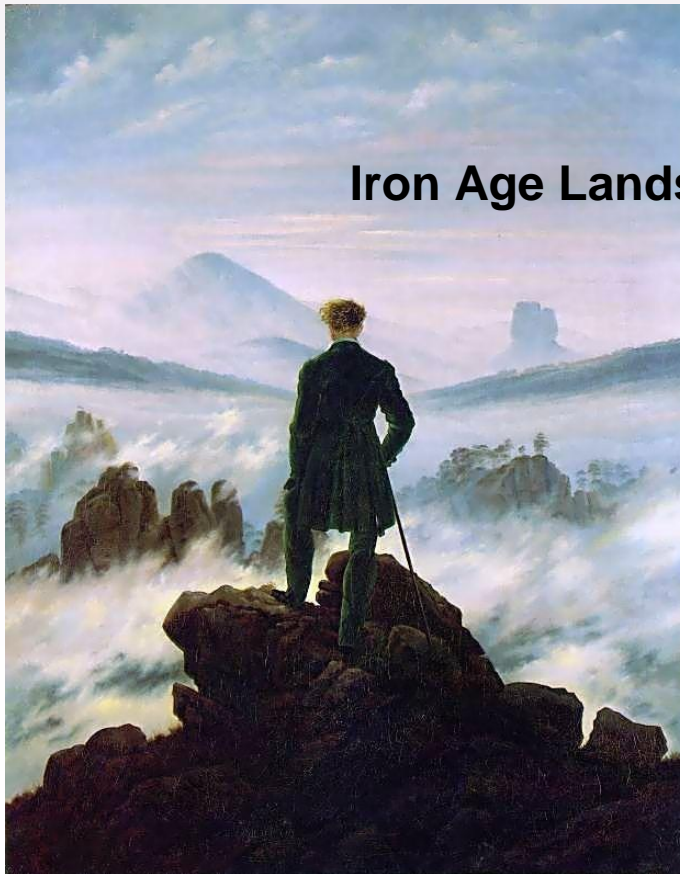


# The Social Landscapes of Iron Age Britain



**EAA 2014 – Istanbul**

**Session T04S002:**

**Iron Age Landscapes in a Comparative Perspective**

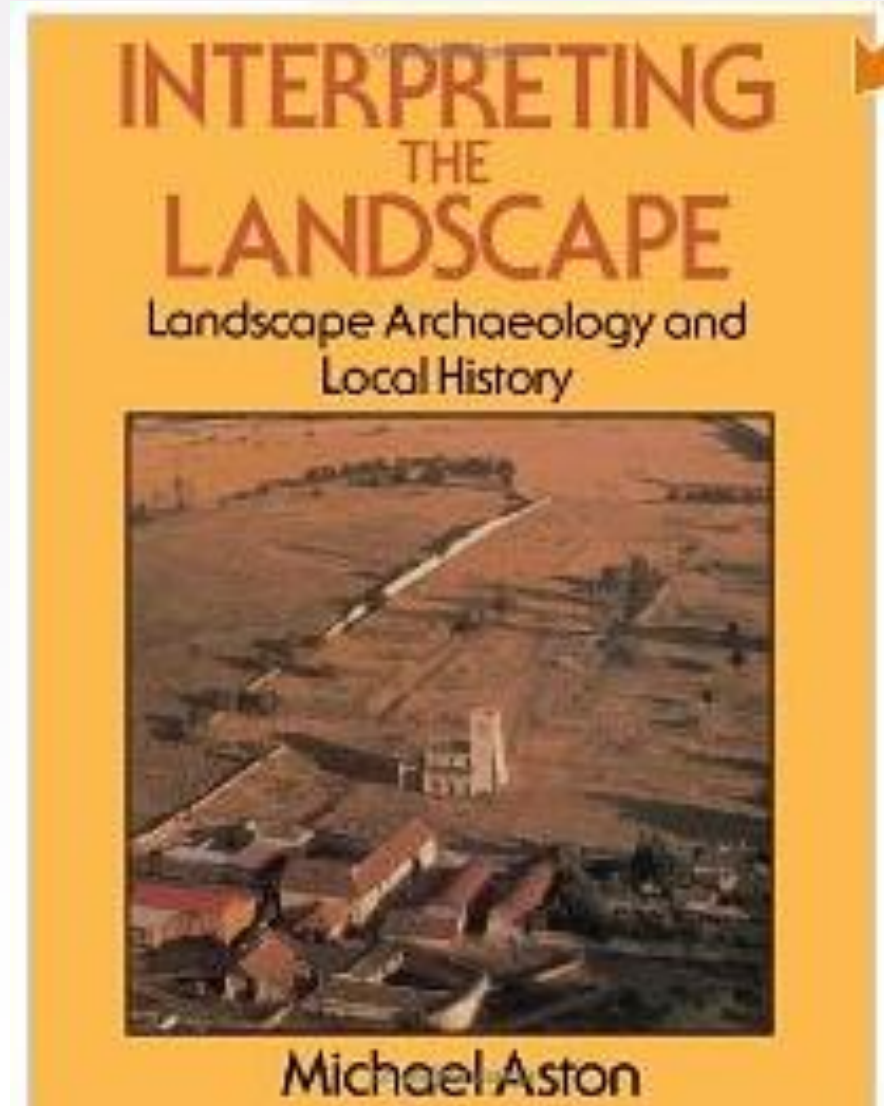
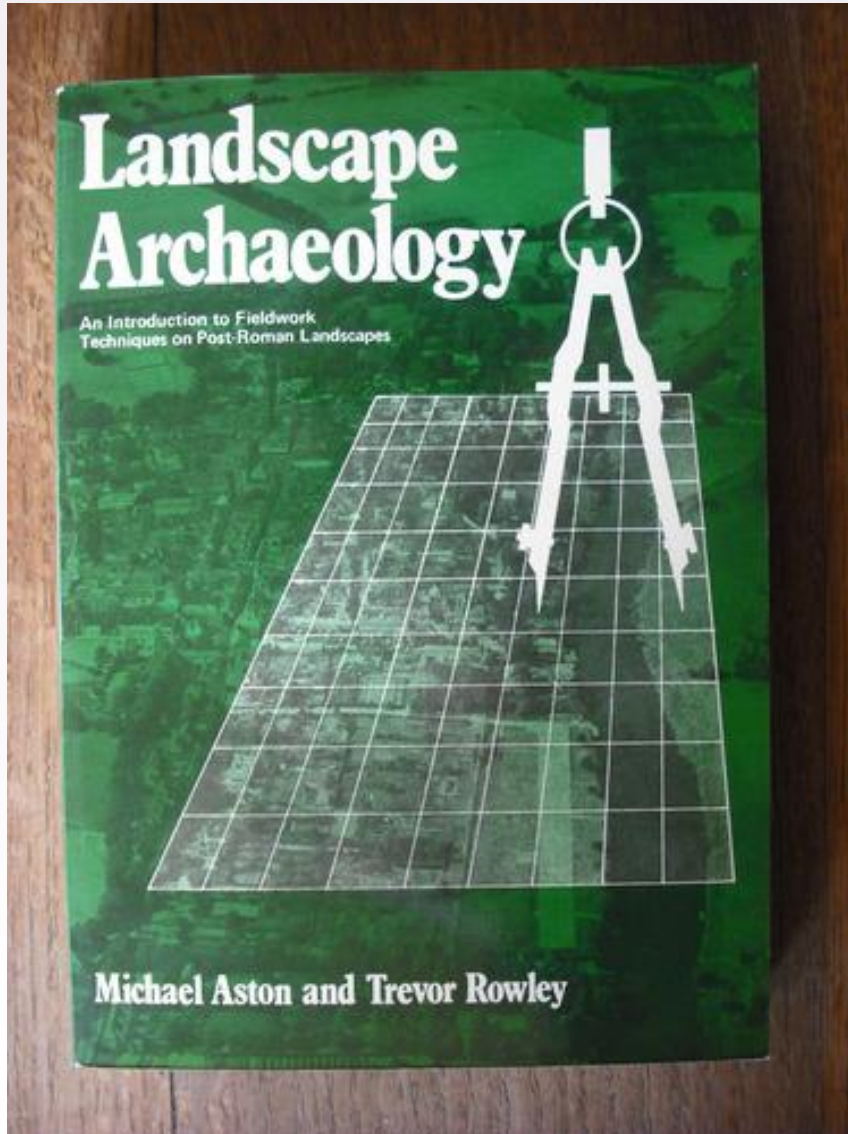
**Nicky Garland**

**University College London**



Jan van Goyen: Seascape with Windmill, 1644

## Archaeological Landscapes

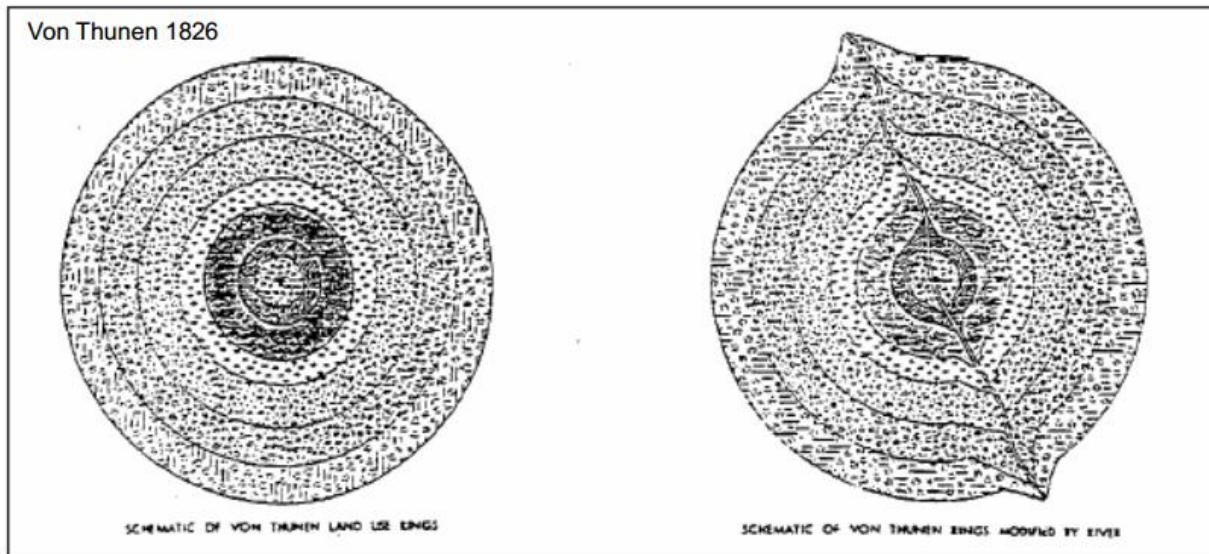
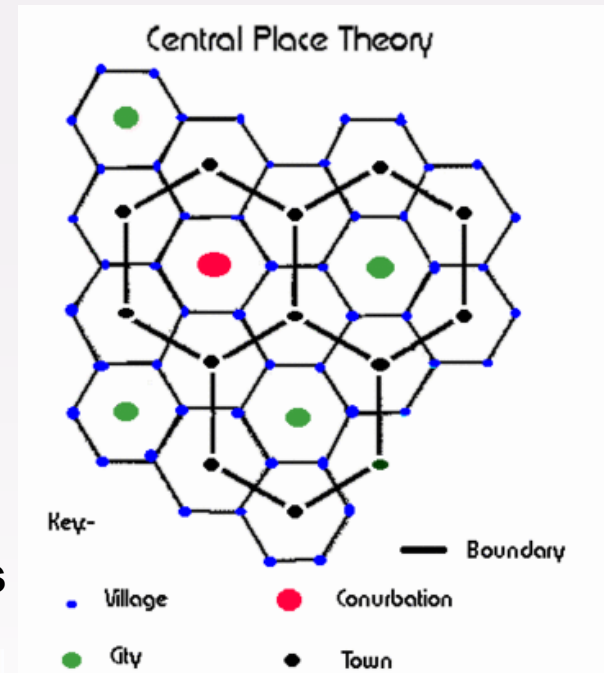


# 'New Geography'

## Christaller's Central Place Theory

Christaller, W. Die zentralen Orte in Süddeutschland. (1933)

## Von Thunen's (and others) on site catchment analysis

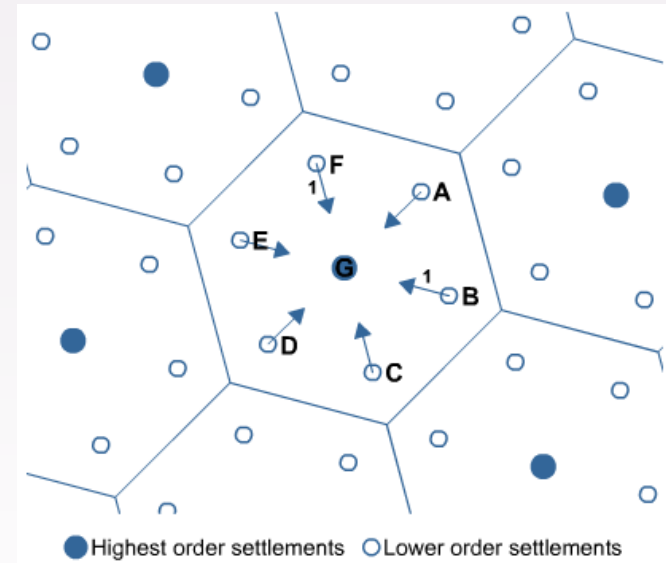


Von Thunen, J.H. Der Isolierte Staat. Oxford (1966)

# Archaeological Applications of 'New Geography'

Cunliffe, B. Hillforts and oppida in Britain.  
 In: Sieveking, G de G et al (eds). Problems in  
 economic and social archaeology (1976)

Haselgrove, C. Central places in British Iron  
 Age studies In: Grant, E. (ed)  
 Central places, archaeology and history.  
 (1986).

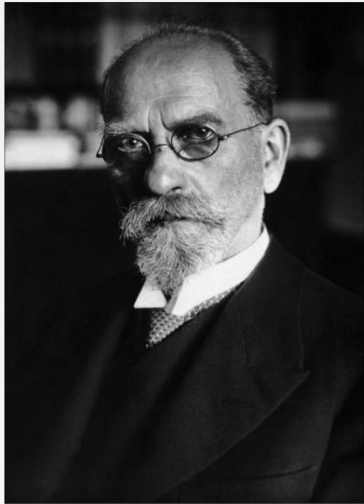


## THE NON-RANDOM SPACING OF ROMANO-BRITISH WALLED TOWNS

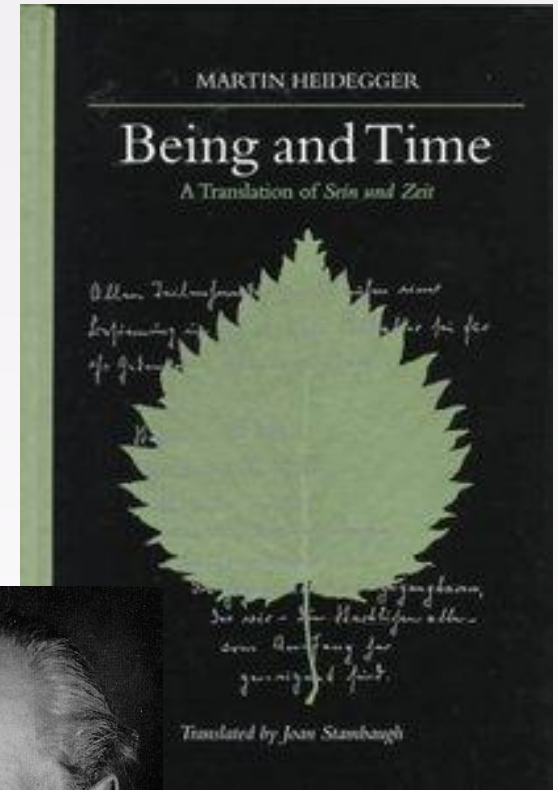
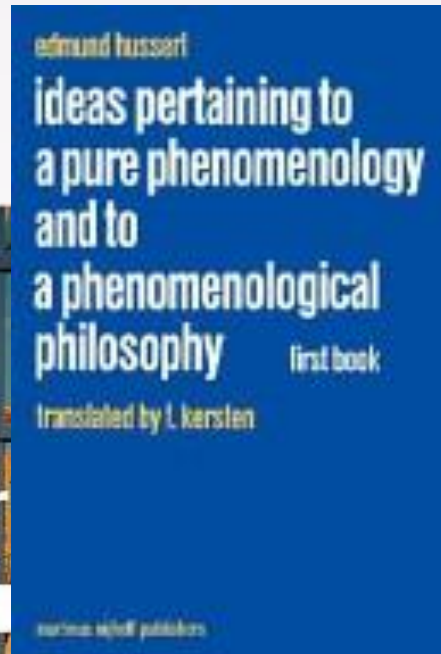
IAN HODDER & MARK HASSALL

*Institute of Archaeology, London*

# Phenomenology



Edmund  
Husserl



Martin Heidegger

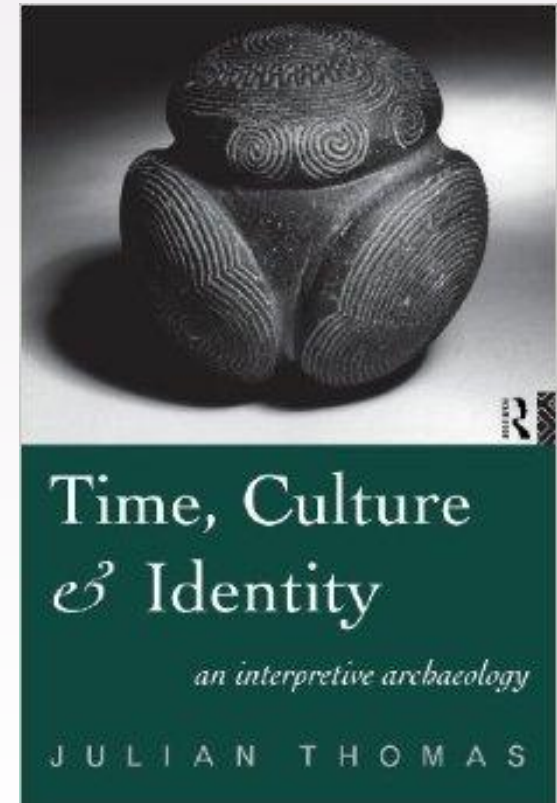
# Archaeological Phenomenology

Thomas, J. Time, Culture & Identity. Routledge (1996)



**Subject / Object**

**Nature / Culture**



Tilley, C. A Phenomenology of Landscape. Berg (1994)

# 'Social Landscapes'

## 'Landscape' – A Difficult term to define

What Landscape is not!  
 A neutral backdrop for cultural activity  
 Abstract notions of 'land', 'nature' or  
 'space'

What Landscape becomes?  
 A Human centred phenomenon  
 Lived Space

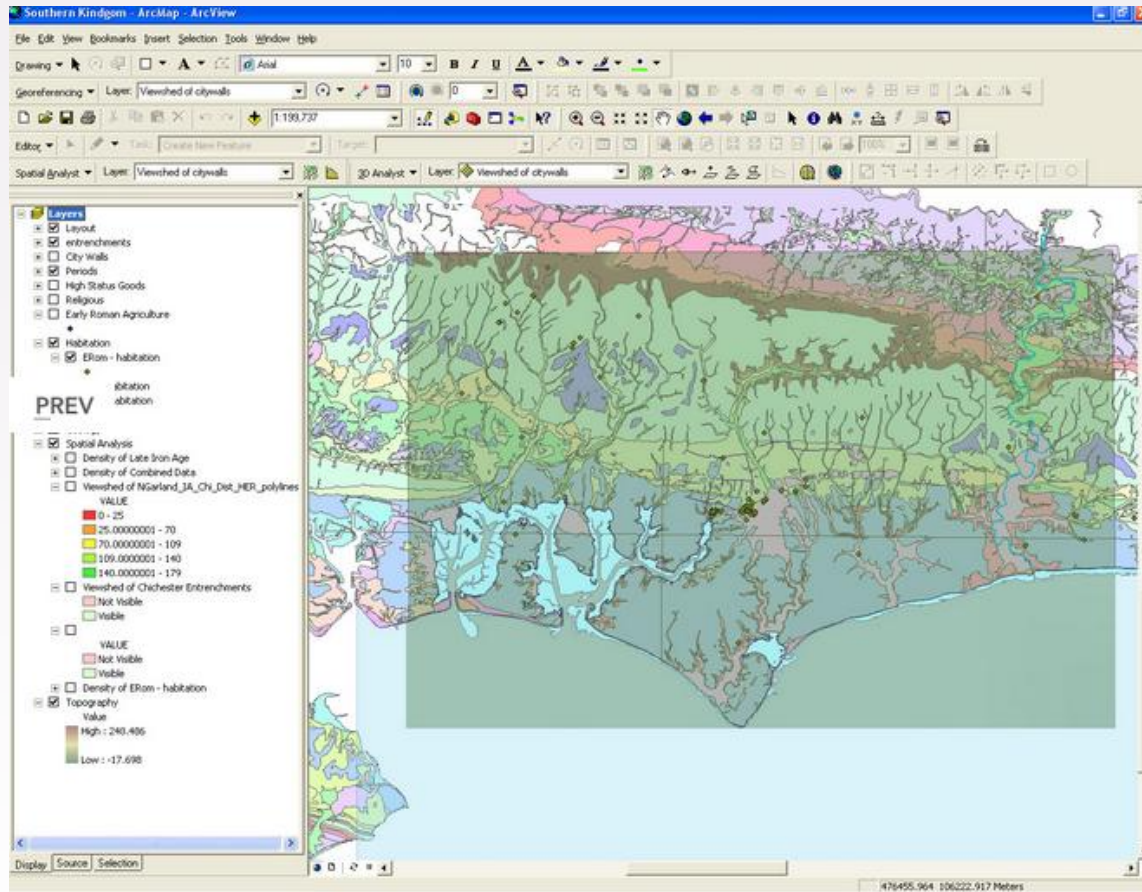


Claude Lorrain

## i.e. 'Taskscapes'

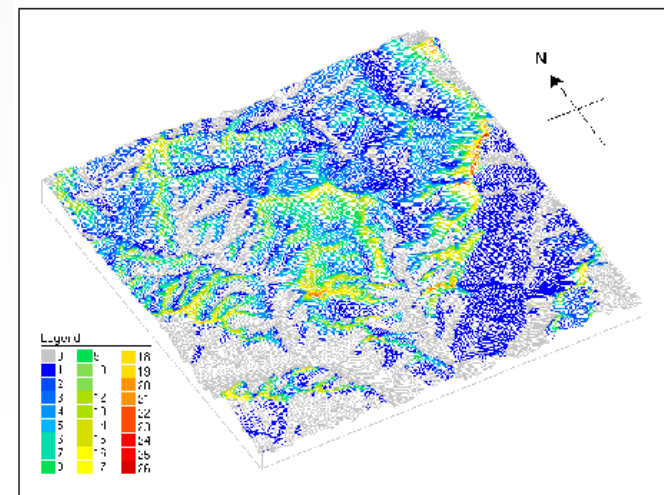
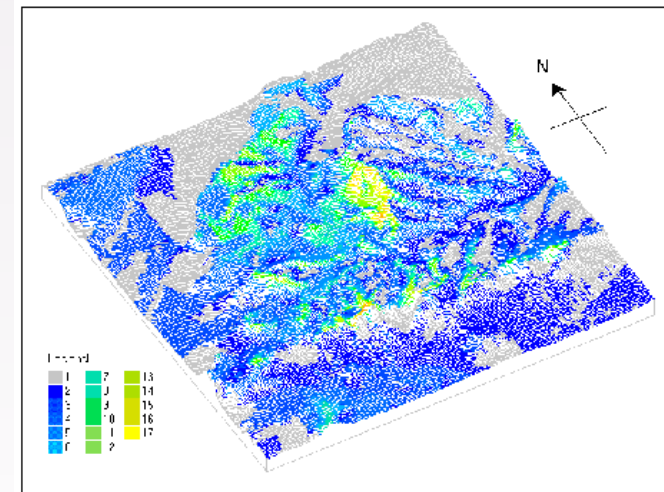


# Geographic Information Systems



Geographical Information Systems Database for Southern Kingdom

Gillings, M. Cumulative Viewshed Analysis: a GIS-based method for investigating intervisibility, and its archaeological application. In: Lock, G. and Stancic, Z. (eds.) Archaeology and GIS: A European Perspective. London: Routledge. (1995)



# Combined Spatial and Experiential Approaches

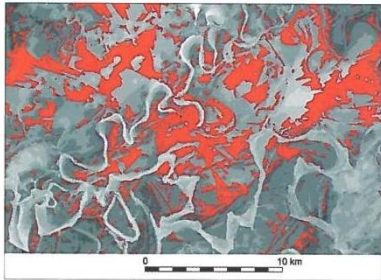


Fig. 3.8. Viewshed (red) generated from Ecsefalva 23

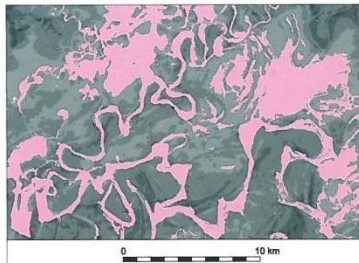


Fig. 3.11. Simulated locations of reeds (pink) and trees (red)



Fig. 3.9. Degree to which areas are visually hidden or exposed

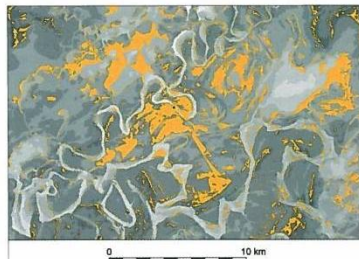


Fig. 3.12. Impact of reeds on the viewshed

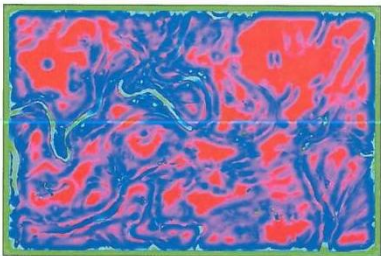


Fig. 3.10. Relative visual prominence

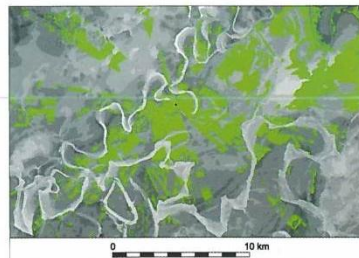


Fig. 3.13. Impact of trees on the viewshed

Gillings, M. The Ecsefalva landscape: affordance and Inhabitation. In: Whittle, A. (ed.) The Early Neolithic on the Great Hungarian Plain. Investigations of the Körös Culture Site of Ecsefalva 23, County Békés. *Varia Archaeologica Hungarica* 21. p. 31–46. (2007)

**DEAD MEN'S EYES**  
**THE USE OF AUGMENTED REALITY IN ARCHAEOLOGY**  
 STUART EVE - INSTITUTE OF ARCHAEOLOGY

One of the great challenges in archaeology is reconstructing past perception and social behaviour. Some pioneering archaeologists have attempted to explore these issues through the use of Geographic Information Systems (GIS); however, their approaches have almost exclusively been based on vision, and analysis confined to the computer laboratory (e.g. Galley et al., 1996). At the opposite end of the spectrum, other equally pioneering archaeologists have sought to explore the ancient landscape through the use of phenomenology – reconstructing their research within the landscape itself (e.g. Hamilton et al., 2006). To these scholars, computer analysis away from the landscape is anathema and fatally at variance with their objectives.

The opportunities offered by the new technology of Augmented Reality provide a way to combine the strengths of a computer-based approach (reproducibility, experimentation, computer reconstructions) with archaeological phenomenology (embodied experience in the field).

Augmented Reality allows the mixing of the virtual world with the real world, via the use of a head-mounted display or a handheld device, such as an iPad. Rights and awards can be provided to the user via the interface to enable them to see into the past and to experiment with possible reconstructions and encounters with the past, in situ.

Stuart A. Eve, 2014. UCL Institute of Archaeology, University College London. All rights reserved. This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. For more information, see http://creativecommons.org/licenses/by-nc-sa/4.0/

Real Reality

+

Virtual Reality

=

Augmented Reality

This poster has augmented content. For an example of augmented reality in action on an iPhone or Android phone please download the Jurassic app from [www.jurassic.com/uk/enr/real](http://www.jurassic.com/uk/enr/real) or scan the QR code. Once the app is installed, search for a channel called 'Dead Men's Eyes' point your phone's camera at this poster and enjoy your first visit to the augmented world.

Eve, S. Dead Men's eyes: Embodied GIS, Mixed Reality and Landscape Archaeology.. *BAR British Series* (2014)

# Case Study - Territorial Oppida

## Characteristics

- Landscape Scale
- Discontinuous linear earthworks
- Polyfocal
- Multiple functions (habitation, agriculture, ritual and industry)

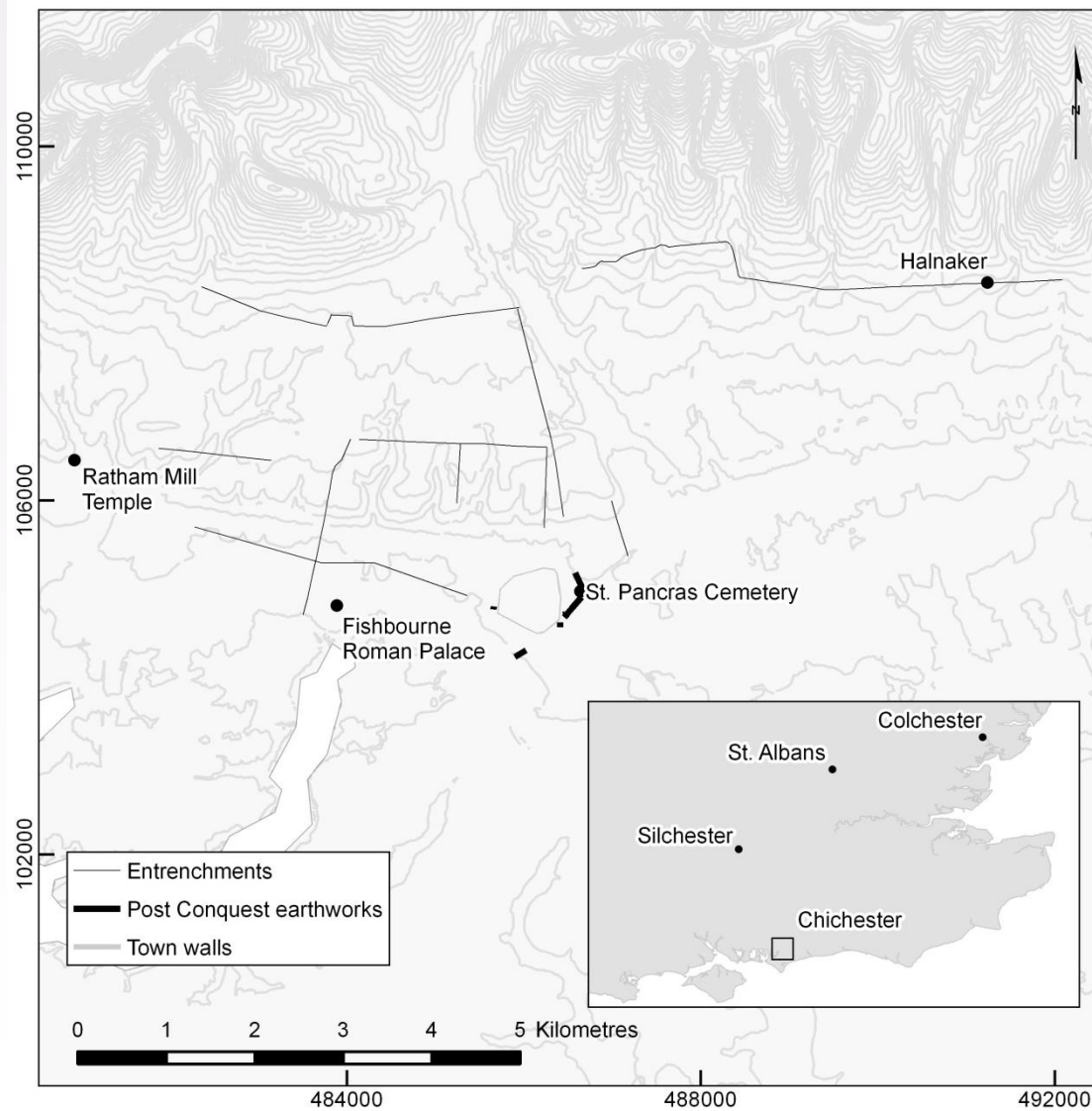
## Examples

- St Albans, Hertfordshire
- Silchester, Hampshire
- Colchester, Essex
- Chichester, West Sussex
- Bagendon, Gloucestershire? (debated)

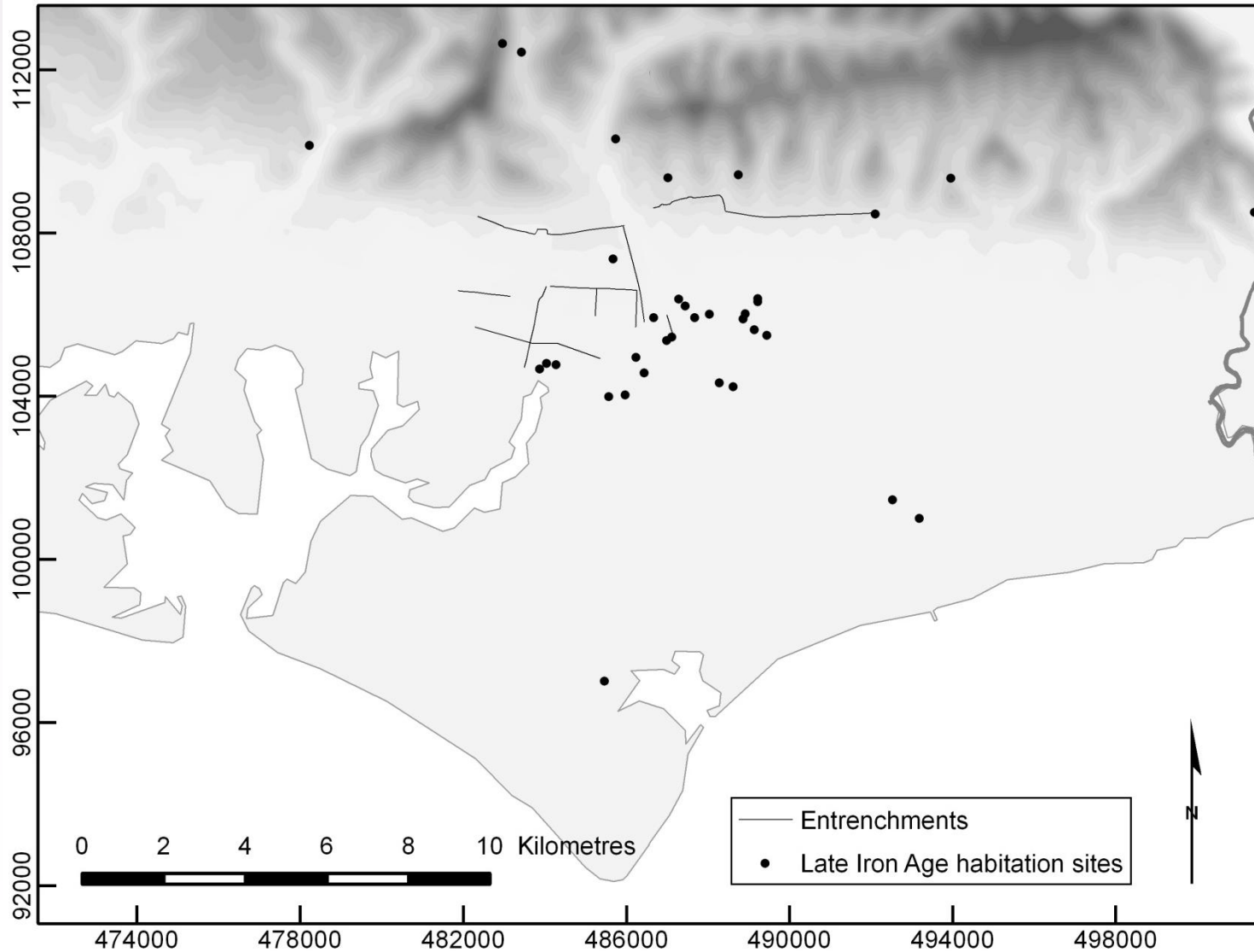


Silchester excavations

# Chichester, West Sussex



# Distribution of Settlement



# Halnaker, West Sussex 2010



## Labour estimates

$$L \times \text{Section} / CV = D$$

L = Length of ditch

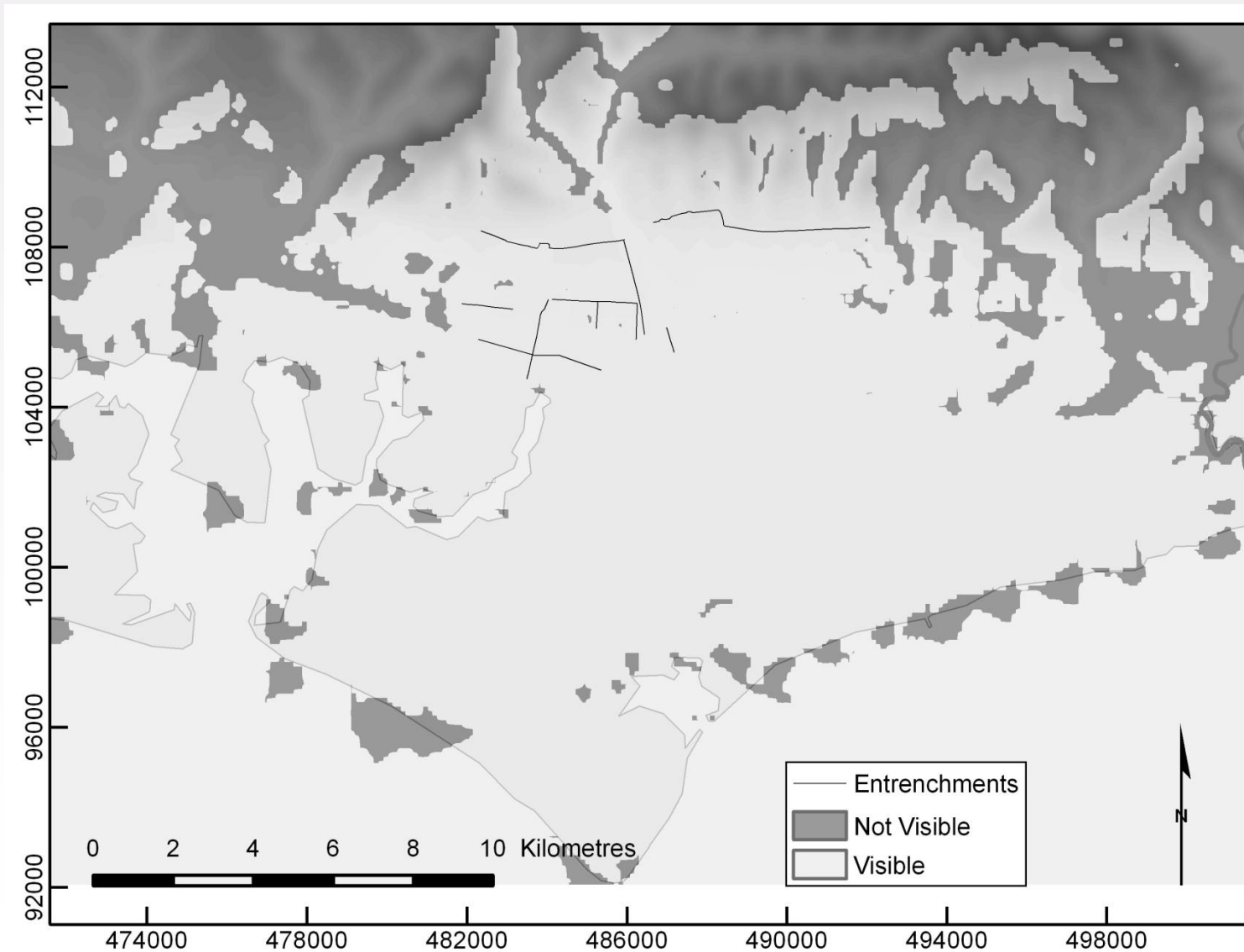
Section = Area of the section of the ditch

CV = Volume of earth (chalk) excavated by one person in one hour in cubic metres

D = Person hours

$$22,993 \times 8.102 / 0.1415 = 1,316,512 \text{ person hours}$$

# Viewshed Analysis





## Conclusions

- Combined or Holistic theoretical and methodological approach,
- Examines the social, physical and environmental aspects of Iron Age landscapes,
- Can or should be improved both along the lines of our continued understanding of experiential understandings of landscape and the ever growing abilities of technologies such as GIS.
- These techniques have been used by antiquarians for hundred of years, albeit with a much less developed understanding



# Thank You

[n.garland@ucl.ac.uk](mailto:n.garland@ucl.ac.uk)