

How Qgis is helping me write a book

The Littleover Landscape: From Ice Age to Domesday

Tony Brookes, September 2023

With thanks to the Littleover History Group & the Derbyshire Archaeological Society for
their support

The Book!

- Landscape Archaeology, covering 1,000,000 BC to 1087 AD
 - The Littleover Area is a 7.5 mile radius around St Peter's Church, map later
 - Qgis used to create all the maps needed to tell the story of the landscape shown by the archaeological finds, Geology, Crop Marks, Parish Boundaries, and the Domesday Book
- Aimed at the Lay reader

Found in a back Garden
in Mickleover, the next
door parish to
Littleover

Portable Antiquities Scheme,
Annual Report 2004/5



6. The handaxe (DENO-DE1DA4) from Mickleover, Derbyshire. 78.16 x 59.58 x 27.08mm.

Main Data Sources

- Derbyshire's Historic Environment Record (H.E.R.) at Matlock who have supplied their data for my book (3 shapefiles & a 1200 page pdf) (about 450 items)
- The British Museum's Portable Antiquities Scheme's (P.A.S) data – approx. 420 items in the A.O.I.
- Other sources
 - Papers (mainly via Google as no academic account)
 - Books
 - Periodicals or Serials
 - Anything else relevant
 - ABBooks & Oxbow Publishing
 - UK Data Service
 - Historic England – Some Shapefiles showing cropmarks, from the Aggregates Levy projects
 - Environment Agency - LIDAR

Open Source Software

- Qgis v 3.32. – 1 Lima
- Zotero (reference manager)
- Blender (maybe)

unlikely

Inkscape

Gimp

Open or Apache Office

Closed Source Software

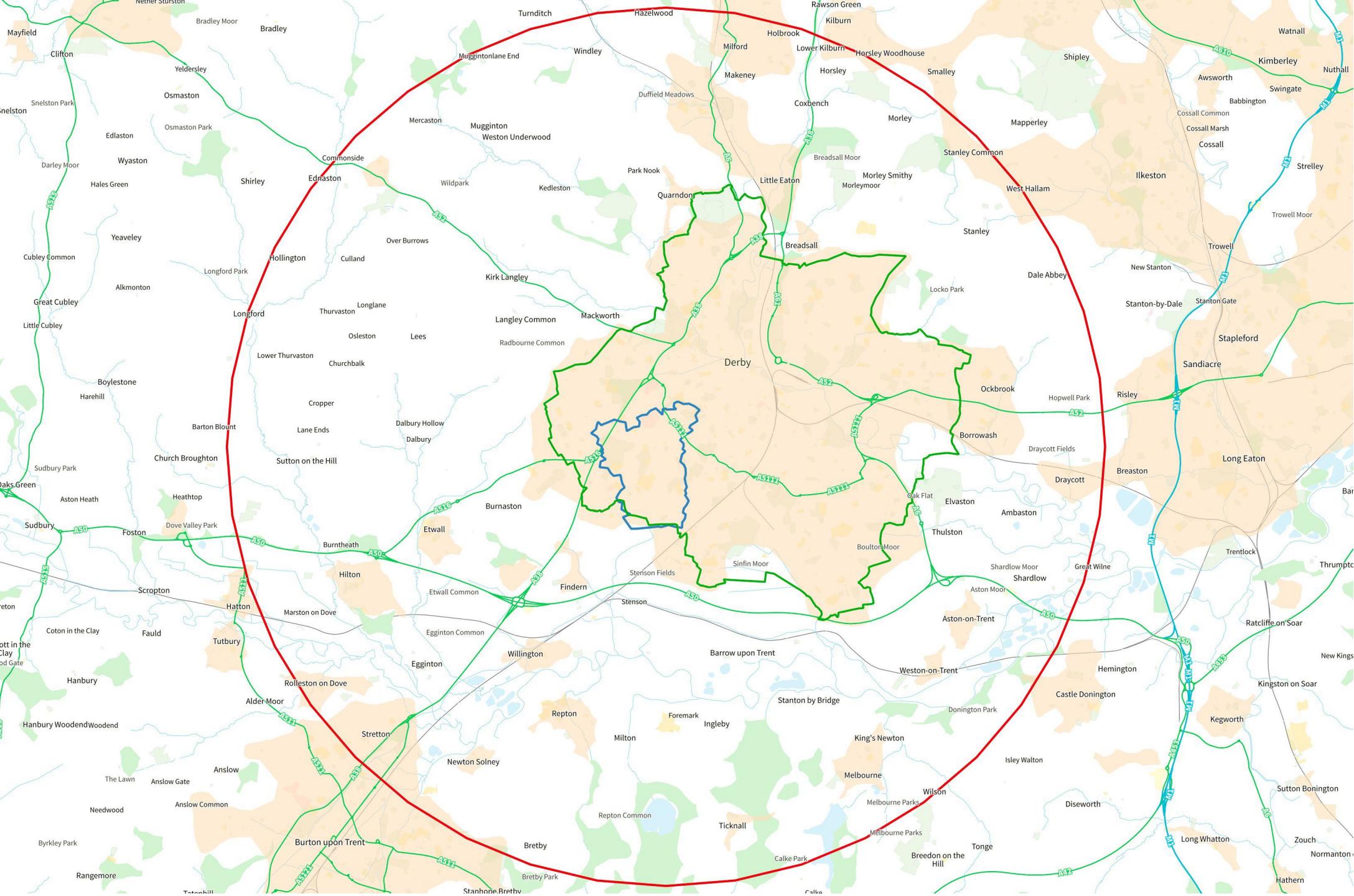
(Needed to publish a book & prepare images for presentations & articles)

- Scrivener
- MS Office 365 (family) & Apple's Numbers, Pages, Keynote
- Affinity Suite (Photo, Publisher, Designer all v2)
- Mac
- Websites
- ColorBrewer
- <https://archaeologydataservice.ac.uk>
- Google, Youtube,
- etc

The Littleover Area of Interest (AOI)
Red circle , Data from the Ordnance Survey, & Derby City Council 2016 Ward boundaries (shown in green).

The Littleover parish boundary (in blue) is from Kain, R.J.P., Oliver, R.R. (2001). *Historic Parishes of England and Wales : an Electronic Map of Boundaries before 1850 with a Gazetteer and Metadata.* [data collection]. UK Data Service. SN: 4348, DOI: [10.5255/UKDA-SN-4348-1](https://doi.org/10.5255/UKDA-SN-4348-1)

OS Open
Zoomstack &
Derby City 2016
boundary



Each point could be as small as a coin or as large as a Cursus

Cursuses are [monumental Neolithic structures](#) resembling [ditches](#) or [trenches](#) ([Wikipedia](#))

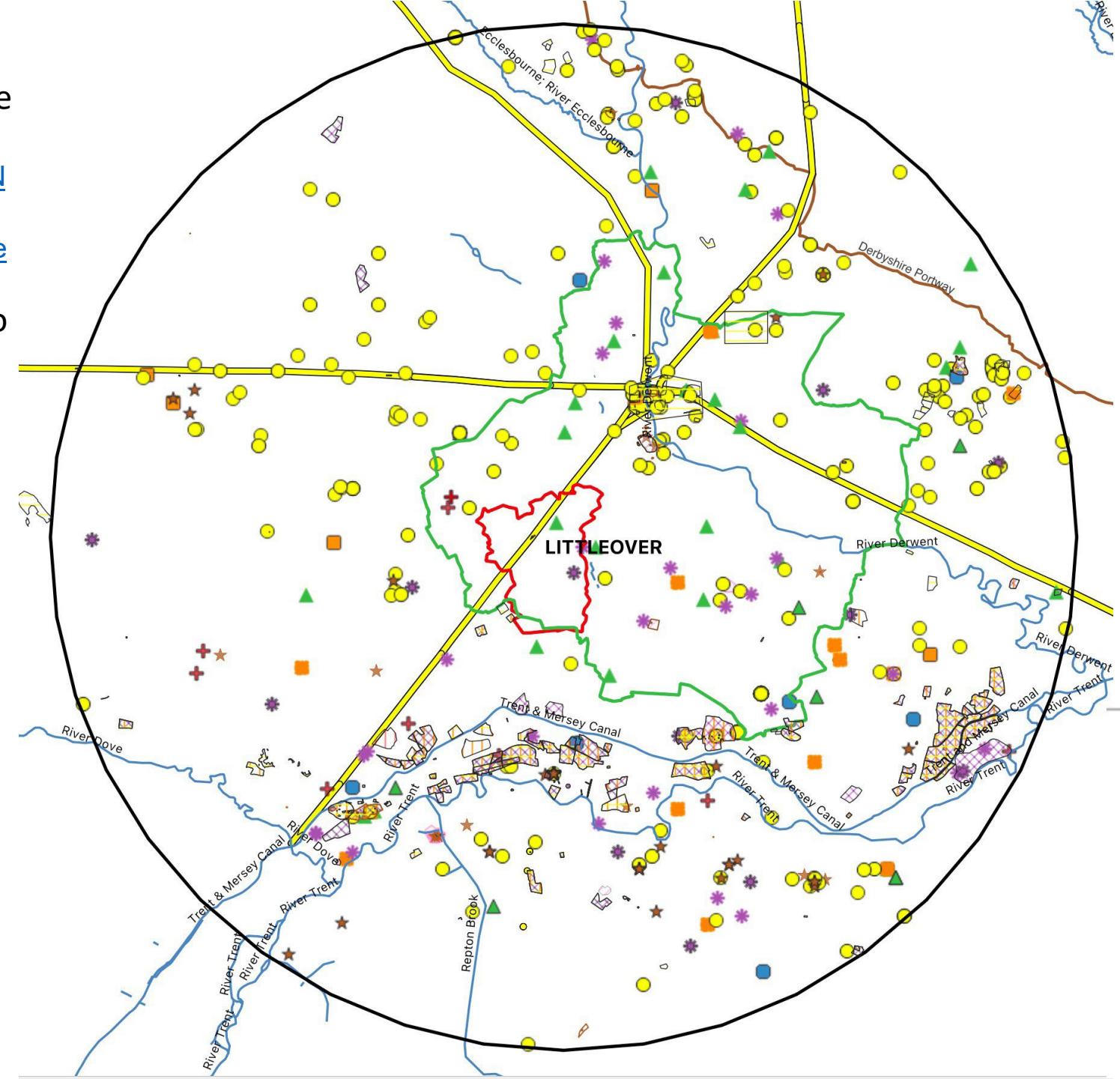
All eras, and too many to make sense of!

All Pas Data 2 sets & Eras [245]

- + PALAEOLITHIC [1]
- MESOLITHIC [4]
- ▲ NEOLITHIC [9]
- * BRONZE AGE [16]
- IRON AGE [5]
- ROMAN [162]
- ★ EARLY MEDIEVAL [47]

V2 Eras & symbology testbed

- + Paleolithic
- Mesolithic
- ▲ Neolithic
- * Bronze Age
- Iron Age
- Roman
- ★ Anglo-Saxon
- ♀ Viking
- Norman



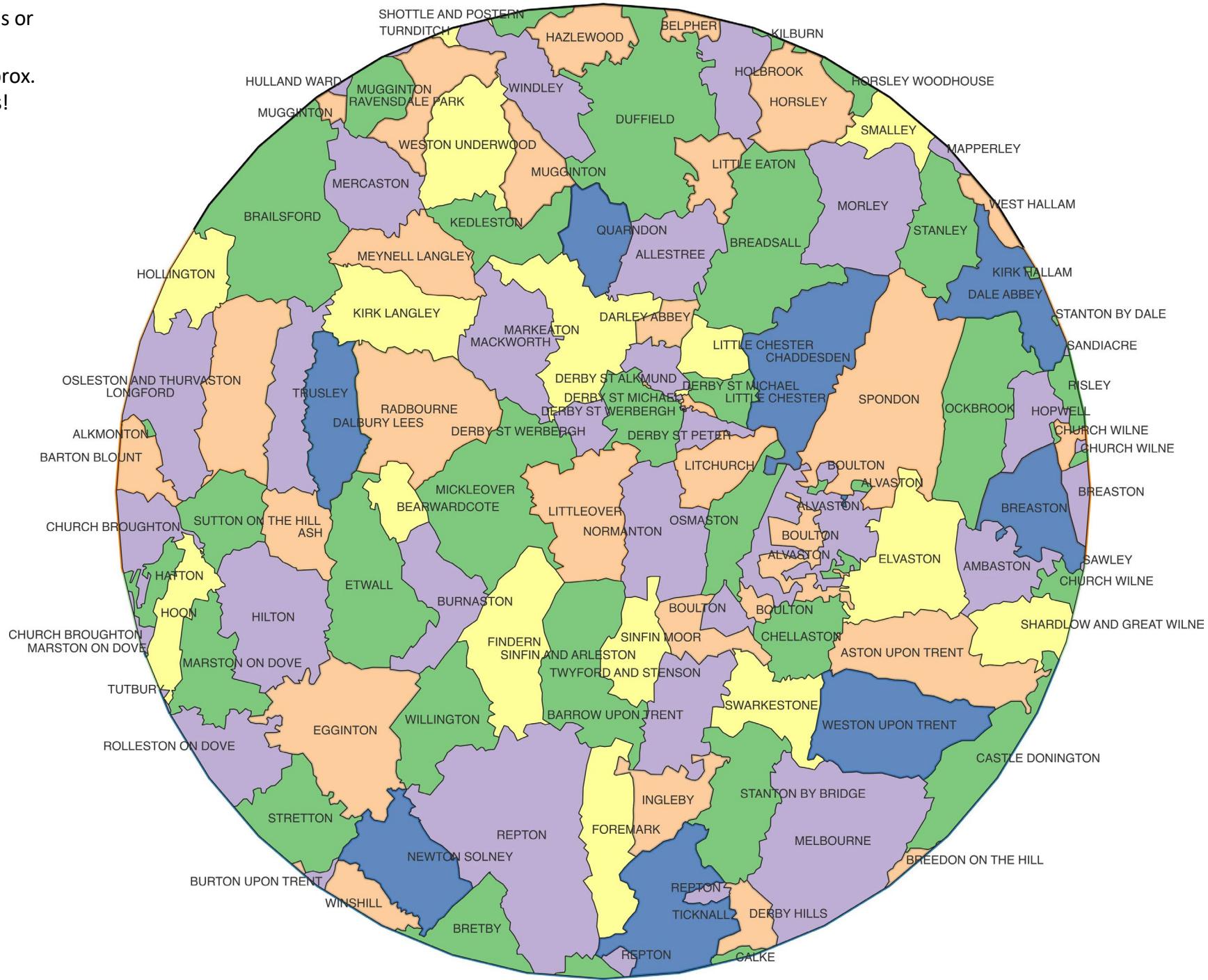
Polygon Shading

- Paleolithic
- Mesolithic
- Neolithic
- Bronze Age
- Iron Age
- Roman
- Saxon
- Viking
- Norman

Hashing marks - areas of archaeological interest, mainly cropmarks.....

| | | |
|---------------------|-------------------------|--------------------------|
| ALKMONTON | | ROLLESTON ON DOVE |
| ALLESTREE | HAZLEWOOD | |
| ALVASTON | HILTON | SANDIACRE |
| AMBASTON | HOLBROOK | SAWLEY |
| ASH | HOLLINGTON | |
| ASTON UPON TRENT | HOON | SHARDLOW AND GREAT WILNE |
| BARROW UPON TRENT | HORNINGLOW | SHOTTELE AND POSTERN |
| BARTON BLOUNT | HORSLEY | |
| BEARWARDCOTE | HORSLEY WOODHOUSE | SINFIN AND ARLESTON |
| BELPHER | | |
| BOULTON | HULLAND WARD | SINFIN MOOR |
| BRAILSFORD | INGLEBY | SMALLEY |
| BREADSALL | KEDLESTON | |
| BREASTON | KILBURN | SPONDON |
| BREEDON ON THE HILL | KIRK HALLAM | STANLEY |
| BRETBY | KIRK LANGLEY | STANTON BY BRIDGE |
| BURNASTON | LITCHURCH | STANTON BY DALE |
| BURTON UPON TRENT | LITTLE CHESTER | DALE |
| CALKE | LITTLE EATON | SUTTON ON THE HILL |
| CASTLE | LITTLEOVER | |
| DONINTON | LONGFORD | |
| CHADDESDEN | MACKWORTH | SWARKESTONE |
| CHELLASTON | MAPPERLEY | TICKNALL |
| CHURCH BROUGHTON | MARKEATON | TRUSLEY |
| BROUGHTON | MARSTON ON DOVE | TURNDITCH |
| CHURCH WILNE | MELBOURNE | TUTBURY |
| DALBURY LEES | MERCASTON | TWYFORD AND STENSON |
| DALE ABBEY | MEYNELL LANGLEY | |
| DARLEY ABBEY | MICKLEOVER | WEST HALLAM |
| DERBY ALL SAINTS | MORLEY | WESTON UNDERWOOD |
| DERBY HILLS | MUGGINTON | |
| DERBY ST ALKMUND | NEWTON SOLNEY | WESTON UPON TRENT |
| DERBY ST MICHAEL | NORMANTON | |
| DERBY ST OCKBROOK | OCKBROOK | WILLINGTON |
| DERBY ST PETER | OSLESTON AND THURVASTON | WINDLEY |
| DERBY ST WERBERGH | OSMASTON | WINSHILL |
| DUFFIELD | QUARNDON | |
| EGGINTON | RADBOURNE | |
| ELVASTON | RAVENSDALE PARK | |
| ETWALL | REPTON | |
| FINDERN | REPTON | |
| FOREMARK | STANTON BY BRIDGE | |
| HATTON | RISLEY | |

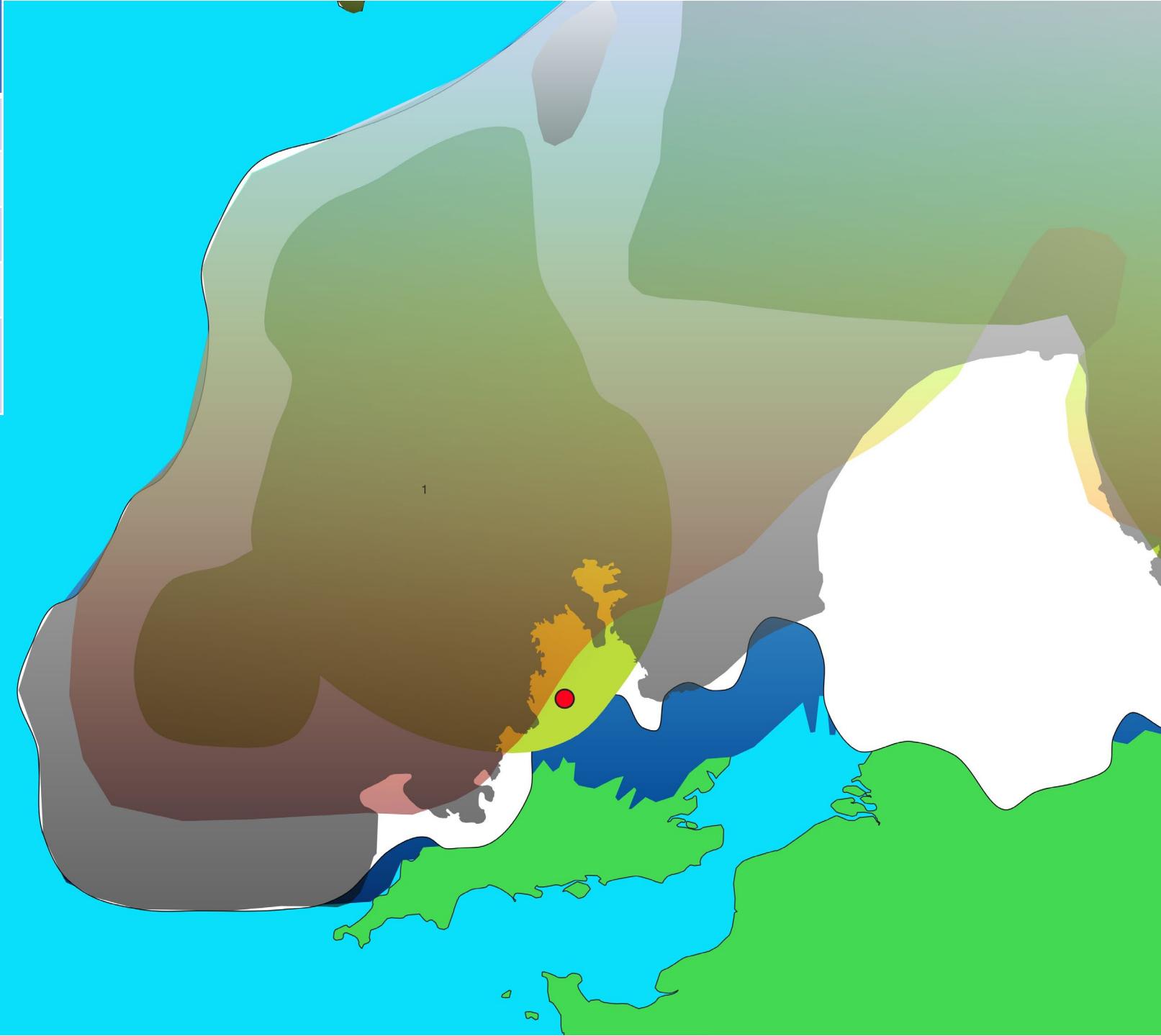
132 Parishes or part parishes,
total area approx.
113,000 acres!

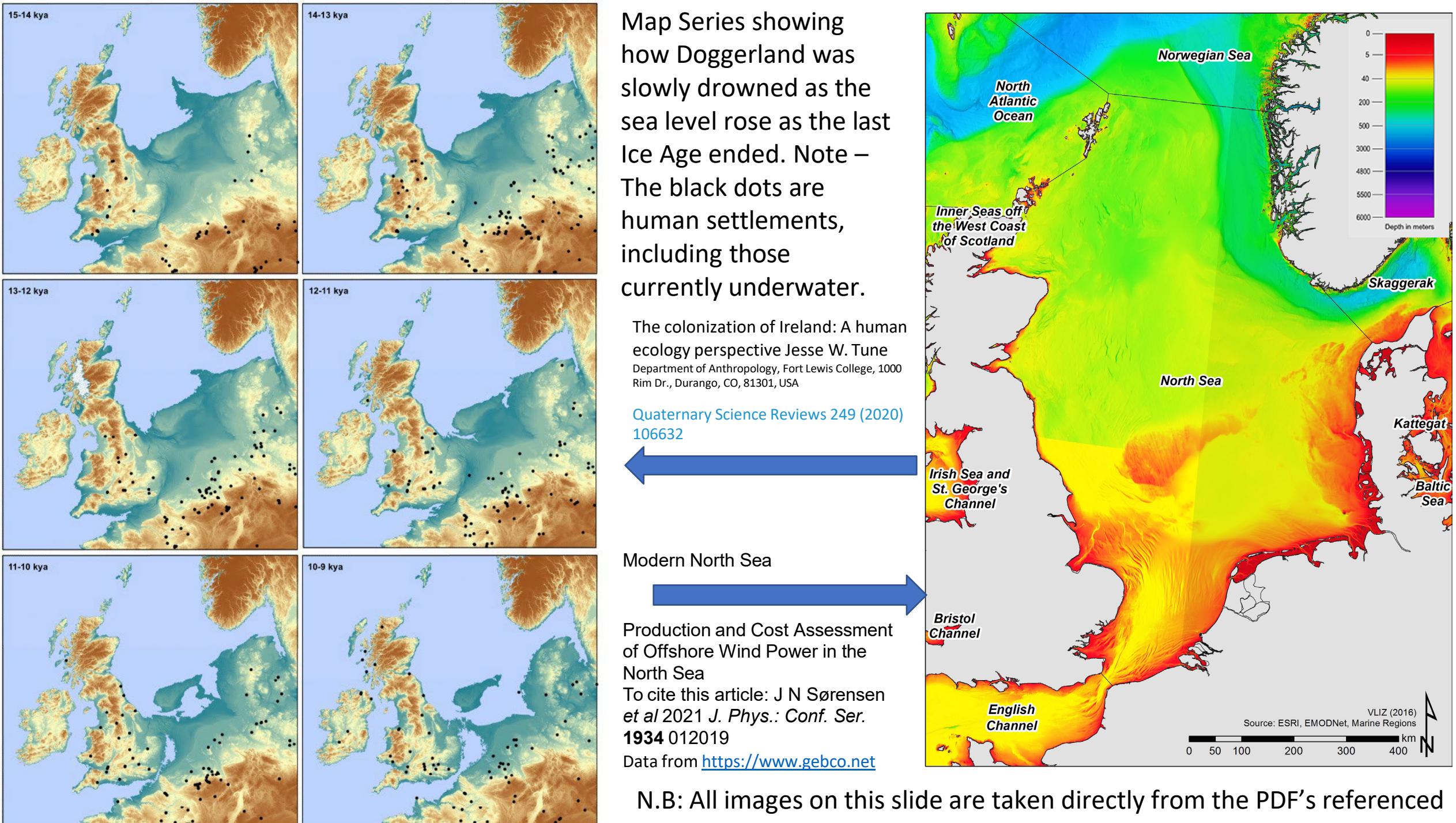


| Colour | Marine Isotope Sequence | Dates BC |
|---------|-------------------------|-------------------|
| Green | 16 | 676,000 |
| Grey | 12 | 430,000 – 480,000 |
| White | 6 | 130,000 – 170,000 |
| Reddish | 4 | 71,000 |
| Grey | Last Glacial Maximum | 20,000 |

Shapefile by kind permission of Batchelor, C., Margold, M., Krapp, M., Murton, D., Dalton, A., Gibbard, P., ...Manica, A. (2019). The configuration of Northern Hemisphere ice sheets through the Quaternary. Nature Communications, 10, Article 3713. <https://doi.org/10.1038/s41467-019-11601-2>

The Paper offers 3 reconstructions for each ice age, best estimate, maximum & minimum. Plotted here is the best estimate

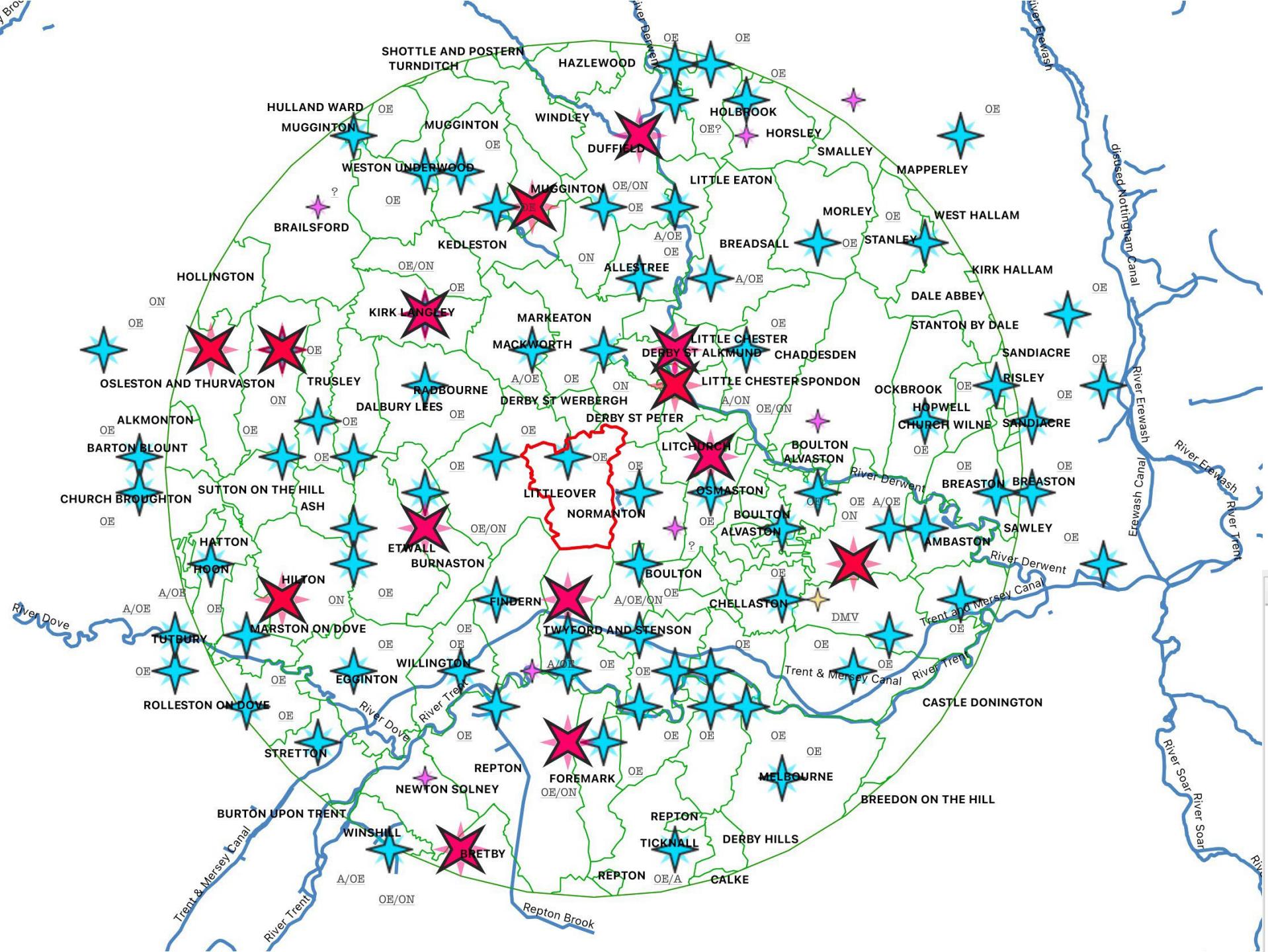




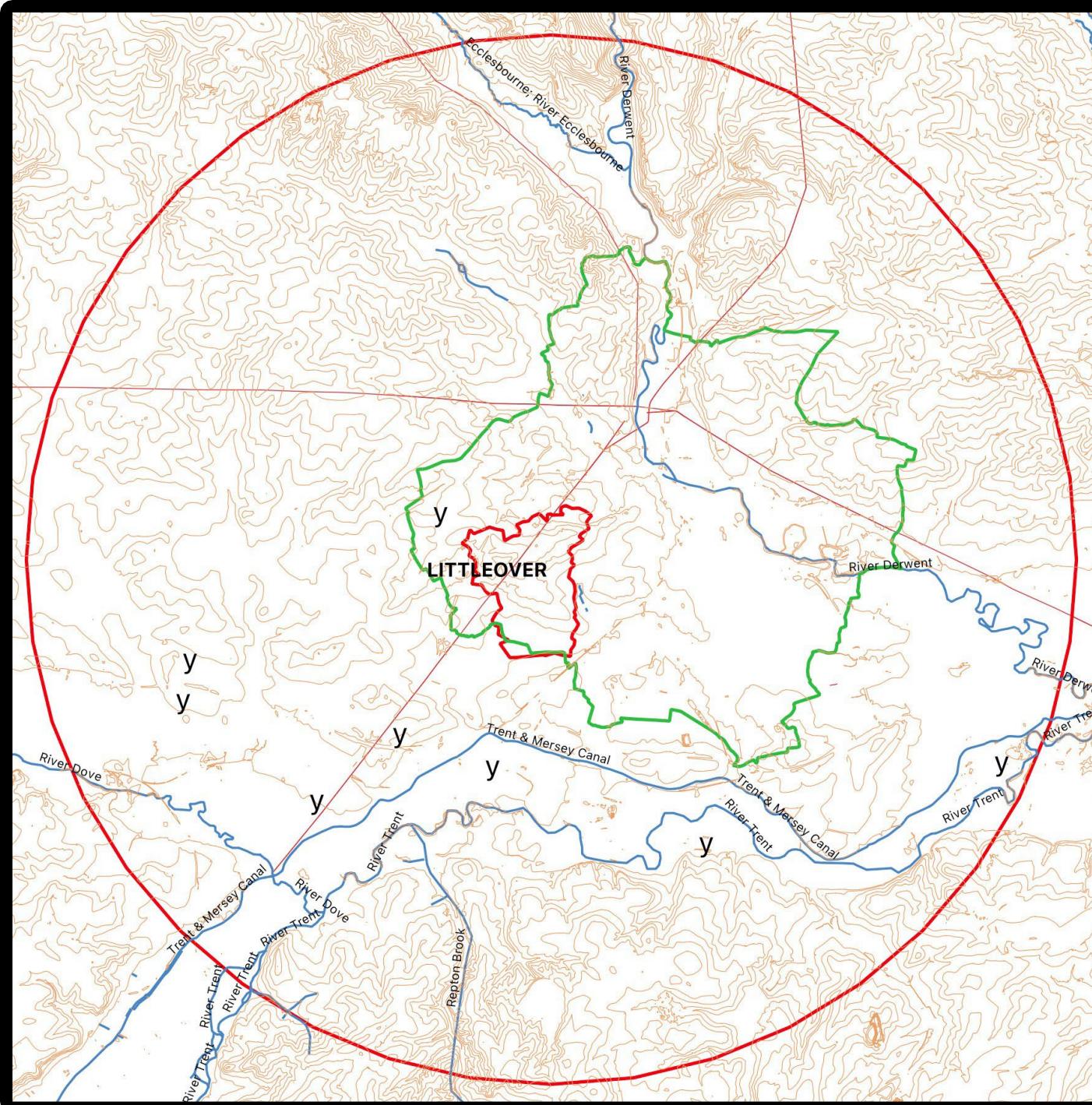
1st Attempt Place name Derivations

Blue = OE elements inc Anglian

Red = some element of Old Norse



| Symbol | Value | Legend |
|--------|---------|------------------|
| ✓ | A/OE/ON | A/OE/ON |
| ✓ | OE/ON | OE/ON |
| ✓ | ON | ON |
| ✓ | A/ON | A/ON |
| ✓ | DMV | DMV |
| ✓ | OE | OE |
| ✓ | A/OE | A/OE |
| ✓ | OE? | OE? |
| ✓ | OE/A | OE/A |
| ✓ | ? | ? |
| ✓ | * | all other values |



Brown lines - OS Terrain 50 Contours based data
2022 edition

Red Circle – Area of Interest

Green Line – Derby City 2016 Administrative Boundary

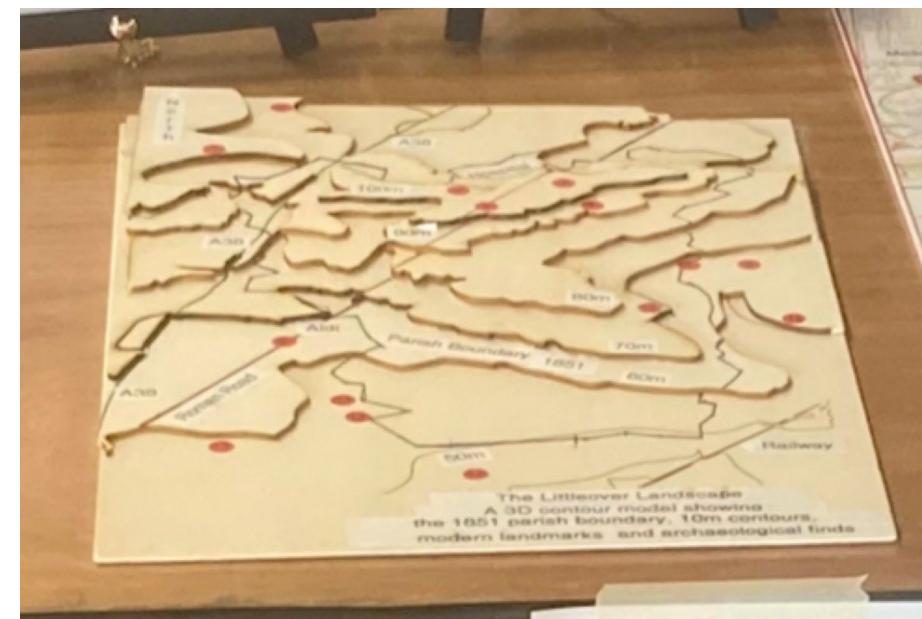
Red Line – 1851 Parish Boundary for Littleover

Paleolithic finds marked thus – y

Blue Line – Rivers & canals

Spin Off Project in 2022

An area around Littleover has also been laser cut into a 3D representation of Littleover (it was only a slightly scaled up somewhere between A4 & A3). It and some maps & text were exhibited at a Making Festival in Derby in 2022. Qgis used to create contour svg's



Why Oh Why?

- Are Grid Refs always in a different format to the previous batch & often appear near Penzance..?
- Can I not get straight in my head the differences between the TLA's for Lidar??#[DEM/DSM/DTM]
- Are there so many closed source papers?
- Are there aways interesting new things popping up?
 - 1944 USAFE Aerial photos
- Can I have
 - A way of running a catalogue of the Qgis Projects and shapefiles used in the Project on my Mac not a distant server? (that I don't have)...
 - A faster start-up of Qgis on my Mac?
- How does the H.E.R service use a system that supplies hidden map ref's that QGIS plots but not displayed in the attributes table or CSV's?
- Incredibly useful
 - University of Nottingham's Community borrower scheme
 - Being a member of Local History/Archaeology Groups
 - Qgis user email list
 - Online tutorials and documentation (Qgis et al)
- Need to learn & then do in Qgis....
 - Lidar for the AOI
 - Viewshed analysis - how far are the barrows visible & where from?
 - Least cost routing between the Domesday book settlements – and earlier ones when I've plotted them separately

Any Questions
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