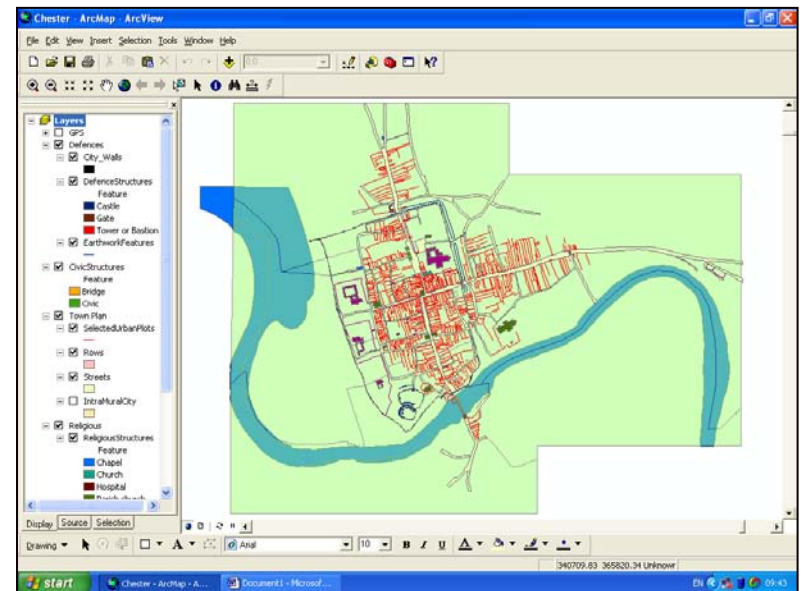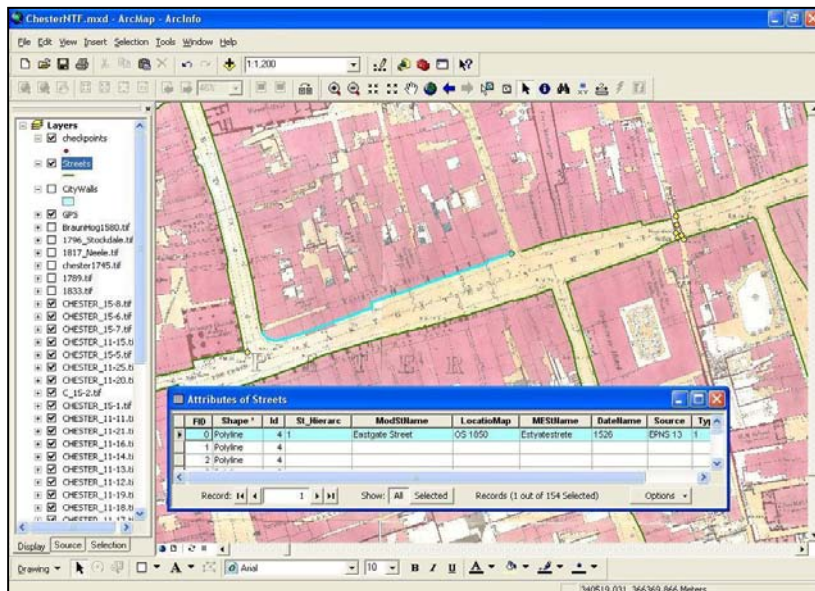# LAYERING TIME AND SPACE

Keith Lilley

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Layering time and space through mapping medieval urban geographies using GIS

- Two current challenges:

  - 1. Finding the right web-GIS/mapping platform for delivering spatial data – going from a desktop GIS to a distributed GIS…
  - 2. Defining new research agendas through the application of spatial technologies – shaping medieval studies at a global scale…

1. Finding the right web-GIS/digital mapping platform

Discover Medieval Chester
AHRC-funded knowledge
transfer research project

http://medievalchester.ac.uk/

Web-resource launched May 3!

A long search across different GIS-based research projects for online platforms:
- • 'Mapping the Medieval Townscape' (2003-2005)
- • 'Mapping Medieval Chester' (2008-9)
- • 'Linguistic Geographies' (2009-11)
- • 'Discover Medieval Chester' (2012-13)

Mapping Medieval Chester

"Mapping Medieval Chester"

Web-served 'distributed' GIS (using MapServer)

Digital Map (Low Bandwidth)

Legend
- Features
- Settlements
- Castle
- Gate
- Tower or Bastion
- City Walls
- Earthwork Features
- Bridge
- Civic
- Selected Urban Plots
- Rows
- Streets
- Chapel
- Church
- Hospital
- Parish church
- Religious house
- Ecclesiastical Precincts
- Intramural City
- River Dee (Late Medieval)
- Parish Boundaries

Pan
Zoom In
Zoom Out

Map scale: 1: 5905
Click x,y: 340610.416400, 366120.833300
Map Extent: 339943.7496 365620.8332 341277.0832 366620.8334

Mapping the Medieval Townscape: a digital atlas of the new towns of Edward I
Keith Lilley, Chris Lloyd, Steve Trick, 2005

Introduction
Overview
Atlas
 Sources

Data copyright © Dr Keith Lilley, Chris Lloyd, Steve Trick unless otherwise stated

Arts & Humanities Research Council

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Send e-mail enquiry

Resource identifiers

ADS Collection: 433
doi:10.5284/1000022
How to cite using this DOI

Queen's University Belfast

LLGC NLW Llyfrgell Genedlaethol Cymru
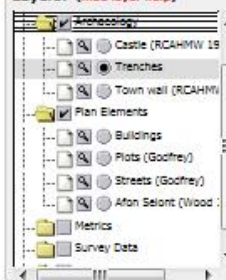The National Library of Wales
Aberystwyth

The Atlas

Caernarfon ▾ go | Interactive Map | Discussion | Downloads

| CAERNARFON (Llanbeblig), Caernarfonshire	
NGR:	SH478628
Type:	Castle town with stone defences
Date of Charter:	September 8 1284
Number of Burgages:	55 in 1298
Number of Burgesses:	57 in 1298
Size of Burgage:	eighty by sixty feet
Area of walled town (c.1300):	101/3 acres/41,800m^2 (excluding castle)
Overall dimensions of walled town (c.1300):	600 feet (High Street)/740 feet (Castle Street/Market Street) (183m/226m)

Interactive Map:

Layers: (hide layer help)

Archaeology
    Castle (RCAHMW 19
    Trenches
    Town wall (RCAHMW
Plan Elements
    Buildings
    Plots (Godfrey)
    Streets (Godfrey)
    Afon Seiont (Wood
Metrics
Survey Data

**Layer Help:**

A closed group, click to open.
An open group, click to close.
A map layer.
A hidden group/layer, click to make visible.
A visible group, click to hide.
A partially visible group, click to make visible.
A visible layer, click to hide.
An inactive layer, click to make active.
The active layer.
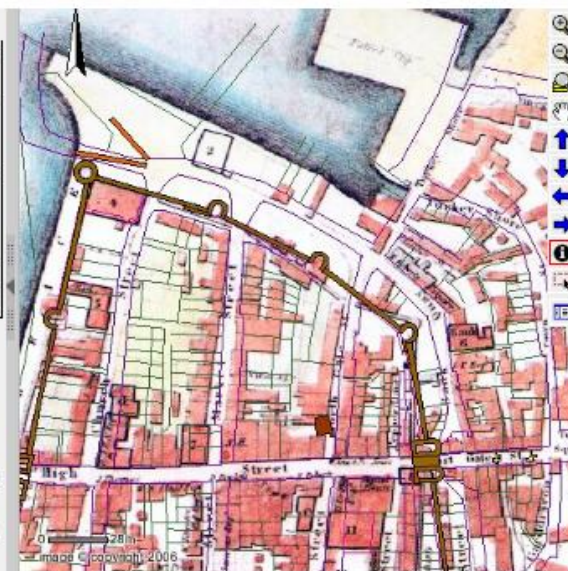
Help for using the Interactive Map

An Interactive Map has been provided to enable you to examine the various spatial data compiled throughout the survey using basic WebGIS tools. To begin using the map click the button labelled 'Switch
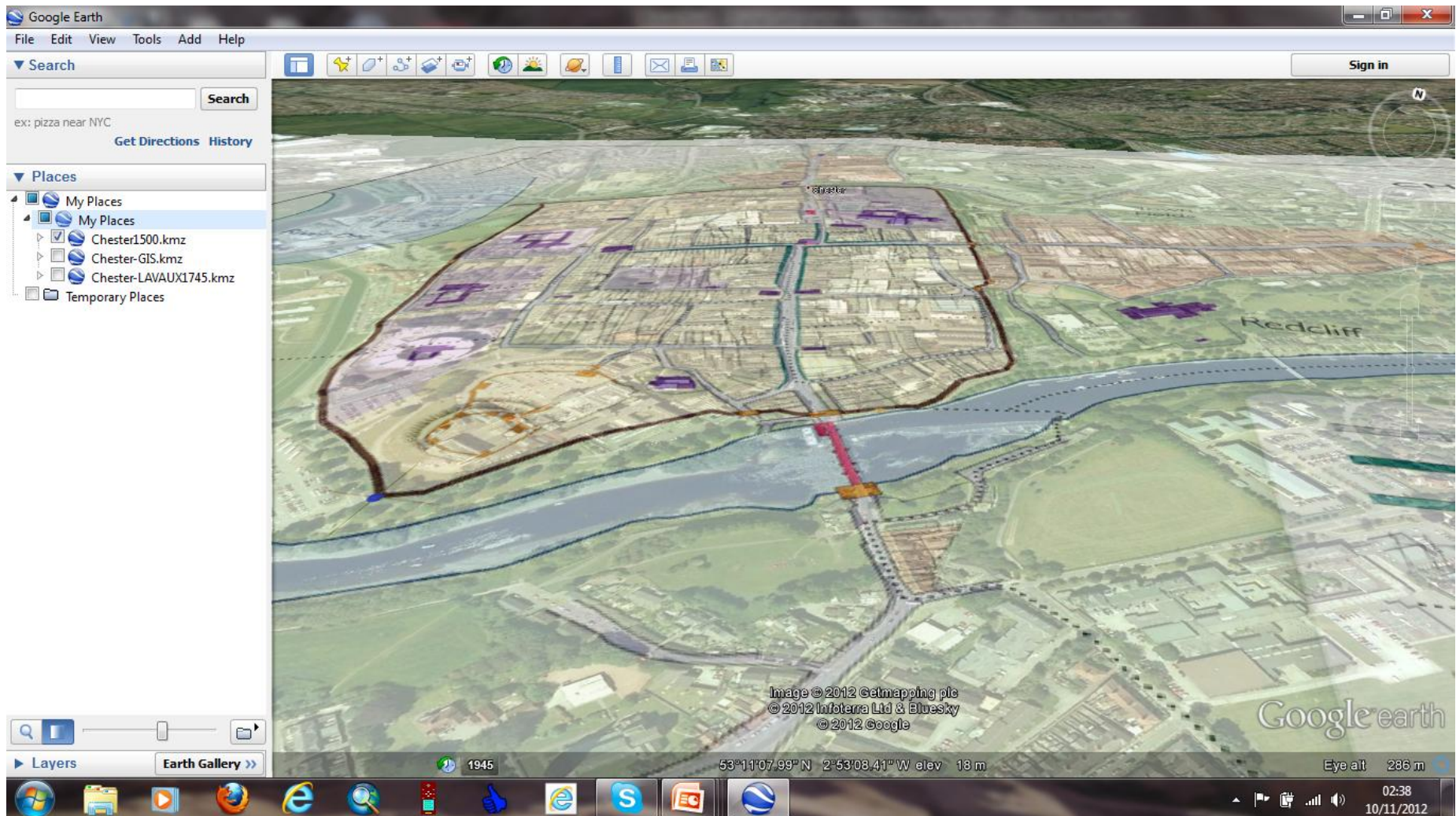
"Discover Medieval Chester" AHRC-funded knowledge transfer research project
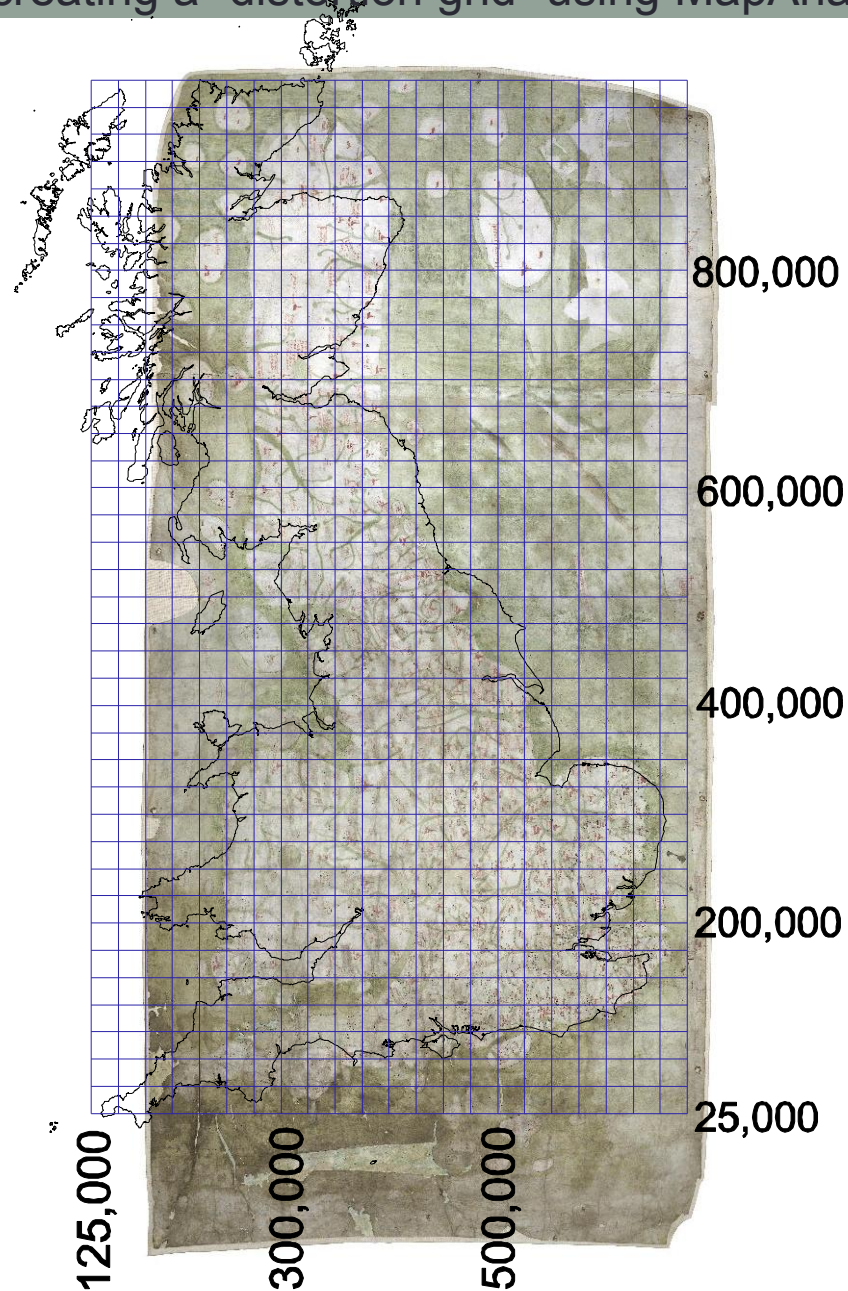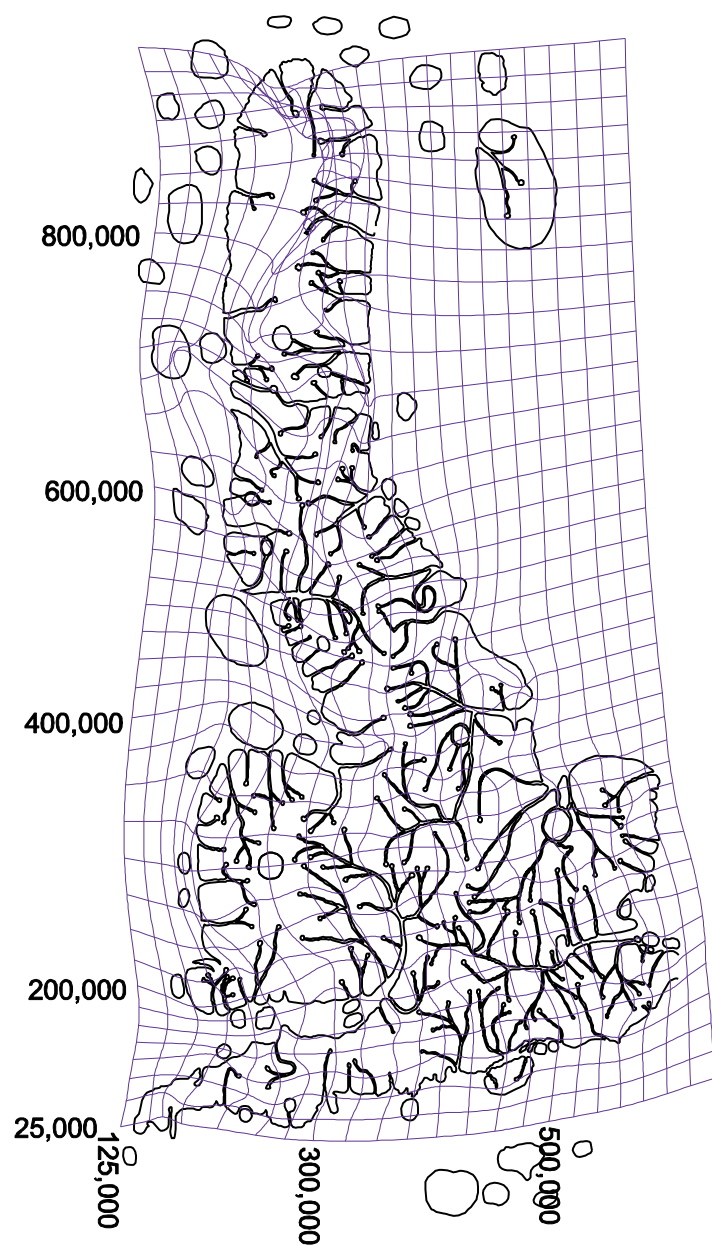Overlaying medieval Chester onto Google Earth: 'Discover medieval Chester'
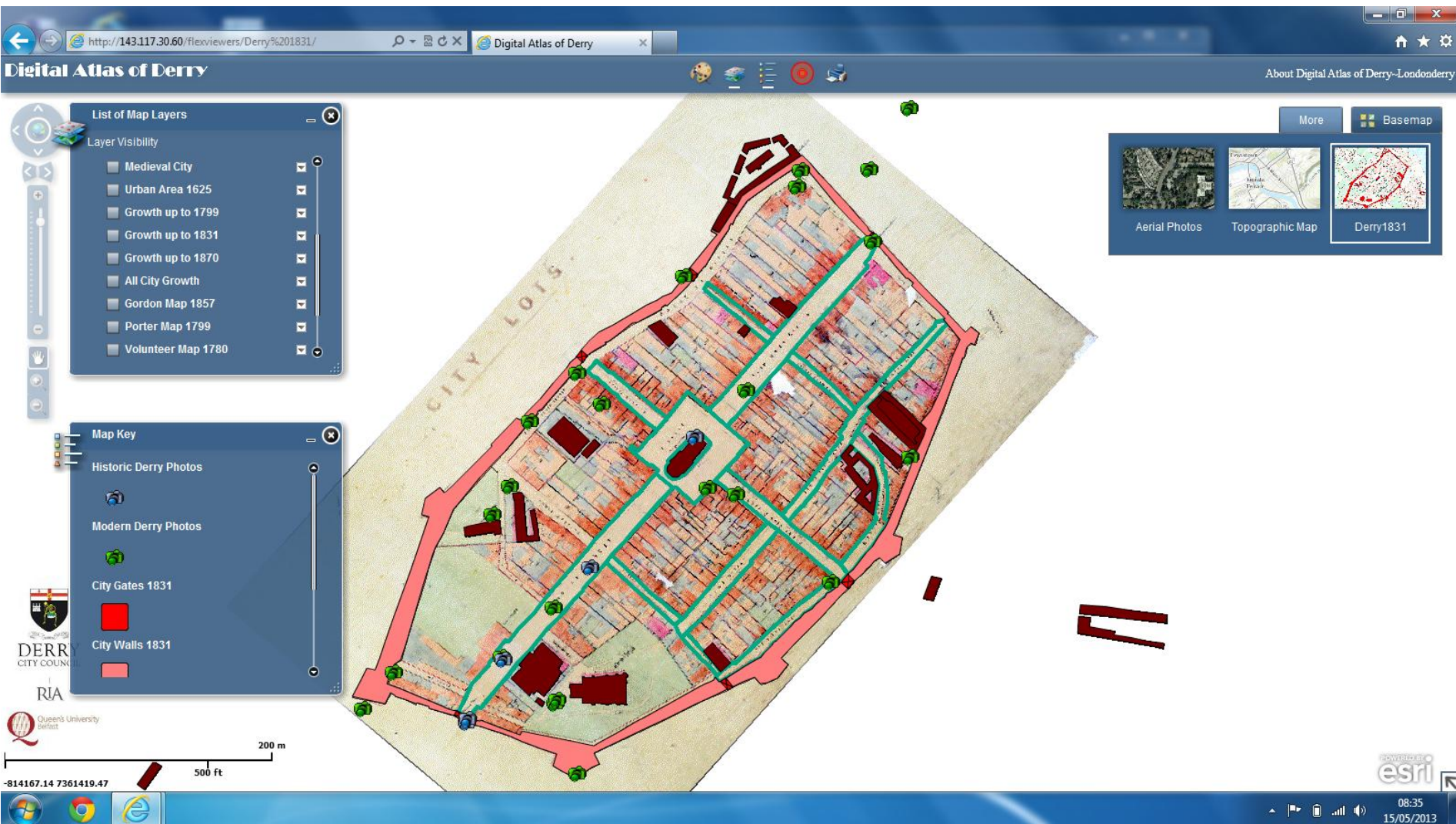
Digital Atlas of Derry/Londonderry (Northern Ireland) -
http://go.qub.ac.uk/derrycityatlas - based upon the Irish Historic Towns Atlas (IHTA).

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  - 2. Defining new research agendas through the application of spatial technologies – shaping medieval studies at a global scale…

    - Hidden histories through quantifying qualitative data

    - Comparing patterns and forms across time and space

800,000

600,000

400,000

200,000

25,000

125,000

300,000

500,000

800,000

600,000

400,000

200,000

25,000

125,000

300,000

500,000

See Lilley K D and Lloyd C D, 'Mapping the realm: a new look at the Gough Map of Britain (c.1360)', *Imago Mundi* 61(1) (2009), 1-28

Exploring the design and planning of medieval urban landscapes:
Edward I's 'new towns' and the conquest of Wales, 1277-1307
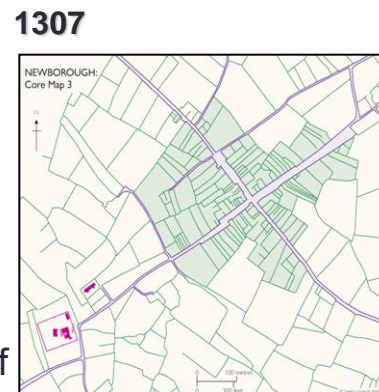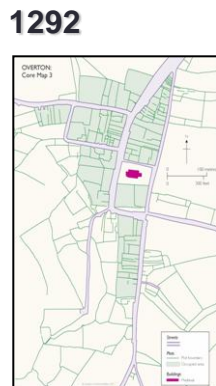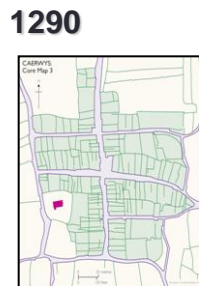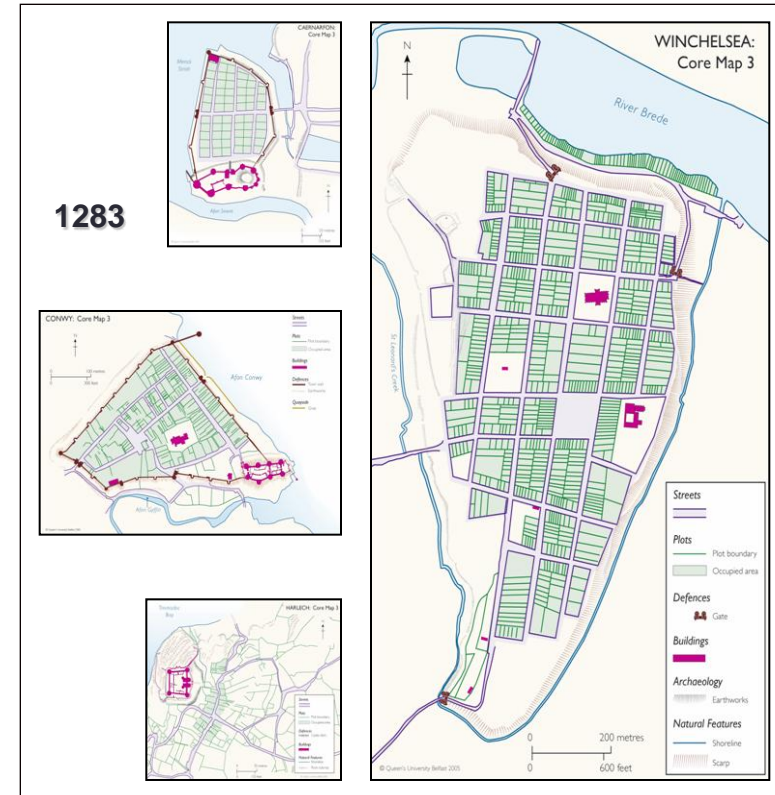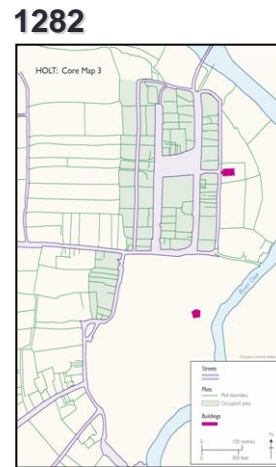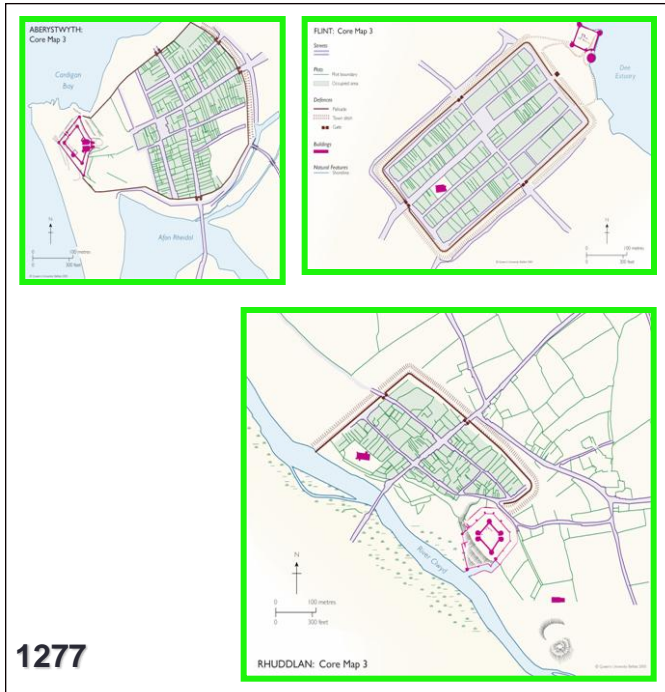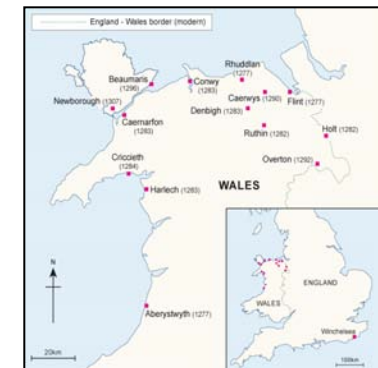
See Lilley K D, Lloyd C, and Trick S 'Designs and designers of medieval 'new towns' in Wales', *Antiquity* 81 (2007), 279-93

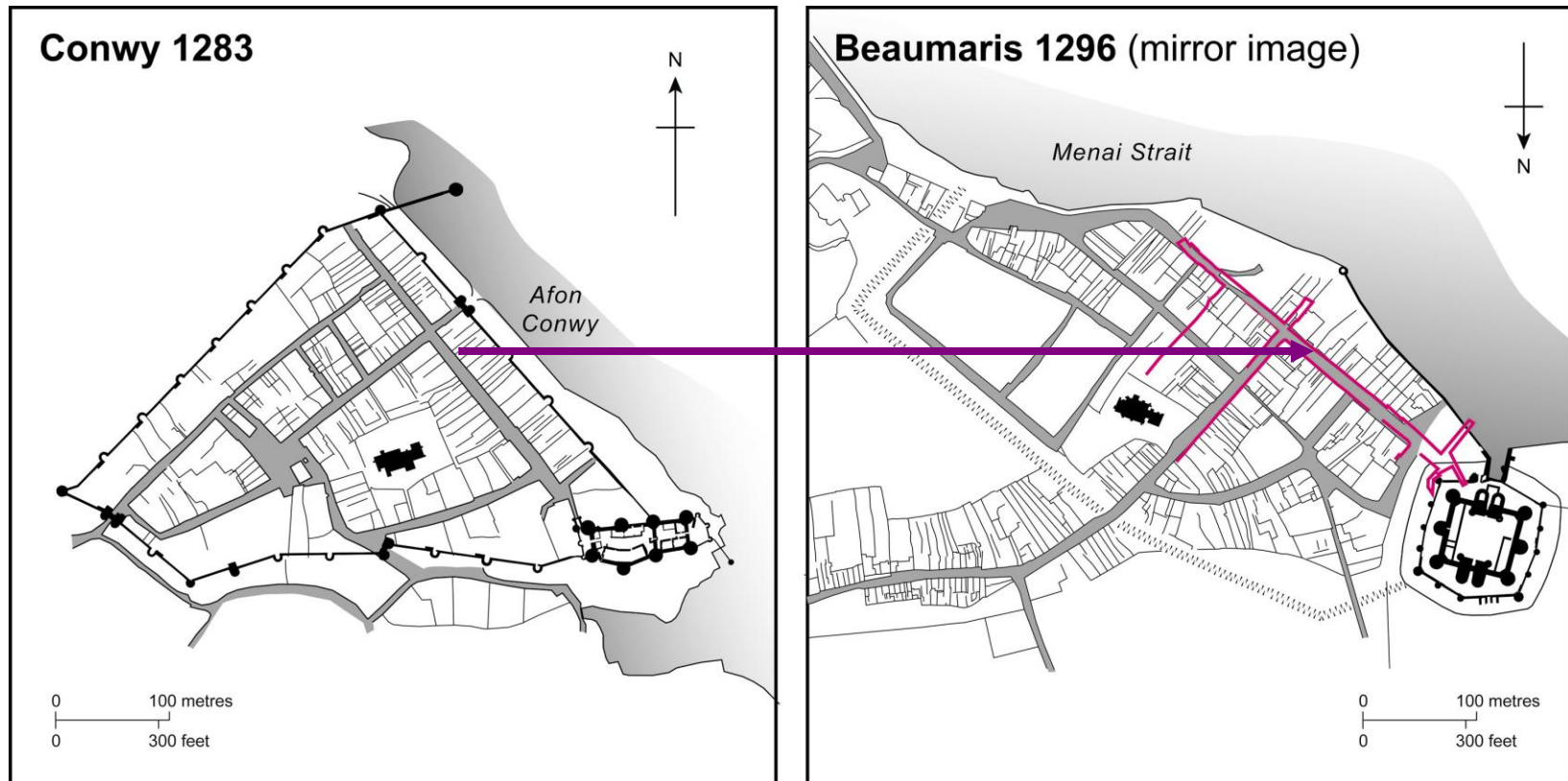# Comparing urban forms in GIS: looking for common design traits in the new towns of Beaumaris and Conwy

See Lilley K D, 'Mapping futures? Spatial technologies and the medieval city – a critical cartography', *Post-Classical Archaeologies* 2 (2012), pp.227-254

Using analytical methods to identify and quantify recurring patterns and forms in the layouts of Edward I's new towns in England and Wales:

eg were similar designs used between medieval new towns?
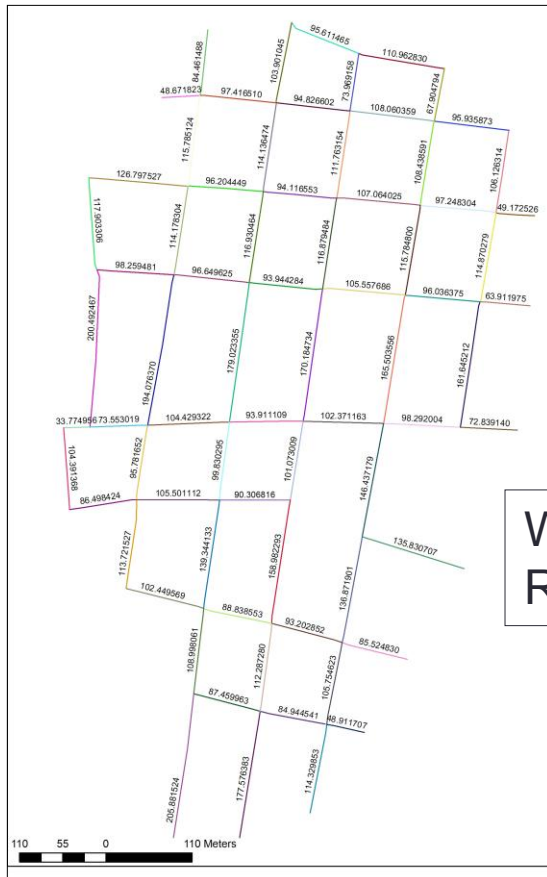
Winchelsea (1283) and Rhuddlan (1277)

Calculating angles of street-intersections using field-survey measurements (GNSS) to analyse comparative urban form.

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