Digging into Data: Electronic publication in Archaeology

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Beyond Books, London
22 April 2010
Background: Internet Archaeology

- First fully peer-reviewed ejournal in Archaeology
- Publishing online since 1996
- Hosted at the University of York
- Publisher: Council for British Archaeology
- International in scope
- Fully interactive:
  - Hypertext
  - Full colour images
  - Movies
  - Searchable databases
  - Interactive mapping
Internet Archaeology: business model

Now in Issue 27 - 2 volumes per year

Mixed revenue streams:
- JISC UK HEI site licence
- Institutional site licences - overseas
- Individual subscriptions and pay per article
- Open Access flexible policy e.g. Developing world
- Open Access on a per article basis in return for subvention

Content archived by ADS
Background: The Archaeology Data Service

“To support research, learning and teaching with high quality and dependable digital resources.”
The Archaeology Data Service: funding
What ADS does:

1. Digital Preservation
2. Standards and Guides to Good Practice
3. Digital Dissemination
Digital Preservation

Consultative Committee for Space Data Systems

Recommendation for Space Data System Standards

Reference Model for an Open Archival Information System (OAIS)

CCSDS 503.0-B-1
BLUE BOOK
January 2002
Standards and Good Practice

What to preserve
What metadata to record
Project planning
Rights management
Dissemination: Standard Digital Archives

“The residues left over from the publication process...”
Overview: the LEAP Project

• A project to investigate novel ways to combine the interpretive analysis of publications with the underlying archival data

• Internet Archaeology provides the electronic publishing; ADS the online archive

LEAP project: The Opportunity

Joined up e-publication and archives

Slow adoption of e-publication from the Arts & Humanities sector

Traditional paradigm can be improved upon

Potential for researchers & consumers unrealised
LEAP: Primary Aims

Investigate potential using 4 exemplars of multi-layered e-publications & e-archives
LEAP: Secondary Aims

• Provide novel and imaginative forms of dissemination

• Investigate how e-publications can be interactive, multi-layered and underpinned by supporting data

• Look at how multiple forms of dissemination can be used for different audiences

• Explore questions of linking between distributed archives and e-publications
Editorial Questions

How far do e-archives need the level of quality control required for an e-publication?

How is peer review to be deployed?

How is intellectual credit given?
nucleated villages correlates closely with that of open fields, the latter might on occasion also be worked from management of open fields might have many variants (Baker and Budin 1973).

Please select a map: Map 9 - Fieldwork

Switch Off the Interactive Map for Whittlewood

How should e-archives & e-publications be referenced?
Copyright Questions

Do the copyright issues of published material translate to archived material?
Sustainability Questions

How far are tailored interfaces capable of long-term preservation?
Culture Change

What changes will need to be made to the preparation process?
Will the community accept it?
Exemplars selected based on:

(i) academic significance,

(ii) potential of value-added by the ability to drill down from synthesis to primary data,

(iii) ability to deliver within the project timescale, and

(iv) inter-disciplinarity.
Changing Settlements and Landscapes: Medieval Whittlewood, its Predecessors and Successors

Richard Jones, Christopher Dyer and Mark Page

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Summary

This article presents an interpretative synthesis of the development of a medieval landscape in the English Midlands. It explores its administrative organisation and divisions; the exploitation of its woodland, pasture, and arable resources; and the creation, growth, and decline of its villages, hamlets and farmsteads. It takes as its central theme two interrelated oppositions: continuity and change, moments and processes. In particular it examines the role these played in the development of varying settlement morphologies (the area under investigation contains both nucleated and dispersed settlement forms) and in the introduction and demise of the open field system.

The article is based on the investigation of twenty-one medieval villages and hamlets and their surrounding landscapes, straddling the Northamptonshire-Buckinghamshire boundary and previously falling within the royal forest of Whittlewood. This work was undertaken between 2000 and 2005 as part of an AHRC (formerly ARHS)-funded research project. This enquiry, and the use it has made of the comparative method, has pinpointed moments of village and hamlet ‘creation’ and the alternative forms that these could take.
Whittlewood was adopted by some medieval communities and not others; if the distribution of nucleated villages correlated the latter might on occasion also be worked from more dispersed settlement patterns, and how the manage many variants (Baker and Butlin 1973).

Please select a map: Map 6 - Fieldwork

Switch off the Interactive Map for Whittlewood

The last bed [VIEW INTERACTIVE MAP] for the ideas which are presented here is a block of countryside 100km square in extent, straddling the county boundary between Northamptonshire and Buckinghamshire, lying deep within ‘village country’ (Lewis and Mitchell-Fox 1993). This is an area in the middle ages of both nucleated and dispersed settlement, open field farming and royal forest. Now encompassed within civil parishes, this area has been used to examine the relationship that existed between individual settlements, or groups of confederate settlements, and their arable fields, pasture, meadow and woodland [VIEW INTERACTIVE MAP]. What is offered here is not the total history

http://mapserver.ads.ahds.ac.uk - Identify Feature Query Results - Mozilla Firefox

Identify Feature Query Results:

Layer information:

Layer: Whittlewood Fieldwork
Name: Test Pits
Comments: General location of Test Pits
Source: not available
View Extent:
Type:

Downloadable data:

 NIH WHTS cellery

Selection Box Query Results:

Layer information:

Layer: Settlement
Name: Photographs
Comments: Location of photographs showing Whittlewood landscape and settlements
Source: not available
Type: point
View Extent:
Done

Downloadable data:

Wh Landscape 09.jpg 56.79 kb
Wh Landscape 01.jpg 1037.79 kb
Wh Landscape 03.jpg 721.35 kb
JOINING THE DOTS: CONTINUOUS SURVEY, ROUTINE PRACTICE AND THE INTERPRETATION OF A CYPRIOT LANDSCAPE (WITH INTERACTIVE GIS AND INTEGRATED DATA ARCHIVE)

MICHAEL GIVEN, HUGH CORLEY AND LUKE SOLLARS

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SUMMARY

Table of Contents | Subscribe to this article, or to the whole volume (issues 20-21).

One of the major challenges facing intensive surface survey, even after some 30 years of development, is how to interpret surface artefact scatters in terms of past human activities and relationships. How can we combine the wealth of systematically collected survey data with the interpretative sophistication of contemporary landscape theory? This study uses web-based GIS and database technologies to provide a complete landscape data set and a fully integrated interpretative text carefully grounded in current landscape theory.

The material comes from the Troodos Archaeological and Environmental Survey Project, which carried out intensive survey in the northern foothills of the Troodos Mountains in central Cyprus between 2000 and 2004. This survey covered all periods from the Neolithic to the present day, a wide range of topographical and environmental contexts, and a broad spectrum of disciplinary and interdisciplinary expertise. In this study we focus on some core themes, particularly the relationship between farming and mining, the control of production, and the spatial differentiation of human activity across the landscape. By interpreting the material traces of routine practices such as labour and subsistence, we attempt to reconstruct social landscapes of the past.

Preparation of this electronic publication and associated archive was assisted by a grant from the AHRC under the ICT Strategy programme.
4.2 Karkotis Valley: Iron Age

GIS - Independent Exploration

This online GIS contains a large amount of data. Please be patient while layers are loading and queries running. Do not try and send extra requests while your initial request is still loading, as this is likely to produce error messages. Your browser can only send and receive one GIS request at a time. Note that the data used within this GIS can also be downloaded for use offline from the related digital archive hosted by the Archaeology Data Service.

User Guide | Building codes | Geomorphology codes | Lithic codes | Archaeomagnetism codes | Pottery codes | Special Finds codes | Survey Unit codes | Interface help

Switch Off the Interactive Map

http://intarch.ac.uk/journal/issue204/map.cfm?footnote=1, Done
SILCHESTER ROMAN TOWN INSULA IX: THE DEVELOPMENT OF AN URBAN PROPERTY c. AD 40-50 - c. AD 250

A. Clarke, M.G. Fulford, M. Rains and K. Tootell


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SUMMARY

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Abstract

The development of an urban property in the Roman town of Calleva Atrebatum (Silchester, Hampshire, England) is traced from the late 1st to the mid-3rd century AD. Three successive periods of building with their associated finds of artefacts and biological remains are described and interpreted with provisional reconstructions of the buildings. Links are provided to a copy of the Integrated Archaeological Database (IADB), archived by the Archaeology Data Service, which holds the primary excavation and finds records.

Arts & Humanities Research Council
Preparation of this electronic publication and associated archive was assisted by a grant from the AHRC under the ICT Strategy programme.

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Period 2: Early Roman Timber Building 1

Room 1 | Room 2 | Function of the Building | Finds | Chronology

Silchester

The Silchester Project:
Roman Town Insula IX
The Development of an Urban Property
c. AD 40-50 - c. AD 250

Amanda Clarke, Professor Michael Fulford and Mike Reins, 2007

Full Record for Context Number 5393

**Context Number:** 5393

**Description:** Beam slot cut containing (5239)

**Notes:** Beam slot cut at the SE limit of the timber building containing (5339). [5393] meets with beam slot (5375) to form a right angled corner - the division of these two contexts was arbitrary. Also linked to beam slot (5396) Plan no.: 29.216, 29.219 Accuracy rating: 4 [18/04/2005 KTOOTELL]

**Composition:** Linear in plan, measuring 6m in length x 0.22m wide at the SW end and 0.62m at the NE end with a variable depth of 0.14-0.24m (mean at slope (top & base): sharp on the southern edge, gradual on the northern edge (stipped sides with a 1:4, slightly convex) baseOrienterntation: SW-NE 

Cite only | http://ads.archaeologydataservice.ac.uk/catalogue/resources.html?silchester_acclo_2007

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Occupying what became the angle between the main north-south street and the subsidiary east-west street, c1 (ERTB1) consisted of two rooms. The larger, Room 1 (Object 50043), measured c 10 by 7m, giving an internal metres, and was bounded by shallow slots (5393, 5304, 5375, 5357, 5356, 5340, 5390, 5371, 5323) filled with material associated with the inlining of the wall-structure, which, over time, replaced the voids created by the timbers. At the centre of the room was a rectangular, tiled hearth (1433), built up of horizontally laid, broken tile fragments and charcoal-rich soils (5038, 5919). At least three separate phases of use of the hearth can be identified, each as a re-patching of the floor. The associated floor surfaces of the room were composed of a gravel base overlain by charcoal-rich soils (5823, 5825, 5824, 5837, 5926, 6014, 6024, 5921, 5956, 5996) and opus signinum (5831). These floor surfa
THE LANDSCAPES OF ISLAMIC MERV, TURKMENISTAN: WHERE TO DRAW THE LINE?

TIM WILLIAMS

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SUMMARY

This article outlines approaches for interpreting the Islamic city of Sultan Kaia (Merv), c. 8th-13th centuries AD, based upon aerial photographic and satellite imagery. Hierarchies of assumptions (identification of individual wall lines, which frame spaces, rooms and courtyards, which are grouped as parts of specific buildings; which are part of urban blocks) and ontologies (information about these assumptions and the variable confidence of interpretation, from the position of lines to spatial function) provide a dynamic structure for the presentation of data, interpretation and theory.

The article establishes procedures and protocols within two sample areas (selected to represent the diverse features of the urban and suburban landscapes) to:

- Explore the theory and methodology of documenting interpretation (and uncertainty) in the transcription of aerial photographic and satellite imagery
- Develop ontological approaches to structuring interpretations and assumptions, within a hermeneutic model.
- Provide a textual and graphic narrative of the development of the areas.
- Establish an online forum (weblog) to contribute to the long-term project.
- Explore the use of other forms of electronic archive material, in particular, how imagery and audio files can be used to develop the discussion of landscapes and buildings.

Preparation of this electronic publication and associated artwork was assisted by a grant from the AHRC under the ICT Strategy programme.

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FEATURES

- This article will appeal to those interested in the presentation of data, interpretation and theory
- Keywords: Merv, Silk Route, Turkmennistan; interpretation; uncertainty, aerial photographs; satellite
3. A short introduction to the city of Sultan Kala

With the coming of Islam, in the 7th century AD, Merv became the capital of Khurasan, an overview of the history see Kennedy 1999; Williams forthcoming). In the 740s the area became the capital of the new empire, Merv's sultanate of Khurasan, from east of the Great Desert to the frontiers of India. In the same decade Muslim, commissioned a mosque to be built alongside the Madjan Canal, which flowed west of the old city of Gyaur Kala. Thus began the new city of Merv al-Shahijan (Sultan Kala) (Fig. 7 - opens GIS). It is tempting to see the mosque as part of the plan for the new city, and by the 9th century it lay at the centre of a thriving metropolis. The city was systematized and a carefully managed water supply with numerous canals and reservoirs (forthcoming). It seems likely that the new status of Merv, coupled with new ideas and needs for public spaces, buildings, infrastructure and – perhaps most importantly – an economy driven by foreign trade, led to the deliberate creation of a new town. Sultan Kala represents an outstanding opportunity to explore the urban development at a formative period in the development of Islamic urbanism.

Sultan Kala continued to expand and develop through the Seljuk period (11th to 12th centuries) with walled suburbs to the north and additional 210 hectares: at this time Merv was one of the largest cities in the world. A landscape of dense urban occupation on either side of the Madjan Canal, with numerous structures, interspersed within the tightly packed houses, mark the locations of some proliferated, minarets punctuated the skyline, while substantial caravanserais were the west. There was a large industrial quarter in the western suburbs, mainly producing demand along the trade routes. In the 12th century a walled citadel (Shahriyar Ark) v comprised administrative buildings and high-quality residences.

Figure 34 (GIS): A pre-11th century AD western boundary to the city? The line of the possible early city boundary, running at a slight diagonal (NNW-SSE) to the street pattern. To the south of the main east-west street, diagonal streets suggest a possible southern gateway into the early city. (Background IKONOS image).
The Future...

Making the LEAP II: a Transatlantic LEAP

- **Exemplar 1**: The Shala Valley Project, Northern Albania - Michael L. Galaty (Millsaps College, Jackson, MS), Wayne E. Lee (University of North Carolina) and Charles Watkinson (American School of Classical Studies at Athens, Princeton)
- **Exemplar 2**: Placing immateriality: situating the material of highland Chiriquí, Panamá - Karen Holmberg (Columbia University)
- **Exemplar 3**: The BTC Pipeline Archaeological Excavations in Azerbaijan - Paul Taylor (Smithsonian Museum) and David Maynard (Landsker Archaeology)
- **Exemplar 4**: Strategies for developing a next-generation virtual museum using close range scanning - Fred Limp (University of Arkansas)
Shala Valley Project

3. The Natural and Social Settings

The initial social-political system can be described as follows (Fig. 15). Large extended households (xyhia) organized into neo-mesolithic share part descent from a common topladic ancestor. Through formalization segments class of 'tribes' (communes) (see Pechansky 2003) for a thorough discussion of the term "tribe" and its meaning. Individuals may be better known in their communities. Several neighborhoods and the larger community comprise a single village (village). Political power in a wider family, patrilineal, the zotjaks. Family heads are appointed or elected to a village council, a khan, that makes decisions on the community. A single council member is elected headman or headmen. In Ottoman times, several villages and up to a hundred 'tribes', or 'tribes', may have the same name. The khan is a political figure of the early 20th century. Radom Shlejmen (also known as the 15th century), a nobleman, a banner chief. Novo-suvanov, a great warlord, or gospodars, against the Ottomans. The Khan is based on the concept of honour (sufi). Any breach of these rules might precipitate a blood feud (sukavon).

Author Comment:

In this article, we define 'tribe' as the traditional anthropological sense of a lineage-based settlement or a tribe. The term is, however, not without its detractors. We would welcome discussion from readers regarding its utility.

Michael Galaty
11-JUL-2010 at 23:30

Shala Valley Project

Michael L. Galaty, Ols Lefke, Zamir Tafillca, Charles Watkinson, Wayne E. Lee, Mentor Mustafa, Robert Schon & Antonia Young, 2009

Introduction

The Shala Valley Project (SVP) is an Albanian-American collaboration, led by Michael Galaty of Millsaps College in Jackson, MS and Albanian archaeologist Ols Lefke of the Albanian Ministry of Tourism, Culture, Youth and Sports and Zamir Tafillca of the Skhirtara Historical Museum. The project was launched in 2004 and conducted fieldwork during the summers of 2005-2008. The SVP integrates interdisciplinary programs of intensive and extensive archaeological survey and excavation with geo-scientific, ethnographic, and ethno-historical studies, including archival and historical research, in order to study the Shala Valley ("tribe"), one of many northern Albanian "tribe" that survived intact into the 20th century and, to a certain extent, down to the present day. The goals of the project are twofold:

- to produce a diachronic record of the valley's cultural resources, including both prehistoric and historic resources, that might help local administrators create a viable management plan
- to study the effects of "isolation" on people who have always lived in a frontier zone at the edges of larger polities such as the Ottoman Empire and Albanian nation state

This digital archive was undertaken in conjunction with an electronic publication through the Linking Electronic Archives and Publications II (LEAP II) project, funded by the Mellon Foundation. The corresponding article is "Fort, Tower, or House? Building a Landscape of Settlement in the Shala Valley of High Albania" by Michael L. Galaty, Wayne E. Lee, Charles Watkinson, Zamir Tafillca & Ols Lefke, which can be found in Internet Archaeology 27.

If you have any comments on the contents of this archive please address them to the depositor.

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Making the LEAP: linking e-archives and e-publications

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