPE

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INSPIRE GEOPORTAL  
Enhancing access to European spatial data

European Commission > INSPIRE > Geoportal > Download details

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Património cultural classificado e em vias de classificação

Choose metadata language:  
original MD language

### Download Options

### View Options

### Data set Metadata

#### Resource Title

Património cultural classificado e em vias de classificação

#### Resource Abstract

Conjunto de dados geográficos relativo ao património classificado e em vias de classificação de Portugal continental, respetivas áreas de servidão (zonas gerais e especiais de proteção) e de restrição (áreas de sensibilidade arqueológica, restrições arquitectónicas e urbanas, zonas non aedificandi).

#### Lineage

Conjunto de dados geográficos sobre o património classificado e em vias de classificação.

#### Unique Resource Identifier

Code: <http://id.igeo.pt/cdg/c417447a-c81c-4057-8b81-88b80dfd45d>  
Code: 70c329df-8cff-412e-b6b3-5e3904b6324f Namespace: PT\_DGPC

#### Spatial Data Theme

Sítios protegidos

#### Topic Category

structure

#### Reporting Tags

#### Conditions Applying To Access And Use

Sem restrições

#### Limitations On Public Access

Sem restrições

#### Geographic Bounding Box



Leaflet | Credits: OpenStreetMap contributors | EC-GISCO, EuroGeographics for the administrative boundaries (disclaimer)

#### Responsible Party

Organisation name Direção-Geral do Património Cultural  
E-mail [dgpc@dgpc.pt](mailto:dgpc@dgpc.pt)

#### Metadata Point Of Contact

Organisation name Direção-Geral do Património Cultural  
E-mail [dgpc@dgpc.pt](mailto:dgpc@dgpc.pt)

#### Metadata Language

por

#### Metadata Date

2019-06-21

#### fileIdentifier

c417447a-c81c-4057-8b81-88b80dfd45d

#### Download metadata

[application/vnd.iso.19139+xml](#)

# Online portals provide access to a range of Protected Sites data

**DATA LAYERS**

- Listed Buildings (Not available at this zoom level)
- Canmore (Not available at this zoom level)
- Canmore Maritime (Available)
- Scheduled Monuments (11 found)
- Historic Environment Record (Available)
- Garden & Designed Landscapes (Available)
- Conservation Areas (Available)
- Battlefields (Available)
- World Heritage Sites (2 found)
- Historic Marine Protected Areas (Available)

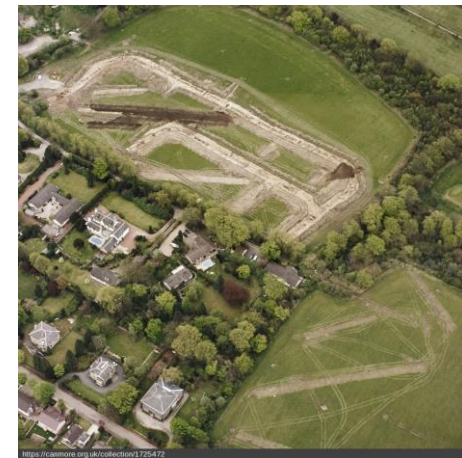
**BASE LAYERS**

- OS Licensed Scotland (Available)
- OS Licensed (hillshade) (Available)
- OS Licensed Scotland (greyscale) (Available)
- OS Open Data (Available)

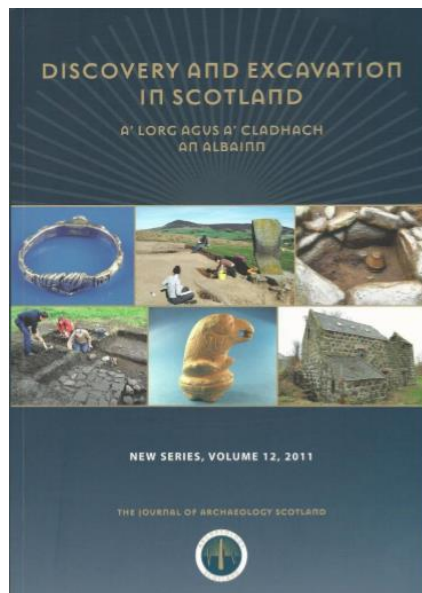
© Copyright and database right 2019. All rights reserved. Ordnance Survey licence number 100057073

200 m NS 80381 79930 [ 280381.679930 ]

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA | The Sites and Monuments Records Forum



**But what about the wealth of primary spatial data gathered through fieldwork? Data can be created through academic research, in response to planning applications or through community groups.**



OASIS  
Online Access to the Index of archaeological Investigations

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- TECHNICAL INFORMATION
- CONTACTS
- HELP

**OASIS**

Submit your project to OASIS.

**What is the OASIS form?**

The OASIS form is a data capture form through which archaeological and heritage practitioners can provide information about their investigations to local Historic Environment Records (HERs) and respective National Heritage Bodies.

As well as being an information-gathering medium, the OASIS records also allow the practitioner/contractor to upload reports for the HERs to access and for release in the Grey Literature Library on the Archaeology Data Service (ADS) website.

The ADS, in addition to making the reports available online for access to the wider public, undertake the curation and archiving of the digital files ensuring long-term preservation. It is possible to opt out of the archiving and wider release of the reports, unless a requirement of the relevant HER.

**About the OASIS project**

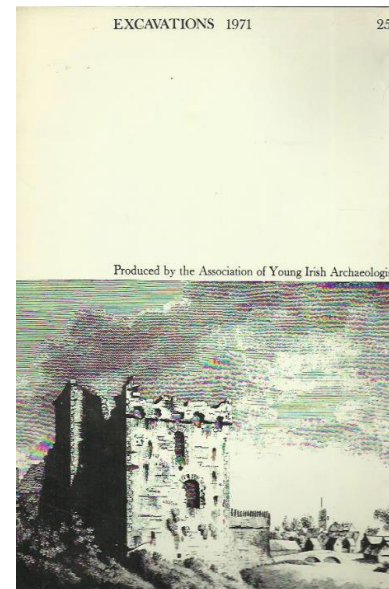
The OASIS project brings together a number of strategic partners: the Archaeology Data Service, Historic England, Historic Environment Scotland, and the Royal Commission on the Ancient and Historical Monuments of Wales under the umbrella of the University of York.

The overall aim of the OASIS project is to provide an on line index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork and a similar increase in fieldwork undertaken by volunteers. As part of this overall vision, the OASIS data capture form has been designed to help in the flow of information from data producers, such as contracting units and community groups, through to local and national data managers, such as HERs and NMRs. The resulting information will be validated by the relevant National Record for inclusion on Historic England's Excavation Index and the Historic Environment Scotland's CANMORE records and passed onto the ADS for inclusion in its on line catalogue ArchSearch. The inclusion of information in ArchSearch will enable users to search for the latest information pertaining to a particular site, type of monument and so on and either provide direct web links through to the grey literature reports or at least act as a pointer to the physical holding place of a report or archive. Grey literature reports are also being made available directly through the ADS Library, where it is possible to search and retrieve reports based on a variety of different data fields. It is hoped that the OASIS project will facilitate the rapid flow of information from producer to user.

Current page: Main  
Last visited:

Page Contributors: Catherine Hardman, Keith May, Peter McKeague, OASIS, oasis

OASIS



excavations.ie  
Database of Past Excavations (ADP/ARIS)

Home About Links Contact Details Mapping

**2003:1051 - BALLYDAVIS/GREATHEATH/MORETT/CAPPAKEEL/EMO PARK/BALLYSHANE DUFF OR THE DERRIES/TULLAGHAN/BALLYADDING/JAMESTOWN OR BALLYTEIGEDUFF, Laois**

Use the Map Search to search the database by County.  
For a more detailed search please click on the Advanced Search button below.

County: Laois Site: BALLYDAVIS/GREATHEATH/MORETT/CAPPAKEEL/EMO PARK/BALLYSHANE DUFF OR THE DERRIES/TULLAGHAN/BALLYADDING/JAMESTOWN OR BALLYTEIGEDUFF  
Sites and Monuments Record No.: NIA Licence number: 03E023  
Author: Jonathan Dempsey, Archaeological Consultancy Services Ltd, Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth  
Site type: Vastons  
ITM: E 659654m, N 787035m  
Latitude, Longitude (decimal degrees): 53.116508, -7.169016

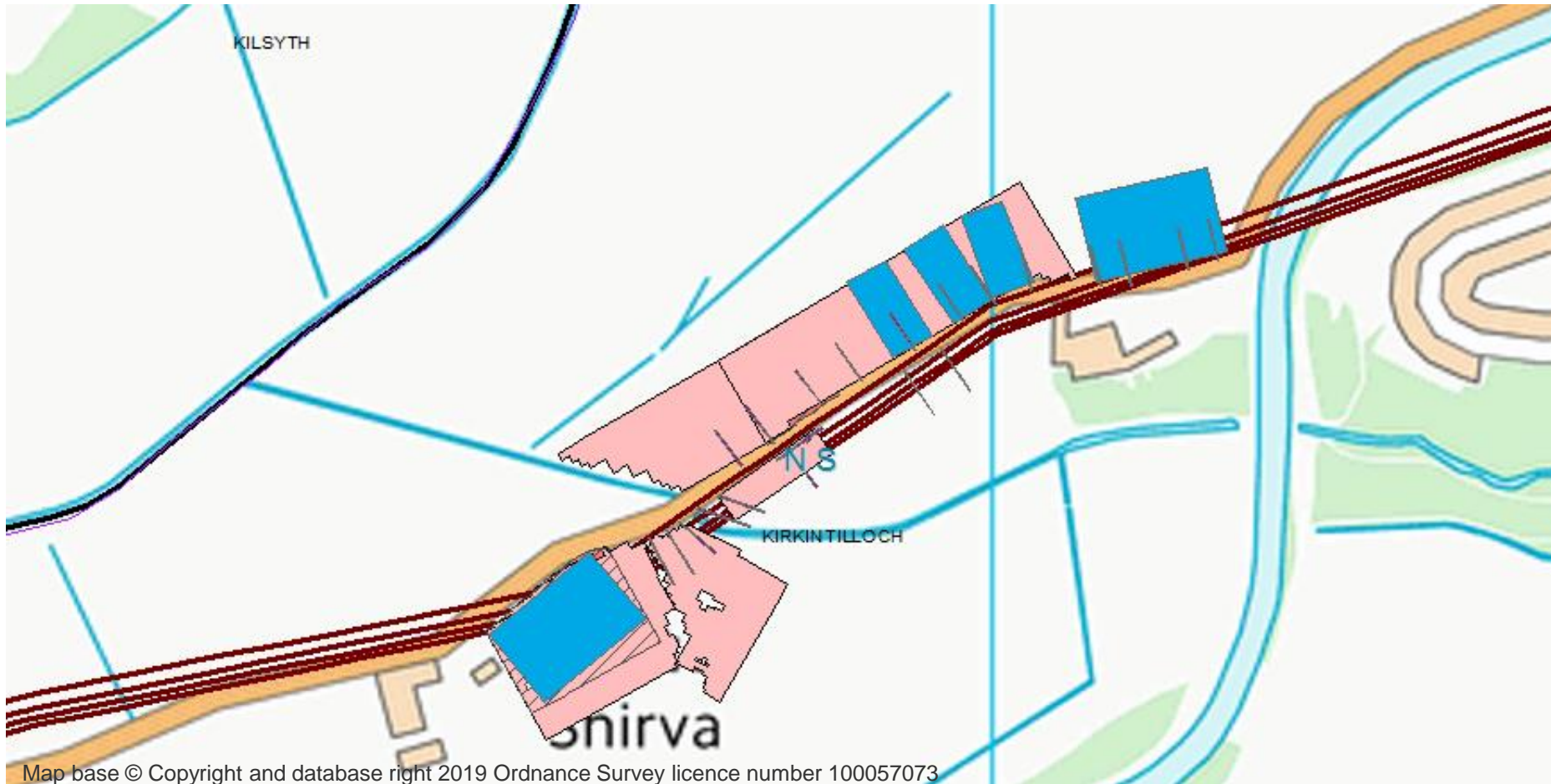
Monitoring of the main phase of the construction topsoil strip for the M7 Heath-Mayfield Motorway Scheme was undertaken from April to December 2003. The total length of the scheme was 17.5km. Thirty sites or features of archaeological significance were identified in the course of monitoring.

Every year archaeologists undertake thousands of projects from remote sensing to complex excavations.

These projects are expensive to undertake, the data created is unique and in many cases irreplaceable (Preservation by record)

Yet we only use a fraction of this data in compiling the archaeological record – consigning the spatial component of the record to a point rather than mapping the full extent of the fieldwork

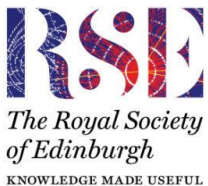
# A history of investigation: geophysical surveys along the Antonine Wall from 1995 to 2007



Resistivity 1995  
Resistivity 1998

Magnetometry 2007  
Resistivity 2007

**Data can be combined with other datasets such as airborne mapping Interpretation or excavation data**





## OASIS DATA COLLECTION FORM: Scotland

[List of Projects](#) | [Search Projects](#) | [Change your details](#) | [SMR/HER coverage](#) | [Log out](#)

Printable version

OASIS ID: gsbprosp1-73753

### Project details

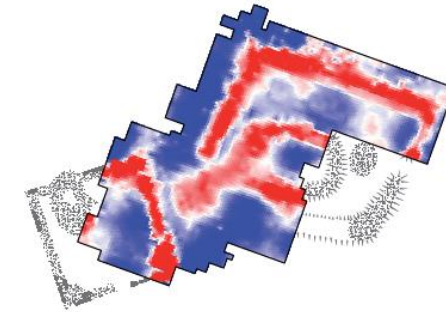
Project name	Geophysical Survey at Baliscate, Tobermory
Short description of the project	Results from the resistance survey correspond with the extant earthworks and structural remains with areas of high res Penetrating Radar survey mainly detected natural features but there is the potential of a prehistoric ground surface with
Project dates	Start: 19-05-2009 End: 21-05-2009
Previous/future work	No / No
Any associated project reference codes	57999 - Related HER No.
Any associated project reference codes	4251 - HER event no.
Any associated project reference codes	294740 - NMRS UID
Type of project	Research project
Current Land use	Woodland 3 - Mixed
Monument type	CHAPEL Medieval
Significant Finds	WALL Medieval
Investigation type	'Geophysical Survey'
Prompt	Research
Solid geology	ANDESTIC AND BASALTIC LAVAS AND TUFFS - UNDI
Drift geology	PEAT
Techniques	Resistivity - area
Techniques	Ground penetrating radar

### Project location

Country	Scotland
Site location	ARGYLL AND BUTE KILNINIAN AND KILMORE Balisca
Study area	0.50 Hectares
Site coordinates	NM 4967 5407 56.6112456108 -6.080170953810 56 36



<https://canmore.org.uk/site/294740/>



Courtesy: GSB Propection

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```

# A history of investigation: geophysical surveys along the Antonine Wall from 1995 to 2007

List of Projects

## Project details - Geophysical techniques: Magnetometry

Please enter the details of your Magnetometry event below. Mandatory fields are marked with a \*. Please use the 'other' field if your project doesn't match the options in the list (these will not be added to the list for subsequent entries).

**Instrumentation \***  
 Select instrumentation   
 Other:

**Instrument type \***  
 Select instrument type   
 Other:

**Size of survey area \***  
 Numbers can be entered with up to 2 decimal places  
 Size  Units

**Instrument set-up \***  
 Number of parallel sensors  
 Select instrument set-up

**Resolution \***  
 expressed in nano tesla (nT)  
 Select resolution

**Traverse separation \***  
 in metres (numbers can be entered with up to 2 decimal places). If you wish to enter a null value please use 0, not a hyphen

**Reading interval \***  
 in metres for land-base geophysics or in Hertz for maritime projects (numbers can be entered with up to 2 decimal places)

**Notes**  
 Please enter any additional observations you may have about the survey (up to 1000 characters)



ARCHAEOLOGY DATA SERVICE

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## The Geophysical Survey Database

Historic England, 2012

- Introduction
- Downloads
- Query
- Results list
- Metadata
- Usage Statistics

Data copyright © Historic England unless otherwise stated

This work is licensed under the ADS Terms of Use and Access.



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 Paul Linford  
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 Portsmouth  
 PO4 9LD  
 UK  
 Tel: 02392 856749  
 Fax: 02392 856701

[Send e-mail enquiry](#)

**Resource identifiers**

ADS Collection: 1091

Results list: Full Record

<< previous record

Database Id: 4191

Survey Name	Geophysical Survey - Antonone Wall Phase III; Shirva
Source of record	OASIS
Survey Description	The line of the Antonine Wall has been confirmed and found to correlate most closely with investigations carried out by the Centre for Field Archaeology (CFA). Of the main elements only the Ditch has been conclusively detected and appears most clearly in the magnetic data. Limited, more tentative evidence for the Rampart has been identified, again primarily in the magnetic data, in the field adjacent to Wester Shirva Farm. No clear evidence for the Military Way was found in this field. Further eastwards the Rampart is likely to run under the modern road, while the Military Way and any possible associated features lie in a field that was largely unsuitable for survey. Resistance survey in the field next to Wester Shirva farm produced anomalies that might indicate part of a rectilinear enclosure. Surface obstructions precluded the expansion of the survey area, thus the true nature and significance of these anomalies cannot be fully assessed.
Survey Dates	02 Jul 2007 - 05 Jul 2007
County	EAST DUNBARTONSHIRE
Grid References	NS 6900 7550
Surveyor	GSB Prospection Ltd
solid Geology	UNKNOWN
drift Geology	ALLUVIUM
drift Geology	GLACIAL SAND AND GRAVEL
Monument	MILITARY ROAD Roman
Monument	FRONTIER DEFENCE Roman
NMRS UID	45157
SAM No.	727
OASIS	gsbprosp1-43961
Survey Technique	1890: Resistivity - area

Capturing the technical metadata through OASIS

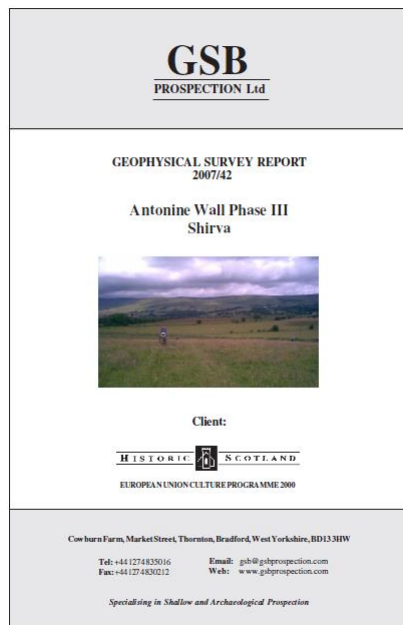
and the published record on the Geophysical Survey database



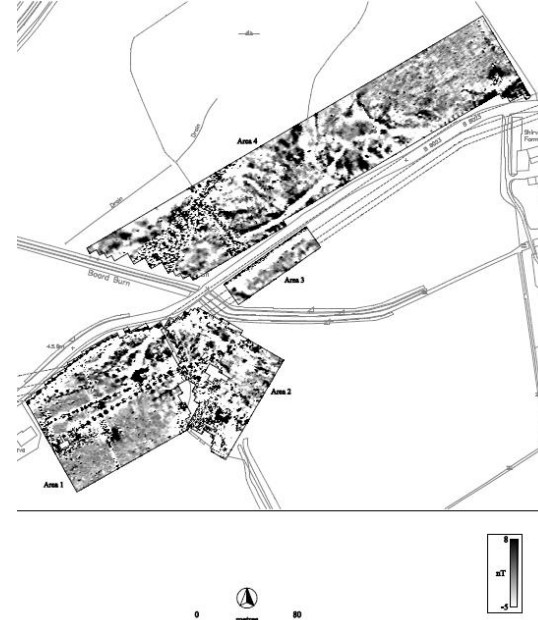
**We can capture the exploration metadata consistently and publish as a database but consistently fail to document the spatial content**



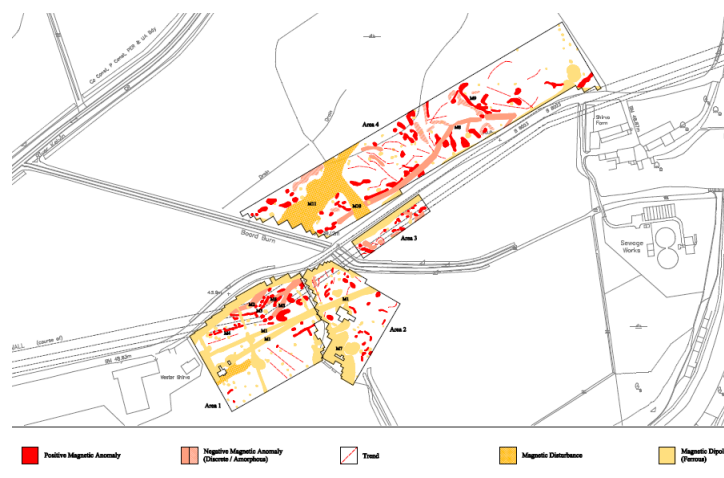
# Survey outputs: the tyranny of the PDF



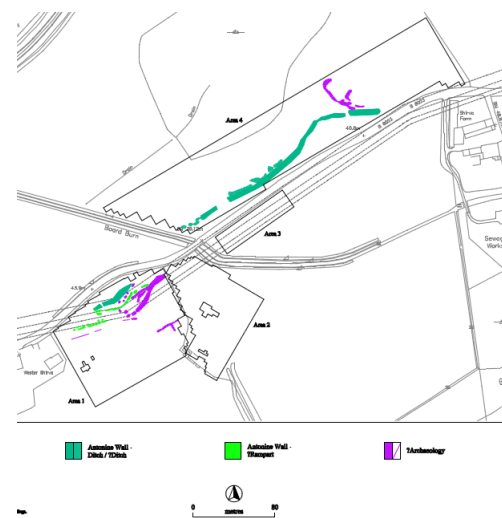
Grid extents by technique



Greyscale plot of results



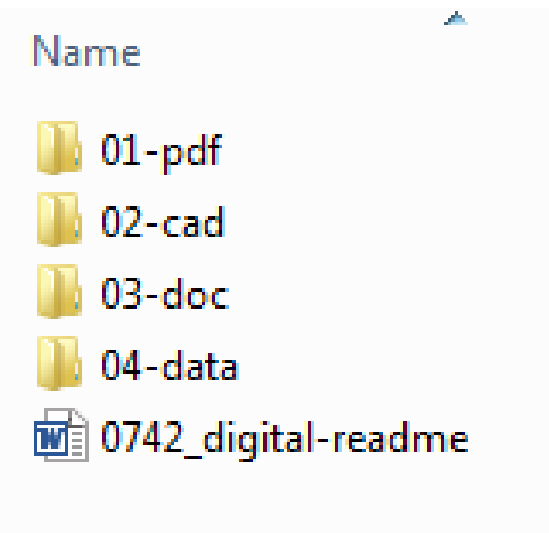
Analysis of survey results



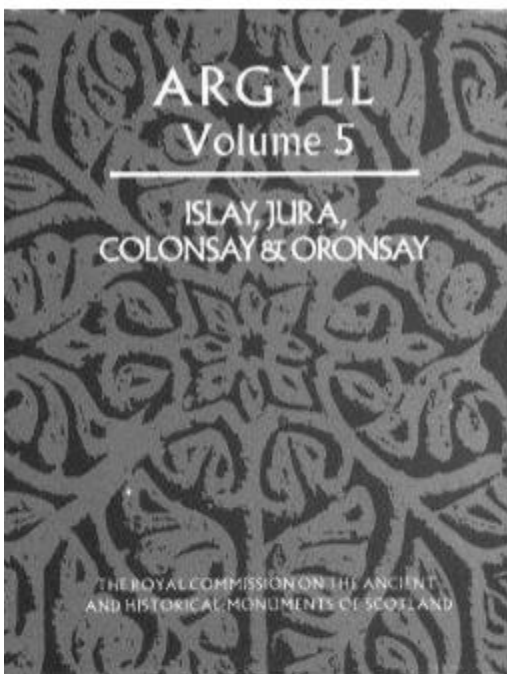
Interpretation

More flexible and Reusable formats

Project specifications also required copies of the digital data



# New life for old plans: survey of Hut-circles and field system at An Sidhean, Islay



No. 237

HUT-CIRCLES, FIELD-SYSTEMS, ETC.

5.3 m in diameter within a wall 2.25 m thick and 0.9 m high externally; the entrance, on the *se*, measures 1 m in width at the inner end and 1.2 m at the outer. On the *sw* there is an open-ended annexe bounded by a low curving wall. A low semi-circular stony bank (*F*; no. 23066) appears to be a much damaged hut-circle measuring 0.4 m by 0.6 m within a wall 3 m thick and up to 1 m high. The entrance probably lies within the broad gap on the *se*, and stones cleared from the adjacent fields obscure much of the wall, while within the interior there are traces of a subrectangular sheep-pen. A field-bank runs from the hut-wall towards the *s* and another towards the *w*. Hut-circle *G* (no. 25066) appears for the most part as a low stony mound about 8 m by 9.5 m and not more than 0.4 m high. The outline of the wall has been obscured by the dumping of field-cleared stones but the entrance may have faced *e*, and a spread of stony debris on the *w* edge of the mound may mark the remains of an external curving annexe. Hut-circle *H* (no. 25065) is built on the top of a slight hillock and measures 5 m by 5 m within a heavily robbed wall standing 1 m high internally. The entrance, on the *s*, is flanked on the *s* by a curving length of wall. On the *sw* arc there is an open-ended external annexe bounded by a wall which springs from the hut-wall on the *w*. About 15 m to the *se* there are the remains of two small structures; their purpose is not clear, but they may be lean sheep-pens similar to those already mentioned within the interior of some of the other hut-circles.

Associated with the hut-circles there is a series of banks representing the remnant of what must originally have been a more extensive field-system; in the area *sw* of the road and *s* of a modern drystone wall the older remains have been largely obliterated by rig-and-furrow cultivation which covers an area of about 1.4 ha. The earlier field-boundaries can, in general, be distinguished from the more substantial banks associated with the rig-and-furrow; the former appear as low stony peat-, grass- or heather-covered banks, sometimes defined by projecting upright stones, and they tend to run in gentle curves making use of the forward edges of natural terraces. The bank that is cut by the road immediately *w* of hut-circle *B* is about 2 m thick and only 0.15 m high above present ground-level. In the area east of hut-circle *B*, banks define two fields or enclosures of subrectangular and trapezoidal plan, measuring about 0.3 ha and 0.5 ha in size respectively; gaps in the banks, one at the *se* angle of the larger field and the other at the *w* angle of the smaller, may be original entrances. On the *s* side of the road the earlier field-banks are, in general, peripheral to the banks associated with rig-and-furrow, and in the area *w* of the modern drystone wall only a few traces remain visible, including a curvilinear enclosure about 0.12 ha in area. Accompanying the hut-circles and field-banks there is a scatter of at least fifteen small heather-covered clearances which, because of the layer of peat that almost covers them, appear as low stony mounds measuring, on average, 2 m in diameter and 0.3 m in height.

The banks that bound or divide the areas of rig-and-furrow cultivation have been built in a series of short straight lengths; like the earlier examples just described, they tend to follow the forward edges of natural terraces that divide different levels of rig-and-furrow, and some of them have served as dumping-places for field-clearance. Some of the stones cleared from rig-and-furrow cultivation have been

124



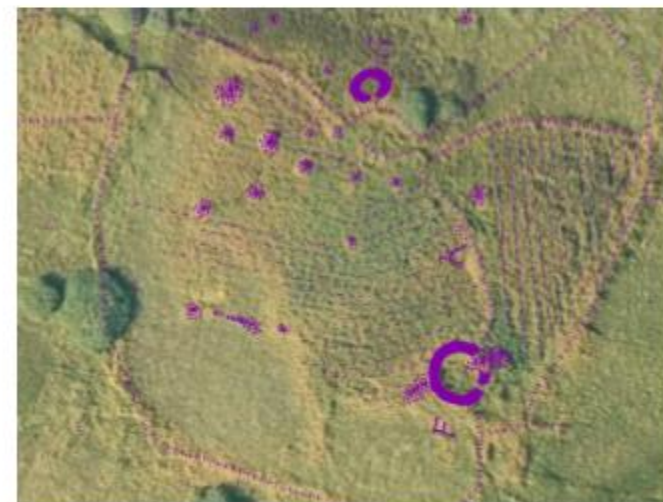
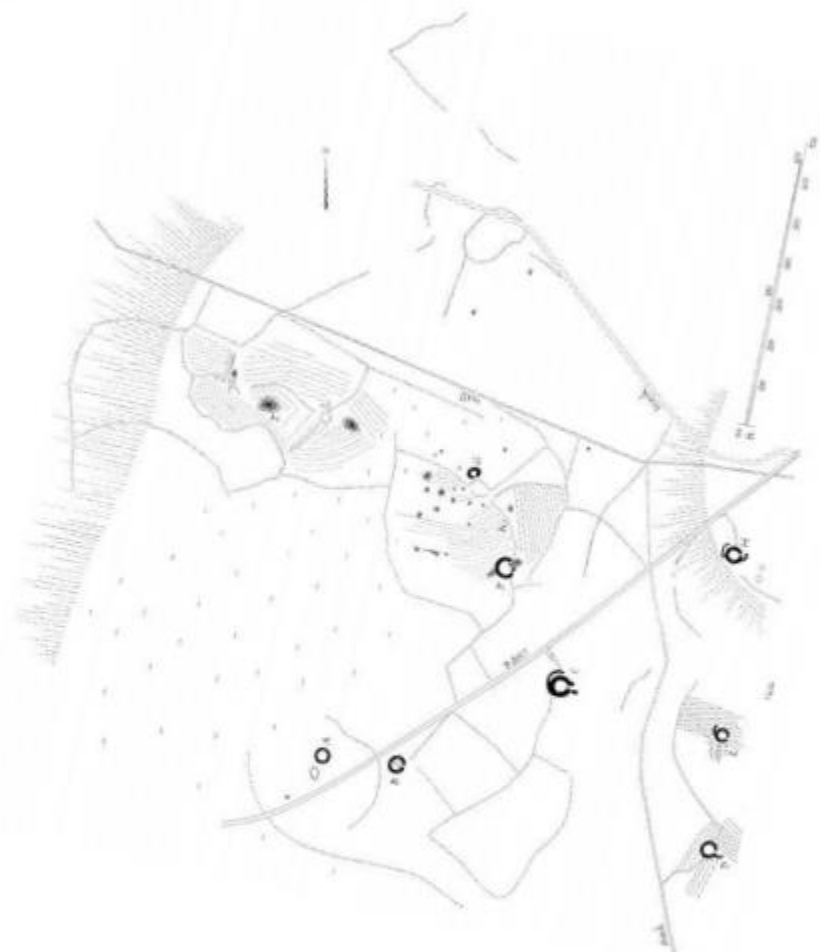
HUT-CIRCLES, FIELD-SYSTEMS, ETC.

No. 237



Hut-circles, field-systems and annexe, An Sidhean, Islay (No. 237), plan (scale 1:2500)

125



# Data formats and licensing



Historic Landuse assessment (HLA) project created a vector based dataset across Scotland

HLAmap

Pan Zoom Help

Due to scheduled maintenance this website will be unavailable between 6pm on the 20th and 8am on the 23rd of September. Sorry for any inconvenience caused.

Additional Layers Menu

Layers

Past

HLAmap  
SCOTLAND'S HISTORIC LAND USE

PAST

**Medieval Town**

Medieval street plans, with adjacent narrow building plots of similar length and breadth as well as a market place, church and tolbooth, survive in most places that were once medieval burghs.

Current: Medieval Town

OS NGR NT 54725 33934 Map sheet NT53SW

Map Viewer version 1.0.

Map opacity 100%

Scale 1:10500

HLA is publicly available through <https://map.hlamap.org.uk/>

Data can be downloaded under an End User Licence as it contains data derived from the Ordnance Survey base map

## Northumberland Historic Landscape Characterisation (HLC)

Liz Williams, 2015

- [Introduction](#)
- [Overview](#)
- [Downloads](#)
- [Metadata](#)
- [Usage Statistics](#)

### Historic Landscape Characterisation

Data copyright © Historic England, Northumberland County Council unless otherwise stated





### Primary contact

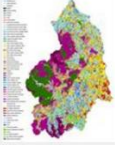


Liz Williams  
 Heritage and HER Officer  
 Conservation Team  
 Northumberland County Council  
 County Hall  
 Morpeth

### Downloads

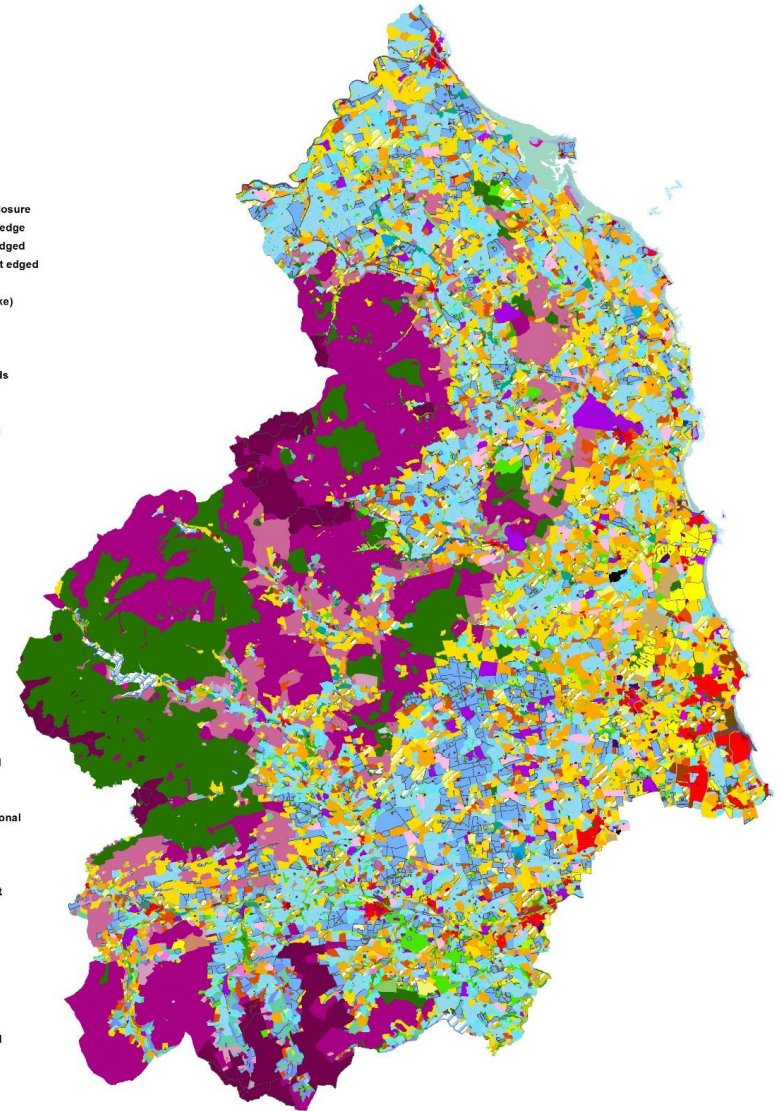
#### Reports

	APPENDIX 4 Occurrence and trajectory of change	PDF	535 Kb
	APPENDIX 5 Physiographic Model Methodology	PDF	901 Kb

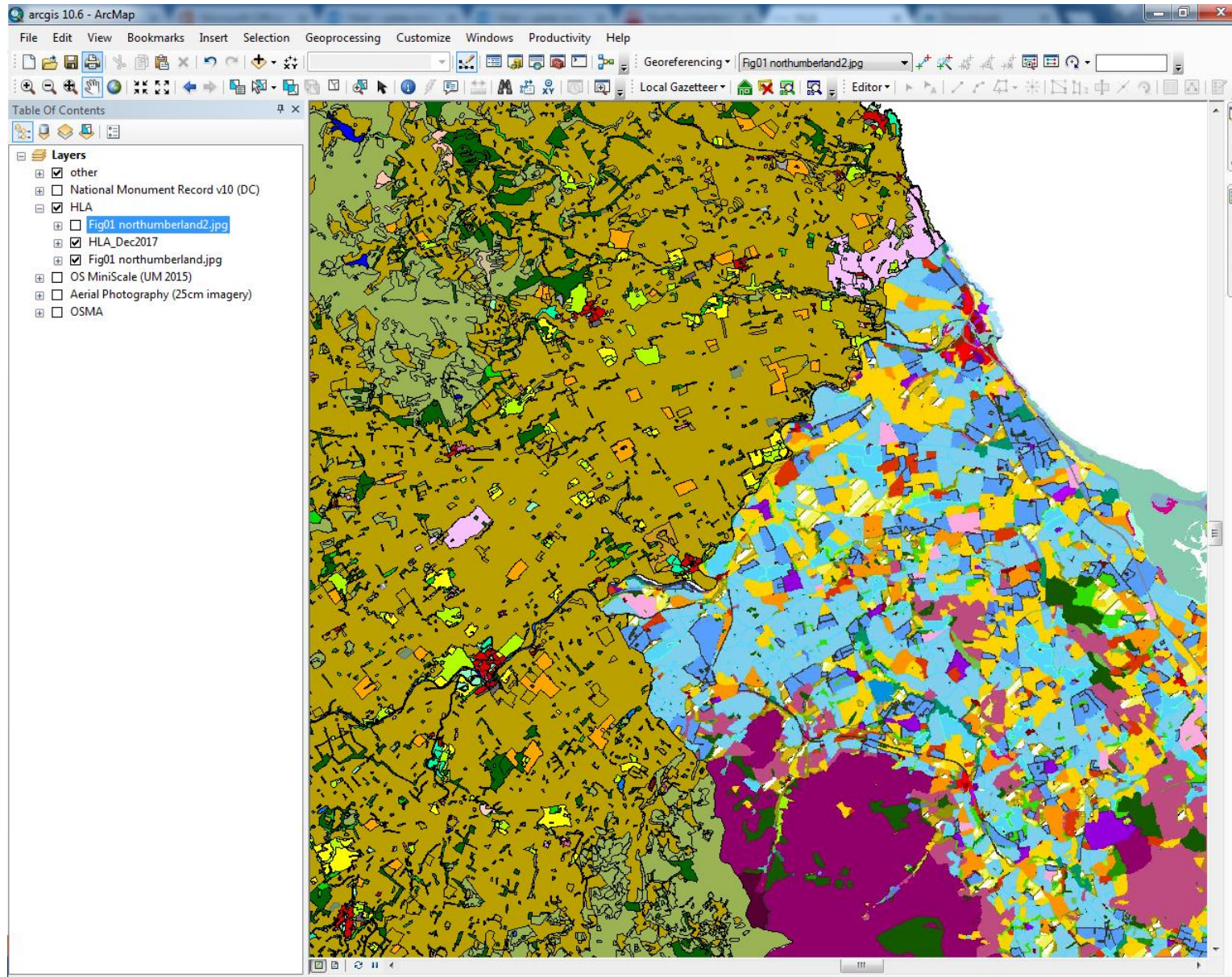
#### Figures and Plates

	Map of all historic landscape character types Fig01	JPG	1.81 Mb
	Map of broad entry level historic landscape character types Fig07	JPG	308 Kb
	Photograph of Embleton Bay Plate01	JPG	1.11 Mb

- cliff
- dunes
- intertidal zone
- rocky foreshore
- saltmarsh
- airfield
- disused railway
- harbour
- railway
- road
- ancient fields
- piecemeal enclosure
- reorganised piecemeal enclosure
- surveyed enclosure erratic edge
- surveyed enclosure wavy edged
- surveyed enclosure straight edged
- other small surveyed straight
- other irregular upland (intake)
- irregular floodplain fields
- paddocks/closes
- other small irregular fields
- other medium irregular fields
- other large irregular fields
- late 19th century fields
- 20th century restored fields
- other 20th century fields
- horticulture
- other farming
- abandoned industry
- abandoned extractive site
- active extractive site
- other active industry
- utilities
- institution
- school
- active military airfield
- active military site
- disused military airfield
- disused military site
- open upland moorland
- enclosed upland moorland
- open lowland moorland
- lowland enclosed moorland
- reverted moorland
- designed landscape
- other parkland and recreational
- sports ground
- recreation golf course
- pre-1860s settlement
- late 19th century settlement
- 20th century settlement
- artificial lake/pond
- reservoir
- natural open water
- marsh
- river
- ancient woodland
- ancient replanted woodland
- scrub
- pre-1860 woodland
- late 19th century woodland
- 20th century woodland

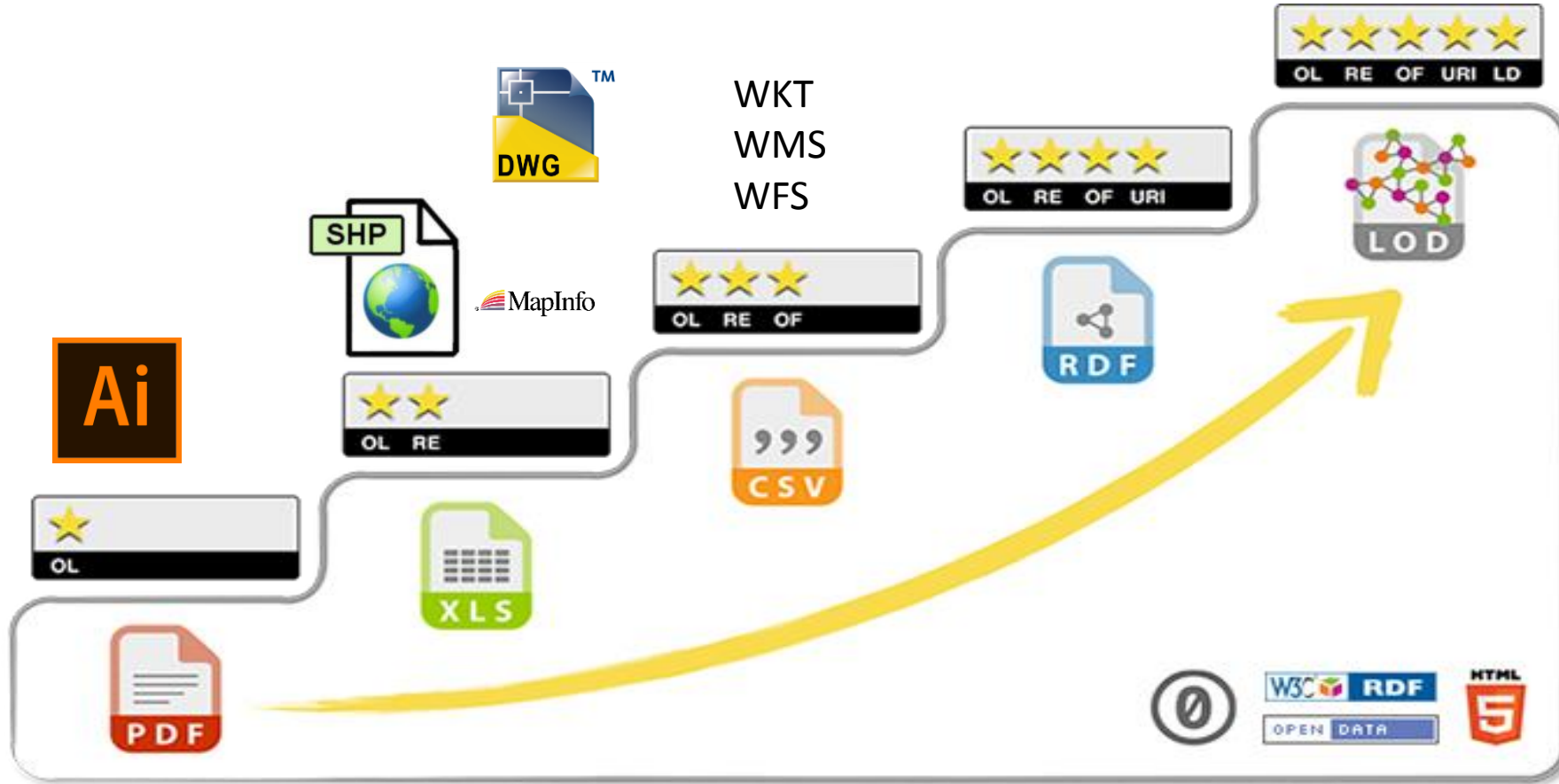






Whereas the archived HLC data is a dumb raster format...

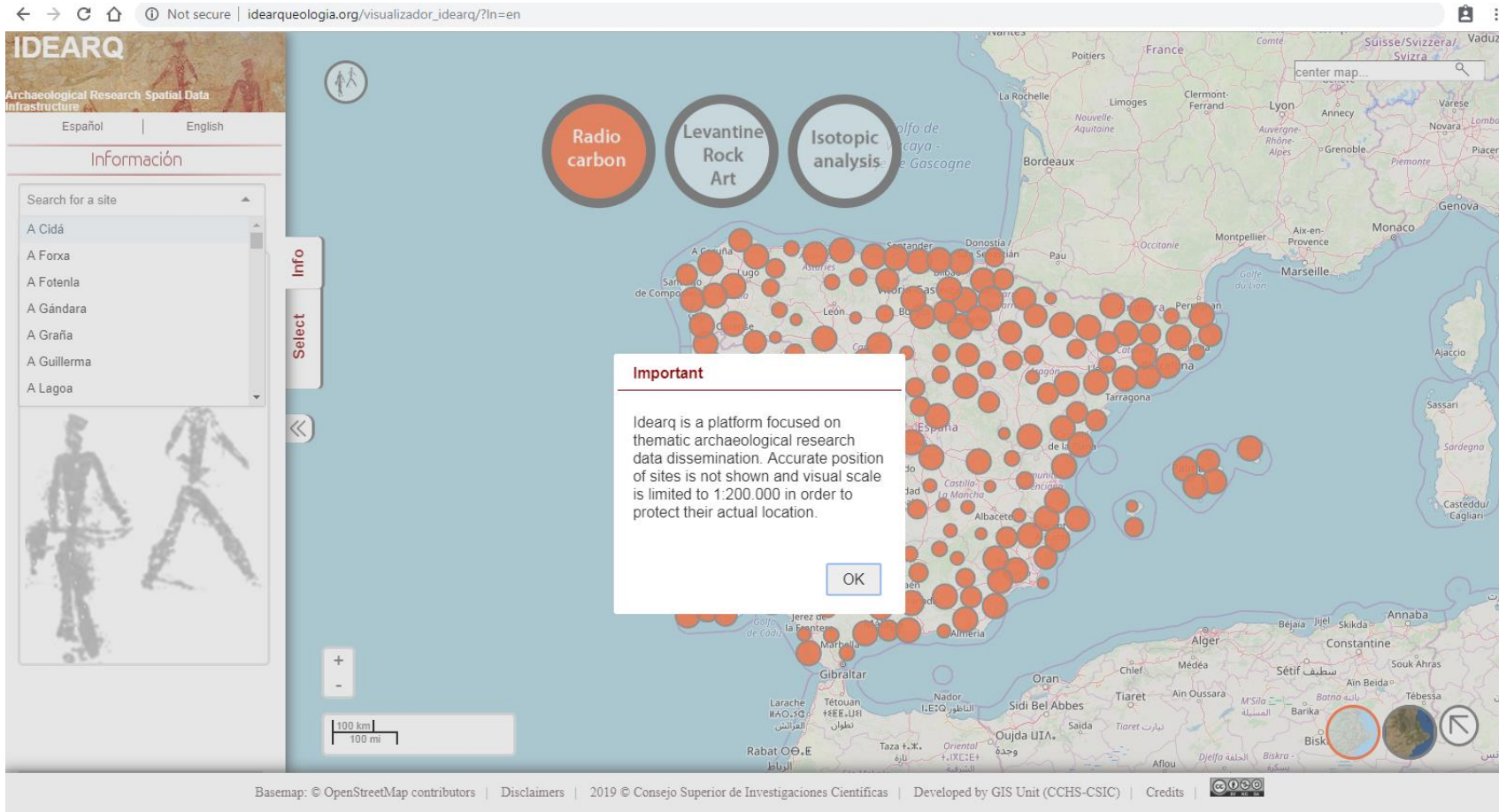
# Measure once



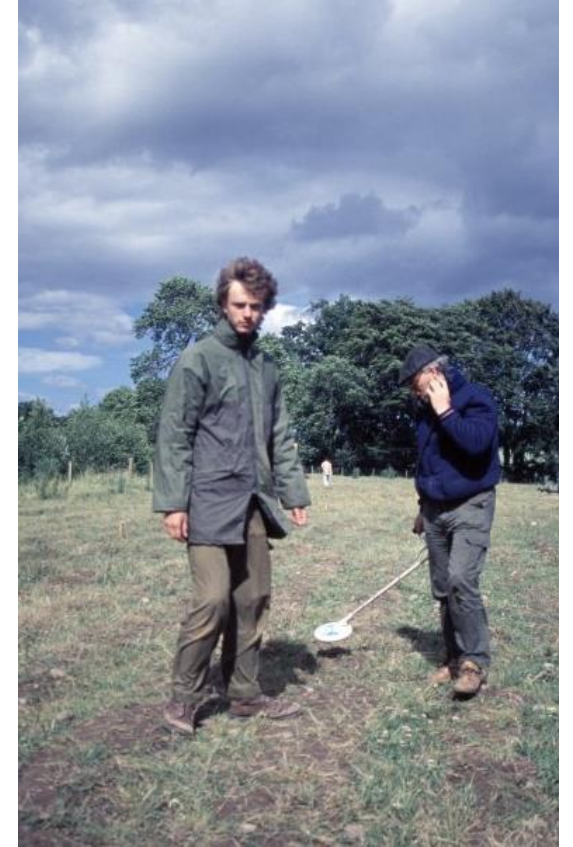
<https://5stardata.info/en/>

## Use often!

# Sensitivity



[http://www.idearqueologia.org/visualizador\\_idearq/?ln=en](http://www.idearqueologia.org/visualizador_idearq/?ln=en)



**We need to reflect different approaches to sensitivity of data**

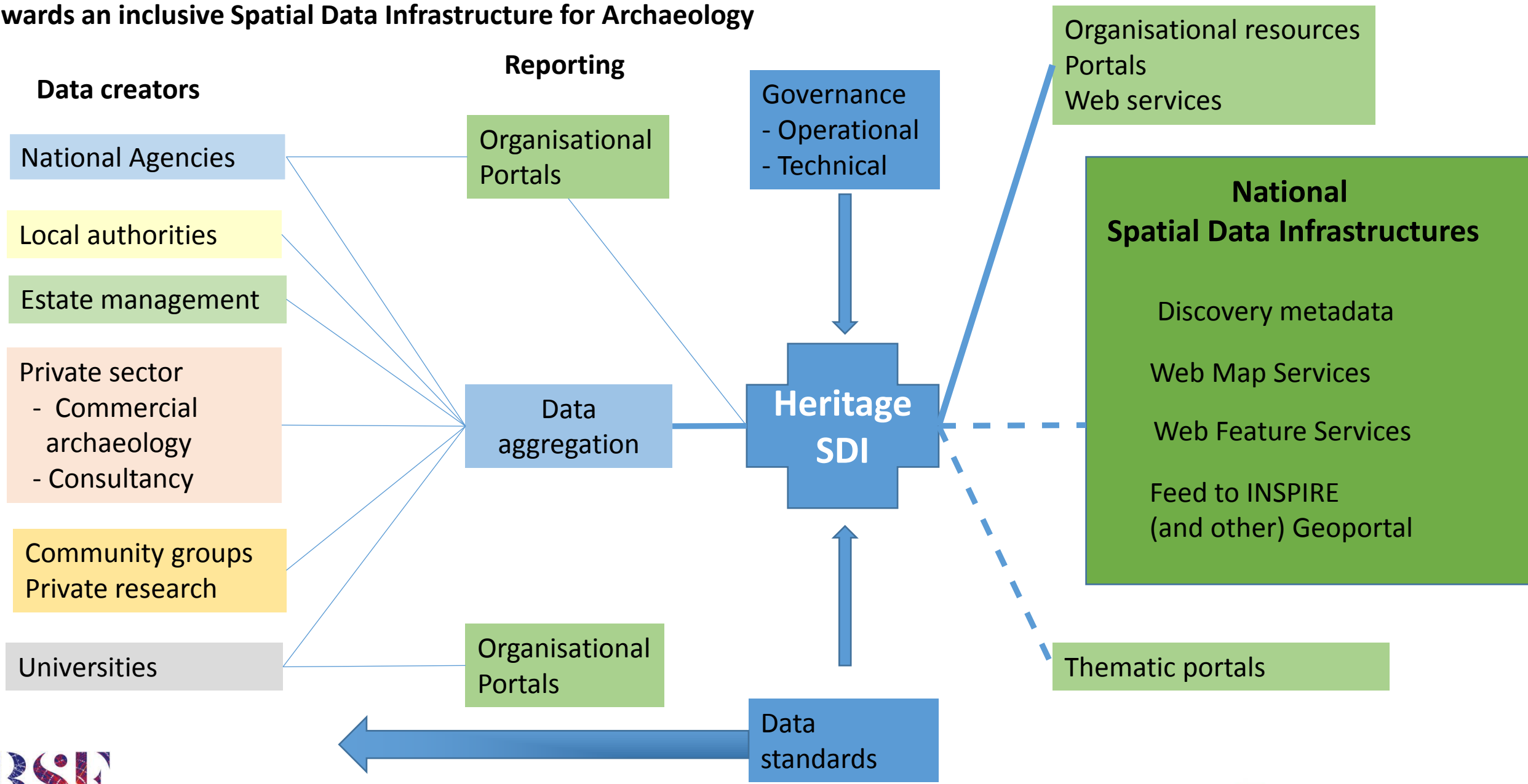
**INSPIRE sets down the general rules for establishing an infrastructure for spatial information in Europe for the purposes of Community environmental policies and policies or activities which may have an impact on the environment**



- Data should be collected once and maintained at the level where this can be done most effectively
- The ability to combine seamlessly spatial data from different sources and share it between many users and applications
- Spatial data should be collected at one level of Government and shared between all levels
- Spatial data needed for good Governance should be available on conditions that are not restricting its extensive re-use
- It should be easy to discover which spatial data is available, to evaluate its fitness for purpose, and to know which conditions apply for its use.

**Source:** David Fry, Inspire Directive: GIS Professional issue 15, April 2007, 18

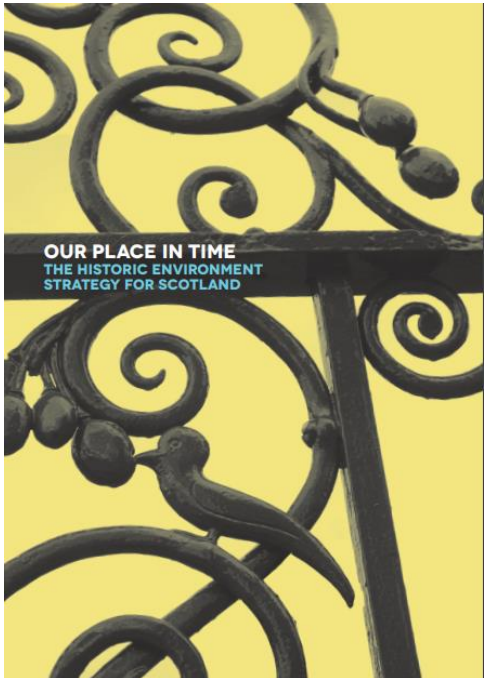
# Towards an inclusive Spatial Data Infrastructure for Archaeology





## Getting cultural heritage to work for Europe

Report of the Horizon 2020 Expert Group on Cultural Heritage



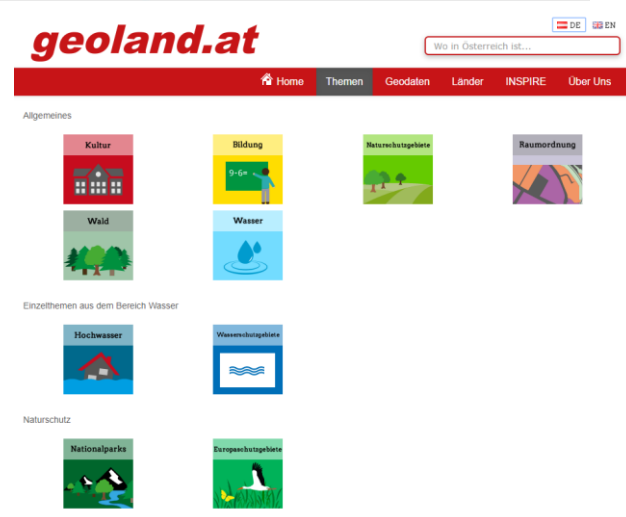
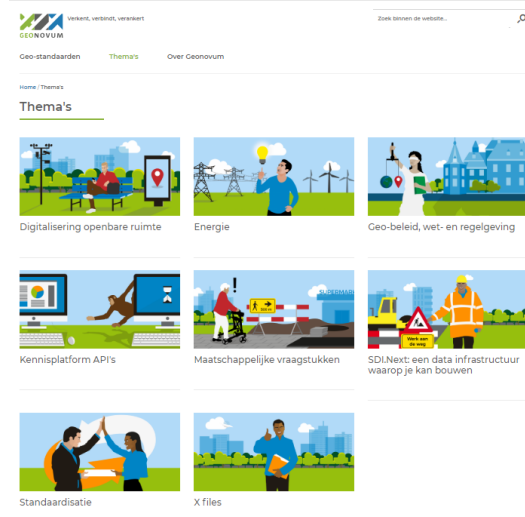
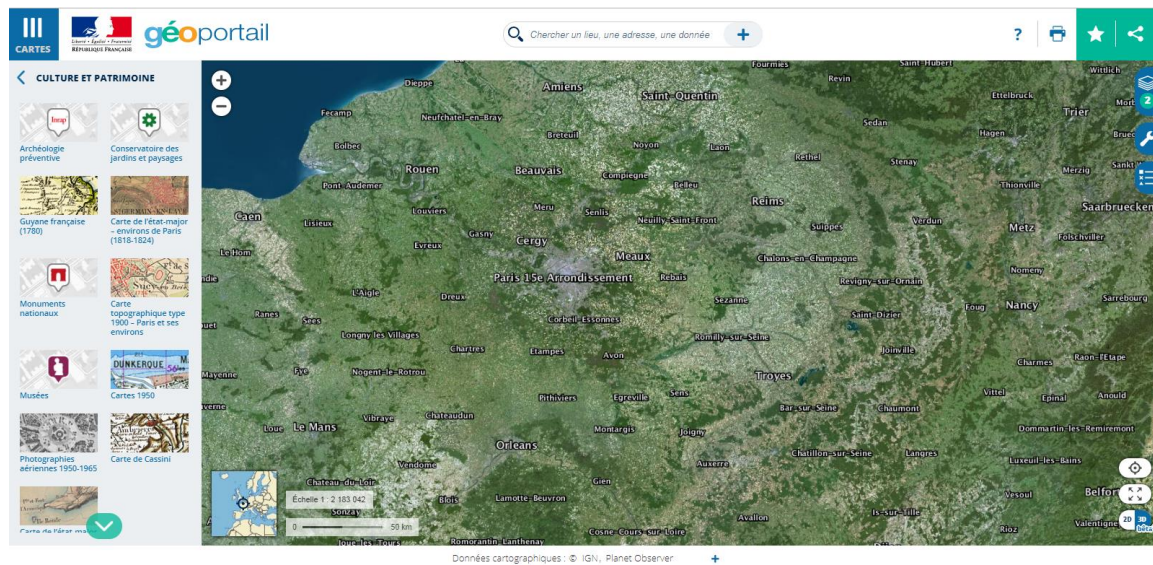
The need to move from 'an object-orientated approach towards a spatial approach in heritage planning'

and to

'consider cultural landscapes early as part of land use and spatial planning processes'  
(European Commission Directorate-General for Research and Innovation [2015](#)).

Ensure that decision making is informed and that sound evidence-based information is available at all levels of decision making.  
(Scottish Government 2014)

# Why does spatial data matter?



## Featured



18 April 2019 — News story  
**Geospatial Commission making geospatial data more accessible**  
 New 'Data Exploration Licence' launched to harmonise and simplify access and use of geospatial data.

**£ 1.5 million**  
 crowdsourcing competition launched



The Royal Society of Edinburgh  
 KNOWLEDGE MADE USEFUL

We need the best data to inform our own decisions  
 People expect to find data online  
 In the next decade geospatial technology will be ubiquitous  
 Automated decision making through Big Data analysis



# Manifesto

That there is a need to coordinate better use of the geospatial data created through archaeological fieldwork and research to:-

- **Maximise the value from unique observations about the past – often gathered at great expense**
- **enable better data discovery**
- **better inform our own decision making processes**
- **but also to inform environmental policies, planning activities and research about the historic environment**
- **promote knowledge and appreciation about the historic environment**

**We need to learn from and build on what is already there**

- INSPIRE
- Best practice – One Geology, marine Spatial Data Infrastructures
- Ariadne and Carare data aggregators

**But also acknowledge the Challenges:**

- Information silos
- Not mandated
- Declining resources
- Lack of coordination

Email: [peter.mckeague@hes.scot](mailto:peter.mckeague@hes.scot)