

An RSE's adventures in time and space

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Mapping the March: Medieval Wales and England, c. 1282–1550 (MOWLIT)

- Funding: UKRI (originally an ERC Horizon 2020 project)
 - £2m budget
 - £175k for Research IT
- Project partners
 - University of Bristol
 - PI (Helen Fulton), 2 postdoctoral researchers, research administrator, Research IT
 - Royal Commission on Ancient and Historical Monuments in Wales (RCAHM)
- Timeline
 - Funded 2023–28
 - At least five years post-funding maintenance, i.e., 2028–32

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About me

- Senior Software Engineer, Research IT
- Worked at the University of Bristol since 2006
- Worked with Web technologies since ~1998 and mobile apps since ~2010
 - Python, Perl, Java, Objective C, C, XML, XQuery, HTML, etc.
- BA in History (1993), MPhil in History (1998), MSc in Computing (2003)
- Associate Fellow of the Royal Historical Society
- A particular interest in supporting Digital Humanities projects

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The main aims of the project

“Mapping the March: Medieval Wales and England, c. 1282–1550 aims to create the first holistic cultural history of the medieval March of Wales, the borderlands between Wales and England, occupied by a diverse population of Welsh and English speakers in the period between 1282 and 1550.”

- Uncover and analyse the literary texts and manuscripts produced and circulated in the medieval March.
- Create an original series of digital maps of the Marcher lordships at various date points during the period.
- Link the texts and maps using prosopography
- Search, browse and visualise the texts, manuscripts and people via maps and network graphs

<https://blog.mowlit.ac.uk/about/>

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The map is from H. Fulton and G. Evans, *Cambridge History of Welsh Literature* (Cambridge, 2019).

Research IT's role

- By Research IT
 - Entity modelling (with postdocs)
 - Web application design and implementation – with ‘private’ data management and ‘public’ browse/search
 - Curated dataset modelling with postdocs and implementation, e.g., the creation of a linked data dataset with RDF
 - Help with data analysis and visualisations
- External contractors
 - User Experience (UX)
 - Graphic design/branding

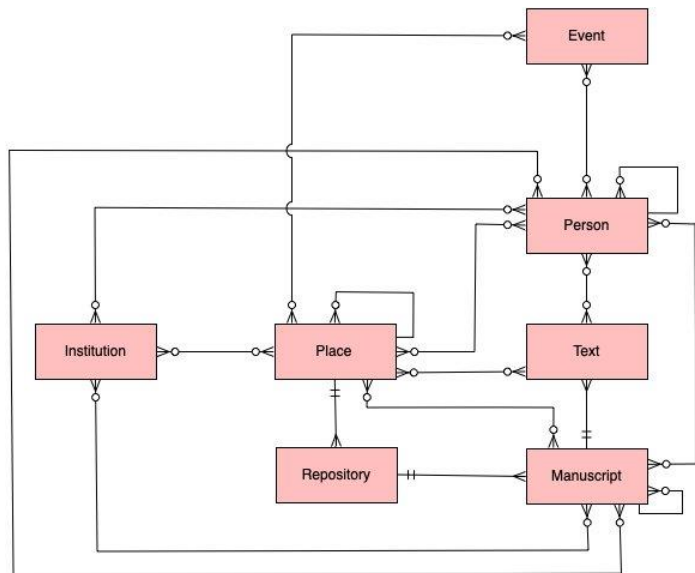
Key Technologies




django



Data management



 **Data Management**

You are logged in as mike.a.jones@bristol.ac.uk. [Logout](#)

[Home](#) / [People](#) / Edit person – Gruffydd Dwnn

Gruffydd Dwnn

[Names](#) [Dates](#) [Notes](#) [Databases](#) [People](#) [Places](#) [Events](#) [Manuscripts](#) [Texts](#) [Institutions](#) [Editorial](#)

Names

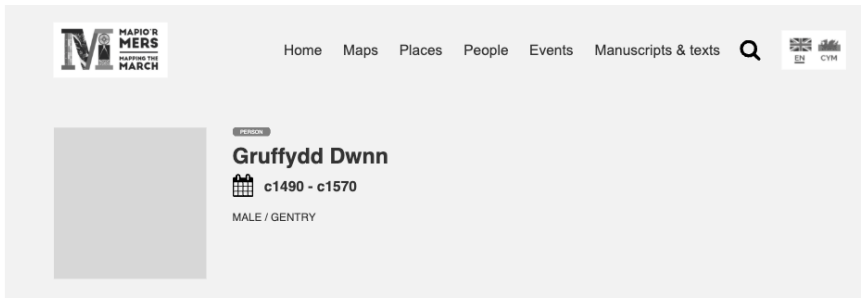
Names and soubriquet.

The 'Name' field is an English or Welsh 'headword' for a person entity. The 'Name (Welsh)' field is specifically for individuals with both English and Welsh forms, and we need to show the Welsh version in specific contexts. For your convenience, if you enter the 'Lastname' and 'First name' values in the English form, the 'Name' field will be automatically populated when saving.

Name	Name (Welsh)
<input type="text" value="Gruffydd Dwnn"/>	<input type="text" value="Gruffydd Dwnn"/>
Lastname	Firstname
<input type="text" value="Dwnn"/>	<input type="text" value="Gruffydd"/>
Name variations	Soubriquet
<input type="text" value="Don, Donne, Dun"/>	<input type="text"/>
Name disambiguation	Name disambiguation (Welsh)
<input type="text"/>	<input type="text"/>

[Save](#) [Done](#) [Cancel](#) [Delete](#)

User Experience (UX) and design



The screenshot shows the profile page for Gruffydd Dwnn on the MAPIOR MERS website. The header includes navigation links: Home, Maps, Places, People, Events, Manuscripts & texts, and a search icon. The profile section displays the name 'Gruffydd Dwnn', a calendar icon, the dates 'c1490 - c1570', and the gender 'MALE / GENTRY'. A small map icon is also visible.

Biography

Gruffydd Dwnn (1490–1570) was a Welsh nobleman, poet, and landowner, celebrated for his contributions to the cultural and social life of Tudor Wales. Born into the prominent Dwnn family of Carmarthenshire, he was deeply involved in the local governance and affairs of the region. Gruffydd was a patron of Welsh literature, supporting the bards and preserving the traditions of Welsh poetry during a period when native culture faced pressures from Tudor centralization. His lineage and influence cemented his status as a significant figure in Welsh gentry society, and he played a role in fostering a sense of Welsh identity amidst broader changes in England and Wales. Gruffydd Dwnn's life spanned a transformative era in Welsh history, marked by the integration of Wales into the English legal and administrative system through the Laws in Wales Acts. His legacy endures as a reminder of the resilience of Welsh heritage in the face of cultural shifts.

Additional notes

Patron and manuscript collector. In NLW 3063E (fol. 142), he adds a note, dated 1564, of his possession of 64 Welsh books. He hosted William Salesbury in 1565–1566.

Source
Huws (2022, II, 24)

MAP



none

- + Gwanllina (spouse)
- + Humphrey Toye
- + John II Vaughan
- + William Salesbury
- + Elen (spouse)
- + John Cotton
- + Sion Tag

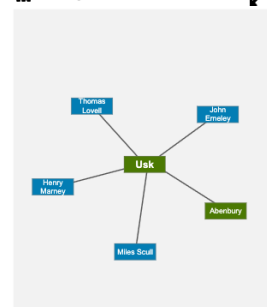
- + Camarthen (resident, bailiff, mayor)
- + Ystradmerthyr (resident)
- + Carmarthenshire (justice, sheriff, escheator, mayor, alderman)
- + Kidwelly (bailiff)

📍 View on map

- + National Library of Wales, [Llanstephan 40](#), Owner, Scribe (Certain)
- + National Library of Wales, [NLW 3063E](#), Owner (Probable)
- + British Library, Additional [14889](#), Reader (Probable)
- + British Library, Additional [14913y](#), Owner (Possible)
- + National Library of Wales, [Peniarth 70](#), Owner (Probable)
- + National Library of Wales, [Peniarth 108](#), Owner (Probable)
- + National Library of Wales, [Llanstephan 7](#), Owner (Probable)
- + British Library, Additional [19709](#), Owner (Probable)



NETWORK



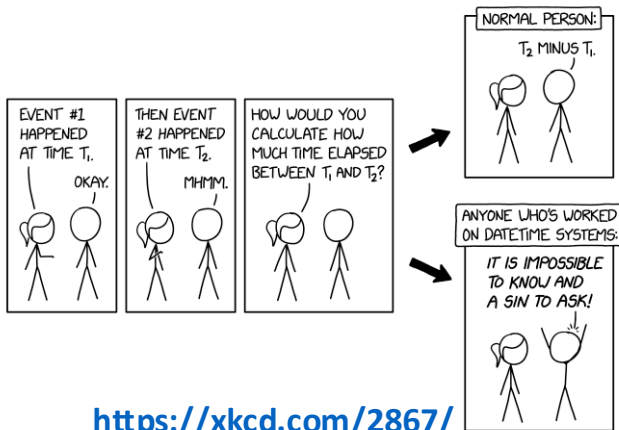
TIMELINE

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<https://researchit.blogs.bristol.ac.uk/2025/06/03/thinking-about-digital-design-why-it-matters-for-your-academic-research-project/>

Dates are hard! (1)

- Some of the dates and date ranges the project deals with are vague, e.g., 'early thirteenth century' or 'c.1500' or '<1500'
- Using a calendar widget to define dates isn't going to be practical
- Until 1752, England and Wales used the Julian calendar
- The default Python `datetime` module uses the Gregorian calendar



<https://xkcd.com/2867/>



<https://xkcd.com/1179/>

Dates are hard! (2)

- Agreed on an **editorial policy on acceptable date formats** that can be entered, e.g. '4 October 1352', '4–10 October 1352', '1352', '1352–1358', '1352×1358', 'Early 13th century', '<1300'
- Dates are converted to a range, e.g. '1352' has a start date of '1352-01-01 00:00:00' and '1352-12-31 23:59:59'
- The start and end dates are stored as floating-point numbers that represent that date in the Julian calendar (using the `skyfield` package)
- Custom Django validators check that the dates entered match the editorial policy

```
ts = load.timescale()
ts.julian_calendar_cutoff = GREGORIAN_START_ENGLAND

def format_tt(tt: float): 87 usages  Ⓜ Mike Jones
    """ Convert the Julian date, stored a float, into a starfield Time object,
    and then convert to a string representation. """
    return ts.tt_jd(tt).tt.strftime('%Y-%m-%d %H:%M:%S')

class TestDateParsing(TestCase):  Ⓜ Mike Jones

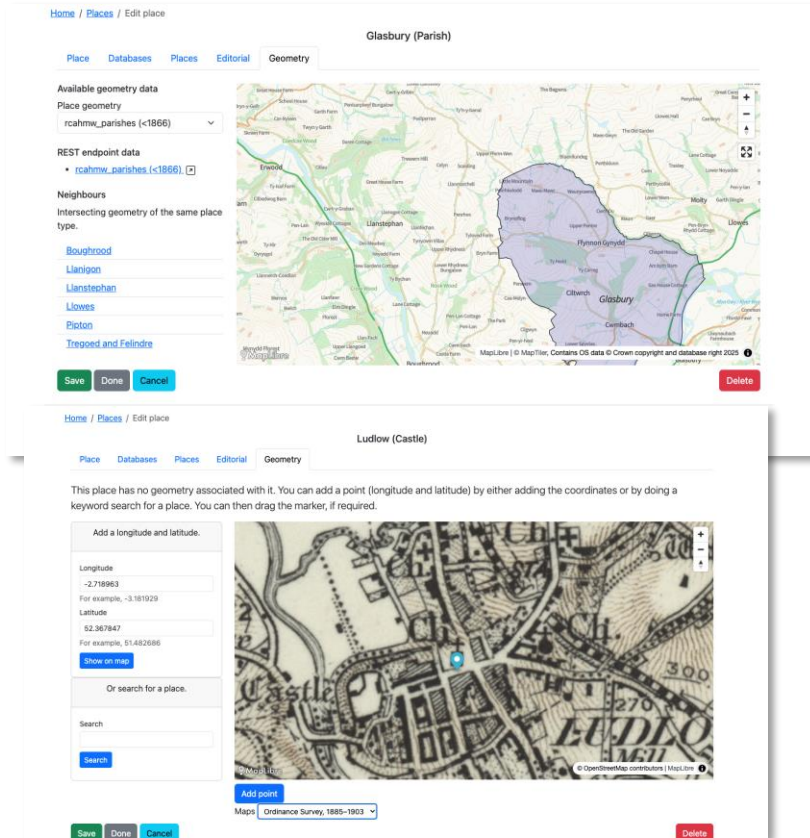
    # ----- Testing the examples from the first draft of the editorial policy

    def test_parse_day_month_year(self):  Ⓜ Mike Jones
        """ Test the full day, month and year format. """
        start, end = parse_date('4 October 1352')
        self.assertEqual(format_tt(start), second: '1352-10-04 00:00:00')
        self.assertEqual(format_tt(end), second: '1352-10-04 23:59:59')
```

Geospatial data (1)

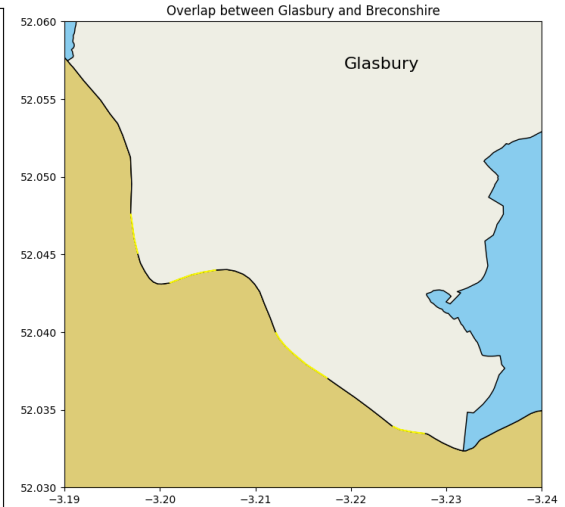
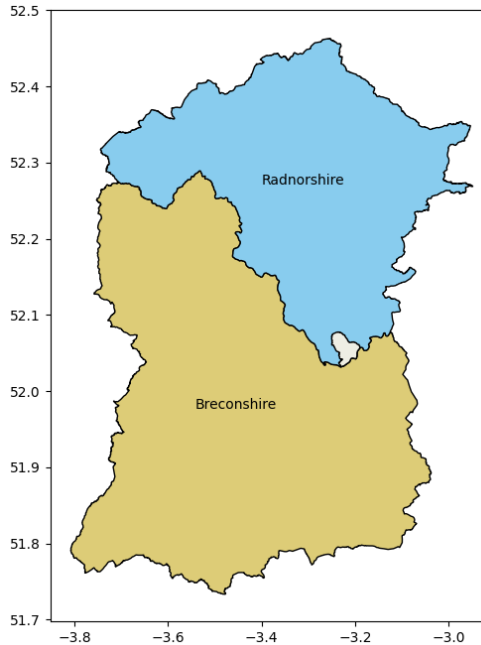
- We will be storing and querying Point, Polygons and MultiPolygons
- RCAHM and postdocs have created polygons of parishes, counties, hundreds, and townships – based on 1st edition Ordnance Survey maps
- The project will develop polygons for the marcher lordships and other administrative units
- Other types of places, a settlement within a parish, might be just represented by a point

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Geospatial data (2)

- The coordinates have a high level of precision, which leads to large payloads
- Why is the parish of Glasbury not within Radnorshire?



Questions? 😊

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