SPARQLing Geodesy for Cultural Heritage

New Opportunities for Publishing and Analysing Volunteered Linked (Geo-)Data
Geodesy 3.0

semantic era
Semantic Modelling
Linked Data

Geodesy 1.0

analogue era
analogue fieldbook

knowledge era
Machine Learning
Artificial Intelligence
Semantic Reasoning

digital era
digital data, standards
geoserver, leaflet, open layers

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Linked (Open) Data
Open Data
Open Source Software
Open Access
Geo Data
Usable Data/Interfaces
providing data on the Internet in standards
LOD at Ordnance Survey Irland
LOD at Ordnance Survey (United Kingdom)
Community driven LOD via LinkedGeodata.org (OSM)
Community driven LOD via Wikidata
Do you know Wikidata?

How can the community publish data openly?
What is Wikidata?

✧ A free and open knowledge base → everybody can add and edit
✧ central storage for structured data of Wikimedia projects

data in Wikidata is:
✧ available under a free license (CC 0)
✧ multilingual
✧ accessible to humans and machines (GUI & API & SPARQL)
✧ exportable using standard formats (JSON, RDF, XML)
✧ interlinked to other open data sets on the LOD Cloud
How can I help researchers without knowledge of SPARQL in using community driven data from Wikidata?
I could use...

https://plugins.qgis.org/plugins/sparqlunicorn/

...the SPARQLing Unicorn QGIS Plugin!
4th-9th century AD

Distribution:
Ireland
(+Wales, England, Isle of Man)

Information on people and their families / tribal affiliation

I want to look at all Ogham Stones from Ireland. Where do I find them?

Online & Open:
- 3D Ogham Project: [https://ogham.celt.dias.ie](https://ogham.celt.dias.ie)
- Heritage Management: [http://webgis.archaeology.ie/historicenvironment/](http://webgis.archaeology.ie/historicenvironment/)

Linked Ogham??

Online: CISP
[https://www.ucl.ac.uk/archaeology/cisp/database/](https://www.ucl.ac.uk/archaeology/cisp/database/)

Offline: CIIC by Macàlister div. publications
The Workflow

1. Extract information on Ogham stones: townland, barony, county.
2. Map databases via location and textual information (content of stones).
3. Input into Wikidata, link to existing datasets in Wikidata.
4. Extract enriched data with the help of the SPARQL unicorn.
5. Further analysis with open source software.

Macalister 1945

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https://www.wikidata.org/wiki/Q69385424
http://ogham.link

Wikidata View
https://w.wiki/HRe
Which Ogham Stones can be seen at UCC?

query.wikidata.org
Thx!

Any questions?

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Web
http://squirrel.link
http://ogham.link
Related Literature


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