# THEORETICAL ARCHAEOLOGY GROUP CONFERENCE 2015

**University of Bradford**

# Abstracts of sessions and papers

**Contents**

## ARTIST AND ARCHAEOLOGIST / ARTIST ARCHAEOLOGIST / ARCHAEOLOGIST ARTIST

**Session organiser: Kate JOHNSON (University of Bradford)**

Building on recent TAG sessions exploring the interplay between art and archaeology ['Between the Arts and Archaeological Interpretation' (2014) and 'Archaeology with Art: Space, Context, Fabrication, Gesture (2013)], this session seeks to explore the complexities involved when artists and archaeologists collaborate on a specific project.  Artists have long been inspired by the form of archaeological remains but more recently artists have been finding conceptual stimuli and synergies in the research archaeologists undertake, fuelling innovative art pieces. What are the concepts, technologies and artefacts which contemporary artists are responding to and why?  What processes are involved when artist[s] and archaeologist[s] work together?  Can collaborative projects benefit both parties? Are the expectations of archaeologists and artists difficult to reconcile, for example, are archaeologists expecting their research or findings to be 'illustrated' and if so, is this crippling to the artist? How can an artist meet the funding requirements of the archaeologist researcher and yet ensure that their work remains true to their own creative vision and relevant for their own time?  To what extent can an archaeologist artist/artist archaeologist address these issues?  These are some of the questions to be explored in a session welcoming representatives from artist and archaeologist project partnerships or from archaeologist artists / artist archaeologists.


**Creation, destruction and transformation: 'Project code-named Humpty'**

Kate JOHNSON (University of Bradford)

This paper presents 'Project code-named Humpty'; a sculptural narrative performance piece currently under development in association with Arts and Humanities Research Council funded Digital Transformations: 'Fragmented Heritage' project at the University of Bradford. Concerned with time and the cycle of creation, destruction and transformation, the paper explores how 'Project code-named Humpty' fits into a wider contextual framework in the disciplines of art and archaeology, most particularly recent conversations concerning the deliberate fragmentation of artefacts. The project seeks to entwine artist and archaeologist in a creative arena with a view to provoking public reflection on our humanity whilst educating on contemporary archaeological processes.

Several questions emerge. Can an artwork ever be finished? How does culture impact upon the interpretation of images and narratives? What is the value of a broken work in today's art market? How does the choice of site for performance impact upon interpretation of the piece? To what extent can an art piece preserve its integrity to the satisfaction of the artist whilst accommodating the archaeological research incentives funding it.

**Artist and archaeologist: The Moel y Gaer Project**

Stefan GANT (University of Northampton)

The paper will speculatively question session topics through a joint presentation on the Moel y Gaer project, 2014 to date.

Fieldwork activity of artists, Stefan Gant and Simon Callery will be introduced alongside emergent dialogues with the excavation of an Iron Age site in Bodfari, North Wales, co-directed by Professor Gary Lock, Institute of Archaeology, University of Oxford.

The project has acted as a generator for contemporary drawing (Gant) and painting (Callery). The paper will employ perspectives on: What are the concepts, technologies and artefacts which contemporary artists are responding to and why; what processes are involved when artists and archaeologists work together; can collaborative projects benefit both parties?

Gant, influenced by mapping processes utilised by archaeologists will present expanded notions of drawing through sound and new media artworks nurtured via haptic, sensory and digital enquiries of ground surfaces. *Sonic Stratigraphy* (Gant 2015) will be discussed, including work in progress.  On the behalf of Callery, Gant will include examples of the artist's work, extracts of video documentary and statement to expand dialogue.

Professor Lock will confer session topics and address the question: If archaeologists work within a long established set of practices and aesthetics, how does working with artists challenge those accepted norms through the introduction of different ways of seeing and understanding?

The aim is to reveal and gain a deeper understanding of the current activity and assess the impact of the project to date.

**Imaging time in the fine art/archaeology interface**

Carmen MILLS (Aberystwyth University)

Using rock as a metaphor for compressed time, my first MA exhibition consisted of three pieces of work showing the progress in my thinking as I took rock, and references to Welsh slate, as my starting point.  This was "work on paper and canvas, drawing on resonances from the disciplines of archaeology, geology and cosmology that concentrate on the idea of 'flow'."

For my second MA exhibition I focused in on mark-making that specifically related to time as a concept.  I exhibited only one piece, a work made up of twenty four wood panels with the title 'Augustine's Clock'.  By this time, my attention was on the simplest mark, the pared down symbolism of the vertical line, a way of marking the passing of time that has been in use since the earliest days of human existence.

How will my PhD investigations impact on the way in which we work across the art/science divide?  Is there scope for working with ideas that emerge from the Fine Art / Archaeology interface, for both archaeologists and artists?  How will the pursuit of the archaeological imagination impact on the image that prehistory in particular has in the public consciousness?  Is it possible to make a useful contribution to an understanding of archaeological sites through Fine Art practice?

These are the questions I intend to pose as I enter the debate about Archaeology and Fine Art, from the point of view of a Fine Artist.

**The Pallasboy Project**

Benjamin GEAREY and Brian MACDOMHNAILL (University College, Cork, Ireland)

The Pallasboy Project aims to explore craft and creativity and the connections between past and present, by practical experiment, using the skills of contemporary master woodworker Mark Griffiths to carve a replica of the 'Pallasboy Vessel'. Mark, who has experience in re-making historical artefacts, carried out the work at UCC using hand tools, comparing replica Iron Age tools and contemporary equivalents. Brian Mac Domhnaill recorded this work, focusing on the visual, aural and textural details of both object and process. Also of interest was the incidental and previously unrecorded aesthetics and associated effect of the crafting process, both for the maker and observers. The documentation strategy was to be thorough and functional, with scope for development throughout the project, responding to processes of interest. In keeping with the practice of the project artist, the resulting archive of photographs and video footage will be scrutinised, edited and distilled into independently valid artistic output that will serve to engage the general public on an aesthetic and experiential level.

**The Maker's Mind: a perfect circularity**

Helen MARTON (Falmouth University)

Underpinning my own interdisciplinary practice and reiterated in my teaching, is the reassuringly recursive creative cycle. Approaching this subject from a pedagogic perspective, it becomes clear that the creative process encourages problem solving and fosters divergent ways of thinking. It can encourage the combination of materials through experimentation, the construction of new ways of seeing and of progressive material exploration. Learning about materials and processes are central and considered to be vital in developing an ability to manifest ideas, however a focus upon the purely technical or research alone, can lead to a diminished and inadequate view. As a maker and practice led researcher, I aim to foster a degree of control and familiarity with these core principles of making, however in addition I conceptualise, contextualise, develop designs and reflect both in and on my actions.

I examine how this process might be applied when reinterpreting objects and fragments from Prehistory. By focusing upon a site inhabited for over 5000 years, now the home of Cornwall's combined universities, I borrow and abstract meaning from ancient fragments in order to create contemporary indicators. Using traditional and digital technologies, I reinterpret notions of 'the domestic' in archaeology.

**Crafting contemporary heritage: perception, performance and thinking with greenwood**

Mike GROVES (UCL)

This discussion draws on the experiences of woodcarving in London throughout the last eighteen months and offers an insight into craft that is lived, as opposed to constituting an abstract, disembodied category of objects, techniques and people. With anthropological

approaches to design and materiality, we will explore how social constructs such as 'heritage' form as by-products of making.

Drawing on Gell (1999), Ingold (2000; 2012; 2013) and Sansi (2014) we will attempt to deconstruct categories of both practice and interpretation. In practice we, as craftsmen, are defined and categorized by skills and knowledge, and it is up to those who acquire, circulate and study material culture to interpret our wares how they will. In this light I will become your informant; offering explanations into the technologies and artefacts I am inspired by.

By exploring body technique, phenomenological approaches to making and the things we surround ourselves with, we will see that 'heritage' and 'innovation' arise a different sides of the same coin – as dynamic, reflexive interpretations of the materials of thought. This is mirrored by the blurring of distinctions between art and archaeology, everyday life and anthropology, perception and performance.

Using the work of Norwegian photographer Anders Beer Wilse as an analogy we shall see that, with time, artists like Wilse indirectly become the anthropologists of their day; capturing moments in culture as it duly unfolds. The past is unfixed and highly dependent on how we think with it and, by this merit, so is heritage. My own work explores this every time I pick up my tools.

Gell, A. (1999) *The art of anthropology.* London: The Athlone Press.

Ingold, T. (2013) *Making: anthropology, archaeology, art and architecture*. London: Routledge.

* (2012) No more ancient; no more human: The future past of archaeology and anthropology. In Shankland, D. *et al. Archaeology and anthropology. Past, present and future*. London: Berg, 77 – 89.

* (2000) *The perception of the environment: essays in livelihood, dwelling and skill*. London: Routledge.

Sansi, R. (2015) *Art, anthropology and the gift*. London: Bloomsbury Academic.


**Art as data: Studying corpses by drawing them**

Sian MUI (University of Durham)

Artists' reconstructions of graves and funeral scenes are widely used in museum and heritage centres as well as academic presentations and publications. While such artworks are readily employed to support the presentation of archaeological information, their analytical and interpretive capacities are often overlooked. This paper addresses the potentials of treating art as data, drawing examples from my current research on corpse positioning in early Anglo-Saxon England. Over 2000 skeletons are reimagined and drawn as corpses. Every single drawing of a body is effectively a piece of artwork, which requires a creative interpretation of the grave plan informed by taphonomic and anatomical knowledge. By envisioning the body fleshed, this process of artistic rendering addresses a multiplicity of information about the grave, including the weight of the body, clothing, the visuality of the grave, the logistics of positioning the corpse, and the emotive implications of the funeral. Drawings can be combined, compared, and contrasted to assess patterns and change in funerary practices. Meanwhile, each drawing is ultimately an interpretation, with

its own temperament and influenced by the style of the original plan as well as the reconstruction artist's state of mind. Finally, addressing the definitions of data and art, this paper entertains thoughts on the innovative use of art in contributing to archaeological research.

## A MOTION FOR DEBATE: 'THIS HOUSE BELIEVES THAT ARCHAEOLOGICAL RESOURCES ARE NOT FINITE, AND ARE RENEWABLE'

**Session organiser: Sarah MAY (UCL Institute of Archaeology)**

Most UK heritage policy and much ethical deliberation is based on the notion that archaeological resources are finite and non-renewable. However, recent understandings of archaeology as a constructive discipline call this certainty into question (eg Holtorf 2001). While individual artefacts can be damaged, transformed or even destroyed - these events may also add to the significance of places that archaeologists are interested in. Should we continue to direct our ethical concern to 'saving' a diminishing resource, or can we promote the use and celebration of that resource without seeing it as endangered (May 2009).

Holtorf, C. (2001) Is the past a non-renewable resource? in Layton, R., Stone, P. and Thomas, J. (eds) *Destruction and conservation of cultural property.* Routledge, 286-297.

May, S. (2009) Then Tyger Fierce took life away: The contemporary material culture of tigers. In Holtorf, C. and Piccini, A. (eds) *Contemporary archaeologies: excavating now.* Peter Lang, 65-80.

Speaker for the motion (Cornelius HOLTORF)

Speaker against the motion (Mike NEVELL)

Debate from the floor

Summary by the Speaker of the House (Paul BELFORD)

Second speaker for the motion (Sarah MAY)

Debate from the floor

Second speaker against the motion (Harald FREDHEIM)

Rebuttal by the first speaker for the motion (Cornelius HOLTORF)

The house will divide

# POLITICAL AGENDAS AND SPONSORSHIP IN ARCHAEOLOGY

**Session organisers: Emily HANSCAM, Floor HUISMAN, Michelle de GRUCHY, Ed CASWELL and Côme PONROY (University of Durham)**

Research Question:  What constitutes an appropriate and positive political engagement in archaeology?

As archaeological research moved beyond a leisure activity for the upper class, the discipline became dependent on external funding. Simultaneously, external political and legal developments expanded the remit of archaeology from generating narratives about the past to empowering minorities, combating ethnic disenfranchisement, and engaging in certain infamous national agendas (Arnold 1990; Kohl and Fawcett 1995; Díaz-Andreu and Champion 1996; Hamilakis 2007a). How then do we reconcile these two developments; the need for funding and the social context of archaeological research? Can we generate income that does not come with an attached agenda, thereby leaving us free to substitute another? If so what agenda should that be? Hamilakis notes the absence of discussion on "the ethics and politics of sponsorship of archaeological projects by major corporations with questionable environmental and human rights records" (2007b: 34). We cannot deny the social and political power of archaeology. Given this, we should no longer conduct research without being able to articulate our own position in regards to the agendas set by our sponsors.

This session aims to foster a discussion on the political merits of archaeology and non-traditional avenues for funding. It will cover a variety of politically engaged archaeology, across time periods and regions with the aim of generating a discourse on the positive impact of this relationship. We hope to enable all participants to leave the session with the awareness necessary to articulate their position on the relationship between funding, external agendas, and political activism.

The papers will address, but are not limited to, the following themes:

- The perceived "value" of archaeology.
- Archaeological funding bodies, and how they subsequently affect the research undertaken.
- The political and social context of archaeological work around the world.
- The division of archaeology into competing communities- academia, commercial sector, public sector.
- The regeneration of archaeological narrative as a means of enacting change.

Arnold, B. (1990) The past as propaganda: totalitarian archaeology in Nazi Germany. *Antiquity* 64: 464–478.

Díaz-Andreu, M. and Champion, T. eds. (1996) *Nationalism and archaeology in Europe*, London: UCL Press.

Hamilakis, Y. (2007a) *The nation and its ruins*, Oxford: Oxford University Press.

Hamilakis, Y. (2007b) From ethics to politics. In Y. Hamilakis and P. Duke, eds. *Archaeology and capitalism*. Walnut Creek, CA: Left Coast Press Inc., 15–40.

Kohl, P. and Fawcett, C. (eds.) (1995) *Nationalism, politics, and the practice of archaeology*, Cambridge: Cambridge University Press.

**"Give them what they want", but what about what we want to give? A discussion on the implications of archaeologists attempting to commodify archaeology through comparative analysis and the implications this has on our ability to control the aims of our research**

Ed CASWELL (Durham University)

Archaeology frequently interacts with the public sphere to an extent that researchers and shows on the subject have become cultural institutions of themselves. As such it has long been directly supported financially, in part, by the public, be it through community interest groups performing their own digs or individuals buying a novelty mug from a museum gift shop! Yet this commodification of archaeological research may be suggested as being treated as a secondary outcome for a project, while past projects were aimed at investigating their lead archaeologists' primary interest. In this scenario financial requirements are instead met through funding bodies or personal wealth. This platform is no longer possible. Public finance increasingly focuses on STEM subjects such that it is often a necessity to build a project that may fund itself from its inception, typically through gaining funds from the public directly. This is no different then, for the majority of companies or groups who obtain their backing through the commercial sphere. As such, this paper proposes a form of thought experiment to observe and compare other subjects and organisations successes and challenges when operating wholly within a commercial sphere. It aims to identify the extent of these organisations' agency in setting their own agenda while meeting the public demand.  It will explore the consequences of being led by such demand, and rejecting it, and attempt to suggest how the lessons gained through retrospection may apply to archaeological research.

**Archaeology as a servant of society or instrument for identity? – Reflections on archaeological research and valuing the past in Finland**

Liisa SEPPÄNEN (Turku University, Finland)

Until the early 20th century, the history of Finland was intimately connected with the history and combats of its neighbouring countries, Sweden and Russian. Archaeology as an academic discipline was established at the same time with the rise of national romanticism, seeking for "real Finnishness" and the beginning of "the Golden Age" of Finland in the late 19th century. Prehistoric and medieval Finnishness became even more relevant to the intellectual defence of the nation during the period of Russian administrative pressure in 1890–1905, before Finland became independent in 1917. In many respect, the politics and societal and ideological changes and acts of scholarly legitimization in the academic and institutional sphere have been closely connected and mirrored each other. The aim of this paper is to discuss how the political situation in the past has affected the studies and emphasis of archaeology in Finland. How did the process of nation-building provide the premises and guidelines for antiquarianism and archaeology? How has the political history affected the development and valuation of the discipline and its sub-disciplines until now? The principal factor behind the practices of archaeology and the development of archaeological discipline is what the people and decision makers value and consider

essential to their own identity and for the understanding the history and culture of the country. How have the values and social context of the discipline directed the archaeological research and resources and funding? What kind of research is attracting funding today? How is archaeology valued and needed in our society today?

## Follow the money: who funds UK archaeology PhDs?

Doug ROCKS-MACQUEEN (Landward Research Ltd.)

This paper will examine the broad range of sources that have funded PhDs in UK Archaeology and how they have changed over the years. From traditional sources, such as Research Councils, to new methods, like Crowdfunding, this paper will investigate the political implications of these different sources. More importantly, it uses data stretching back decades to show the changing funders and political nature of Archaeology. It will illustrate how PhD funding has shaped the profession in the past and might continue to do so in the future.

## Are museums in the United Kingdom less objective as a result of the 2008 recession?

Amy WALLING (Manchester Metropolitan University)

Similar to most industries, the museum sector has unquestionably suffered as a result of the credit crunch. This paper will investigate the relationship between funding and objectivity within museums. In particular, it will discuss the extent to which the most recent global economic downturn has affected the impartiality of UK museums, with specific consideration given to the differences between 'science' museums and 'arts' museums. This study investigates whether corporate funding has increased as government funding has decreased, and how this has affected the role of the museum professional. This issue is undeniably emotive and controversial; the idea of money buying influence and power in a sector which is 'for the people' usually is. The media furore and public outrage at lobbying and 'cash for influence' scandals involving UK politicians in recent years are perfect examples of this. The emotive nature of the topic makes it worthy of discussion. The museum audience, the general public, are entitled to know if the information which is perceived to be objective and impartial is actually influenced by funders. The museum audience should appreciate museums may not be objective, and may have never been, and have the opportunity to make informed decisions about the information museums offer them. This paper aims to give individuals the material they need in order to make those informed decisions and answer the question 'are museums less objective since the 2008 recession?'

**Poachers and gamekeepers: Palaeolithic archaeology as a niche market in the commercial sector**

Martin R. BATES (University of Wales Trinity Saint David)

Palaeolithic archaeology is rarely encountered during commercial archaeological projects but when it appears is often problematic.  This is because the contracting organisations usually lack the expertise to undertake project planning, fieldwork and interpretation and, with some notable exceptions, curatorial staff within planning departments are also ill prepared to advise on such matters.  Consequently when Palaeolithic archaeological concerns arise during development both the units and curatorial staff usually turn to a small pool of archaeologists and Quaternary scientists that exist in the UK who are able to provide the expertise to find, excavate and interpret the archaeology. These specialists are often to be found in university departments or national museums and they are commonly the same workers who might be providing inputs to academic research agendas.  Consequently the academic versus professional debate is meaningless as we are both poacher and gamekeeper in the system.  Such a situation both advances and impedes the discipline and this talk aims to highlight the way in which these practices are undertaken in S E England.  Two major projects are considered.  Firstly the large scale, multi-phase works associated with the construction of High Speed 1 will be described in order to articulate the procedures and problems associated with complex landscapes, multiple time periods and different organisations working in parallel with each other.  The second project is a small scale project undertaken at Harnham in Wiltshire developed as part of a road evaluation scheme that was ultimately abandoned.

**Transmedial archaeology: a deep map of regenerating narratives.**

K.E. KAVANAGH (University of Wales Trinity Saint David)

 "Transmedia intertextuality works to position consumers as powerful players while disavowing commercial manipulation" wrote Marsha Kinder in 1991, as she coined the term 'transmedia' to encompass interactive, multifaceted platforms as a seed for change in which ideological conflicts within established and reforming narratives can seek to attain unification. Transmedia projects utilize a plethora of different semiotic modes in order to reinforce one another, in this way they can be a form of deep map where a mixture of voices (and associated agendas) interdigitate to further a single overarching objective that speaks to a wider audience than each factor could attain on their own. When applied to archaeology this can allow for an opening of both expression and method that leads one away from the conventional sources of funding and into dangerous waters where art and science meet. Geomythology sits as a bridge across this water. Geology, geography and mythology are commonly divided into competing communities within the same physical landscape. However geomythology can be harnessed to ease these boundaries into a shared engagement with both space and time. Academic and non-academic sectors can take an equal stand. However, this requires a radical reappraisal of how we finance such research, for it does not fit neatly into our long established boundaries, nor is it easy to navigate the political minefield of ploughing up outmoded ways of thinking. This paper does not aspire to have an answer to such a dilemma, rather it asks the question: How do we fund a politically sensitive marriage between disciplines under the narrative umbrella of archaeological representation? In so doing it examines the value of archaeology as an inherently

transmedial field that lends itself to being a positive conduit for changing perceptions on landscapes of both the ground and of the imagination.

Kinder, M. (1991). *Playing with power in movies, television, and video games, From muppet babies to Teenage Mutant Ninja Turtles*. University of California Press: Berkeley; Los Angeles; Oxford.

**Where have all the 'natives' gone?: funding, community archaeology, and understanding everyday life in Roman Cumbria**

Jennifer PEACOCK (University of Worcester)

Little is known about the 'native' inhabitants of Roman Cumbria. Although they 'may have represented 80% or more of the total population' (Visit Hadrian's Wall n.d.) and it has been repeatedly stated that we cannot hope to understand the nature of everyday life in the region unless we have a more detailed picture of them (Breeze and Dobson 2000: 215; Symonds and Mason 2009: 51), the reality is that we know almost as little about the 'native' as antiquarians did in the 19th century. This cannot be explained, as it has been in some previous studies, solely by the fact that rural settlements are materially-'poor' in comparison to forts and their associated civilian settlements (vici) of the same period. Instead, this paper will argue that it indicates a divide between the topics which we are arguing *should* be studied and those which *are* being studied. To better understand this it will explore how Roman archaeology is valued in Cumbria, a region which is physically and conceptually dominated by Hadrian's Wall, and pay particular attention to the relationship between community- and research-driven projects, and general perceptions of life in Roman Britain. It will pay particular attention to the role played by the Heritage Lottery Fund, which stresses that archaeological projects provide an excellent opportunity for local communities to learn new skills and engage with their heritage (Heritage Lottery Fund 2013: 3), in a recent flurry of *vicus* excavations, and explore what impact this is having on our understanding of everyday life in Roman Cumbria.

Breeze, D. J. and Dobson, B. (2000*) Hadrian's Wall*. 4th edition. Penguin Books: London

Heritage Lottery Fund (2013) *Archaeology – good practice guide* [online]. Available at: <http://closedprogrammes.hlf.org.uk/HowToApply/goodpractice/Pages/ArchaeologyGuidance.aspx#.VGy_1bcqVdg> [Accessed 19/11/14]

Symonds, M.F.A. and Mason, D.J.P. (eds.) (2009) *Frontiers of knowledge: a research framework for Hadrian's Wall, part of the Frontiers of the Roman Empire World Heritage Site, Volume II: agenda and strategy*. Durham County Council/Durham University: Durham

Visit Hadrian's Wall (n.d.) *Conquered and conquerors* [online]. Available at: <http://www.visithadrianswall.co.uk/hadrians-wall/life-on-hadrians-wall/conquered-and-conquerors> [Accessed 21/10/15]

**Rehabilitation archaeology in America: paying for Operation Nightingale USA**

Stephen HUMPHREYS (Durham University)

The rehabilitative potential of archaeology upon disabled military veterans has only recently begun to be explored through ground-breaking British programs such as Operation Nightingale and Waterloo: Uncovered. These programs serve to integrate both healthy and disabled serving and ex-service personnel into a supportive new community, provide them with a relevant skillset, and enhance their motivation. By their very nature these programs have significant popular appeal and tend to enhance the media profile of affiliated excavation projects. From a purely pragmatic standpoint one of the greatest benefits of programs such as these is that they facilitate access to resources and funding bodies that would not otherwise be available to a project director. However, these non-typical funding sources come with their own requirements and limitations. For the newly-created Operation Nightingale USA, which operates as an American NPO, financial support is contingent upon the demonstrably positive impact of excavation upon the excavators rather than upon the scientific merit of the work being accomplished. As excavation permits and academic credibility are entirely dependent upon the latter criterion tensions are inevitable. This paper will discuss the benefits rehabilitation programs offer to academic excavations as well as the challenges inherent in integrating their unique demands into academic excavation projects.

**Can digging make you happy? Archaeological excavations, happiness and heritage**

Faye SAYER (Manchester Metropolitan University)

Current government agendas for investigating the 'Gross National Happiness' have spurred private and commercial organisations to consider whether their work has the potential to influence peoples' happiness and sense of wellbeing (Aked, Marks, Cordon Thompson, 2008). The role of archaeology projects has yet to be considered, despite the body of research pertaining to their wider social values (Kiddey and Schofield, 2010, Simpson, 2010). By combining quantitative methodological wellbeing measures offered by Positive and Negative Affect Schedule (PANAS) and Modified Wellbeing Survey (MWS), this research evaluates if it is possible to identify the role archaeological projects play in enhancing wellbeing. The analysis of the quantitative data is used to assess whether it is possible to quantitatively identify and link changes in cultural values to involvements in heritage projects. This paper sets out a methodological framework for analysing heritage.

## SPACE THE FINAL (ARCHAEOLOGICAL) FRONTIER

**Session organisers: Ben JERVIS (University of Cardiff) and Benjamin MORTON (University of Newcastle)**

Settlement archaeology is the study of lived space, however, while archaeologists have given great thought to the temporal aspects of past life, they have under theorised the spatial. Space is typically presented as fixed, passive, a container or backdrop for the unfolding of history- the space of the phased plan or map, for example.

Contemporary approaches in archaeological theory and, particularly, in the field of human geography, have much to offer our analysis of lived and produced settlement spaces, both interpretively and methodologically. In particular, they stress the socially produced nature of space and reject the longstanding dominance of the temporal over the spatial in critical social theory and history.

This session aims to explore, through the use of specific examples, how we can re-conceptualise settlement space in archaeology and what theoretical tools exist in order to achieve this aim. Areas for discussion may include, but not be limited to:

- The exploration of settlements as more-than-spatial assemblages or actor-networks.
- Analyses of concepts of space in the past through the use of historical records and maps.
- The application of approaches drawn from other disciplines, including human geography.
- Critical engagement with the notion of geographical scale, both as a analytical construct and as a material reality (or not) in the archaeological record.
- 'Practice' and 'experiential' readings of space and 'movement'.

**Analysing space in the Roman world: a new model**

M. Taylor LAURITSEN (Cardiff University)

Studies of space in the Roman world focus traditionally on two categories of evidence: (1) the architectural remains found in Rome and other urban centres and (2) the Latin and Greek literary sources that describe life in the *urbs*. Despite distinct temporal and geographical disconnects, the pair are regularly employed in unison to identify connections between human actions and the ancient built environment. The architect Vitruvius' 1st century BC account of life in the elite dwellings of Rome, for example, is regularly employed to identify activity areas in the remains of Imperial period townhouses in Provence, Spain and North Africa. The problems associated with this conflation of the source materials are manifold. As such, this paper offers an alternative approach to the use of the historical and archaeological records for the study of space in the ancient world. Rather than connecting literary descriptions of particular environments directly with archaeological *comparanda*, the model proposed here seeks to detect interactions between universal cultural beliefs (i.e. general perceptions or standards that appear throughout the canon of Roman literature) and spatial practices identifiable in the archaeological record. The efficacy of this methodology will be tested utilising the concept of lateral asymmetry—that is, the well-established Roman preference for the right side of the body over the left. In Roman culture, the right was associated with benevolence and good luck; the left with evil and misfortune.

As we shall see, the preference for right over left was also expressed in the material world, influencing the organisation of and movement.

### City-states in early Medieval Southern Italy

Caroline GOODSON (Birkbeck College, University of London)

Urbanism was a key tool of power politics in early medieval Italy, especially in the South. The vast majority of the events and activities which permitted rulership, brought about political legitimacy, and facilitated diplomatic relations happened in cities. More than anywhere in Europe at the time, the elites of Southern Italy channelled resources into the built environment, infrastructure, and social networks established in urban contexts. The built environment was no mere backdrop to this process, rather it was one of the means by which ideas about power were communicated, and through which cultural and political hegemony was practiced. Our theoretical toolkit for understanding the archaeology of medieval urbanism is, however, a bit out of date and mostly borrowed from elsewhere (architectural history, anthropology, sociology). We rely strongly on decoding the symbolic expressions of buildings and social space, between, for example, 'patron/maker' and 'viewer', or the reciprocal persuasions between 'actor' and 'network', or qualifying the economic effects of population density. This paper will review the state of the question of medieval urbanism in Europe, seeking to identify some new pathways forward in our analysis of the cities of the past. I will address both the built (architecture and infrastructure) and the unbuilt (in particular urban cultivation and rubbish) in the period between 600-1100.

### Assembling urban space: an exploration of Medieval town 'planning'

Ben JERVIS (Cardiff University)

Two arguments have characterised the study of later medieval town foundations. The first concerns the definition of the term town and the second concerns the extent to which towns were 'planned' or 'organic'. Increasingly intricate analyses of urban form have shifted the focus towards understanding how urban space developed over time and, to a certain degree, the social implications of changes to the urban landscape. Here a new approach is furthered, which argues that rather than seeing towns as planned or as organic, that they are emergent - places become urban as social relations are played out at multiple scales. Towns are more than buildings and streets, they are social assemblages which are re-iterated and transformed as the people, materials and things interact within and around them. Utilising the concept of 'lines of becoming', this paper traces trajectories of urbanism, to view towns as dynamic processes rather than static plans to address two questions - how did places become urban, and what was the role of space in this process?

**Religious and allegorical iconography and the production of medieval space**

Benjamin MORTON (University of Newcastle)

This paper will draw upon Henri Lefebvre's (1991) conception of the socially produced nature of space and Alfred Gell's (1998) theory of the agency of art to explore the ways in which medieval religious and allegorical iconography may have shaped medieval space. Specifically, the paper will explore the ways in which the codification of medieval agricultural spaces and practices, within religious spaces; such as depictions of the labours of the months in parish churches; may have shaped trajectories of change within the medieval countryside.

The paper will start by proposing that arable themed imagery found in parish churches in the twelfth-and-thirteenth centuries; where the practices and rhythms associated with arable farming, alongside associated institutional structures, were both explicitly and implicitly valorised; shaped agricultural practices in the landscape beyond the confines of the church. The second part of this paper will examine the ways in which the changing nature of such imagery, increasingly the pastoral way of life, at the expense of the arable, was valorised from the early fourteenth century onwards, may have shaped the late medieval countryside.

In so doing, the arguments put forward in this paper will break free from traditional narratives of change in the medieval countryside, which have been dominated by accounts where material culture, beyond that of agricultural technology and space, are seen as mere passive backdrops. Furthermore, it will provide a means of moving beyond the art-historical approach to medieval religious objects and iconography where both are typically studied in isolation from the wider social and material medieval world. Lastly, it is hoped that it will serve as a reminder to landscape archaeologists that such objects should not be excluded from their analysis as sorely the concern of the art historian or 'social' archaeologist, but as objects which can inform us of change in the landscape.

**Berkhamsted Castle and the Countess of Bridgewater's soup house: magic kingdoms and heterotopias in Hertfordshire.**

Phillip CARSTAIRS (University of Leicester)

In 1841, the Countess of Bridgewater built a soup kitchen for the local poor in the middle of the ruins of Berkhamsted Castle, which, even at the time, had been recognised as a site of historical and archaeological importance. Although the Countess's soup house still stands, it has been almost erased from the history of the Castle and town. This paper explores the relationship between the romantic landscape of Berkhamsted Castle and the poor by considering the soup house building, place and space as a heterotopia, a place whose meaning can shift and where a variety of lived experiences can co-exist. Although the concept has never been fully developed and is used differently by different scholars, the concept of heterotopia allows us to interpret a place from a variety of perspectives without the boundaries imposed by a traditional, objective and compartmentalised analysis based on artefact, architecture, building or landscape.

**Queering the centre: an archaeology of settlement, loss, and identity**

Kyle LEE-CROSSETT (UCL Institute of Archaeology)

This paper theorises the settlement of public space by lesbian and gay community centres in London from 1980s-90s. Perhaps surprisingly, this example offers a number of tools for the re-conceptualisation of settlement space in archaeology. Firstly, it provides an example of a community self-consciously documenting the process of making concrete 'living' space out of fluid identities and mobile 'scenes' of people. From archival documentation, we can see both ideal designs for these places and the rather messier way that people occupied them. Extending legal geographer Sarah Keenan (2015), I define settlement as establishing 'relationships of belonging that are held up by space'. By focusing on the materiality of 'held up', we can understand a settlement as an establishing of space that upholds certain kinds of activities while discouraging others. As in archaeology, queer history is an area where data will always be insufficient to conjure past lived realities. Those looking back at the 1980s and 90s have been confronted with the difficulties of understanding spaces that have closed, moved without a trace, and/or lost a significant number of their patrons through the devastation of AIDS. Bringing queer theory approaches to settlement archaeology might allow for new methods of working with ephemeral evidence, loss, and unfixed space.

## PLENARY LECTURE

**The anatomy of diversity: archaeological perspectives**

Tim TAYLOR / Krysztina TAUTENDORFER (University of Vienna)

Genetically-underpinned human behavioural lability has generated an extraordinarily diverse array of cultures across space and time. Yet the corollary – as Ernest Gellner noted – is that enculturation unavoidably involves the internalization of powerful norms which, although culturally generated and often arbitrary, are seen as natural and self-evident. Lethal sanctions oppose diversity past a certain point, acting as the final arbiter of conformity. Despite such intrinsic cultural fascism, our creative instincts continually propose material and behavioural novelties. In this overview, I will use archaeological examples to investigate how tolerance or intolerance of difference interfaces with processes of innovation, cultural appropriation, loss, and socio-technic stagnation. I also propose an instance within a prehistoric social context of the appreciation of the tension existing between conformity and eccentricity. I challenge reductivist assumptions about human nature, whilst equally rejecting blank slate models, arguing that neither essentialism nor constructivism can fully account for the anatomy of diversity.

# PITS AND THE DIVERSITY OF DEPOSITIONAL PRACTICE

**Session organiser: Peter S. WELLS (University of Minnesota, U.S.A.)**

Pits are ubiquitous features on archaeological sites, yet their potential to contribute to archaeological theory has not been fully explored. On settlement sites, pits are often the only features that allow examination of undisturbed contexts, because house and workshop floors and living surfaces outside of buildings have been destroyed by ploughing, erosion, and other surface disturbance. When investigated using precise excavation techniques, pits on settlements and pits containing hoards allow us to examine in detail not only how the features were created and the nature of their contents, but also patterns in the purposeful arrangement of objects in levels below the ground surface on which daily life was lived. A striking aspect of pits is the wide-ranging diversity in their shape and size, and in the nature of deposited objects, even on a single settlement site.

Papers in this session explore the character and contents of pits and contribute to the development of new theoretical approaches to these common archaeological features. The aim of the session is to develop theory regarding how we can approach the structure and contents of pits for what they can tell us about the diverse ways in which people deposited and arranged objects that were meaningful to them with respect to relationships between human communities and the natural, social, and spiritual worlds in which they lived, thought, and acted.

### Underground, overground: pits, surfaces and analytic scales

Joshua POLLARD (University of Southampton)

Pits are a common feature of the British Neolithic. Debate about why they were created and what the deposition of materials within them was intended to achieve remains active.  Since the first synthetic treatment of such features in the 1960s interpretation has swung from the strictly functional (storage, cooking, refuse disposal, etc.) to the ritual and ceremonial.  Recently, there has been productive consideration of practices of deposition associated with pits, and their potential role in place- and event-marking. This still leaves much space for consideration of the kinds of temporal, material and ontological connections and relationships that pit digging and deposition served; and issues of legacy and memory, especially in those circumstances where pits referenced back or are referenced by prior and subsequent acts of monument building.  To deal with some of these issues we need to return to the surface and consider how the temporally specific acts of pit digging can be tied to lengthy sequences of site activity.  This involves, among other things, marrying data of very different resolution which is amenable to quite different levels of interpretation.

**Persistent pits**

Ben EDWARDS (Manchester Metropolitan University)

Pits are present on most sites of the Neolithic in Britain. They often contain extremely interesting deposits, structured or otherwise, and can be important for the survival of environmental and dating evidence, particularly on sites where only negative features survive. There are a great many Neolithic sites that are defined solely by pits, be they a single pit, pits in groups or clusters, or hundreds of pits over a wide area. Yet, it is where pits are associated with other forms of prehistoric architecture that they can get overshadowed, interpretatively speaking, by their immediate context. For example, the use or purpose of pits within henges or causewayed enclosures is, I would argue, deemed of less importance by archaeological interpreters than the overall use of the monument itself.

This paper will challenge the traditional perspective on pits, taking the pit(s) as the starting point for interpretation: as the most significant practice on a site exactly *because* they are everywhere. Arguing, therefore, that the most popular type of practice must be one of the most important, then what defines the Neolithic is not henges or long barrows or anything else, but the digging and filling of pits.  Taking this perspective, we can then ask the questions: why do pits become enclosed by henges? Does Neolithic architecture, as it develops, come to enhance the importance of certain pits? Do these monuments structure space around pits in a particular and deliberate way? After all long barrows, henges, causewayed enclosures, etc come and go, but pits persist.


**Pit deposition in the Chalcolithic and Bronze Age of the Southern Central Mediterranean**

Simon STODDART (University of Cambridge) and Caroline MALONE (Queens University)

This paper will take an interpretative overview of earth and rock cut pits from Chalcolithic and Bronze Age sites in Malta and Sicily to examine the issue of intentionality and ritual action in well preserved deliberately constructed features.  Evidence will be drawn principally from the Chalcolithic burial site of the Brochtorff Xaghra Circle (Gozo, Malta) and the settlements of Chalcolithic Casa Solima (Troina) and Bronze Age in Nuffara (Gozo, Malta).  In all cases, the construction of the earth and rock cut pits and silos is clearly deliberate.  However, whereas the deliberate insertion of human bones within the Brochtorff Xaghra Circle was evidently structured and deliberate, the contents of the silos might be more normally classified, in modernist terms, as simple refuse.  The overview will permit a broader anthropological understanding of the structured deposition within these and other closed contexts to understand the place of pits within the wider activities of contemporary prehistoric society.


**Silos or pits: contrasting deposition in Bronze Age rock cut cavities of Malta**

Steven ARMSTRONG, Robert BARRATT, Letizia CECCARELLI, Donald HORNE, Katie HUTTON, Rowan MCLAUGHLIN, John MENEELY, Anthony PACE, Simon STODDART and Caroline MALONE (Cambridge University, Queens University and Superintendence of Malta)

The paper will compare and contrast the depositional processes of two silos, excavated and laser scanned in April 2015, within the Bronze Age settlement of in Nuffara on the island of Gozo. The plateau provides a classic case of an eroded limestone mesa where intact

archaeology has been primarily preserved in rock-cut features. The first silo was sealed with a capstone and retained its clay lining, but was only partly filled with later material, apparently not contemporary with its construction. The second silo was not sealed, but fully filled. An intact clay lining was covered with rich Bronze Age material (including pottery, spindle whorls and broken grinding stones), followed successively by Punic, Roman, and Medieval layers, at first deliberate fills and then more casual silting. The contrasting depositional sequences will be interpreted in terms of differing intentionalities and functions during their lives, drawing on the evidence of material culture and environmental evidence embedded in the two sequences, to understand their intricate biographies. The work forms part of the five year ERC funded FRAGSUS Anglo-Irish-Maltese project examining sustainability and fragility in the Maltese islands (PI Caroline Malone).

### Digging holes: pit deposits in Irish later prehistory

Katharina BECKER (University College Cork, Ireland)

In spite of having produced a large number of hoards and other deliberate deposits dating to the Bronze or Iron Age, information about their exact find contexts is rare within the Irish record. The Late Bronze Age hoard found at Rathgall, Co. Wicklow is a rare example of an excavated hoard from a pit in a funerary setting. This paper will set this find in its site- and wider context. Drawing on a range of associated pit features, a central question it aims to address is in how far the creation of pits is a meaningful aspect of depositional practice *per se*, rather than the by-product of the process of concealment.

### As above, so below: pits, memory and cosmology in Iron Age Scotland

Lindsey BÜSTER and Ian ARMIT (University of Bradford)

Iron Age Britain is characterised by an increased ritualization of the domestic sphere relative to earlier periods. Structured deposits, for example, are common in Iron Age settlements, and are frequently found in pits, some of which were apparently dug solely for the reception of such deposits. Indeed, the act of digging down into the earth, particularly on sites with long-lived occupation, where the material remains of past inhabitants would have been encountered, may have been significant in itself. In some cases, however, the deposition of specific objects was associated with the decommissioning of pits that had previously had other functions. Notable examples of the latter include the grain storage pits at hillfort sites like Danebury in Hampshire.

This paper examines pit deposition in Iron Age Scotland, focussing on two broadly contemporary sites from opposite ends of the country: the Late Iron Age (Phase 6) settlement at Broxmouth, East Lothian, and the Cnip wheelhouse complex in Lewis, in the Western Isles. Both settlements contain well-preserved roundhouses with substantial survival of the walls and, in the case of Cnip, even parts of the roof. In both cases, structured deposits punctuate the biographies of Iron Age roundhouses, occurring at important moments in the lives of their inhabitants. The high degree of preservation allows us to compare deposits recovered from pits with those from above-ground elements of the structures. As such, we can move towards a broader view of the role of pits in the ritualization of Iron Age domestic life.

**It's the pits: understanding the pit features at Dún Ailinne, Co. Kildare, Ireland**

Pam CRABTREE (New York University, U.S.A.) and Susan A. JOHNSTON (George Washington University, U.S.A.)

As one of the most common feature types in the archaeological record, pits form a numerous and yet often obscure analytical category on many sites. The site of Dún Ailinne, Co. Kildare, Ireland, is no exception. Dún Ailinne is a major ceremonial site whose features belong primarily to the Iron Age (ca 600 BCE – 400 CE) and include evidence for timber structures and other kinds of enclosures. Yet the pits at this site, which formed the third most common feature among those identified, have generally been under-analyzed and under-theorized in favor of the larger enclosures. In this analysis, we consider the pits from Dún Ailinne from two perspectives. First, contrary to the enclosures, where the associated activity was on the surface, the variety of pits at the site show interaction with the ground itself in a variety of different ways. In a site whose primary character was about ritual, this suggests different behavior and different associated meanings. Given that pits span the sequence of use at Dún Ailinne, from Neolithic to Iron Age, changes in these uses add layers to our understandings of the ways in which the site was used over time. Second, previous faunal analyses at Dún Ailinne focused on the animal bones associated with the major structural phases and the final phase of ritual feasting that took place after the structures were dismantled. The faunal remains recovered from these pits may provide new details about the feasting and bone working activities that were carried out at the site and the ways these activities changed through time. Taken together, the analysis of pits at Dún Ailinne will provide more depth to the ways we interpret social and ritual interaction at this important ceremonial site.

**Pits in context: the role of depositional events and community in the Iron Age landscape of the East Midlands**

John THOMAS (University of Leicester Archaeological Services)

In the English Midlands pits are a common, if unevenly distributed, feature of Iron Age settlement organisation.  Their size and contents are variable, reflecting a range of original uses and backfilling events as they became disused.  Due to their deep and relatively undisturbed nature in relation to other settlement features of the period it has long been recognised that Iron Age pits have great potential to contain important anthropological evidence with which to interpret associated occupation.  Pit contents not only have the potential to inform on the economy and status of settlement inhabitants but might also include 'unusual' or 'placed' deposits providing insights into contemporary beliefs.

Developer funded excavations over the past 30 years in Leicestershire have revealed much about the settled landscape during the Iron Age, identifying a range of settlement types and important ritual sites, many of which are associated with pit groups and interesting depositional contexts.  Recent excavations at Burrough Hill, one of the region's largest hillforts, has brought into focus a number of points regarding the use of pits and their later infilling, and offers potentially contrasting evidence for such activity with other sites in the surrounding landscape.

The archaeology of Burrough Hill is characterised by the density of pits it contains, several hundred of which were identified through geophysical survey.  At Burrough Hill there was a

marked preference for deposition in large former storage pits whereas the nearby associated buildings were relatively 'clean' in contrast. Evidence from other contemporary settlements provides an alternative picture, where clear and deliberate episodes of deposition were directly associated with buildings, enclosure ditches and settlement boundaries, and less so on pits.

This suggests that while Iron Age communities may have held common beliefs that manifest archaeologically in the deposition of particular artefacts, the way these occasions were negotiated was variable according to their settlement context. Such a situation may have arisen as a result of the roles that particular settlements played in the wider landscape, and the context of deposition may have been dictated by what was perceived as 'important' or 'appropriate' for particular communities to acknowledge at a particular place or time.

**Pit deposits as documents of practice: affirming community endurance in times of change**

Peter S. WELLS (University of Minnesota, U.S.A.)

Pits on settlement sites are frequently the most valuable, and often the only contexts that preserve deposited objects in their original associations. Thus they can offer unique information about cultural values and practices. At times of rapid and stressful change, such as those in temperate Europe during the final centuries BC preceding the Roman conquests, purposefully made deposits arranged in precisely crafted pits demonstrate ways in which communities drew upon long-standing cultural practices in order to confront and mitigate the effects of profound social and economic changes taking place around them. A complex pit at the oppidum settlement at Kelheim in Bavaria, Germany, illustrates a common approach on the part of the Late Iron Age inhabitants to adapt to the dynamic and disruptive circumstances of this turbulent time.

**The meaning of pits and wells in Roman London**

Richard HINGLEY (University of Durham)

This paper will explore the contents of pits and wells in London to explore the ideas that have been outlined that link materials deposited in pits to ideas of ritual and religious behaviour. A range of pits, wells and 'ritual shafts' dating from the first to the fourth centuries AD are explored and an attempt made to assess the potential multiple roles of these structures and the potential meanings of the items that were often placed in them, including pieces of people, pottery and glass vessels and animal remains. It is argued that a more detailed and informed analysis is required of the sequence of offerings into pits and also an approach that does not divide ritual behaviour from aspects of the economic and social identity of the multiple communities occupying the landscapes and waterscapes of Londinium.

## GENERAL PAPERS 1

**Session chair: Adrian EVANS (University of Bradford)**


**Talking stone: a human non-human interface**

Filippa DOBSON (University of Leeds)

This paper makes a case for listening to the human and non-human voices currently excluded from the political dialogue about the rock art on Ilkley Moor. Extending the concept of diversity to the realm of the non-human I test some key ideas relating to the theories of Karen Barad and Jane Bennett relating to 'materiality' and 'thing power'. I demonstrate how a contemporary performance 'Talking Stone' becomes a human non-human interface. Extrapolating from the work of anthropologist Tim Ingold and archaeologist Richard Bradley an ancient ritual site animated by mobility (ritual walking) and sightlines becomes reanimated as a node for energy transfer. 'Talking Stone', the concluding event for the Ilkley Art Trail 2015, is a new performance and a new ritual response to the Neolithic/Bronze Age cup and ring marked monument the 'Badger Stone' on Ilkley Moor. Beginning with a curated art walk and culminating in a projection 'Talking Stone' transacts a new moment within the collective memory (human and non-human) of the Moor. By projecting a colour sequence onto the cup marked surface the rock is transformed into a mesmerising light sculpture reanimating a connection to the archaeological record and the possibility that the stones were once originally coloured. Signifying the moment the stone might speak 'Talking Stone' reveals the mystery of the cup and ring marks in a language of colour. Performance art challenges the 'preservation' ethic of heritage management by revitalising existing materialities and leads to a deeper understanding of the heritage land.


**Roman unguents and medicaments: sensory and functional polyvalence**

Thomas J. DERRICK (University of Leicester)

The Roman substances of *unguenta* and *medicamenta* are often translated and equated to perfumes and medicines/cosmetics (respectively). However, the ancient reality does not map onto the modern one. It is clear from literary evidence that many individual compound unguents and medicaments had multiple functional and, therefore, sensory properties. Two examples are a leg poultice that is praised for its smell, and a type of cinnamon perfume that is instantly visible when applied, as it stains the applicator a deep ruddy-brown. There were, broadly speaking, three main functional purposes for Roman unguents and medicaments: olfactory beautification, visual beautification and curative action.

This paper features an interactive practical element that invites the audience to experience a recreation of these substances first-hand. When discussing these substances with colleagues a concern for oily applications is clear. This concern can be attributed, perhaps, to the temporal distance to the present which has been exacerbated by technological advances, most notably the distillation of alcohol. It is likely, too, that by exploring different reactions to these substances within the culturally diverse academic community we can begin to greater understand potential past discrepant experience.

These substances in Roman hygiene and ablution routines can be seen as items which allow their users to involve themselves in a communal behaviour which excludes those that do not use them, or understand their use. Furthermore, 'Getting it wrong' either by using imitation products or overindulging is a common literary trope. The visual and olfactory agency of unguents and medicaments is an important point of future investigation, particularly within a discussion of Roman urban 'smellscapes'. In a colonial context the roles of these substances were those that likely fit into typically 'Roman' social habits: urban dwelling, complex hairstyles, hot bathing, the use of olive oils, cosmetics, Greek medicine. This paper offers a preliminary engagement with these many themes.

**'Like sunburnt earth exhaling after a rainfall': Smell and materials research in archaeology**

Sarah NEWSTEAD (University of Leicester)

Smell is, and has always been, a fundamental part of the human experience.  However, in the modern Western world, it is a sense denigrated to the unreliable, the subjective and the bestial.  Smell has been explored archaeologically in the context of space perception: constructed 'smellscapes' are increasingly common within the study of past spaces.  This paper will push the use of smell in another, less familiar direction: materials analysis and interpretation.  The 'smell of things' is deemed difficult or impossible to study archaeologically as scent is 'ephemeral', 'degradable' and subjective, therefore not a suitable avenue for serious materials research.  But is this actually the case or is it because we, as researchers living in a modern, deodorized world, have failed to recognize the potential of smell in the identification and interpretation of artefacts?  How should we study objects and materials for which scent was an integral part of their composition and agency?

This paper will present a challenging and interactive case study exploring the potential for scent and ceramics research, using a type of 17th-century pottery renowned for its scent and taste: the *púcaros*. *Púcaros* were produced in Portugal and the New World in near-industrial quantities and sparked obsession in their high status Southern European consumer base.  This obsession is well-documented and directly contradicts the contemporaneous Northern European desire for scentless ceramics which placed glass-like porcelain at the pinnacle of taste and fashion.  Scent, however, is an aspect which has been, until now, ignored in the modern research of *púcaros* and ceramics in general.  Initial study has rediscovered the extant, and highly compelling, smell of the *púcaros*, from museum, ethnographic and archaeological collections.  Engaging with the scent of this pottery reveals intriguing insights into the divisions of Southern and Northern European cultures, still present today, and reveals ramifications for the identification and classification of this material which subvert current paradigms of ceramic and artefact analyses.

**Against diversity: investigating the strategies of military uniform and uniformity in 19th century Britain**

Robert COOPER (Independent Researcher / University of Sheffield) and Roger DOONAN (University of Sheffield)

Military service and uniform are thought to go hand in hand yet this has not always been the case. Until the English civil war, uniform was rarely employed on the battlefield and normally reserved for a few restricted units on ceremonial or specific royal duties.  In this paper we review how an experimental approach to reconstructing elements of military dress not only provides insight in to the materials, production and design processes of uniform but critically how it can provide a perspective on the uniformed body as a vehicle for the projection of state power.

The means through which military dress structures uniformity through restricting diversity in practice and not simply through visual appearance is discussed with reference to the Hummel bonnet. Extant examples, historical documents and photography are united with an experimental study in an integrated approach which prioritizes theoretical insights gained in recent times. A central theme in the paper is authenticity and how ideas of authenticity can be blurred through an embodied approach to experiment as study and description are contrasted with practice and experience.


**Continuing bonds: archaeology meets end of life care**

Karina CROUCHER (University of Bradford)

This paper explores new research which bridges archaeology and end of life care, discussing the role of archaeological case studies in informing contemporary grief, mourning and conversations around death and dying. It also examines how contemporary theories of grief may provide a new framework for understanding the past, addressing the problematic issue of whether we can use contemporary theories of behaviour in the interpretation of ancient remains.

# DIVERSITY OF AGES. MIND THE GAP – WHERE ARE THE YOUNG PEOPLE IN ARCHAEOLOGY?

**Session organisers: Megan CLEMENT and Andy SHERMAN (CITiZAN)**

The provision of archaeology for those under the age of 16 could be considered good. The change to the National Curriculum in 2013, increased the opportunities for children to learn about archaeology. In terms of provision at an extra-curricular level, there are numerous archaeological clubs and societies within organisations, like the National Parks and regional museums. As well as the Young Archaeologists' Club, which currently has over 70 branches located across the country. But many of these are only provided for children and young people up to the age of 16, with limited opportunity of involvement thereafter.

For post-16 and university students the provision is very limited. Some students have access to an Archaeological Society but many are not directly involved in fieldwork. Unless students are actively looking for fieldwork or career experience the options are limited and some are uninspiring. In regards to provisions elsewhere, the usual demographic of local archaeological and historical societies, leans towards the older generations and this may seem like an unattractive option to young people.

The provision for young people in the discipline of archaeology varies greatly. Young people are the future of heritage management. A lack of understanding and a disconnection with heritage could lead to a disastrous consequence for the future of archaeology. The CITiZAN project defines young people as those between the ages of 16-25, a group of people who are usual not represented in the demographic of community archaeology projects. The CITiZAN project aims to encourage young people to participate in archaeological projects in a number of ways, which will be discussed during the session.

This session will seek to investigate the reasons behind why young people feel disengaged with heritage and how the provision for young people with an interest in archaeology can be improved.

## CITiZAN (Coastal and Intertidal Zone Archaeological Network): Young people and a national community project

Lara BAND, Alex BELLISARIO and Megan CLEMENT (CITiZAN)

CITiZAN, the Coastal and Inter Tidal Zone Archaeological Network, is a new Heritage Lottery Funded project, run in partnership with the National Trust and Crown Estate. Many of England's coastal and estuarine sites are increasingly under threat from erosion, and have no statutory protection. The aim of the project is to establish a network of volunteers through outreach and training events and equip them with the skills and support they need to record and monitor these fragile archaeological sites.

Young people in archaeology can be found in a variety of places; in schools, extra-curricular activities like the Young Archaeologists' Club and museum clubs, in Universities and as individuals on community projects or as work experience students. As part of the project, CITiZAN aim to open up archaeology even further and to make archaeology more inclusive for young people.

Since April 2015, CITiZAN has targeted organisations associated with young people, between the ages of 16-25; these include Young Archaeologists' Clubs, Girlguiding UK and university students. There are plans to extend this even further in 2016-17. This paper seeks to show how CITiZAN have been actively trying to include young people within a community archaeology project and how it will continue to do so in the coming years. It will also comment on the success of integrating them into the project in its debut year.

**Archaeology for all – even young people!**

Mike HEYWORTH (Council for British Archaeology)

 The Council for British Archaeology has considerable experience of working with young people aged under 16 through its long-established – and award winning – Young Archaeologists' Club (www.yac-uk.org). There has been a long-standing issue of how to sustain the interest of YAC members once they reach 16 when opportunities are far fewer. This has partially been addressed via the growth of community archaeology and the CBA bursary programme – funded by the Heritage Lottery Fund – to train archaeologists with the 'soft skills' needed to encourage and facilitate engagement, particularly of young people. The CBA is also working with younger members to consider options for engaging post-16 year olds. Options to be outlined for discussion include expanding the provision of A Level Archaeology to allow students to study archaeology as an academic discipline for the first time, establishing support networks and event programmes to bring together young people to provide mutual support, and also promoting training in various ways.

**Kids In museums**

Kim BUDDULPH (Kids in Museums)

Young people are the holy grail of 'engagement' in many sectors, but to foster that engagement you have to be relevant to young people. Research from various organisations like Ipsos Mori and others gives us some idea of young people's perceptions of culture and heritage, and has shown that young people are very worried about their future and want to gain experiences and learn skills that will set them apart from their peers. The work of Kids in Museums has encouraged museums, galleries and heritage sites to try to understand what young people want and to give it to them. Organisations with public venues and collections have tried many different models with varying success, e.g. young volunteering, youth panels, apprenticeships, young consultants, Takeover Day, and have tapped in to existing schemes like the Duke of Edinburgh Award, Arts Award and the CREST awards. These often engage the usual suspects, white middle class kids, and targeted funded projects are usually needed to work with young people from, for example, minority ethnic backgrounds, those not in education, employment or training or those excluded from school. Could any of these models of engagement work in the diverse archaeological sector?

**Rules of engagement: a student perspective**

Matt HITCHCOCK, Stephanie-Adele MCCULLOCH and Liya WALSH (University of Manchester)

We are a team of students at the University of Manchester who undertook a piece of research in spring 2015 to understand whether students felt valued, and indeed whether they are valued in the interpretive process of archaeological fieldwork. In this paper we will present an overview of our findings, and reflect on our own experiences through extracurricular activities, as well as fieldwork completed throughout out study at the University of Manchester. As archaeology society committee members we will touch upon the efforts that our society is making to encourage more varied age groups to be more engaged with the archaeological process. We will also present some of the various ways our department uses its resources, including the Manchester Museum, to better engage students and members of the public with the past. Can the experiences of students help us think about how we communicate in the field with not only each other, but with other audiences? Does better university-student engagement lead to better student-public engagement?

**Who's interested in heritage?**

Doug ROCKS-MACQUEEN (Landward Research Ltd.)

What 16 year old is interested in Archaeology? What 25 year old is interested in Archaeology? This paper investigates the demographic data, provided by surveys and national statistics, surrounding young adults who engage with Heritage and Archaeology. The goal of this paper is to provide insights into why some people are disengaged with heritage through statistical data.

**The experience of an early career archaeologist**

Megan CLEMENT (CITiZAN)

As an early stage career archaeologist and a young person (16-25 years) my experience, concerns and development will have been the same as many other individuals in similar positions; personal experience may help to shed light on where provision for young people is lacking and how it can be improved. To do so I will be splitting this paper into two; provision I experienced and provision I help to provide, to try and understand and tackle the issues surrounding it.

As a young person my first experience with archaeology was aged 16, which was the first time I experienced an archaeological excavation, but my interested was sparked nearly ten years previous. Since then I have gone on to do an undergraduate degree at the University of Bradford and used their placement scheme, undertaken a Community Archaeology Training Placement Bursary (youth-focused) with the Council for British Archaeology and am now working as an outreach archaeologist for the Coastal and Intertidal Zone Archaeological Network. I will explore from my perspective what provision was available for myself, as a young person, interested in archaeology.

I will also discuss the opportunities I have helped to create. I will do this by looking at a variety of projects, I have had involvement with which were specifically created for young

people to interact with archaeology; these included working with Young Archaeologists Clubs, working in schools and more recently targeting specific groups of young people such as Duke of Edinburgh and Girl Guiding UK.

## Archaeology and outreach between school and university

James GERRARD (Newcastle University and YACtoo Branch Leader)

Staff and students at Newcastle University have run a popular branch of the Young Archaeologists Club (aimed at 8-16 year olds) for many years. This year we became the first YAC branch in the country allowed to run a YAC group for 14-18 years olds.

YACtoo (as it has become known) was set up primarily because we wanted to offer more engaging and stretching activities for the 14+ members. It also recognised that some of our members were having to leave us just as they were entering the gap between school and university. Together with a series of other university outreach and engagement activities, we believe that YACtoo offers an important way to both attract and sustain the interests of 'young adults' in archaeology. These individuals are the future of archaeology and deserve attention and investment by the archaeological community.

## New technologies for the new generation

Oliver HUTCHINSON (CITiZAN)

Attracting the next generation of archaeologists is a task that arguably has become more difficult in recent years. The discipline is now competing in a market place populated by education consumers. These consumers are making more informed study decisions at an earlier age based on a knowledge of the skills required in employment (GSCE and A Level) coupled with the considerable financial investment required for higher education. To many this investment must deliver outputs and skills that are demonstrable to future employers and that set them ahead of the competition in an increasingly saturated jobs market. How then can the study of Archaeology at both A Level and above provide its students with these skills and give them an edge against their peers?

This paper proposes that a shift in the way we promote archaeology to a younger audience is required in order to keep the discipline relevant to ongoing developments in the global jobs market, both within archaeology and beyond. It focuses on the wider promotion of cross sector and transferable skills learned through the study of Archaeology (such as project management, team management and negotiation skills) and more in depth study of the new technologies that are helping transform the discipline, in this instance aerial drone survey and 3D modelling of sites and artefacts.

Taking a 6th form college in Essex as a case study, the authors of this paper are working with tutors to deliver project management and 3D modelling modules within an Archaeology AS course. These modules will be more closely connected with the skills learned in both the traditional STEM and business focussed subjects taught at the school and will ensure that Archaeology students continue to develop management and IT skills that are relevant across multiple sectors.

# MOBILITY, MONUMENTALITY AND MEMORY IN PAST SOCIETIES

**Session organisers: Aurea IZQUIERDO-ZAMORA, Patricia MURRIETA-FLORES and Howard WILLIAMS (University of Chester)**

Movement and mobility have been always essential and intrinsic activities for human survival. From the basic acts of looking for food and water, to more complex actions of social exchange and economic dynamics, to investigate the mobility of past societies is of crucial importance to understand key aspects such as identity formation, technological acquisition and innovation, political complexity and even social inequality. Recent studies of mobility in fields such as archaeology and anthropology have become increasingly important and have started to address, not only the evidence left of mobile practices at a landscape scale, but also to investigate the ways by which past societies make manifest their own views, experiences and traditions in this evidence. For studies of prehistoric and historic monuments, relationships between monumentality and mobility foreground the central and complex roles of movement in the burial and commemoration of the dead, and the configuration of social memories by navigating, inhabiting, encountering and assembling things and people, thus materialising conjoined strategies of remembering and forgetting. From territorial connotations, to markers in the landscape, monuments seem crucial to understand issues of memory but also social tradition, economic practices, and the political hegemonies and resistances in societies that practiced mobility as a mode of subsistence. From nomads, to transhumant and herding societies, the relationship between mobility and monumentality requires further archaeological attention, and innovative theories and methodologies.

In this session, we will look to explore through theoretical debate and case studies how movement and mobility practices relate, affect, and influence material expressions of memory, and at the same time, how these feed back into spatial and monumental practices. This session welcome papers exploring the archaeology of mobility, and particularly those that address the relationship between movement and expressions of memory, drawing upon archaeological, historical, anthropological and ethnographic evidence.

### 'Neolithic societies were not mobile': rethinking the orthodoxy on settlement and monumentality in Early Neolithic Ireland

Andrew WHITEFIELD

Nearly 25 years ago, Ian Kinnes noted the 'resistance of some Irish scholars' to non-megalithic funerary practices in Neolithic Ireland. Since the turn of the new millennium and the identification of a putative 'boom' in Early Neolithic rectangular timber 'houses', it seems almost heretical to suggest that any straight-sided prehistoric timber structure could be anything other than an Early Neolithic dwelling. This paper argues that 'house' is a loaded term, and that the conflation of what is in fact a diverse corpus of evidence feeds into unreliable interpretations of the nature of settlement practice in Neolithic Ireland—in particular, the notion of a widespread and abrupt transition to sedentary mixed farming *c.* 3700 cal BC.

First placing the Irish *settled-mixed-farming* narrative in its historical context, this paper critically reappraises evidence often seen as indicative of an abrupt break with the more mobile settlement patterns of the Mesolithic. Rather than Neolithic landscapes dotted with

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deceptively familiar substantial farmsteads, it is argued that straight-sided buildings are not in themselves indicative of 'settling down'. Among the corpus of rectangular buildings are probable light dwellings and other structures entirely consistent with mobile lifeways. In addition, certain larger structures are identified as possible components of the Irish Neolithic's non-megalithic funerary tradition—potentially fixed points in landscapes of movement.

## Balkan Cave Archaeology research project.  Restoring memories from caves at the pastoral movement in South East Europe Neolithic

Konstantinos P. TRIMMIS (Cardiff University)

A recent regional research in Western Balkans and Greece has shown that more than 85% of the Neolithic cave sites have been used mainly from pastoral societies. Pastoral groups had functioned as bonds between the different areas and transferred ideas and goods among the different cultural groups creating the commonalities that are visible today in the research of the Balkan Neolithic. Balkan Cave Archaeology research project aims to investigate the role that caves and particularly the cave interior had, as monumental spaces on the landscape, for the pastoral societies of the era and if the microenvironmental characteristics of the caves played a particular role on the decision making process of the pastoral groups (more info: balkancavearchaeology.weebly.com).

Pastorals seemed to choose particular caves for their pen herding needs. These caves mainly have a southern entrance orientation, wide entrances and stable temperature and humidity through the year. There are also evidences that pastoral groups used the same route and consequently the same caves twice a year for years. Thus, the information about the caves probably survived in the social memory and passed through generations. This paper presents the outcomes of the first two years of Balkan Cave Archaeology project and discusses the role that caves had as monumental spaces in the social memory of the pastoral societies.

## Burial cairns in nomadic landscapes of Jordan's Black Desert

Harmen O. HUIGENS (Leiden University, The Netherlands)

In this paper the relation between mobility, memory and monumental architecture is discussed in the context of pastoral nomadic communities who resided in the Black Desert of Jordan between ca. 200 BCE and 800 CE. Remains related to these nomads include campsites, hunting installations, routes and route markers, petroglyphs, inscriptions, and burial tombs. Largely focusing on the tombs, I will discuss their monumental and memorial nature, and try to understand their relation to human mobility by investigating their spatial arrangement in relation to other aspects of the nomadic landscape. I will explore the discrepancy between spaces of mobility and immobility in nomadic communities, and how they may be differently perceived and materially organized. I will then present recent field research in the Jebel Qurma region of Jordan's Black Desert. This will include an analysis of differences in spatial arrangements between spaces of mobility and immobility. For example, physical remains of movement in the Black Desert include ancient paths, which allow for the actual reconstruction rather than modelling of ancient routes. Ancient

campsites within secluded valleys reflect spaces of (relative) immobility. I will expose the way in which burial tombs relate to spaces of mobility rather than immobility, and seek out to what degree their memorial nature may have meaningful with respect to this spatial arrangement.

**The copycat effect: informal monumentality in prehistoric Eurasia**

Rebecca O'SULLIVAN (University of Oxford)

Monumentality in Prehistoric Eurasia has focused mainly on the imposing burial mounds or highly decorative standing stones of pastoralist cultures. Both these forms of material culture fit well with original concepts of monumentality – the labour and resources required highlight them as conscious (and unconscious) expressions of identity, social affiliation and political organisation.

Petroglyphs of the Bronze and Iron Ages, however, are more ambiguous - they are easily replicated, which is exhibited in additions to pre-existing panels from the Iron Age through to the 1880s and 1980s. This makes them seem less formal and unexclusive as a material form, as the act of creation lacks the purposeful socio-political agency often attributed to monuments more typically. The distribution of petroglyphs throughout the Altai mountains, however, demonstrates their role in place-making for pastoralists of multiple time periods.

This paper first examines how widely different theoretical approaches in the countries bordering the Altai understand this form of material culture, before arguing that petroglyphs created links between pastoralists and their landscape. Specifically, this paper explores the act of copying pre-existing images, arguing that people are attracted to pre-existing "places", and contribute to this in cases of informal monumentality

**Contested landscapes: the Pillar or Eliseg and the spatialisation of early Medieval politics and conflict**

Patricia MURRIETA-FLORES and Howard WILLIAMS (University of Chester)

The Pillar of Eliseg is an early medieval monument that is located in the impressive landscape of the Nant Eglwyseg, near to Valle Crucis Abbey in Llangollen, Denbighshire. Dated between AD 808 and 855 and raised by the king of Powys Cyngen ap Cadell, this unique monument commemorates through a now incomplete Latin inscription, the military victories and the recovery of the land of Powys from the English around 757 by his great-grandfather Elise ap Gwylog. The importance and uniqueness of this monument is due to the fact that there is no material parallel in Wales, and while some parallels to the *form* of the monument are known from northern England, none survive bearing a comparable Latin inscription. Many studies have focused particularly on this, and while past research have greatly advanced our knowledge about the monument itself and the socio-political discourses of the time, the landscape in which it sits have remained largely ignored. We consider that a more complete understanding of the motives that led to the erection of the Pillar can only be reached by paying attention to other equally relevant aspects of the monument: its historical context and particular location. The purpose of this paper is to showcase new research that by investigating these two aspects is looking to understand the

possible reasons behind the conception of the pillar, and the potential reasons behind its location.

Using advanced spatial methodologies employing Geographic Information Systems (GIS), we aimed to: (1) understand the importance of the region in terms of accessibility and to investigate the Vale of Llangollen as a main route of communication between Anglo-Saxon and British territory; (2) to comprehend the visual structuration of this landscape and the possible role of its diverse topographical and archaeological features in the surveillance of the borderland; and (3), based on the GIS analyses, to offer new interpretations of the role of the Pillar as a presiding feature in this landscape.

**Crossing paths: movement, memory and the early Medieval cross at Maen Achwyfan**

Howard WILLIAMS and Aurea IZQUIERDO-ZAMORA (University of Chester)

Recent research on early medieval stone monuments has foregrounded their significance in connecting movement to social memory through their form, imagery, materiality and spatial settings. Transporting and carving stone monuments involved a choreography of movements of stone and people. Subsequently, once installed, the form, ornament and location together facilitated their significance as nodes of ritual practice and social aggregation in the early medieval landscape.

This paper applies and adapts these approaches to present a new interpretation of the tenth-/early eleventh-century cross from Maen Achwyfan, Whitford, Flintshire, Wales (F12). As a rare example of an *in situ* Viking Age cross from the British Isles, we argue that this monument choreographed and constituted movement through its materiality, form, ornamentation *and* location.

Exploring the monument's location reveals how the cross configured and enhanced social memories and identities by adapting long-term rhythms in movement through the landscape including relationships with linear earthworks and barrows. Meanwhile, the form, abstract and figural art and material properties of the cross are also considered as key to its mnemonic efficacy by asserting and provoking movements and gestures upon those encountering the cross. Combining these perspectives, we explore how, for those encountering the cross within the early medieval period, the Maen Acwyfan cross captured, directed and arrest bodily movements and thus embodied memory.

**Frontier earthworks in the early Medieval period: making sense of diverse monuments**

Arjen HEIJINIS (Aarhus University, Denmark)

The construction of linear earthworks and minor fortifications in the Roman and Early Medieval period (ca. 1-1000 AD) is known from both Denmark and Britain. The migration period is also a time when ethnic identities are transformed and are created, and near the end of the period, geographically fixed. In this paper I will explore the relation between earthworks (both linear and circular) and their relation to Early Medieval concepts of frontiers and borders, and related ethnographic concepts such as ethnicity, identity, mobility, and warfare.

The construction of linear earthworks had different purposes, not simply frontier defenses of a territorial 'proto-state' or tribal area as we know from later periods. Instead, they tie in with contextually dependent forms of military infrastructure, including the symbolic and the monumental as well as the strategic and practical.

This leads to a reinterpretation of the concept of ethnic and political identity, and its relation to material culture. Several archaeological sources might be used to geographically 'place' ethnicity, such as material culture, language, or more directly, physical symbols of power such as monuments.

When studying earthworks in greater detail, it becomes apparent that these monuments are not a homogeneous group, but that there is actually considerable diversity within their forms and, presumably in consequence, their functions. The reasons for their construction are complex, and can not simply be reduced to 'border demarcations' or 'field defenses' in all cases. More empirical data-collection is currently necessary to properly appreciate variability, such as better mapping (including LIDAR and geophysical exploration), scientific dating, and archaeological examination of construction techniques.

A crucial aspect for evaluating mobility-inhibiting monumentality (ie. walls and barriers) is actor plurality. Whose movement were these monuments intended to obstruct? And who built them, for which purposes? How can we see a relationship between intra-group tensions (such as warrior aristocracy and agrarian village society), or between peer groups competing in a tournament of values? What is the role of inspirations from the past, of reference to prehistoric or Roman monuments?

### Lord of the Ring: assembly, memory and movement in Medieval West Cheshire

Rachel SWALLOW (University of Chester)

The early reuse of power of place and form of the west Cheshire castles alongside geographical, routeway, riverine and Mercian dyke features in the landscape, are clearly evident only once Mercian and early Anglo-Norman Cheshire is studied as a whole. With a particular focus on Dodleston Castle, this paper demonstrates that designers and builders located their castles in order to appropriate pre-Anglo-Norman power centres and ancient locales in the west Cheshire landscape. Taking a multidisciplinary approach, a new classification of a ringwork for the initial build of Dodleston Castle is proposed, which assumed a place of prior cross-cultural, secular, ritual and religious significance within this medieval borderland territory. As the site of a probable Anglo-Saxon Assembly, therefore, this paper aims to demonstrate that the later-built Anglo-Norman Dodleston Castle reused a place and perpetuated a memory of communication, in a landscape where the confluence of people and ideas was common.

### Crossing the seas: sourcing stone in early Medieval Iona

Adrián MALDONADO (University of Glasgow)

The early medieval monastery of Iona has the largest surviving collection of early Christian sculpture in Britain with over 100 fragments attributable to the pre-Benedictine monastery. To date, the majority of research on this corpus has focused on the iconography of the four high crosses at the expense of the more numerous cross slabs, pillars and grave markers.

New research on these smaller monuments reveals that not only was stone sourced from surprisingly far-off places, but in some cases finished crosses could be transported to Iona as well. An archaeological approach to the Iona corpus as a whole provides new insight into the central role of materials and memory in creating and maintaining an early Christian sacred landscape. It is argued that a unique and influential vision of a Christian afterlife and salvation through mortuary practice was developed on Iona through the interplay of stone, earth and sea.

## SOCIAL DIFFERENTIATION, PERSONHOOD AND INEQUALITY IN PREHISTORIC SOCIETIES

**Session organisers: Manuel FERNÁNDEZ-GÖTZ, Chris FOWLER and Graeme WARREN (University of Edinburgh, Newcastle University and University College Dublin, Ireland)**

How prehistoric societies were organized, power relations, relative equality and inequality, and degrees and kinds of social differentiation were intensively explored and heavily debated in the late 1970s and 1980s. Since then, a substantial amount of archaeological research on social relations has focused on heterarchy, age, sex or gender, personhood, personal biography, or cosmology: often within a general focus on 'identity'. Some of this work has challenged earlier accounts of power relations and social organization, but explicit attempts to produce new models, or re-assess the conclusions of the comparative project that sprang out of New Archaeology by conducting new systemic comparative analysis, have been rarer. At the same time, many of the concepts foundational to the social prehistory of the 1970s and 1980s continue to circulate, such as complex hunter-gatherers, prestige goods economies, ritual authority, or cosmologically-sanctioned elites. A comparative approach to archaeology and anthropology is clearly an essential tool in understanding prehistoric societies, but key concepts in social organization require critical reflection, refinement or replacement. The focus on an intimate archaeology, understanding particular contexts and moments, is also highly valuable, but has sometimes led to a loss of attention to broader socio-economic and cultural trends: the big stories of diversity and change over time. How can we work across scales, and improve the integration of studies of personhood, age and sex with studies of power relations and social organization?

This session aims to consider approaches to the organization of prehistoric societies from the Palaeolithic onwards, seeking contributions that explore one or more of the following, or related issues:

-How much diversity was there in how contemporary prehistoric communities were organized?

-To what extent should we think about prehistoric societies as bounded, overlapping, singular or multiple?

-How should we use anthropological comparison? What can we take from cross-cultural analyses of social organization and inequality? Can social organization be compared without arranging societies in a quasi-universal social-evolutionary framework?

- How much diversity was there in leadership, authority and power, in prestige and ranking, in arenas of expertise and achievement, in kinds as well as degrees of hierarchization and heterarchy, and in social differentiation?

-How can explorations of diverse kinds of persons and personhood within a given community take account of power relations? How can we trace the emergence and dissipation of specific kinds of persons in relation to forms of social differentiation and organization? How can we explore relationships between kinship, personhood and power?

-What are the consequences of adopting a view of 'the social' that includes human beings, things, animals, places, ideas (etc), for understanding social differentiation, inequality and power?

-How, and to what extent, is social organization related to other factors such as subsistence, settlement and mobility, religion or cosmology?


## Animate tools or personified objects? (investigating the origins of subordination)

Timothy TAYLOR (University of Vienna, Austria)

The difference between the kinds of power relations seen in non-human primate communities and those postulated for small-scale prehistoric human bands highlights the question of the origins of egality. If small bands were egalitarian, how did they become so, given the longer term evolutionary background? In this paper I challenge some of the assumptions made about small scale prehistoric communities on the basis of the classic analogies. These are drawn from a limited range of social anthropological cases that appear to show egalitarianism as primal. By contrast, I will argue that cooercion and subordination could have been widespread in the deep past, and indicate some areas where empirical data supporting such a view may be found and how it might be further developed.


## Power to the people? Exploring the negotiation of structuring relationships between humans and nonhumans in the European Mesolithic.

Nick OVERTON (University of Manchester and University of Chester)

In recent years, numerous studies of the Mesolithic have argued for the demolition of the strict division between humans and nonhuman animals, instead exploring the potential for legitimate social interactions and relationships to emerge between human and nonhuman actors. Therefore, to consider possible structuring relationships of power and organisation in the Mesolithic, archaeology must look to include these broader human-nonhuman relationships.  After all, in an inclusive multi-species world, Mesolithic humans' daily engagements and interactions would negotiate their relationships, not just with other humans, but a wide range of nonhuman actors within the environment.

So where might Mesolithic humans have fitted within these structures?  Flattening the divisions between humans and nonhumans has led to the discussion of 'mutual' relationships between humans and nonhuman, however, mutual relationships are not necessarily balanced, or indeed unbalanced in favour of the human.  This paper wishes to

consider the corporeal, messy and potentially dangerous moments of hunting and killing nonhumans in the Mesolithic as a theatre in which humans negotiated power relations, or perhaps powerful relationships, which impacted how humans understood and treated nonhumans, and their remains.  Ultimately, how might have such interactions structured humans' place in the wider environment, and how might this be materially manifest within the archaeological record?

**Constellations of power: investigating sources of power and social structures at Neolithic ceremonial monument complexes**

Susan GREANEY (Historic England and University of Cardiff)

Few archaeologists have attempted to compare in detail how ceremonial monument complexes in Britain and Ireland emerged and developed over time, how they might be connected and how they might relate to issues of power. What was the social organisation of the communities who built them? Were the monuments built through shared participation or competitive display? Why were these complexes such powerful places that they were maintained, reused and renewed over long periods of time?

The limited number of volumes that tackled these questions directly (e.g. Bradley 1984, Barrett 1994) are now 20 or even 30 years old. With new research data and radiocarbon dates now available for several Neolithic complexes, it is time for these questions to be re-addressed. This paper will review previous approaches to power and social stratification in relation to monument complexes, mostly using examples from the Wessex area of southern England. Moving from Marxist interpretations of ideological control, to changes in seeing power not just as 'power over' but also 'power to' as part of agency theory, this overview will conclude by exploring more recent conceptualisations of power as part of ANT and relational networks, which go beyond the traditional focus on human actors.

It will be argued that larger-scale questions about social structures and the potential inequalities of prehistoric societies, including the ways in which power relations were negotiated and legitimated through monuments, have been neglected in these more recent theoretical accounts. Nevertheless, they provide a useful alternative way of thinking about sources of power. This paper will attempt to identify some archaeologically visible clues that shed light on potential non-human sources of power at monument complexes, including the past, connections to distant places and natural features or events. This may help to shed light on the extent of shared prehistoric beliefs, as well as how these locations emerged as powerful places, and were maintained as concentrations of social, political and religious power.

**Ontology and social organization in Neolithic Britain and Ireland: exploring heuristic approaches**

Chris FOWLER (Newcastle University)

In this paper I will reflect on two heuristic approaches to social organization, and consider the extent to which they are of use in understanding pattern and diversity in Neolithic evidence from Britain and Ireland.

The first heuristic model is a multi-dimensional approach to social organization which explores a series of intersecting axes, such as hierarchical–egalitarian, centralized–decentralized, or individualizing–collectivizing. The model can appreciate diversity and variation in how different factors may be combined, but most of the axes explored in this model rest on conceptions of political power and society which both overlook ontology and adopt certain ontological assumptions about power, society and personhood. By contrast, the second heuristic model is founded in the comparative perspective on ontologies formulated by Philippe Descola (2013). This scheme draws pattern out of diversity, identifying four ontological categories (naturalism, animism, analogism and totemism) and six modes of relations (exchange, predation, gifting, production, protection and transmission) which may be more or less important in a given community. The ways that power, personhood and social organization operate differ most significantly between Descola's ontological categories.

Having set out the basis of the two approaches, and proposed a way to mobilize them together, I will consider their usefulness in understanding Neolithic social organization and personhood, and the powers and effects of Neolithic places, materials, things and bodies. I will explore two foci: the evidence from mortuary structures and causewayed enclosures c. 3850-3550 BC in southern Britain; and Late Neolithic passage graves, houses, henges and related architecture.

Descola, P. (2013) *Beyond nature and culture*. Chicago University Press.


**Assembling power: now we have dethroned the chief how will power emerge?**

Rachel J CRELLIN (University of Leicester)

In the past 15 years we have arguably seen the deconstruction of male dominated chiefdoms and elites (and the capitalist economic interpretations that were used to support them) in many studies of Neolithic and Bronze Age Britain. Relational and assemblage-based approaches have an explicit focus on diversity and ontological flatness – they include animals, things, beliefs and people on a potentially equal footing and as such pose a challenge to approaches that we might see as human-centric. This is an approach that I fully embrace however, thus far we have seen little work on how it is that we might approach power within an assemblage-based approach. There most certainly are power relations at work within any assemblage, and there are components that are both more and less powerful. How do we identify such components? What is it that makes them powerful? Are older ideas about power within communities such as 'power to' and 'power over' consistent with assemblage-based approaches? This paper will explore these issues and seek to chart a way forward.

## Writing an archaeology of social organisation in the Mesolithic

Graeme WARREN (University College Dublin, Ireland)

Despite considerable developments and advances in Mesolithic archaeology in recent years some basic challenges remain. One of the most substantial of these lies in identifying the forms of social organisation present during the Mesolithic period: with social organisation understood here to mean the ways in which forms of political power, kinship/kinshipping relationships and religious practice were constructed and maintained over time. Whilst it has become common to see generalised statements about the character of hunter-gatherer groups in the Mesolithic, these are more often based on anthropological generalisations about hunter-gatherers than the detail of the archaeological record. Constructing an archaeology of modes of Mesolithic social organisation is not straightforward. This paper highlights some of the key issues involved in this task, including analogy, comparative analysis and scales of temporal resolution (time-perspectivism). Archaeology remains bedevilled by assumptions about social evolution, often operating at an implicit level, and often deals with forms of social structure in oppositional terms (hunter-gatherer or farmer, egalitarian or non-egalitarian). The paper will explore what we can say about how different Mesolithic societies in Britain and Ireland were organised.

## The post-pioneer Neolithic: tackling social differentiation and complexity

Jessica SMYTH (University of Bristol)

The Early Neolithic of Britain and Ireland, around the turn of the 4th millennium cal BC, is a relatively well understood period of prehistory. We have, for example, a much firmer grasp of the timing of the transmission of domesticates and cultigens across these islands, and can for the first time speak confidently about the changing landscapes, and the various building projects and communal endeavours, different generations of the same early farming groups would have witnessed. The next challenge is to try and piece together what is here termed the 'post-pioneer' years, i.e., the centuries from c. 3600 cal BC. We are less sure about how farming, and society in general, develops into the later 4th millennium and - crucially - how this articulates with the large-scale monument construction that peaks in the centuries immediately before and after 3000 BC. This contribution aims to critically evaluate the various strands of evidence for continuity versus collapse (i.e. 'boom and bust' farming scenarios) and provides some initial thoughts on how social organisation may have developed in the Middle-Late Neolithic.

## Burial and social inequality in the Italian Copper Age

Andrea DOLFINI (Newcastle University)

The paper discusses social organisation and inequality in the Italian Copper Age (*c.*3600-2200 BC) from the standpoint of burial practices. In particular, it provides a critical revisitation of Rinaldone, a burial site that is traditionally thought to offer the most compelling evidence for the emergence of social differentiation in prehistoric Italy. The paper is divided into three sections. Firstly, the site is briefly outlined, paying special attention to burial practices and grave goods. Secondly, traditional interpretations focusing on political leadership, elite exchange, and the rise of the prestige-goods economy are

reviewed. Thirdly, an alternative reading is offered, which argues that the evidence can be best explained by reference to the changes in funerary customs and the new ideas of gender, personhood, and ancestry, which emerge in Italy during the 4th millennium BC.

## The *fractality* of power: A Foucauldian approach to Iron Age materiality and identity

Manuel FERNANDEZ-GOTZ (University of Edinburgh)

Following Foucault, power is omnipresent, pervading the entire social body. In this sense, the rhetoric of the political sphere can be uncovered even in things as apparently trivial as the decoration of ceramics, house plans, or hair pins. In the Iron Age, power was expressed through the ties of clientage that existed between persons and between communities, but also through the architecture and internal organisation of the *oppida*, the increasing standardisation of the material culture, or the erection of large tumuli, to give just some examples. This paper will explore the materialities of power in Late Iron Age Europe, focusing on the fractal relationship between persons and culture and in particular on the process of individualization.

## The social and political dimensions of drinking in Late Bronze and Early Iron Age Italy

Cristiano IAIA (Newcastle University)

The paper will address aspects of ritualized commensality in the framework of complex societies in the late second and early first millennium BC Italy (1300 – 700 BC). It will take as a frame of reference the recognition of the key role in social and political dynamics of alcohol consumption, stressed by a long tradition of archaeological and anthropological studies. In areas of continental Italy and Sardinia, on the basis of recent archaeobotanical investigations, it is now possible to assign the first, pioneering introduction of domesticated grapes and wine consumption in a time-span between the Middle and Late Bronze Age, around 1500 – 1200 BC. From this time onwards, some indigenous communities increasingly incorporated wine consumption into formalized social practices and material culture. Evidence encompasses a wide range of manifestations including collective banqueting/feasting in domestic and ritual contexts and individual or group libations at funerals. It is frequently assumed that the practice and symbolism of consuming/serving alcohol in the Bronze and Iron Ages were mainly linked to processes of social differentiation, and more specifically to an elite warrior ethos. Although this may be true in certain circumstances, an overall analysis of the archaeological record of Late Bronze and Early Iron Age Italy allows a more nuanced picture. The evidence suggests that drinking was not restricted to warriors and elite men, but was also widely practised by women and people of lower status. To develop these points the author will explore two chronologically far-off case studies, which will allow him to argue for the existence of a *fil rouge* over the centuries: one from the Late Bronze Age 'Terramare' culture of northern Italy (13th - 12th centuries BC) and the other from the Early Iron Age 'proto-urban' context of 9th – 8th centuries BC Middle-Tyrrhenian Italy. It is particularly during the latter period that the manifold expressions of formalized drinking become explicit in the material record, allowing a better understanding of general processes of social differentiation and diversification.

**Integrative approaches to the social complexity of Early Neolithic hunter-gatherers of the Baikal Region**

Elizabeth LAWTON-MATTHEWS and Andrzej WEBER

Material culture from the burial context is one of the primary records used by archaeologists to assess hierarchy, influence and relative wealth in past societies. Recent approaches to mortuary archaeology, and grave goods in particular, have shifted towards the exploration of identity. While this might be true for most prehistoric societies, the study of hunter-gatherers has commonly been treated in a different manner. Theories surrounding "complexity" have been used, in a socio-evolutionary way, to define Holocene hunter-gatherer groups in relation to preceding and subsequent societies. Because of the contention caused by defining and polarising 'complex' and 'simple' societies, this approach is often overlooked as a valid method of analysis. However, by examining both dimensions of _social_ complexity, horizontal (identity) and vertical (inequality), and the relationships between the two, it should be possible to integrate "studies of personhood, age and sex with studies of power relations and social organisation".

A recent review of the isotopic data from Shamanka II, an exceptional Early Neolithic cemetery in the Lake Baikal region, Siberia, has produced a refined chronology and detailed dietary information suited to the exploration of the socio-cultural implications of its use over c. 1000 years (with a gap in cemetery use of ~400 years). Already, clear patterns can be seen in the spatial distribution of graves within the cemetery. Introducing grave goods into the analysis furthers the discussion of social differentiation and identity in the Early Neolithic of Baikal. It also presents an opportunity to explore, in an holistic way, the social complexity of one hunter-gatherer group.

## 'HUMMING WITH CROSSFIRE - SHORT ON COVER…'?  REVISITING AND REFLECTING ON '*ENVIRONMENTAL ARCHAEOLOGY: MEANING AND PURPOSE*'

**Session organisers: Ben GEAREY, Suzi RICHER, Seren GRIFFITHS and Michelle FARRELL (University College Cork, Ireland, Worcestershire Archive and Archaeology Service, Manchester Metropolitan University and University of Hull)**

It is now nearly a decade and a half since the publication of *Environmental Archaeology: Meaning and Purpose* (edited by Albarella 2001), itself based on a TAG session held at the University of Birmingham in 1998. One of the core concerns of the session was the perception that: "….there is still a profound fracture existing between archaeologists dealing with the artefactural [*sic*] evidence and those engaged in the study of biological and geological remains" (Albarella 2001, introduction). This session aims to re-visit some of the debates and questions that were raised in the publication and will consider if and how environmental archaeology has progressed in a theoretical context over the last 15 years. Bringing together a diversity of theoretical, scientific, and field considerations will allow a re-examination of the following questions:

- What is the current relationship between 'cultural' and 'environmental' archaeologies? Has the 'gap' identified in 2001 been closed to any extent? If not, does it matter?
- Environmental archaeology: rich on data, short on theory and epistemology?
- Is it time to abandon the term 'environmental archaeology' other than as short-hand for a collection of techniques? Does this expression hinder rather than help?
- Environmental archaeology in the post-PPG16 world. Has integration spread throughout the industry?  Are certain specialisms privileged over others? Are we sampling for the sake of it?

New areas of debate which were not considered in the original publication but merit reflection in the present day are also encouraged and might include:

- Environmental archaeology and public archaeology — never the twain shall meet?
- The 'scientific turn' in archaeology — biomolecules, isotopes and DNA — a brave new world or recipe for further disciplinary fragmentation?
- Environmental archaeology in the context of new theoretical developments: 'resilience' and other concepts — lighting the way or casting more shadows?


**Commercial environmental archaeology: back in the dark ages or a potential agent of change?**

Liz PEARSON (Worcestershire Archive and Archaeology Service)

I remember the 1998 conference and couldn't fail to appreciate the 'humming of cross-fire' and definitely felt like running for cover myself. Quite apart from the discussion of whether we should call ourselves environmental archaeologists, the accusation that we were 'rich on data, short on theory and epistemology' still sticks in my mind.

Has anything changed? My feeling is that most would say that the way that environmental archaeologists working in the commercial field interpret data hasn't greatly changed, even if some sub-specialisms have grown (geoarchaeology, for instance). We will reference local and regional 'research frameworks', which have materialised in that time, but the discussion

section of a report written in 1998 will look very similar to one written now. There will be very little reference to 'resilience theory', 'epistemology' and other such terms, but that doesn't necessarily mean such concepts have been entirely overlooked. It is more that there isn't a cohesive and funded approach to updating the way that we interpret data.

There are many any reasons why the working environment of the commercial sector isn't conducive to grappling with new theoretical developments and new interpretive approaches. Does that mean we are back in the dark ages?

If that means we are on the back foot in one aspect, then we are on the front foot in others. That we are part of a sector that has been generating 'big data' for decades is an advantage. New interpretations need data, and we are getting much better at making a large body of data and grey literature easily accessible. It is a formidable research resource. The material archive is growing in museums on which new methods and approaches can be tested.

New fieldwork is continually being used to re-assess how we protect archaeological sites and excavate or investigate new ones, and the difference is that this arises from a cohesive and funded approach. Much of this re-assessment has been carried out by those working in the commercial sector, with some joint working with the university sector and community groups. Aggregate Levy funding arising from quarrying, Landscape Partnership funds, Heritage England National Heritage Protection Plan (now Action Plan) and increasingly Heritage Lottery funds for community projects are just some examples of funders of this work.

However, if we are to investigate future sites in ways that address new concepts and furthers research, then a greater degree of joint working with a broader research community working would be valuable. Theory and data need to be co-dependant.

### Following my own path: middle ground social zooarchaeology

James MORRIS (University of Central Lancashire)

Perhaps it is age, perhaps it is the company I keep, but I look on nature vs culture, science vs anti-science, functional vs ritual, processual vs post-processual dichotomies as a thing of the past. Let me be clear, I do not doubt their existence, or that both camps still exist but rather to me, and many other archaeologists, such arguments are no longer relevant. Such dichotomies do not appear to hold sway over 21st century graduates with a foot in both processual and post-processual camps. The rise in 'social zooarchaeology' as a term highlights this trend and I would define my own research in these terms - theoretically informed environmental archaeology - using what I individually consider to be the best of both worlds.

An example of this is the consideration of animal burials and emotion. Many may view emotion as unrecoverable, not suitable for objective analysis, but there is a growing trend within archaeology to consider emotion, especially within prehistoric archaeology. As Peterson (2013) has rightly pointed out for funerary archaeology, whilst the processes are well understood, the emotional damage of grief and loss are often omitted.

It is relevant that we ask whether we can explore aspects such as emotion, and in particular grief, in the zooarchaeological record. Humans grieve for animals and many modern day pets are subject to ceremonies we undertake, highlighting the emotional connection many

feel. But is this just part of a modern day mind set? In exploring a zooarchaeology of emotion using animal burials, a possible approach is to consider points of contact between humans and the animal corpse. For example, does the careful manipulation of a cat inside a tile cist at Silchester, or the placement of a dog inside an Iron Age pit, reflect emotion? Is it possible some of the animal burials we see were driven by emotion and mourning?

In exploring a zooarchaeology of emotion this paper may fail, but in returning to the session's themes, that does not matter. What does matter is that as environmental archaeologists we unashamedly engage with such debates, that we try different theories and approaches. Some may work, some may fail, but despite the 'cross fire', it is in the middle ground where we get to experiment and move the discipline forward.

Peterson, R. (2013) Social memory and ritual performance. *Journal of Social Archaeolog*y. 13. 266-283


## Smoke and shadows: environmental archaeology in burnt mound studies

Tom GARDNER (University of Edinburgh)

Since before the publication of *Environmental Archaeology: Meaning and Purpose,* burnt mound archaeology has become a theoretically stagnant discipline. Although these sites are the most numerous prehistoric monuments in the British Isles, ubiquitous in distribution, and obscure in function, the debate on their significance has mellowed to one of 'cooking or bathing'. With the idea of breaking into a new theoretical renaissance of burnt mound archaeology, the Bamburgh Research Project used an integrated scheme of palynological, phytolithological, and micromorphological sampling of an early Neolithic burnt mound sequence in Northumberland at Hoppenwood Bank. This has led to significant discoveries of burnt mound depositional sequences, microcomponents, human-environment interactions, and fuel use.

Unfortunately, the story is not all so bright. Faced with a corpus of information so new, and so great, the resilience of the burnt mound to wider interpretations has continued uninterrupted. Under the microscope, micromorphology and phytolith results give data which is so high resolution that it tends towards subjectivity. If for example, samples had been taken just inches from their ultimate positions, the results may have been so different as to render the achieved interpretations inherently false, and subjective. Is there a point at which environmental archaeology becomes *too* precise, and tells us *too* much?

Although the results from Hoppenwood Bank shed new light upon old theoretical questions, it may be that their interpretations ask questions too deep and shadowy to be answered within current theoretical research frameworks, and that the theory needs to evolve to match the results. Place this conundrum within a stagnant series of debates in burnt mound archaeology, and we reach the point where environmental archaeology may not be the shining light of progress, and rather the cause of an even more shadowy darkness upon the unknown.

**Beyond extractive practice: bioarchaeology, geoarchaeology and human palaeoecology for the people**

Matt LAW (Bath Spa University)

Too much of the work we might class as environmental archaeology can be characterised as *extractive* and *linear*. Samples of interest may be taken from a locality, but the results are seldom shared with people who may have an interest in that locality (beyond the dig director and readers of the subsequent publication), nor is the opportunity given to wider stakeholders to ask questions of the samples and find out about the things that interest them. This paper argues that, to borrow the language of sustainability, a more *circular* and *reciprocal* approach, founded on wider community engagement, is in our best interest. Results of two surveys are presented. The first asked community archaeology groups in the UK about their experiences with experts in biological remains and archaeological soils and sediments. The second asked some of those very experts about their experiences of community engagement and co-creation, both in the UK and on international projects. Springing from this, an agenda is then presented for a more inclusive, and more sustainable, bioarchaeology, geoarchaeology and human palaeoecology.

**Plant blindness in archaeology: problems and potential directions in archaeobotany**

Lisa LODWICK (University of Reading)

Archaeology is suffering from a case of plant blindness. Plants are rarely seen as active agents in past societies. Whilst social zooarchaeology has emerged as a genuine study field (Sykes 2014), archaeological mentions of "plant agency" are tentative and infrequent, and do not draw on the temporal and spatial richness of archaeobotanical data. Regretfully, the main people who think about past plants are archaeobotanists. Yet recent critical discussion of archaeobotany has focussed on methodological issues rather than theoretical approaches. Yet the two are linked - the publication of often inaccessible data in Latin terminology which means nothing to most archaeologists, the closed nature of conferences and the isolation of specialists in the post-PPG16 world in no ways helps non-environmental archaeologists to use our data. We find ourselves in the position that the main archaeological field in which plants are studied is inaccessible, and neither rich in data, epistemology or theory.

As the only real plant advocates in archaeology, archaeobotanists need to look towards the "plant turn" and more-than-human geographies in social sciences (Head and Atchison 2008; Head *et al.* 2014) to find workable models of how social theory can be applied to (archaeo)botanical data. In short, these approaches tend to take a 'Latourian' approach to plants by 'following' them throughout the year, in order to observe their affects on humans. In this paper, I will present an example of how "ecological temporalities" (Brice 2014) can be applied to actual archaeobotanical data, to show how plants structured the temporal nature of social interactions.

**Reconciling the body at Çatalhöyük: How isotopes, figurines, physical anthropology and grave goods tell us about flesh, maturity and age**

Jessica PEARSON (University of Liverpool)

Prof Graeme Barker makes the point, when discussing the future of Environmental Archaeology in Albarella's volume, how it was common to find excavation reports that contained individual specialised chapters, which were apparently "written in isolation" especially those by environmental and artefactual specialists. Studies of the body in archaeology have, until recent years, been conducted using discrete datasets too including physical and biological evidence from skeletal remains or bodily representations in material culture, but rarely the two together. For studies of the body, this particular separation has been produced through the fundamental distinction between the biological and the cultural specialisations within the discipline and the ways in which the body has been approached. Despite being living organisms, the mode of living by humans (e.g. diet, labour, reproduction) is predominantly socially constructed and ordered much like the objects in a burial assemblage, the scene in a wall painting or the shape of a figurine. The compatibility between all aspects of the body offers an opportunity to provide a much more robust evidentiary basis for identifying embodied social choices/constraints and to enable decades-old interpretations to be questioned. This is demonstrated here using a range of data collected from bodies at Çatalhöyük.

**Environmental archaeology: theorising the 'wild' in contemporary archaeology**

Andrew HOAEN (University of Worcester)

This paper grows out of research I have been carrying out on the archaeology of nature reserves and wild spaces. The belief has grown, especially in conservation and archaeological circles, that the UK landscape we see is largely cultural in origin and that human activity is central to the maintenance of biodiversity, both in the past and the present.

I want to critically assess this perspective. In this paper I want to explore places that are unmanaged what we might call the 'Wild'. The 'Wild' has been little considered in current archaeological theory, but I would argue it forms an important part of both contemporary and past environments. I think we need to broaden our approach to the 'Wild' and think about how societies and individuals would have interacted with environments away from their farms and fields. I would like to stimulate a discussion rooted in ecological philosophy taking readings from Thoreau and other philosophers of wilderness such as Woods to examine what a theory of the 'Wild' might be and how we might start to consider it in our archaeological reconstructions.

**Environmental archaeology and posthumanism discourse – some reflections**

Emily BANFIELD, Oliver HARRIS, Katrien JANIN and Richard THOMAS (University of Leicester)

Developed in diverse fields including philosophy, geography, biosciences and quantum theory, posthumanist ontological discourse has been identified for its promise in archaeology, receiving particularly enthusiastic welcome by practitioners whose work falls within the broad church that is human-animal studies.

Posthumanism is an ontological position, it is a way of being that recognises existence as relational: experience, understanding and existence itself emerges out of relations between phenomena and is therefore inherently fluid with transient stability.  Posthumanism challenges the assumption that humans are the only possessors of agency: further, a relational approach decentres humans within a flattened although not necessarily symmetrical ontology.

For archaeology, posthumanism offers a particular means of engaging with and understanding the past, which is as much a factor of practice in the present – from the questions asked to the mode of exploration - as it is with seeking to elucidate the nature of past practices. Although arguably initial engagements failed to fully grasp the implications of posthumanism, viewing it as a novel interpretative device to be applied to data sets, some more mature studies, for example, the work of Hamilakis and Overton on the Vedbæk-Bøgebakken human-swan burial recognise the need to rethink all aspects of practice, including data collection.  It is important to note that this is emphatically not a *rejection* of established methods and techniques.

Collaboration and interdisciplinary dialogue is here key.  By developing questions that recognise relationality and the dispersal of agency and through harnessing multiple techniques that offer potential to draw out these relations, different understandings have space to emerge.

In this paper we explore environmental archaeology as a post-humanist endeavour. In particular we will call attention to the fact that through multi-proxy analysis environmental archaeologists already think about the agency of plants, animals, soil, insects, people, etc. as a series of enmeshed relations. We will also highlight the potential for posthumanist discourse to advance the way in which we collect and engage with our data and touch upon some of the barriers that hamper such an approach.

### Geoarchaeology: a framework for cultural heritage often ignored

Andy J. HOWARD (Landscape Research & Management and University of Durham)

The dovetailing of cultural archaeological and geological datasets can be traced back to the observations of early antiquarians, who spent time in the field developing an intimate understanding of landscape.  However, since those early studies and despite the development of a plethora of science-based techniques that have allowed archaeologists to unravel the detail of landscape histories at ever increasing resolutions, geoarchaeology, the discipline that usually provides a framework to underpin the application of these techniques, is often still considered a specialist activity on the fringes of landscape analysis and terrain evaluation. Based on over 20 years' experience of working across the academic and commercial sectors, this paper will explore the reasons for the apparent isolation of geoarchaeology in the UK and consider how it should fit within the broader framework of archaeology taught in Universities, but also applied professionally in the commercial sector.

## Let's forget Environmental Archaeology and return to Pleistocene Geography: a perspective from the Palaeolithic

Martin R. BATES (University of Wales Trinity Saint David)

The term 'Environmental Archaeology' is one most commonly used in Holocene archaeological investigations to support traditional archaeologies or as the foundation of projects in which environmental archaeology is at the core (e.g. Martin Bell's work in the Severn Levels). By contrast Palaeolithic archaeologies rarely use the term Environmental Archaeology and tend to see those specialists who, when working on Holocene archaeologies as Environmental Archaeologists, metamorphosing into Quaternary Scientists when participating in Palaeolithic research. This subtle, but important shift in terminology, has a profound impact on the structure and way in which archaeological projects in the Palaeolithic are undertaken. This paper considers how the old "Butzerian" concept of Pleistocene Geography, that has been taken forward by the likes of Clive Gamble, allows us to undertake integrated investigations of archaeological and non-archaeological remains in the Pleistocene where boundaries between archaeologists and non-archaeologists are minimised and truly integrated projects can develop as a result.

## The future is bright for archaeology, an example of integrated multi-disciplinary approaches of the NeoMilk project

Rosalind GILLIS (Muséum National d'Histoire Naturelle – CNRS, Paris) and Richard P. EVERSHED (University of Bristol)

In the last ten years there has been an increase in dynamic, large scale European archaeological projects, which have integrated different sub-disciplines of archaeology to investigate human societies and their relationship with their surrounding environments. NeoMilk is an ERC Advanced Grant (2013-2018) awarded to Prof. Richard Evershed to examine Linearbandkeramik (LBK) animal husbandry, food processing and consumption. Therefore the project combines organic residue, geochemical and archaeozoological analysis with 'traditional' cultural archaeological approaches such as ceramic typological and settlement analysis. The integrated approach of this project directly investigates at the same time the cultures' consumption habits and the role that the environments played in influencing their subsistence economies. Integrated projects like these allow us to develop and test archaeological theory and we would argue that they will make a serious contribution to social theory in archaeology in the future.

## Who cares about bones? The relevance of social zooarchaeology to wider archaeology

Lauren BELLIS (University of Leicester)

Within the last 15 years, substantial theoretical progress has been made within the area of zooarchaeology. The significance of animal remains has begun to be considered beyond simply their contribution to human diet, bringing rise to a new aspect of zooarchaeology: social zooarchaeology. This attempts to understand the entirety of social relations between humans and animals, and how both parties were influenced by these relationships. Although the area is emergent, the advances are promising and moving along the right track.

However, as with other areas of environmental archaeology, zooarchaeology still maintains a separation from wider archaeology. Yet animals mean much more to people than just diet. They are linked to identity, social status, human views of the natural world and even attitudes towards human beings. Therefore, this separation is to the detriment of both zooarchaeology and wider archaeology.

This paper will consider the value of social zooarchaeology when considering wider archaeological questions and themes, using my own MA and early PhD work on the relationships between humans and dogs in Roman Britain as a case study. How greater integration may be achieved, and why it matters, will be discussed.

### Environmental archaeology – a laissez-faire approach

Naomi SYKES (University of Nottingham)

Every year I teach an undergraduate module called 'Environmental Archaeology'. Every year I open my first lecture with a rant about how dreadful the module is, that it has no place on the curriculum and that I will never teach it again. I have said that every year for the last decade.

As a concept Environmental Archaeology is surely both problematic and useful but, beyond the first lecture of my undergraduate module, it is something I think very little about. I have never picked up, let alone read, Albarella (2001) *Environmental archaeology: meaning and purpose* (sounds tedious!). But having agreed to speak in this session, I probably ought to. Indeed, I am curious to take the time to consider whether I – as someone who started in commercial 'Environmental Archaeology' and now, scarily, trains others to do likewise – am part of the problem.  Who knows? It'll be fun to find out…

## TYRANNICAL TALES?  FICTION AS ARCHAEOLOGICAL METHOD

Session organisers: Daan VAN HELDEN and Robert WITCHER (University of Leicester and University of Durham)

A session at the Theoretical Roman Archaeology Conference (TRAC) in March 2015 brought together a group of archaeologists and novelists (and archaeologist-novelists) to debate the value of historical fiction as an archaeological technique. The result was a lively discussion that left the participants (both speakers and audience) convinced that there was much more to be explored, and the need to reach out to a wider range of practitioners. Shortly after TRAC, *Subjects and narratives in archaeology*, a collection of papers edited by Van Dyke and Bernbeck, including short contributions on archaeological storytelling and fiction was published. Strikingly, however, the intellectual genealogies of these two sets of contributions demonstrate less overlap than might be imagined. Although the foundational work of James Gibb and the Adrian and Mary Praetzellis are cited by all, the wider scholarly and fictional literature cited is distinct. This may relate to sub-disciplinary differences (e.g. historical/ anthropological archaeology vs. Roman archaeology/ history) and/or to a general difference between North American and European (or British) approaches.

The broad issue of narrative and the role of fiction appear to be of renewed interest for a diverse range of archaeologists. With this session, we aim to bring together some of the contributors from the TRAC session and some of the authors from the Van Dyke and Bernbeck volume to discuss differences and similarities in approaches. The intention is to build on the "increasing clamor for and interest in alternative forms of archaeological narratives" (*ibid*.: 1) in distinctive ways, including:

- A deliberate focus on how fiction benefits the practice of archaeology, rather than how it can be used as a vehicle for public outreach or communication;
- The similarities and differences of fictional narrative in relation to prehistoric and historical periods;
- The ethics / responsibilities of writing fictional narratives of others' histories;
- Poorly explored aspects at the intersection of archaeology and fiction, such as empathy;
- Links with other areas of archaeological theory (e.g. phenomenology);
- Links with other disciplines, especially Classics and TV and Film studies (especially in relation to reception studies) and History (e.g. experimental writing such as Keith Hopkins *A world full of gods*).

We start from the perspective that differences between fictional and archaeological narrative are "generic not intrinsic" (Elphinstone and Wickham-Jones 2012) and that fiction should be part of the research process not the outcome. Beyond that, we don't know where the story will end.

Elphinstone, M. and Wickham-Jones, C. (2012) Archaeology and fiction. *Antiquity* 86: 532-7.

Van Dyke, R.M. and Bernbeck, R. (ed.) (2015) *Subjects and narratives in archaeology*. Boulder: University Press of Colorado.

**The cornflakes of prehistory: the nature of fact and fiction in archaeology**

Caroline WICKHAM-JONES

This paper explores the boundary between fiction and fact in archaeological writing. Looking back to a time when the two were blurred it is possible to consider the nature of fact in archaeology, the value that we place upon interpretation, and the role of fiction in teaching. If we accept that fact is rarely objective, we open the way to the introduction of new sources of information and to wider interpretations. Once we can get away from ascribing a spurious factual nature to our 'interpretive' site reports then it becomes clear that we are dealing with a grey scale of communication. If we are to produce 'archaeology for all' then it is important to value a wide range of skills and sources in addition to those of the traditional archaeologist.

**Writing wonders: poetry as archaeological method?**

Erin KAVANAGH (University of Wales Trinity St David)

*"Archaeology is the search for fact. Not truth. If its truth you're interested in, Doctor Tyree's Philosophy class is right down the hall". (Indiana Jones, 1989)*

Fact, fiction, it's a dialectical debate that both crosses and divides disciplines from archaeology to philosophy. Questions of truth value via authenticity, authority and provenance abound alongside those of definition in theory and practice. This, however, paper argues that maybe, on occasion, it really doesn't matter if we cannot tell fact from fiction — assuming that such telling is even possible. Instead, the blurring of this normative line may open an intersection in which our minds can engage in alternative ways of thinking to those that our academic and professional training usually dictates.

Poetry sits in this intersection. It affords both the writer and the reader room to explore a variety of perspectives in a succinct form. Akin to a photograph it can be both art and reportage, a snapshot in which to hold a moment or to expand a concept, empowering us to "seize back the creative initiative" (Eshun and Madge 2012). As archaeologists we not only have a responsibility to the cultures we are representing, but also to the process by which we achieve this with one another — and to ourselves. The diktat of site reporting can be at odds with the demotic positon we inhabit as living beings (Pluciennik 2015) which can strip away the emotional meaning we glean from the wonders we are uncovering; and in so doing the whole reason we began archaeology in the first place. Thus perhaps it is time to consider whether or not we can allow ourselves a small platform on which to regain and express the wonder we feel when we hold a pot, discover a mosaic, or make a leap of interpretation.

For if we are writing about wonders, can we therefore not do so wonderfully?

**Try walking in my shoes: empathy and archaeology**

Robert WITCHER (Durham University) and Daan VAN HELDEN (University of Leicester)

When practising archaeology, we turn to our *ratio*. We are both trained and expected to evaluate evidence critically and objectively in order to achieve the best possible understanding of the archaeological record. There are, however, other intellectual ways of engaging with the past, for example, through emotional connections such as empathy. Indeed, empathy is an important part of our existing academic toolkit, though its role in archaeological interpretation is often implicit. By contrast, writers of historical fiction (and more generally, TV producers, film directors, etc.) make much more explicit—and effective—use of imagination and emotions such as empathy.

In this paper, we explore the ways in which creators of historical fiction use empathy and consider if and how empathy might be used more explicitly and profitably by archaeologists. Illustrating our paper with examples of published fiction, set in the Roman world as well as other periods, we will explore whether empathy with people in the past is possible, if and how it might vary by context (e.g. period or place), and whether or not this practice can improve (academic) understanding of the past. In other words, can we harness the power of fiction to aid our scholarly endeavour? Most importantly, does it have the potential to change not only how and what we write, but how we understand the past? Or, by erasing the distinction between archaeologist and novelist, and between fact and fiction, is there a risk that "The Sleep of Reason Produces Monsters"?

*The Sleep of Reason Produces Monsters. "Fantasy abandoned by reason produces impossible monsters: united with her, she is the mother of the arts and the origin of their marvels". Francisco Goya c.1799.*


**Imagined realities in the portrayal and investigation of the British Mesolithic**

Don HENSON (University of York)

Fiction can be a powerful way of imagining the past. Examining how the Mesolithic has been communicated is part of my PhD research into public perceptions of the Mesolithic. The starting point for this paper is the words of novelist Margaret Elphinstone: "In the blank spaces between the words of archaeological narrative lie the buried kernels of all the forgotten stories". This paper will explore the dissonance between academic portrayals of the Mesolithic and portrayals of the period in fictional novels and short stories. I will look at the range of narrative elements presented: characters in settings carrying out actions which may be affected by external happenings. Whereas archaeology of the Mesolithic is good at conveying settings and happenings, I will argue that it is to fiction that we must turn for an exploration of characters and actions. This in turn should deliver a better appreciation of what we should be seeking to recover through our research. We need to move beyond seeing Mesolithic people as hunter-gatherers and towards a more rounded view of them as people, and to think how we might recover aspects of life higher up Hawkes's ladder of inference than the purely technological and economic.

**The ultimate post-excavation experience: fictionalising La Hougue Bie**

Mark PATTON (The Open University)

Not many archaeologists have gone on to write novels, and those who have (e.g. Francis Pryor's *The Lifers' Club*, Glyn Daniel's *The Cambridge Murders*) have more often set their novels in the contemporary world of their own professional lives than in the past worlds that they have spent their lives studying.

My own project, as an archaeologist turned novelist, is a different one. I have now published three historical novels, all of which draw directly on the archaeological record, as well as on historical sources, basing my settings on excavated sites; and my characters, in some cases on historically documented people, and in other cases on archaeologically recorded burials.

Both my first novel, *Undreamed Shores*, and my third, *Omphalos*, draw directly on my own published archaeological research. Crafting them was, self-consciously, a literary, rather than an archaeological, undertaking, but I was also conscious of building on my earlier archaeological work and, in doing so, of posing questions, the answers to which were largely, or entirely inaccessible, to the archaeologist I had previously been. Some of these questions are posed by Margaret Elphinstone and Caroline Wickham-Jones (2012), in their exploration of "the blank spaces" and "forgotten stories" that lie between the "words of archaeological narrative." What were people called? What did they eat for breakfast? What were their creation myths? Others suggested themselves as the stories unfolded. How might time have been divided up? How did prehistoric "exchange" actually function, on the level of conversations and relationships between individuals? What was the emotional landscape of people in the remote past?

In *Omphalos*, I returned to a specific archaeological site, La Hougue Bie, on the island of Jersey, which I had excavated and published as an archaeological monograph twenty years previously, in part to see what new questions might be posed, and what new insights might be gained by trying to tell the stories of individual people whose lives intersected at the site at various periods in time, from the 1940s back to the Early Neolithic. In this paper, I will explore the questions I was provoked to ask, and the ways in which I answered them, with reference both to the archaeological record which was changing, even as I was editing the novel) and to ethnographic analogy.

If there is a sense that academic archaeologists working within "post-processual" and "phenomenological" traditions have taken the process of archaeological inference to its natural limits (and, perhaps further), there may also be a willingness to explore, more overtly, those aspects of the human past that are currently inaccessible to purely scientific inference. Mark Edmonds, for example, in his *Ancestral Geographies of the Neolithic*, includes fictional vignettes in what is otherwise a straightforward archaeological monograph; whilst Francis Pryor, in *Home: a Time-traveller's Tales from British Prehistory*, remains on the ground of non-fiction, but delves into areas (e.g. the prehistory of the family) rarely reached by a "scientific" approach.

This may be an appropriate moment at which to review the ways in which different modes of imagining and writing about the past (scientific and imaginative, fictional and non-fictional) might develop in tandem, and in conversation with one another.

**Ambiguity and omission: creative mediation of the unknowable past**

Giacomo SAVANI (University of Leicester) and Victoria WHITWORTH (University of the Highlands and Islands)

The role of the imagination in archaeology is foregrounded here by two scholars who are also both creative artists. This joint paper will bring together the fruits of their discussion about how to represent the unknown as well as the known in archaeological analysis and interpretation. Savani and Whitworth have been collaborating on an imaginative project combining creative writing, graphic art, material culture and landscape. This paper incorporates both creative work and reflective practice.

**Consuming pasts: a storyteller's take on taking**

James GIBB (Smithsonian Environmental Research Center, Maryland, USA)

Ruth Van Dyke and Reinhard Bernbeck provided 12 of my fellow contributors and me with the opportunity to explore alternative approaches to seeing the past in the publication earlier this year of *Subjects and Narratives in Archaeology*, building on Jameson, Ehrenhard and Finn's 2003 edited volume, *Ancient Muses: Archaeology in the Arts*. Theory took a backseat in both publications, and questions remain, two of which I address in this session:

1. What is the ethical basis for using the lives and customs of past peoples?
2. And, how does one develop a dialogue from an imagined past?

I ask participants to come prepared to remember what they ate the previous evening and to contribute to the development of a few lines of theatrical dialogue.

# MENTAL HEALTH IN ARCHAEOLOGY

**Session organisers: Sarah BOCKMEYER and Lewis COLAU**

Mental Health; the final taboo? Approximately one in four people suffers from depression or anxiety at some point in their lives, many of whom go untreated or struggle through their careers with no real understanding of what it is that affects them. Symptoms are varied and seem to wax and wane but rarely disappear permanently, instead reappearing at times of heightened stress. To make matters worse there are often no visible signs of suffering as are present in better understood illness. Depression and anxiety are only two of a vast range of mental health issues and yet it is one of the only remaining taboo subjects which affects so many. Academia is widely regarded as a highly stressful environment in itself but when considered within the context of our multi-faceted discipline, archaeology stands to gain the most from an open and honest appraisal of this subject matter. Approximately 53 percent of UK academic staff have at some point in their careers suffered from depression and/or anxiety (Kinman 1998: 13) caused by increasing stress levels. (Kinman and Wrail 2013: 3 and Shaw and Ward 2014), though there is a general paucity of data available.

Recently two articles were published in the *Times Higher Education* as to whether or not one should hide mental health conditions in academia. The arguments on both sides are poignant; being open to asking for help from colleagues and superiors to create better understanding and appreciation or to hide the issues that are present to prevent repercussions from colleagues that do not understand the complexity of the conditions.  A recent survey published by *The Guardian* has shown that people who told their superiors had been offered help in various ways (Thomas 2014). Furthermore, the survey reveals that more than half of those surveyed still keep their mental illness hidden from colleagues and even more so from superiors (Thomas 2014). The question arises that if in archaeology the same problems exist as they do elsewhere in society, is understanding mental health issues even more important given the unique challenges of our discipline?

From research through to excavation mental health issues can be difficult to deal with both as someone with the conditions as for those working alongside them and no one of these situations come without risk. Many people in academia appear to be understandably afraid of presenting themselves as having mental health problems lest it impact their career, yet with so many people suffering from these conditions we want to examine this critical topic in an open session.

We ask: why not rid ourselves of the awkwardness of disassociation with mental health and unite across our disciplines to engender discussion and to further the professions to which we are all responsible?

This session seeks to answer some of these questions and discuss if there are possibilities to improve the situation and also to see if there is a general opinion given the experience of people with mental health in archaeology about openness with mental health issues. We invite everyone regardless of personal experience to discuss these and related issues. The discussion panel is planned to include the introductory speaker, a mental health professional with a deeper insight into mental health issues and several member of academic and commercial archaeology staff that represent the professional side of archaeology and the employer's perspective.

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Kinman, G. and Wrail, S. (2013) *Higher stress. A survey of stress and well-being among staff in higher education*.

Shaw, C. and Ward, L. (2014) *Dark thoughts: Why mental illness is on the rise in academia* at http://www.theguardian.com/higher-education-network/2014/mar/06/mental-health-academics-growing-problem-pressure-university. Accessed on 22/05/2015, 13.27 GMT.

Thomas, K. (2014) *We don't want anyone to know, say depressed academics* at http://www.theguardian.com/higher-education-network/blog/2014/may/08/academics-mental-health-suffering-silence-guardian-survey. Accessed on 22/05/2015, 13.43 GMT.

Unknown Author (2015) *Mental illness: Shedding light on the darkness"* at http://www.timeshighereducation.co.uk/comment/opinion/mental-illness-shedding-light-on-the-darkness/2018979.article  Accessed on 18/05/2015, 15:32GMT.

Unknown Author (2015) *"Mental Illness: I keep Mine Hidden"* at http://www.timeshighereducation.co.uk/comment/opinion/mental-illness-i-keep-mine-hidden/2019639.article  Accessed on 19/05/2015, 18:17GMT.

**Introduction**

Lewis and Sarah COLAU


**Mental health in nineteenth- and early twentieth-century California**

Alyssa SCOTT (University of California, Berkeley**)**

In this presentation, I aim to discuss strategies for investigating the social understanding and treatment of mental health conditions in the archaeological record.  Archaeologists have already considered many closely related topics such as grief and mourning, spirituality, affect and emotion.  I will begin by presenting a case study of grief and mourning in an artifact assemblage from nineteenth-century Sacramento, California.  Using this case study, I will critically examine how existing topics in historical archaeology can address mental health conditions in the past and the implications regarding stigma and narrative.  Next, I will discuss my prospective plans for studying sanatoriums and the use of space in early twentieth-century California.  Mental health encompasses a wide variety of conditions, from depression to brain injuries.  By studying changes in institutional treatment of health conditions over time, archaeological research can critically address and destabilize issues of identity, health norms, and body versus mind dichotomies.  Studying the social side of health can broaden our understanding of the diversity of mental health conditions, reduce stigma, and heighten awareness of structures within our discipline which make aspects of archaeology inaccessible to people with mental health problems.

**I mind about your mind!  Understanding mental health in British archaeology**

Hannah COBB (University of Manchester)

In the most recent *Profiling the Profession* study, Aitchison and Rocks-Macqueen showed that 98.2% of archaeologists are not disabled. Yet 1 in 4 people is likely to suffer from mental health problems during their lifetime. How can there be such a discrepancy between archaeologists and the rest of the population? Are we, as a profession, a statistical anomaly, or are our statistics on disability anomalous? I suggest the latter may well be the case not through any fault of the existing data, but rather because of social and disciplinary attitudes. Mental health is a notoriously difficult thing to talk about. The stigma it carries alone is enough to keep many quiet about their condition in the workplace but other factors come in to play too. In an uncertain and competitive jobs market, where expectations around macho bravado and "toughing it out" are often seen as crucial qualities in employees, this may create a climate in which it is very hard for employees to be honest about their mental health. Given these issues, and that *Profiling the Profession* is completed largely by employers to whom many mental health issues may not have been declared, it seems that we need a "bottom up" study to fully understand the picture. I will, therefore, be undertaking a detailed online survey of students and professionals in UK archaeology. To undertake the survey yourself please click here. The survey will remain open into the new year, but the preliminary results will be presented in this session, along with an initial discussion of what can be done to support those with mental health issues in the profession.

**Myth, materiality and mental health**

Andrew HOAEN (University of Worcester)

Archaeologists are familiar with the idea of objects with biographies, and the concept that the materiality of things helps in the construction of meaningful assemblages. I would like to take these ideas further and explore how objects, documents and places help to construct the narratives of an individual in the present day. I wish in this paper to explore what an archaeology of the self might consist of and how such an archaeology might help people who have for a number of reasons partial amnesia(s).

Memory loss and dysfunction plays an important role in Post Traumatic Stress Disorder (PTSD). PTSD can be diagnosed for many reasons but it is particularly severe for those who have survived intense life threatening trauma. For people with this illness, while parts of their memory will be bright and vivid other parts may have lacunae; there may be partial amnesia either organic or psychological in nature.

I will argue that objects, documents and photos assist the process of therapy in several ways. They can help bridge memory loss either by stimulating the recovery of lost or buried memories, or by filling in details lost to time or to amnesia. Secondly, the process of therapy often involves grounding. Grounding is important within the healing process in two ways firstly it is a means for patients to bring themselves out of the more disturbing aspects of their illness when they occur and secondly in therapy it is a way of returning to normality after revisiting traumatic events. Grounding can take several forms but physical contact with significant objects has an important role to play in this process.

This paper is a reflective piece on the role materiality and the archaeology of the self played and continues to play in the treatment of my own PTSD.

### Are you OK? An exploration of suffering during archaeological fieldwork

Guillermo DIAZ DE LIAŇO DEL VALLE (Brunel University of London)

The relations between Archaeology and Health remain a hidden topic which have not received any attention from Academia. This paper seeks to shed light on this problem through the analysis of three issues.

The first one is a preliminary exploration of why archaeological reflexivity, which has paid attention to matters of power, class or gender, among others, has ignored the mental and emotional health of researchers. In contrast it is shown how Anthropology has dealt with this problem in a different way, acknowledging it as an important element to consider in the production of ethnographic knowledge.

The second issue is the analysis, in an ethnographic key, of various case studies showing the importance of a very frequent phenomenon during archaeological fieldwork: suffering.

The third and final one is a short review of a few mechanisms that might prove helpful when coping with suffering during fieldwork, with the intent of fostering an open and interdisciplinary debate regarding how to face this important problem in the production of archaeological knowledge.

### A biopsychosocial study of Op Nightingale, the perceived therapeutic effects of archaeology within a vulnerable population

Diarmaid WALSHE (RAMC)

Organised outdoor activities are increasingly advocated as promoting multiple benefits for mental health wellbeing. This has resulted in significant investment in a growing number of outdoor events.  Op Nightingale runs similar activities using archaeology with both serving personnel and veterans of whom up to 50% have suffered either / both physical and mental health (MH) problems.

However no proper medical research project has been carried out to investigate the claims of perceived therapeutic benefits for these types of programs. To claim any form of medical benefits and to be accepted by the NHS and medical agencies, clinical governance requires an ethical medical research project to be undertake. Under the control of Defence Medical Services this has now been carried out by Col A Finnegan, Prof of Defence Nursing and Sgt Diarmaid Walshe RAMC and the initial results have important implications for the delivery of these programs in the future. The paper will look at the background, the study, the conclusions and how they affect the heritage sector in the future delivery of these projects.

## An out of the box perspective on archaeology and heritage as contributors to dementia care in Europe

Lilla VONK (Universiteit Leiden)

Dementia is prevalent among the elderly population of Europe, and cases of dementia are expected to increase rapidly in the coming years. While dementia has severe psychological impact and social consequences for individuals, it has notably been studied from a neuro-medical viewpoint. The psycho-social implications of the syndrome and consequences for wellbeing and quality of life are topics that have begun to emerge only in the previous two decades. An involvement of disciplines other than those stemming from the neurological and medical fields can enrich the way dementia and its effects on the wellbeing of individuals are handled. This paper argues that in this light, archaeology can potentially make a valuable contribution to European dementia care. It sets out a theoretical argument that builds on previous initiatives involving archaeology and heritage in a health care context. The argument I present highlights specific characteristics of archaeology that make it suitable for such an involvement. I conclude that engaging in archaeology-based activities could be beneficial for the wellbeing of people with dementia.

## Inclusion and therapy: archaeology and heritage for people with mental health problems and/or autism

William RATHOUSE (University of Wales Trinity Saint David)

Whilst completing a PhD relating to inclusion in heritage I have been working with people diagnosed as autistic and with people experiencing mental health problems. I have worked on projects which use archaeological fieldwork as an occupational therapy for people with mental health problems and/or autism. I am also interested in how the management, presentation and organisation of heritage attractions may serve to exclude these people and what changes might promote inclusion.

This paper, therefore explains how Mind Aberystwyth members have experienced opportunities to work on archaeological digs in Wales and what difficulties the focus demographic have found accessing heritage and how these difficulties can be overcome. Having learned of therapeutic archaeology projects including Mind Herefordshire's 'Past in Mind' project and the Defence Archaeology Group's Operation Nightingale, and with the encouragement Fiona Aldred (chief executive of Mind Aberystwyth) I took members on archaeological digs in 2014 and 2015. I shall explain how participants found their experience and the benefits they gained from it. I shall then question how the designers and managers of heritage attractions in the UK have succeeded or failed in the ethical imperative (championed by John Carman, Emma Wateron, Laurajane Smith and others) with regards to those affected by autism and mental health problems. One colleague has told me of problems he experienced taking his autistic daughter to Stonehenge. However I can also point to at least one voluntary organisation in the heritage sector which has demonstrated great success in supporting and encouraging self-esteem and coping strategies for members affected by mental health and autistic spectrum conditions.

This paper seeks to show that archaeology and heritage have a valuable role to play in promoting inclusion of and participation by people on the autistic spectrum and affected by poor mental health and to encourage further research in order for this role to be fulfilled.

## HETERARCHIES OR HIERACHIES?

**Session organisers: Mhairi MAXWELL and Adrian M. CHADWICK (Glasgow School of Art and University of Leicester)**

Traditional models of social organisation and production stress the development of stratification and the emergence of hierarchies of power and settlement; whether for example early Bronze Age elites or later Bronze Age 'great enclosures', hillforts versus 'open' settlements in the middle Iron Age, the dramatic increase of artefacts and materialities apparently emphasising social stratification in some regions during the later Iron Age, or the development of towns, villas and farmsteads during the Roman occupation. But does the archaeological evidence still support such meta-narratives of social organisation and production? The past 30 years have seen an explosion in the amount of data available to archaeologists in Britain, through the work of extensive aerial survey work such as the National Mapping Programme, the results of developer-funded archaeology, and the results of large-scale research such as EngLaId (the English Landscapes and Identities project) and The Rural Settlement of Roman Britain project. From the prehistoric through to the early medieval periods in the British Isles, this work has all highlighted the much greater inter - regional and intra-regional diversity in settlement forms, burial and ritualised practices, material culture use and production, in some instances expressed at quite localised or smallscale levels.

As an alternative to traditional hierarchical meta-narratives, heterarchy (Crumley 2005) is a powerful theoretical concept. It is defined as "the relationship of elements to one another when they are unranked, or when they possess the potential for being ranked in a number of different ways" (ibid: 36). Over the past two decades, heterarchy has been embraced to explain the dynamism of power relationships in world archaeological cultures, where traditional models of social evolution and hierarchy do not work (e.g. case-studies in Mesoamerica, Joyce and Hendon 2000; or pre-Hispanic Northwest Argentina, DeMarrais 2013), though the concept has also been criticised in the past for being too loosely applied and not sufficiently theorised (e.g. Thomas 1994).

The variety of inter-relationships between people, place and materials are increasingly archaeologically visible in the British Iron Age for example. Material culture analyses reveal complex relationships between different crafts and consumption practices – as with the fragmentary and distributed evidence for iron working, absence of standardisation and localised smithing in the middle to late Iron Age in south-east and central England, which has been argued by Ehrenreich (1995) to represent a distributed access to materials and alienable crafting know-how, and therefore geographically distributed power. Giles (2007: 400) has emphasised how the performance of craft activities and depositional practices enacts the fluid and dynamic transfer of political and ritual authority in social organisation. We have invited papers from all periods which explore alternatives to traditional hierarchical models of development, and which explore or celebrate diversity, fluidity and complexity in social organisation and/or ontology.

Themes which could be explored include:

- Can diversity of form in the record be equated to plurality of practice?
- How can we build models of the evidence which make sense of the reality of past 'messy' relationships that make up social organisations, and are theories or models of heterarchy useful or appropriate for this end?

- Is a hierarchical versus heterarchical dichotomy even appropriate, or far too simplistic? Did power and authority, structure and agency also vary according to place, context or other factors?
- What other theoretical models (e.g. Ingold's meshworks, assemblage theory) might also be helpful for understanding alternative social organisations and ontologies, and their development?
- Can more nuanced ethnographic studies offer any insights?

Crumley, C.L. (2005) Heterarchy and the analysis of complex societies. *Archeological Papers of the American Anthropological Association* 6 (1): 1-5.

De Marrais, E. (2013) Understanding heterarchy: crafting and social projects in pre-Hispanic Northwest Argentina. *Cambridge Archaeological Journal* 23 (3): 345-362.

Ehrenreich, R.M. (1995) Early metalworking: a heterarchical analysis of industrial organization. In Ehrenreich, R.M., Crumley, C.E. and Levy, J. (eds.) *Heterarchy and the analysis of complex societies.* Washington, DC: American Anthropological Association, 33-39.

Giles, M. (2007) Making metal and forging relations: ironworking in the British Iron Age. *Oxford Journal of Archaeology* 26 (4): 395-413.

Joyce, R.A. and Hendon, J.A. (2000) Heterarchy, history, and material reality. In Canuto, M-A. and Yaeger, J. (eds.) *The archaeology of communities: a new world perspective*. London: Routledge, 143-159.

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**Introduction**

Adrian M. CHADWICK (University of Leicester) and Mhairi MAXWELL (Glasgow School of Art)

**Discourses of diversity – hierarchies or heterarchies of settlement and social organisation in later Iron Age and Romano-British rural landscapes**

Adrian M. CHADWICK (University of Leicester)

The evidence from National Mapping Programme and other aerial photography rectification, geophysical survey and extensive commercial developer-funded archaeological investigations indicates that during the later Iron Age and Romano-British periods, there was often marked diversity in settlement size and form, not just between different areas, but at an intra-regional level too. Settlements ranged from small individual enclosures, some of 'D-shaped' or 'banjo' form; through to larger 'ladder', 'clothes line', 'agglomerated' or 'nucleated' enclosure groups, villas, and small towns. Though some diachronic trends are apparent, it is nonetheless clear that this diversity did not simply reflect chronological differences.

What does this evidence therefore represent? Is such variety a product of hierarchical social structures, from small family groups in individual farmsteads through to wealthier individuals and communities in larger settlements; or were these relatively heterarchical rather than hierarchical societies, with a much 'flatter' social structure? Are such binary distinctions too

simplistic, and what can the evidence for agricultural and craft production tell us? Can social differentiation be simply 'read off' from material remains, and is ethnohistoric evidence from medieval and contemporary 'peasant' or small-scale societies of any relevance? Were factors such as seasonality, locale, gender and other social differentiations also important, and the impact of the Roman conquest? This paper critically interrogates the evidence for hierarchies and heterarchies for the later Iron Age and Roman periods in northern England.

## Institutionalization as a form of social organization: what does it mean for people to be 'together'?

Artur RIBEIRO (University of Kiel, Germany)

Understanding how societies develop through time remains to this day one of the central aims of archaeology. In this effort, many ideas pertaining to sociality have been put forward. However, as Timothy Webmoor and Christopher Witmore have pointed out (2008), after several decades of research into social behaviour, we have fallen into a theoretical bog where the term 'social' has lost most of its original meaning. We have yet to understand, as Richard Sennet puts it, what it means for people to be 'together' (2012).

The idea commended in this paper is that a society is ultimately a combination of institutions that are formed when people reach an agreement on how to act. Based on the work of Ludwig Wittgenstein, Charles Sanders Peirce, and Vincent Descombes, I will argue that societies develop through triadic relations in which at least two individuals establish a social relation by agreeing to a third element: an institution of meaning (Descombes 2014). Essential to this argument is the Wittgensteinian notion of 'rule-following' where one can only be part of an institution if one knows how to behave according to certain rule.

In archaeology, this would translate into an approach that seeks to reconstruct the institutions where hierarchical and/or heterarchical development is facilitated. For instance, it is only possible to have a hierarchical development if a given society has institutionalized ranks of authority: for a person to be recognized as a king there must be an agreement to recognize the rule of one person over its subjects, i.e. a monarchy. With regards to heterarchy, one would need to recognize those institutions that do not necessarily lay claim over power and authority, like the institutions of craftsmanship.

While there are limitations to the notion of institution of meaning, it manages to reduce the "messiness" that is the link between the free-standing agent and the structures that organize societal life. Furthermore, it ultimately extends the term 'society' to signify not just a collective of individuals but to a deeper understanding of what it ultimately means to be together.

Descombes, V. (2014) *The institutions of meaning*. Cambridge (MA): Harvard University Press.

Sennet, R. (2012) *Together: The rituals, pleasures and politics of cooperation*. London: Penguin Books.

Webmoor, T. and Witmore, C.L. (2008) Things are us! A commentary on human/things relations under the banner of a 'social' archaeology. *Norwegian Archaeological Review* 41 (1): 53-70.

**Dealing with difference: investigating social diversity in the central European Neolithic**

Penny BICKLE (University of York)

Cultural historical approaches to the central European Neolithic have cast a long shadow over archaeological research. In comparison to the British Neolithic, where cultures named by type-sites and pot styles have faded from use, in central Europe they persist, where they have become the framework through which notions of Neolithic social diversity are explored. Differences within cultures have become reified into 'types' of society; with a 'culture' often assessed against perceived markers for hierarchy (e.g. Big Men vs. Chiefdoms), with a subsequent impact on how other differences—particularly between men, women and children—are interpreted. This impacts how change is then modelled in the Neolithic: growth in hierarchy, which is placed firmly in the hands of those at top, is thought to drive social change and innovation. This may have been the case, but it remains to date an assumption, rather than established through investigating the archaeological evidence. There is now increasing evidence for diverse lifeways across the central European Neolithic, in which not everyone in one 'culture' was living with the same social organisation (i.e. that there was plurality in practice). Taking the burial evidence as its focus, this paper aims to challenge the models of hierarchy as the driving force for change in the Neolithic and to explore some of the other ways in which diversity was a significant factor in Neolithic lives.


**The significance of the landscape: towards a non-hierarchical approach to heritage protection**

Jonathan LAST (Historic England)

Heritage agencies usually approach the protection of archaeology in terms of individual sites that are determined to be of particular significance. In England assessments of significance depend on various hierarchical processes: categorising a site or monument, defining its boundaries and determining its importance. This tends to produce an atomised view of archaeological landscapes, juxtaposing a few scheduled sites with a mass of undesignated archaeology, which is not representative of the ways those landscapes were inhabited in the past. The concept of 'national importance' is often applied in a way that pays little attention to the heterarchical relationships implicit in the creation of local context or character. Such hierarchical landscapes of heritage protection might seem largely irrelevant to academic narratives of past landscapes, but they matter because they are instrumental in planning policy and development control, often determining the nature of our interventions in those landscapes.

Drawing on the results of a recent project in Wiltshire, this paper begins to explore the application of more heterarchical ideas to heritage protection in a landscape context. I will suggest that a contextual approach could be developed on the basis of a better articulation of local character and place, reflecting changing patterns and perceptions of landscape, combined with a more sophisticated understanding of significance. This could in turn lead to planning tools that are more commensurate with the past social organisations reflected in the archaeological record.

**Making meta: towards ontological heterarchy**

Oliver HARRIS (University of Leicester)

Heterarchy is usually associated with the organisation of social relations. In this paper, however, I will draw on the concept to think through how it can allow us to explore the existence of multiple ontologies in the past. Rather than past communities possessing a single dominant ontology (animism, totemism or whatever) this paper will develop the idea that multiple ontologies co-exist, and critically that in many contexts they exist in relations of heterarchy. Peeling back the layers of these ontologies will reveal the processes of assemblage through which these differences emerge.

**Ever increasing circles. Revisiting prehistoric enclosure sites in central Portugal**

Catriona D. GIBSON (University of Wales)

In the last 15 years an enormous increase in data, principally generated from developer-led archaeology, has resulted in a far more detailed and complicated picture. Until 1997 only two Chalcolithic ditched enclosure sites were known – now over 30 have been identified. This new evidence highlights the impressive diversity in the character of these sites, ranging from small short-lived single ditched enclosures to large, long-lived multiple concentric- ditched enclosures, including several 'mega-sites' over 500 hectares in extent. They are found in a range of locations including hilltops, plateaus and valleys, whilst internal features indicate they served a wide variety of functions including activities of a domestic, ritual and funerary nature. Detailed suites of radiocarbon dates demonstrate that some were single phased sites, while others attest to intermittent or continuous activity that may have spanned 1500 years or more, from 3300-1800 BC.

Usually amalgamated under the term '*povoada fortificada'*, it is time to abandon this unhelpful label as it masks the rich diversity that the enclosure tradition encompasses. Ditched and walled enclosure sites were not regionally discrete, and some sites combined both stone and ditch architecture; furthermore the enclosing element was not primarily for defensive purposes. This paper will focus on the Alentejo region of central Portugal, where extensive excavations in advance of the Alqueva dam project revealed a diverse range of enclosures and associated sites dating from the Late Neolithic to Early Bronze Age. By tracing the emergence and development of these sites, and celebrating the wide range of practices they encompass, we can move beyond the interpretation that they simply represent hierarchical societies. Instead, I will explore aspects of their development and transformation to highlight the tangled meshworks they were embedded in, and how social relations were expressed in and between these sites.

Blance, B. (1961) Early Bronze Age colonists in Iberia. *Antiquity* 35 (139): 192-202.

Kunst, M. (1987) *Zambujal, Glockenbecher und Kerblattvertzierte Keramik aus der Grabungen 1964 bis 1973*. Mainz am Rhein: Phillip von Vabern.

Sangmeister, E. and Schubart. H. (1971) Escavações na fortificaçaõ da Idade do Cobre do Zambujal, Portugal. O Arqueólogo Portu.

**Heterogeneous heterarchies? The dynamics of power in the Iron Age North-western Mediterranean**

Alexis GORGUES (Université Bordeaux Montaigne, France)

Linear socio-evolutionism is a powerful trend in Iron Age Western Mediterranean archaeology. It is often, maybe always, assumed that local polities were engaged in a convergence process which would forcefully bring them to fit in the city-state model, rooted in the Eastern and Central Mediterranean areas, through the classical evolution from Complex Chiefdoms into Archaic States. In this process, native 'elites' are thought to play a fundamental role, especially through their coercive capacity which enables them to maintain themselves at the top of the social hierarchies. These hierarchies are tacitly described as quite rigid in their structure all throughout the period. The funerary record provides good hints for such long-term stability – from the 6th century BC to the end of the 3rd century BC, grave goods emphasize rank and gender identities in a rather homogeneous fashion, and highlight the dominating position of (supposedly) male warriors.

Yet, settlement archaeology provides an interesting alternative insight. In some sites, domestic architecture suggests the existence of a rather static hierarchy, while fluidity seems to prevail in others. This situation appear even more diverse if we compare the time span within which each process can be observed: strong hierarchies mainly characterize short-lived settlements while fluid situations, ensured through competitive processes, mainly in the sphere of armed violence and, maybe more typically, in the craft area, prevail in those settled for a long time.

In this presentation, I will propose that the contrast between hierarchy and heterarchy – used here in its political sense – is to be considered in a chronological perspective. At a given moment, it seems likely that a native community appeared to us as well as to itself as strongly hierarchized. But this short term hierarchy appears also as the result of a long term heterarchical process, whose dynamics I will analyse.


**Scottish hillforts – hierarchies or heterarchies?**

Paul MURTAGH (Northlight Heritage)

Studies focusing on the Iron Age of Scotland continue to see social structure in hierarchical ways, where hillforts are interpreted as being at the top of a social triangle, with smaller sites, often in low-lying positions regarded as being of lesser social status (e.g. Banks 2002; Harding 2004; Ralston 2006). When one examines settlement sites in detail, however, particularly in terms of their size, shape, form and entrance orientation, a different pattern of social structure begins to emerge, especially when the artefacts used and created at these sites are considered (Murtagh 2014). As a result social hierarchy, as traditionally understood, becomes difficult to sustain, and consequently new ways of exploring social structure needs to be examined. In this paper the ways in which things, be they the trees used to construct palisades, the rocks used to construct houses or the stones used to make jewelry, help assemble communities (Harris 2012; 2013) will be explored.  By thinking about material and communities in these ways, new ways of understanding how power and status were negotiated during the Iron Age can be advanced, and different social structures imagined.

Banks, I. (2002) Always the bridesmaid: the Iron Age of south-west Scotland. In Ballin Smith, B. and Banks, I. (eds*.) In the shadow of the brochs: the Iron Age in Scotland.* Stroud: Tempus, 27-35.

Harding, D. (2004) *The Iron Age in Northern Britain. Celts and Romans, natives and invaders*. Oxford: Routledge.

Harris, O.J.T. (2012) (Re)assembling communities. *Journal of Archaeological Method and Theory* 21: 76-97.

Harris, O.J.T. (2013) Relational communities in Neolithic Britain. In Watts, C. (ed.) *Relational archaeologies: Humans, animals, things*. London: Routledge, 173-189.

Murtagh, P.J. (2014) *Materiality, community and identity: The Iron Age of west central Scotland.* Unpublished PhD thesis: Durham University.

Ralston, I. (2006) *Celtic fortifications*. Stroud: Tempus.

**Messy materiality take 2**

Mhairi MAXWELL (Glasgow School of Art)

Two TAGs ago I presented a paper on messy materiality in the context of the South-East Scottish Iron Age. In a nutshell it was argued that Iron Age worlds were composed not of material categories, but of messy conglomerations of 'stuff', and that world-views were based on cosmologies of transformation. Since then, and with recent events in our own contemporary worlds, I have felt compelled to re-visit these ideas; but more specifically focusing on the question of how can we envision social organisation in such contexts? I will also use this paper slot as an opportunity to try and reflect on the previous papers in this session.

Recent political events such as 'Occupy Wall Street' and 'the Arab Spring' have brought to the fore tensions between formalised economic structures and new emergent liberal global identities and relationships. National and regional identities are being re-negotiated as a result of events in Europe questioning traditional centralised political structure, for example in the context of the recent Scottish Referendum. Therefore, we live in an era in which familiar structures of society and social relations are increasingly being questioned and re-defined. This is in part due to the ever expanding world of the internet creating new types of disembodied social relationships and encouraging multiple identities, with smart technological developments allowing the immediate sharing of ideas, information and products. As a result, our traditionally more rigid structures of social and economic networks are being unravelled and re-woven.

In the European Iron Age (*c*. 800 BC to 800 AD), well established, rigid networks of social, political and economic relationships came under similar strain and were subjected to radical change, leaving distinctive material traces. Specifically, the Late Iron Age in Northern Britain was a period of huge social upheaval subjected to successive campaigns by the Roman army and its final withdrawal from the northernmost part of the region in the first few centuries AD.

Is heterarchy a useful concept for making sense of messy materialities?

## GENERAL PAPERS 2

**Session chair:  Clare RAINSFORD (University of Bradford)**

**Prehistoric building reconstructions in Japan: the politics of archaeological reconstruction in the Jomon Period sites bid for world heritage inscription**

John ERTL (Kanazawa University, Japan)

Beginning with a citizen-initiated grassroots movement in 2006, four prefectures in Japan representing 18 archaeological sites have been pursuing a bid for World Heritage inscription. In July 2013, the bid took an interesting turn, as ICOMOS, the advisory board to UNESCO, sent members to Japan to visit sites and present their recommendations. During the visit, the ICOMOS specialists voiced concern about the reconstructions of Jomon period pit dwellings and pillared buildings at these sites. In particular, their concerns were centred on the monumental six-pillar structure reconstructed at Sannai Maruyama Site in Aomori, which at a height of 14.7 meters makes it the largest prehistoric reconstructed structure in Japan. Their frank recommendation was that it should be dismantled, as there is little evidence to justify its present form. While dismantling it may resolve the issues of authenticity raised by ICOMOS members, it would also remove the most representative feature of Jomon period archaeology and the top attraction for visitors.

Utilizing in theory developed in the anthropological study of tourism, this paper challenges the model of authenticity that UNESCO uses in their assessments. Examining specifically the experimental pit-dwelling reconstructions at Goshono Site (Iwate Prefecture), one of the sites tentatively listed for inscription, this paper offers three perspectives that expand the notion of authenticity for reconstructions. First, a form of scientific authenticity is present in the multi-perspective approach in garnering data on the size, materials, and layout of reconstructions. Second, there is authenticity in method or approach to reconstructions, as they are utilized to garner new, generalizable data on prehistoric buildings. Third, the experimental archaeology program initiated at Goshono provides an interactional authenticity that builds community investment through involvement of residents in reconstructions, thereby aiding in the overall preservation and conservation of the site.

**To climb or not to climb: the ethics of burial mounds as public history in Japan**

YOSHIDA Yasuyuki (Kanazawa University, Japan / Sainsbury Institute for the Study of Japanese art and Cultures)

Kofun is a general term of gigantic tumuli built in mainly 4$^{th}$ to 6$^{th}$ century AD and the representative archaeological remains of early state developement in the western part of the main island of Japan. Most of Kofun have kept their shapes on the ground. Thus, it is easy to identify the burial mounds even now. Japan has been developing the government-driven archaeological heritage management system, particularly well-composed rescue archaeology and post-excavation research system. Under these circumstances, Kofun have been mapped into archaeological sites references, some of them research-excavated and reconstructed to Kofun-parks. In most of Kofun-parks, people can climb up Kofun based on the policy of archaeological heritage management in Japan, people can enjoy the reconstructed landscape in compensation for the excavation researches funded by tax-origin public money. On the

other hand, because of Kofun's symbolism, some Kofun have been maintaining the linkage with folk beliefs and existing as the bonds of local communities. A NPO contracting for management of Kofun-park has been trying to reactivate Kofun as a local symbol. In the process, they made a management policy not to allow people to climb up Kofun. Through contrasting two types - Kofun people can climb and Kofun people cannot climb, this paper aims to suggest discussions about heritage management policy, place in mind, public archaeology, and archaeological ethics.

### The condemned man?  An osteological and criminological analysis of the sex and age imbalance in Anglo-Saxon execution cemeteries

Michelle WILLIAMS-WARD and Jo BUCKBERRY (University of Bradford)

Anglo-Saxon execution cemeteries are well established as isolated locations utilised for the atypical burial of executed individuals. Investigations into the demography of those interred suggested that these populations were dominated by young adult males, perhaps signifying age or gender-mediated differences in offender behaviour and treatment. A multi-disciplinary approach combining theoretical criminology with osteology, archaeology and law confirmed a preponderance of young adult males within eleven execution sites, as well as a high proportion of adolescents, which is consistent with an age of majority of 12 to 15 years. Additional evidence also supported even younger ages of judicial responsibility.

Analyses suggested that males were subject to differential socialisation and social expectations. Whether perpetuating social ideologies concerning age, masculinity, patriarchy, or as victims of a male-dominated social hierarchy, biased legal system, or as opportunists, young adult males appear to have had a greater propensity to commit crime and were subject to a greater number and harsher punishments, including the death penalty, most commonly for theft.

### The exploration of lived experience in late medieval buildings through the use of digital technologies

Catriona COOPER (Allen Archaeology)

For the last twenty years phenomenology has been an intensely discussed topic in prehistoric archaeology. The phenomenological way of thinking has taken steps to embrace an understanding of the past based on bodily experience in the world. However, this process has been rarely applied to medieval studies despite a much richer dataset. Phenomenology has initiated a number of discussions concerning how we can think about human experience in the past (the lived experience of the past).

The phenomenological approach has been criticised for a lack of methodological robustness and for being overly subjective. In the same period archaeological computing has developed alternative frameworks for sensory interaction with the material evidence of the past, and with its varied interpretations. Its underlying methodologies have been similarly critiqued, and also interconnected with phenomenological and other models for experience. Critiques of archaeological computing have been asking the same questions as those of phenomenology: namely how do we deal with uncertainty and subjectivity when interpreting the archaeological record.

In this paper I suggest digital visualisation and auralization can offer routes to approaching human experience in the medieval past. I present two case studies that demonstrate alternative and complementary techniques to explore the notion and implementation of a digital "lived experience" of late medieval buildings. My first case study based at Bodiam Castle uses visualisation techniques to explore the lived experience of the private apartments. I propose a mixed media approach for the presentation of visualisations. In my second case study I move away from visual experience of medieval sites. I present an assessment of a series of auralizations of Ightham Mote.

**The Mermaid of Zennor – a mirror on three worlds**

Caradoc PETERS (Plymouth University)

The bench end carving known as the Mermaid of Zennor reflects three worlds of interpretation. The first overarching world of interpretation is that of European wide discussions of the meaning (and reality) of mermaids and mermen. The second world is a contextual world that concerns its specific relationship to Zennor church; perhaps also the local concerns of west Cornwall in the Early Modern period. Finally, the third world concerns the assembly of the object itself, a church bench end to its bench; not part of a long pew like all the others but attached to a small free standing bench. In order to disentangle these worlds, the physicality and the context of the mermaid must be disassociated from her design type for at least some independent analysis. The main focus of this investigation is the image on the bench end and its purpose. To this end, it is important to comprehend the bench end as a physical object with a physical as well as mythological context.

# BLURRING THE BOUNDARIES: INTERDISCIPLINARY PERSPECTIVES ON ARCHAEOLOGY

**Session organisers: Sarah MORTON and Stephen O'BRIEN (University of Oxford and University of Liverpool)**

Archaeology is well known for the vast scope of its study and the range of theories and practices it employs, often borrowed and adapted from other disciplines. However, in spite of this intellectual diversity, and an increasing amount of inter-disciplinary research, archaeological conferences often feature little in the way of participation from outside the normal boundaries of the discipline. Following this year's TAG theme of diversity, the aims of this session are to bring in perspectives from beyond archaeology itself, and highlight some of the research taking place in other disciplines which is of relevance and interest to an archaeological audience.

This session will achieve several aims. Some papers will shed light on the discipline of archaeology itself, as seen by those from beyond its normal boundaries. Other papers will present research of papers by those from other disciplines who are working on archaeologically-related projects, or who have brought a background in another discipline to their current archaeological studies. The session will end with a general discussion, allowing the case studies provided by the papers to be used to debate the advantages and problems

thrown up by the ever-increasing diversity of disciplines and perspectives that those engaged in archaeological research make use of.

## Philosophy and archaeology: an underrated relation

Artur RIBEIRO (University of Kiel, Germany)

While many archaeologists have looked into philosophy for a deeper understanding of their discipline and philosophers have contributed to archaeological theory, e.g. Alison Wylie, Merilee Salmon, and Peter Kosso, the relationship between archaeology and philosophy remains unstructured. Disciplines like Physics and Biology count today with the help of several philosophers and archaeology could benefit from a similar type of relationship.

Assuming that archaeology is an empirical discipline in that it aims at understanding phenomena, philosophy has the task of not questioning phenomena but how an understanding of phenomena is possible in the first place. With this in mind, I wish to commend the idea of interdisciplinarity but at the same time, subject it to an immanent critique. Being interdisciplinary is not a straightforward issue and the concept hides several problems. For instance, how does one mediate between two competing explanations that originate from different disciplines? Is interdisciplinarity a mere combination of disciplines or is it a combination of different types of inference?

My own research attempts to answer these questions by understanding the several ways in which we can understand how phenomena can occur. Ultimately, I believe that the issue regarding interdisciplinarity lies not in understanding the disciplines and their methods per se, but in understanding how different disciplines conceive putative objects of enquiry and the causal relations between those objects.

## Reconstruction and Stalinism - Historical fakery, populism and capital in the Soviet Bloc

Owen HATHERLEY

This paper will focus on the reconstruction of 'historic' cities in the countries of the Warsaw Pact in the first decade after 1945, and then in the 1980s. With the total rejection of 'modern movement' architectural theories in the Soviet Union from the early 1930s onwards, Soviet thinkers and architects also discarded the moralised discourse of historic authenticity established by modernism's forbear, the Arts and Crafts movement. Cities that had been substantially bombed, like Leningrad, or that had been destroyed beyond recognition, like Warsaw, Gdansk and Dresden, were closely reproduced, in contrast with similarly affected western European cities like Coventry, Rotterdam and Cologne. After 1954, this almost ceases, only to return again in the 1980s, when East Berlin was substantially rebuilt in a historicist style. In the paper I will argue that this striking carelessness with the historical record, and the creation of 'historical' simulacra, was the product not only of a Stalinist rejection of modern architecture and city planning, but also of the possibilities created by the absence of property ownership and the resultant freedom of planning enjoyed by the state.

**If the (concealed) shoe fits: The logical pairing of archaeology and folklore**

Ceri HOULBROOK

If I had to label myself – and academic trend suggests that I do – I would employ the term 'folklore archaeologist'. This is an innocuous enough pairing with a simple meaning: basically, I study folkloric beliefs and customs through their material manifestations. Yet this term has been met with blank looks and raised eyebrows, with more than a few fellow archaeologists advising me against employment of the word 'folklore', which appears to have become an academic taboo in some disciplines.

However, such a pairing is far from unreasonable. While 'folklore archaeology' may not be an officially recognised academic title, the two subjects have a long history of affiliation, and it is the purpose of this paper to demonstrate the value – indeed the logic – of employing methodologies from both folklore and archaeology in elucidating the material manifestations of popular beliefs. Arguments and theories will be drawn from my own experiences researching the post-medieval custom of shoe concealment, whereby shoes were enigmatically employed as domestic apotropaic devices.

**Automating causal explanations of observed features using temporal planning**

Maria FOX (King's College London)

Temporal Planning is an automated method for finding a sequence of actions that converts one state of the world into another, over time. There has been a very large body of work in the area over the last 20 years, with application mainly in the domain of automating robot decision-making and goal-directed behaviour. In this paper we con-sider whether the same automated planning methods might be used to generate plausible explanations of how archaeological assemblages were formed, and the human, temporal and physical processes involved.

**The idea of the carnivalesque: a theoretical approach for public archaeology?**

Torgrim GUTTORMSEN

Public archaeology has many perspectives and themes, and is based on a variety of theoretical sources. It is interdisciplinary in scope, bringing a wide range of impulses in the academic world into archaeology (Guttormsen and Hedeager 2015). However, although studies of public archaeology have gained considerable terrain within the discipline of archaeology, there has been less emphasis on cultural theories and methods for examining public attitudes to and uses of archaeology.

In this presentation, I will examine how the Russian theorist Mikhail Mikhailovich Bakhtin's (1895-1975) concept of the Carnivalesque ('the language of the People') could be a theoretical resource for studies in Public archaeology. I will focus on three cultural theoretical aspects: the Carnivalesque as utopia or dream world, as an element of popular/entertaining culture, and as an educational ideal (bildung) related to the grotesque body. With the presentation, I intend to open for a theoretical discussion on the complex relationship between high culture (narrow, elitist, authoritative, prestige) and the counter-cultures which may be political activism and popular or commercially situated as mass culture, low culture or pulp culture.

Guttormsen, T. S. and Hedeager, L.  (2015)- Introduction: interactions of archaeology and the public. *World Archaeology* 47(2): 189-193

### Reflections on a thesis: The dwelling perspective: Heidegger, archaeology and the Palaeolithic origins of human mortality

Philip TONNER

This talk will outline the theoretical and disciplinary challenges and promises faced during the writing of a DPhil/PhD thesis that integrated different disciplines. The term 'dwelling' is a technical one, originating in Heidegger's philosophy of being, and this talk will present a reflection on the exploration of this notion in a thesis that borders on Palaeolithic archaeology, anthropology and philosophy, with specific reference to mortuary practice and "art". The thesis as a whole argued that, suitably revised, Heidegger's account of dwelling will provoke us to look at Palaeolithic archaeology from a fresh perspective.

### The Manchester's Improving Daily Project: re-interpreting the Manchester Ballads using archaeology and reggae.

David JENNINGS

This paper will outline an ongoing project that combines archaeology and archival research with live music, spoken word, audio-visual displays and the production of a CD and accompanying book due for release in 2016.

Manchester Improving Daily is an ongoing Heritage Lottery Fund/ Arts Council England funded project that has its origins in conversations and chance meetings at Band on the Wall, a music and arts venue in Manchester. Edward II is a roots/reggae band that has previously recorded songs from the English Morris tradition. The project has involved different musical, academic, historic and cultural participants that has resulted in a diverse range of actants combining to interpret the eighteenth and nineteenth century Penny Broadsides for a 21st century audience. I am the named archaeologist in the HLF bid, and have written the CD liner notes, the various posters and projection used at the live gigs, and the book that will accompany the CD when it is released.

The interaction between these disparate groups has further enriched the project, resulting in a project that has transcended the original outline, with a dynamic and evolving investigation into the Manchester Ballads. In this respect, it is an example of intellectual, cultural and academic diversity that has blurred and crossed boundaries in the process of researching an overlooked and largely forgotten historical source. However - just as official versions of events are 'spun' by politicians and media outlets today, it is clear that ballad writers often had an agenda, and perhaps ulterior motives for publication. Nevertheless, the Manchester Ballads as a collection support and add to the understanding of Mancunian life in an era before newspapers were sold, and at a time when literacy was rare within the working classes. Taken together as a narrative, the Manchester Ballads are a snapshot of life in Industrial era Manchester, and the project has included performances in several of the historic locations that are featured in the songs, including The Angel Inn and Kersal Moor.

I will outline the Manchester's Improving Daily project as is currently stands, and I will suggest it is an exemplar of cultural and heritage activity – giving an interdisciplinary perspective -

that gravitates around significant locations such as Band on the Wall. During the session, I will include some of the artwork and music created during the session – with a preview of the music recorded at Elbow's Blueprint studios in Salford, due for release as a combined CD/book Package in 2016.

## Text and matter intertwined. Testing interdisciplinarity on the case of inscribed stirrup jars

Natalia ZHURAVASKA

Traditionally, archaeologists study material culture, and ancient texts, inscriptions and other forms of texts belong to the realm of ancient history and classics. In the past decades though, the study of antiquity seems to be transforming, with scholars of different disciplines making more and more effort to collaborate, share their methods and theories. In case of studying historical periods, it seems quite logical that objects and historical texts should not be studied separately, as both these sources can provide valuable evidence which, if combined could lead to a broader frame of knowledge and help answer more questions. But what happens when a prehistorian encounters a text on an object?

In this paper I would like to question the potential of interdisciplinary research when studying inscribed objects from prehistoric periods. As a case study I would like to use Late Bronze Age inscribed stirrup jars found on Crete and Mycenaean Greek mainland. This case of vessels used for transport and storage of oil and wine, bearing painted Linear B inscriptions of names of persons and places are an exceeding example of multilayered interplay between text and matter. This paper is an experiment where the potential of interdisciplinary research are being explored. The case study broaches issues such as definition of 'text' and its limits; the use of different types of sources for the purpose of getting a bigger picture on the matter; and finally, the incorporation of social sciences in the study of antiquity, exploring a cognitive approach on the matter.

## Challenges and opportunities in the interdisciplinary study of religious relics

Jamie CAMERON, Thomas HIGHAM, Georges KAZAN, Thibaut DEVIESE and Eleanor FARBER (University of Oxford)

A new interdisciplinary research cluster has recently begun at the Advanced Studies Centre in Keble College, Oxford, dedicated to the study of relics: objects of cultural, historical and religious significance. The group comprises researchers from a wide range of specialisms, including archaeology, archaeometry, genetics, osteology, art history, theology, history, geography, 3D imaging and linguistics. Current work focuses on the multi-disciplinary investigation of relics attributed to St John the Baptist, in collaboration with the Centre for GeoGenetics at the University of Copenhagen. Using a range of scientific and text-based sources of evidence allows the life histories of relics to be reconstructed, providing important insights into health, patronage, diplomacy and religion throughout history. Moreover, 3D imaging can be used to record reliquaries and their contents, preserving them forever in digital form and making them more easily available for study by researchers across the world.

Traditionally, the study of ancient relics has been dogged by researchers working in isolation from one another and by an historic divide between the sciences and humanities. Our experience suggests this is starting to change, and there are considerable benefits to a multi-

disciplinary approach. Such work attempts to bridge perhaps the greatest disciplinary divide of all, namely the traditional separation between 'science' and 'faith'. This paper aims to discuss the ongoing interdisciplinary investigations into Christian religious relics and reliquaries, considering in particular the ways in which archaeometry can work effectively with other disciplines, and with the Church, to improve our understanding of the human

# HOUSING THE INDUSTRIOUS WORKFORCE

**Session organiser: Suzanne LILLEY (JACOBS)**

In recent years, historical and urban archaeology has increasingly emphasised the importance of investigating workers' housing as part of the wider 'industrial' landscape. Recognising that the creation of such houses cannot be divorced from socio-economic and cultural contexts, these properties provide a means for archaeologists to study the micro and macro levels of everyday life of the eighteenth and nineteenth century working populace. Workers' housing has provided an important lens for exploring industrial philanthropy, paternalism, and the socio-cultural values of the evolving middle and upper classes who patron such dwellings. Whilst there has been mounting interest in this type of accommodation; approaches, research and opportunity remain selective with the majority of attention focusing on housing connected to urban factories. This focus creates an ambiguous image of workers housing and leads to problematic connections with larger themes of 'Industrialisation', 'Urbanisation' and developing societal/class structures.

This session aims to explore a breadth of accommodation types with the intention of creating a broader, more inclusive, approach to the study of workers housing. Papers may focus on, but are not limited to, urban and rural industrial sites, country estates and palaces, institutions and commercial dwellings. The session seeks to address questions regarding spatial classification and typology, architectural development, paternalistic influence and employer agendas, lived experience and environment. By showcasing a variety of housing types and contexts, this session aims to provide a multidimensional understanding of workers housing whilst highlighting their heritage potential and ability to create a unique sense of place through public interpretation.

**Housing and the private lives of asylum keepers at the turn of the twentieth century**

Katherine L FENNELLY (University of Sheffield)

This paper will examine housing provision for public asylum workers in the British Isles during a period of significant change in the management and construction of asylums – the turn of the twentieth century. Lunatic asylums have been examined as institutions for confinement, domestic spaces, venues for experimentation and trialling, but rarely as major employers. As centres of employment, asylums frequently became surrounded by significant urban development, which is visible in the historic streetscapes around many former asylum buildings. The family lives and housing arrangements of mid-level staff such as keepers and laundresses can be glimpsed through census and asylum records. In comparison with contemporaneous working class housing arrangements, these asylum workers inspire

interesting questions regarding family groups, income, and home life. Through a consideration of the built and historic urban landscape in cities in the north of England and Ireland, housing provision for large numbers of asylum staff will be examined.

### 'Grateful, respectful and acquiescent' – the development of philanthropic housing in emerging industrial communities

Gordon S MARINO (University of Manchester)

Between 1801 and 1851 the national housing stock doubled from 1.6 million to 3.1 million whilst between 1781 and 1851 the population of England grew from nine million to twenty million. This lack of housing was to prove a major problem for the emerging industrial towns and cities. The answer was an extensive building programme, in part financed by philanthropic organisations and individuals.

The aims of such philanthropic developments were often two-fold:

- To provide the accommodation required by emerging industrial communities
- To ensure individuals conformed to the social and political values of the philanthropists

Though diverse providing organisations existed, two basic designs of the 'Barrack Block' emerged, which simultaneously met both the demand and reflected social and political pressures on tenants. These building were significant because although the number of properties were relatively small, they enabled experimentation with alternative architectural styles, which led to the standardisation of designs for the first council housing in the country. Whilst they articulated contemporary debates about architecture, they were also crucially instruments that attempted to inculcate and sustain the morals and values of the philanthropists on their tenants.

### 'Houses not Hovels: Collier Workers' Housing in the Durham coalfield, 1560-1760 – the archaeological potential'.

Adrian GREEN (Durham University)

The Tyne and Wear coalfield was one of the earliest industrial regions in Europe, as an unprecedented concentration of labour was required to mine and move coal. The demand for coal rose exponentially between 1560 and 1760; primarily to supply an expanding London with house fuel. Over the 17th Century a new form of industrial 'row' housing developed on the coalfield to provide collier workers with shelter. This paper explores the documentary evidence for colliers' housing in the 17th and 18th Century, and assesses the potential for archaeological investigation. Only excavation of miner's homes can reveal the nature of what was among the earliest industrial housing in Britain and led to the Tyneside terraces and Sunderland cottages of the 19th Century.

### Cottages and the country house: power, paternalism and protest in Elsecar

Nigel CAVANAGH (University of Sheffield)

In the period circa 1750 to 1850, the small rural hamlet of Elsecar, near Barnsley, was transformed into an extensive industrial village, with a thriving economy based on iron and

coal. Most of this development was instigated, controlled and financed by the local landowners, the 4th and 5th Earls Fitzwilliam. As well as being passionately interested in the practicalities and potential of industrial development, the Earls also looked to the welfare of their workers, providing a wealth of benefits including pensions, sick pay and purpose-built industrial housing.

Using a historical approach based on a variety of sources, this paper explores the origins and intent of the Earls' paternalistic management of Elsecar. It examines how this strategy, at once both traditional and progressive, came to be seen by contemporaries as a model for mitigating the worst effects of nineteenth century social and economic change. It also looks at the ways in which this idea of a mediated, ordered community became associated with the physicality of the built environment; the cottages of the 'model' village. Finally, the paper highlights the ways in which, as a visible embodiment of power relationships, the workers' housing at Elsecar became an arena of contestation for both sides during the 1858 coal strike.

**Gone, but not forgotten: memories of Liverpool's court housing**

Kerry MASSHEDER-RIGBY (University of Liverpool)

This paper forms part of a wider PhD project at the University of Liverpool exploring whether there can be an informative research relationship between oral history and archaeology.  Its focus is on the working class housing experience in England from the late 19th century onwards.

Oral history as a discipline applied within archaeological investigation is growing in popularity and in application in the UK as a form of 'Public Archaeology'.  Experience suggests that there is potential for combining oral history testimony with physical archaeological evidence to enhance our understanding of community and place.

The Museum of Liverpool's 'Our Humble Abodes' project aimed to fill the gaps in knowledge of Liverpool's court housing by undertaking oral history interviews.  Court housing was a form of low quality 'slum' housing, arranged around courtyards and constructed back-to-back with the adjacent houses of the next court.  'Slum clearance' programmes from the late 19th century to the mid-20th century have resulted in few extant remains and no physical archaeological investigations have been carried out.  Oral history therefore is an important source of evidence to fill the gaps in our knowledge of court housing and challenge the 'official' narrative.

This paper will explore the possibilities of using memories to inform archaeological investigations and will discuss the significance of the memories the 'Our Humble Abodes' project collected.

**"Why washings were": spaces-in-time and the construction of womanhood in the middle-class house of early industrial England**

Kevin KAY (University of Cambridge)

In this paper I argue that the different temporal landscapes of women and men within the middle class house in early industrial England formed an important force driving the instantiation and negotiation of gender during the social transformations of this period. Recent cognitive research on the links between memory, anticipation, and scene-construction

suggests that experiences that are far-separated in linear time but which bear similar resonant embodied characteristics (emotions, activities, sensualities) may be remembered and considered as unitary in the mind, forming spaces-in-time that can be entered into repeatedly and which evoke specific cognitive tendencies. I focus on the middle-class suburban household in early industrial England, as explored by Davidoff and Hall (1987), and specifically the space-in-time of clothes- and linen-washing as vividly described in Anna Laetitia Barbauld's 1797 poem, "Washing-Day." Whereas men of this period primarily experienced domestic space within leisureful spaces-in-time (contrasted against the radically different experiential realm of the industrial city), women's experience involved highly demanding labour in the same spatial landscape. Meeting the period's cultural demands for a cleanly domicile meant that middle-class women and any female servants in the household were regularly tasked with washing all the household fabrics, a physically and emotionally strenuous activity that was dreaded and despised. This common experience of a space-in-time, shared among women of all but the highest status and generally exclusive of adult and adolescent males, came to be a strong generator of female identity in the early industrial world, informing gendered conflicts in and beyond the house while creating a sense of political and experiential commonality among women of lower- and middle-class backgrounds alike. In this way, physical activities and embodied experiences - "All hands employed to wash, to rinse, to wring," as Ms. Baurbauld writes - formed a coherent common ground for the emergence and  contestation of a female identity as the industrial transformation accelerated, a shared impetus to women (and to ourselves) to sit "down, and ponder much / Why washings were".

## Workers in the workhouse: an archaeological investigation into New Poor Law workhouses and staff accommodation

Charlotte NEWMAN (Historic England)

Designed as an institutional provision to deter poverty and accommodate paupers, the workhouse is not often regarded as a domestic space or even a home. However, for the staff who resided within the workhouse, the institution became their residence.  All workhouses employed a residential Master and Matron, who were often supported in their role by cooks, porters, general servants, schoolmistresses, and nurses, amongst others. The extent of an employee's provision within the workhouse related largely to an employee's occupation and varied drastically from one Union to the next.

Drawing on contextual approaches within the case study area of West Yorkshire, this paper uses building survey to explore the place of workhouse staff within the built structure. The paper will examine to what extent workhouse architecture enacted a hierarchy of position amongst employees and the power relations that it subsequently created. Moreover, the paper will explore the lived environment of the workhouse employee and to what degree it was or was not controlled by the institutional form.  Finally, the paper will explore how these concepts changed over time and how employee provisions were established and embedded within a New Poor Law system aimed at the industrialising workforce of West Yorkshire.

**Housing the (not-so) industrious workforce? The 'inhabitants' at New Bailey Prison**

Rachel READER (University of Salford)

Since 2013, the Centre for Applied Archaeology, University of Salford has been embarking on a series of archaeological investigations at the site of New Bailey Prison in Salford, Greater Manchester which was in operation between 1790 and 1868. This work has revealed the well preserved foundations of the buildings that once formed one of the largest prisons in the country and this paper seeks to explore the lives of the prisoners who were incarcerated within these walls. Records allow us to reconstruct the daily routine for the prisoners and also who was imprisoned here, through census and prison registers. Initial research has shown that although prisoners were given sentences shorter than 6 months, many of these people were committed on numerous occasions, questioning what and where constituted a house and home during this period. The occupations and crimes for which people were committed, challenges preconceptions on the 'idle poor' also. It also shows that ideas on tackling rising crime, lacked understanding of the reality of working class life within the poorest areas of a rapidly industrialising city.

**The looming question of housing the workforce: early workers' housing in the Derwent Valley, Derbyshire**

Suzanne LILLEY (JACOBS)

Often cited as the archetypical expression of industrial accommodation, textile workers' housing has provided a lens through which the social effects of Industrialisation have been examined. Such houses have been interpreted as either physical abominations epitomising the worst kind of worker exploitation or shining examples of wholesome patronly investment. Yet within this polarised assessment, the actual lived experiences of occupants remain frequently detached from investigations into the form, function and agenda of these properties.

Using a buildings-led approach, this paper investigates workers' housing connected to the first water-powered cotton spinning mills in the Derwent Valley, Derbyshire. Considered to be the result of three sets of benevolent mill-owning families, these properties have become synonymous with early paternalistic design. However, a closer reading of these houses also reveals elements of occupant-led input, influenced by active pre-existing housing traditions and local community structures. Through an exploration of extant building fabric, this paper examines the design and use of these properties in light of the interaction between occupant interests and patron agendas. Using case-studies from across the four sites, this paper will look at the changing sphere of industrial housing in the latter decades of the eighteenth century and consider the role such houses played during the early crescendo of Industrialisation.

**Queen Elizabeth Barracks, Church Crookham; housing the British Army's Gurkha Regiments**

Deirdre FORDE (Oxford Archaeology)

In 2004, an archaeological investigation and recording began of the barracks at Church Crookham in Hampshire prior to its demolition. Although these simple 1930s structures were of limited intrinsic architectural significance, as a collection of structures the site was of

considerable historical and social interest. Notably, between 1970 and 2000 the barracks housed Gurkha regiments, military units of the British Army composed of Nepalese soldiers. During these years, they left a distinctive mark of their way of life on the buildings. Although the structures were never considered worthy of listing, neither collectively nor individually, the data collected before redevelopment of the site increases our understanding of the daily lives of the standing army in post World War II Britain. It also provides a valuable record that contributes to the wider characterisation of 20th century barrack buildings.

**The rows: invisible industrial buildings in the Ironbridge Gorge World Heritage Site**

Shane KELLEHER (Ironbridge Gorge Museum Trust)

The Ironbridge Gorge in Shropshire was once described as 'the most extraordinary district in the world'. The industry that prompted this comment has ten museums dedicated to it, the area is a World Heritage Site with over 1 million annual visitors, and the multifarious vestiges of this important industrial past can be seen throughout what is at first glance bucolic but actually very much a relict industrial landscape.

The presence of some of the earliest workers' housing in the country has been overshadowed by the perceived more 'important' remains and buildings of industry, industrial processes, and the elegant houses of the wealthy Quaker industrialists, to the point that visitors to the gorge are not encouraged to take the path less travelled and see where the Coalbrookdale Company's workers lived. The Coalbrookdale Company's rows are in many ways invisible industrial buildings. They are invisible in the sense that they aren't technically industrial yet they wouldn't have been built without the industry that necessitated them. They are invisible in that few visitors visit them or are aware of their significance despite failed attempts in the past to open some of them for public display. They are invisible in the sense that little mention of these buildings is made at any of the Ironbridge Gorge Museum Trust's ten museums, despite the trust's goal to preserve and interpret the remains of the Industrial Revolution in the Ironbridge Gorge. They are invisible in that they represent a tangible reminder of paternalistic Quaker philanthropy with a hidden agenda of control, profit and self-interest, and they are invisible in the sense that a lack of understanding of their significance or appropriate care in the past has seen this significance eroded through the absence of protection and ignorance.

This paper will use this 'invisibility' as a vehicle to explore some of the themes of this session and discuss how proposed new initiatives at the Ironbridge Gorge Museum Trust will hopefully make the Coalbrookdale Company's rows more visible for the next generation of visitors.

## ARCHIVES AS ARCHAEOLOGICAL OBJECTS

**Session organiser: Irene GARCIA-ROVIRA (University of Manchester)**

While archaeologists' main interest is ostensibly the past, our definitions of what an archaeological object is – understood as that from which the past emerges - have often been constrained to past materiality. The most obvious representation of this position is found in existing formulations of what the archaeological record is. In all its articulations - the fossil record, the textual record or the record of human practice, examinations of the archaeological record have been excessively focused on the material remains we excavate. However, as Lucas (2012) has discussed in length, our engagement with the past not only occurs in gazing past objects but through processes of inference that take place in every single step taken by archaeologists; be it in the drawing of a section, in the recording of a feature or in comparative studies of different sites. The archaeological archive is not just a representation of the archaeological record but has to be understood in terms of emergence because is what gives rise to the past. In considering archives as archaeological objects, a reflexion may spring to the mind of the reader. While much theoretical contemplation has been focused on dealing with what constitutes past materiality, insufficient attention has been given to the range of activities which are summed up as the processes of archiving. This is surprising as approximations to the past are not often experienced directly in the process of excavation but experienced through its archive.

This session wishes to stimulate discussion on the role that methodologies carried out during the excavation, recording and archiving of a site have in our understanding of the past. It is particularly interested on exploring the following questions:

(1) If the creation of an archive is – alongside the experience of past materiality – central in the emergence of the past, would it be possible to postulate that different approximations to past materiality observed in the traditions of research of different countries lead to the definition of distinct past realities? We are particularly interested in discussing this theme with those who have had the experience of working within different traditions of research.

(2) Those who have been central in the archiving of excavations and on the creation of reports may agree in that both records and archives are often excessively influenced by the formal requirements of either single context recording or the guidelines given by repositories. While these requirements enhance understanding through the use of a 'universal' language, the latter can at times lead to poor projections of the nature and character of the site excavated. We invite speakers to reflect upon this matter either by presenting similar problems experienced at their sites or by exhibiting the kind of resources devised to translate the complexities experienced at sites to the 'paper archive'.

(3) If the past emerges out in a confluence between the experience of past materiality and the inferences we produce about it, it is necessary to treat archives as archaeological objects. But while this is the case, the production and deposition of archives often figures on a second plane. In some countries, this is reflected through the very name given to the reports (e.g. memories administrative – administrative reports), while in others through the very fact that no legislation exists regarding the time span that can exist between the excavation of a site and the deposition of its archive. Understanding archives as archaeological objects, this session aims to discuss the ethical responsibilities that archaeologists have in the production of archives from which the past is revealed to others.

**Introduction**

Irene GARCIA-ROVIRA (University of Manchester)


**'When the grass turned to glass': archives, ghosts and the Stonehenge Avenue**

Martyn BARBER (Historic England)

In the summer of 1923 OGS Crawford, Archaeology Officer for the Ordnance Survey, was inspecting glass negatives at RAF Old Sarum – vertical aerial views taken in the course of training flights – when he observed the faint traces of two parallel lines a short distance east of Stonehenge. His interpretation – that they represented the 'lost' course of the Stonehenge Avenue – had considerable repercussions both for the fledgling discipline of aerial archaeology and for the understanding of Stonehenge and its landscape. An article by Crawford in the *Observer* newspaper brought the potential of the airborne camera as a medium capable of bringing to light the lost and invisible monuments of the distant past to worldwide attention.

The response to that publicity led to Crawford cutting a series of trenches across both of the Avenue's ditches. Much to the frustration of subsequent generations of prehistorians, Crawford never published any detailed observations of what those trenches uncovered. In fact no measured plans or sections were drawn – no site archive was produced. On-site recording was considered unnecessary. Instead, a small group of experts was summoned to inspect the trenches and pronounce themselves satisfied that they had indeed seen the ditches of the Stonehenge Avenue. In addition to this absence of a site archive, the entire episode is also absent from Crawford's personal archive (held at the Bodleian) and was omitted from his autobiography.

These absences appear to result from a deliberate attempt by Crawford to conceal the motive for the excavation and, consequently, for the excavation methods. Nonetheless, clues and fragments – notes, letters, photographs, and so on – survive in other places, other archives and – in the case of Crawford – in other aspects and stages of his life, as well as in the under-explored interests, motivations and methods of certain other late 19th and early 20th century archaeologists. These fragments allow the creation of a narrative that seeks to explain the non-existence of any real account of what happened at the Stonehenge Avenue in 1923. Drawing on recent archival research, this paper examines the episode against the backdrop of the post-Great War debate about the camera as a medium for connecting with the lost. It is argued that Crawford's chief concern in undertaking the excavations – the first occasion on which a cropmark photograph was 'ground-truthed' – was not to uncover 'facts' about prehistory, but to explore the possibilities of photography as a form of remote sensing, and the materiality (or otherwise) of traces of the past observable in the present.


**Archive and fictionality**

Sergio Alexandre GOMES

The study of the history of archaeology is an encounter with different traditions of research i.e. we create a dialogue between different research agendas in order to understand how a past materiality was produced in a historical context. This encounter is mediated by an archive; through which we try to experience a different tradition of research. We look for the

order behind past materiality, in the hope of understanding how it was shaped by different historical conditions.

In this paper I will focus on "my encounter" with the past material that was brought to light by archaeologists under the Estado Novo dictatorship in Portugal (1933-1974). In order to understand the significance of these things, I need to re-create the archive; I need to expand the web of relationships within which its meaning was constructed. By doing so, I construct a "fictional web" that is beyond truth or falsity. It is beyond truth or falsity because I can't prove that past materials were produced within the networks that I create to understand them. But, as I will argue, it's a fictionality where I found the scientificity to do my work.

### Reflexive archaeology and the creation of knowledge assemblages at Roman, Byzantine and Islamic Çatalhöyük

Sophie MOORE

This paper will explore how the archives formed at Çatalhöyük are also archaeological assemblages, and how the different international teams working at Çatalhöyük over the past 20 years have interpreted the reflexive recording methodology used on site to create those archives.  Using the 1st and 2nd millennium AD cemetery at Çatalhöyük as a case study we will gain an overview of how each team created knowledge about the past. Because the graves are consistently present across the site and have been excavated over the past 20 years, the historic period cemeteries provide a form of control sample through which it is possible to examine different methodologies and archival techniques used by individual teams.

In addition to looking at how different traditions of research shape each segment of the Çatalhöyük historic cemetery archive, I will begin to tease out potential differences between the reflexive method currently in place at Çatalhöyük and a relational approach to the past in which we can see everything, if we want to, as a form of assemblage. I will examine how networks of specialists, objects, excavation practices, bureaucrats, recording systems, archives and preconceptions of the past are pulled together in to coherent (or incoherent) assemblages in order produce archaeological knowledge. This paper will take the relational concepts of network and assemblage familiar from Lucas (2012) and work through we can use these concepts as tools in the interpretation of large and disparate archives.

### How do archaeological drawings and general plans become past buildings? The unfinished relationships between archaeological contexts and archaeological interpretation.

Ana VALE (University of Porto / CEAACP- FCT, Portugal)

The drawing of the lines/limits of (interpretative) features seems "to (en)close" archaeological sites.  Published archaeological drawings clearly define their form (and most of the times, their content), and as such, the form of the site, the general plan, is observed, studied and compared as the representation of reality. In the study of published ground plans no one has access to the "original" drawings, not because the archaeologists hide them, but primarily because there is a feeling that the finished general plans are somehow the "truth". In this sense general plans are viewed as a copy of the original, as the representation of the original intent for the construction.

The "use" of drawings, aerial photos, and geophysical surveys to create a site and its form are the result of choices as much as they are political gestures. What features are chosen for publishing? What are the relationships between the stone wall, the archaeological drawing, the published ground plan and the construction of the past building? How are the general plans manipulated by archaeologists that were not involve in its production? Are the representations of the limits of archaeological features condemned to be flat objects, traces of spatial recordings without temporal depth, or can they also be storytellers?

**Mapping the value of archaeological archives within museums**

Samantha PAUL (University of Birmingham)

It is widely believed that the archives that result from commercial archaeological interventions are important heritage assets, though the current situation surrounding the long-term care of these archives is considered to be in crisis. Professional archaeologists focus on the storage problems, the potential loss of important material and the cost of curation, rather than what value these archives actually hold in the present and for the future despite the fact that this has direct relevance in terms of policies relating to acquisition and discard. While archaeologists debate these issues, they are not the ultimate custodians of this material and often those that are (namely museums) have no say in what we expect them to be responsible for.

As a direct result of the current space crisis within museums, not only the value but also the very existence of these archives is being questioned by the institutions which effectively hold them. One published view is that that '*archaeological archives are not worth the space and time they take up within museum stores*' (Swain 1998) and even recently that the archaeological archive '*is still a major and embarrassing issue*' (Shepard 2015). Current projects within museums aim to address the issue through the reduction of the archaeological archives they hold. The varied approaches to these reviews have led to a situation where certain elements of the archive are 'legitimised' by being accessioned into the museum's collections while other aspects are thrown away. But how are these decisions being made and what are the implications on how archaeological archives are created in the future?

Through the analysis of several case studies I will explore the process of valorisation leading to the de-accessioning of archaeological archives within museums. Understanding this process of valorisation has the potential to inform the entire notion of archaeological archive generation, from decisions around the initial creation of the archive during fieldwork, through to the question of where archaeological archives should be deposited and if they should all be retained.

Shepard, J. (2015) Museums, archaeologists and archaeological archives. In Everill, P. and Irving, P. (eds) *Rescue archaeology, foundations for the future*. Rescue, 132-146.

Swain, H. (1998) *A survey of archaeological archives in England.* London. Museums and galleries commission.

**Standards, responsibility and the ethics of archiving in archaeology**

Duncan H. BROWN (Historic England)

While it is possible to take issue with the suggestion that it becomes necessary to treat them as objects, there should be no doubting the requirement for all archaeologists to accept responsibility for the present and future condition of archaeological archives. This paper will examine the ethics of archive production, transfer and curation, as identified in the session outline, primarily within an English context but with reference to European perspectives such as the recent ARCHES project (Archaeological Resources in Cultural Heritage a European Standard). The emergence of common standards for the creation, compilation, transfer and curation of archaeological archives has been founded on an understanding of the benefits of making information accessible, particularly in this digitally networked society. Such a society has increased the mobility of data, which should require a concomitant improvement in consistency, but another effect has been to render the archaeological workforce more mobile. Standards have therefore been promoted internationally as a way of ensuring that, wherever they go, practitioners will be able to engage with all aspects of securing and presenting the archaeological record. The political dimension to this discussion must also be considered, particularly in England, because it has informed how those resources have been perceived and treated, to the extent that archaeologists seem to be agreed that we can discard much of what we recover and that even then, nobody is interested in any of it anyway. On the one hand therefore, we seem to be saying that both archaeologists and the archaeological record are paramount, while on the other the message is that the source of those records is disposable. Where, therefore, can we locate our sense of responsibility, and more importantly our ethical duty? Do we really have any standards at all?

**Progeny of censorships: prehistoric phalli and sex in the archives**

Helen WICKSTEAD

This paper takes a broadly Foucauldean approach to archives and museum collections related to archaeologies of sexuality. Focusing on collections of ancient phalli and the archaeological archives relating to these, I outline the various censorships involved in the production of archives of phallic research between the eighteenth century and the present. Examining the histories of secret museums, private collections, men-only scholarly societies and excavation archives I will consider how the concept of the phallus has been actively reproduced through acts of censorship. Actions that limited access to artefacts and documents are not best seen as purely repressive acts intended to eradicate all discussion of sex. On the contrary, censorships produced the conditions within which such discussions could be carried out, actively protecting the networks of power and knowledge that would properly reproduce and sustain the phallus. Within the excavation archives of the archaeologists who constructed the prehistoric phallus diverse acts of censoring reveal the care with which archaeologists acted as custodians of this artefactual category.

Anyone who works with archives will be familiar with the complex relations of absence and presence they invoke. Various standpoints are available from which to theorize these relations. For Derrida (1995) the archive both represents and produces absence, a condition he discusses through a meditation on circumcision. The phallus, an entity standing in complex relationship with the condition of castration, could itself supply an archival metaphor.

## ADVANCES IN PREHISTORIC ART

**Session organiser: Andy NEEDHAM (University of York)**

The overarching aim of the session is to bring together researchers of art in prehistoric archaeology, from any period, or using theories and methods that could be applied to prehistoric art, whether with a technical or theoretical focus, from within the discipline or beyond, to facilitate the sharing of recent research, thoughts, techniques, methods, and theories that contribute to engagement with and continuing research efforts in this field. While the session explores art directly, there is the inherent appreciation that art doesn't make itself and papers will explore how art can be used as a window into the lives of those people who made and used it.

This session explores art in archaeology, both directly and as a window into other aspects of past lifeways. The session welcomes abstracts from researchers of any level of experience and both within and beyond archaeology. The session considers technical and methodological developments in the study of art (e.g. dating, 3D modeling, photogrammetry, p-xrf), as well as theoretical considerations (e.g. anthropological parallels, neurological perspectives, materiality, chaîne opératoire, multi-sensory approaches), and new finds. The temporal and geographical scope of the session is non-specific, with contributions welcome from any period of prehistory or geographical location.

**Exploring the agentic flow: a life-history of stone plaquettes at the Magdalenian rock-shelter site of Montastruc**

Andy NEEDHAM (University of York)

The Mid-Late Upper Palaeolithic rock-shelter of Montastruc, south-central France, dating to *c.* 15-13,000 BP, is situated below a limestone cliff, overlooking the river Aveyron. Excavated by Peccadeau de l'Isle in 1864 and again in 1866-67, the site is notable for its rich corpus of mobiliary art, with 109 decorated organic pieces and 52 engraved stone plaquettes. The stone assemblage is largely composed of weathered limestone blocks, naturally detached from the rock-shelter via freeze/thaw action. The organic assemblage is composed of bone and antler objects, the former derived from animal kills and the latter from natural shed. A major feature of the art is the high quantity of naturalistic and anatomically detailed animal depictions, indicative of a deep knowledge of, and significant relationship with, species that would have been encountered regularly.

Results of high-resolution 3D modelling of the stone plaquettes is reported here, alongside a broader suite of observations that facilitate an appreciation of the chaîne opératoire, life history and authorship of these objects. The data generated is infused with insights from ethnography and archaeological theory, specifically the themes of 'gifting', non-human agency and materiality. In exploring art with high-resolution methods and linking this with novel theory, a deeper appreciation of the significance of object manufacture, use, and deposition can be generated. The case is made that materials were understood to be capable of possessing and transferring residual agency, which was significant and active in the art creation. Through this, the art can act as a broader window into animal/object/human relationships at the site.

**Identifying a rare thematic: the new engraving of saiga antelope from Courbet Cave and its place in the Magdalenian symbolic world**

Claire LUCAS and Jill COOK (The British Museum)

Curatorial work to upgrade accession records for online access to all of the objects in the British Museum collection from the late Upper Palaeolithic site of Courbet Cave in the Aveyron valley (Penne, Tarn, France) has led to the discovery of a new figurative engraving on an antler artefact. The support is a middle fragment of half round rod with damage at both ends. Despite the fragmentary state and a slight accretion of cemented sediment on the surface, the convex upper face of the rod is clearly engraved with an animal head showing a horn. The anatomical characteristics of the representation do not correspond with those of the most commonly represented and predated species of the Magdalenian such as bison or ibex. Further investigations suggest that the distinctive features of the snout and horn are indicative of a saiga antelope, an animal adapted to extremely cold, dry conditions. This new example of a rare thematic re-opens the question of the relationships between the Magdalenian populations and the saiga antelopes through art and faunal remains. Comparisons with other sites may help us discuss the status of this species in the hunters' mind. Furthermore the presence of a saiga engraving in Courbet Cave is another notable common feature that reinforces the links between the art of the Aveyron valley and La Vache Cave in Pyrenees.

**Opening prehistoric worlds: art and dwelling in Upper Palaeolithic Europe**

Philip TONNER (University of Oxford)

This paper presents the general case for looking at prehistoric works of "art" as 'world-opening events' that function as cultural paradigms for prehistoric communities. Drawing on recent theoretical work in anthropology, archaeology and philosophy this paper suggests that Heidegger's philosophy of art is a useful theoretical aid to understanding prehistoric creative practices with special reference to cave art. Heidegger argued that "art" can be an "origin" of meaningful worlds. This paper will connect Heidegger's philosophy of art to the creative image-making that took place in caves during the last Ice Age and will suggest that caves had a 'heterotopic function' for Ice Age communities. Heidegger, like some commentators on prehistoric art, will stress the co-responding movement of creative receptivity and articulation that is at work in acts of creativity and craft but he will do so from a perspective thoroughly informed by phenomenological philosophy. Connecting these discussions will enable a novel discussion of Palaeolithic "art" from what has become known as the dwelling perspective.

**The importance of colour within prehistory: identifying colourscapes within the landscape**

Mai WALKER (University of Manchester / Cotswold Archaeology)

Colour is a symposium for experience, it has the ability to manipulate neurological reactions, create unwritten language and be harnessed as a tool for creating art. Colour is not just a beautiful phenomenon, it exists within all aspects of life on earth and is an integral part of how human beings understood their world. So why as archaeologists do we often neglect it within our understanding of the past? This paper will focus on how we as Archaeologists can

recreate landscapes of colour in the past, investigate the experimental results of pigment and dye replication and assess the possible effects this may have had on past peoples through colour psychology. Ultimately the aim of the paper will be to illuminate the application of colourscapes and how it can be used to help us understand past art.

## Unlearning function in prehistoric figurines: new methodologies and theoretical approaches

Ellen BELCHER (John Jay College of Criminal Justice/CUNY U.S.A.)

While the methodological practices and theoretical frameworks for most prehistoric artifacts have significantly evolved over time, interpretation of prehistoric figurines has stubbornly resisted change.  Earlier figurine studies focused on finding universal function and meaning in figurines, and therefore have had limited methodology and results.  A new approach starts with considering figurines as records of engagement with lived bodily practice entangled with prehistoric community identity.  This is accomplished by seeking more nuanced interpretation of prehistoric figurines and by intersecting theory with contextual, technical and typological methodologies.

A nuanced approach to prehistoric figurines embraces concepts of mutability and ambiguity that so many figurine corpora exhibit and allows for a spectrum of possibilities representing the body and gender as well as a changeable use-life.  Practical considerations of materiality, morphology, archaeological context and inter-regional communication remain the heart of analysis.  By applying these methodologies more holistically to the figurine evidence, theoretical interpretation can bring us closer to understanding the choices made in conceiving, making and using figurines. Examples of figurines excavated from prehistoric Mesopotamian settlements in the Halaf tradition (6th millennium BCE) will be used to illustrate the application of this framework.

## Art and archaeology of the sacred from Plovdiv district (Bulgaria)

Jordan DETEV (Sofia University, Bulgaria)

My report traces the connections between traditional archaeological knowledge and skills and the new methods of publishing and additional researching.

The virtual reconstruction of the artifacts is a source of hypotheses and environmental adjustments by new high-tech scientific visualizations. They achieve integrity of the images and scenes that was built up for experimenting with possible ritual actions.

As a research database I made a catalogue to an imaginary (virtual) exhibition for mobile applications using Augmented reality technology. The specific archaeological material was happily accompanied by scientific visuals, drawn with ink, as well as descriptions of the discoverer. The place is Plovdiv – this is the future cultural capital of Europe for 2019. Many sources indicate that it was the oldest town. What unique earliest features of prehistoric art can be found here? Whether by means of virtual reality we can get more information from the existing illustrations and materials to restore primary layers of prehistoric art here? I divided the catalog of the collection into 10 sections. I shot, processed, modeled and animated various cult scenes and artistic achievements, and managed to register the emergence of new styles and forms. The main attention was paid to unique paraphernalia

(pro church plate), found near the fireplace in one of the first Neolithic houses; two exquisite marble figures found in the same fireplace; over 400 clay figurines – portrait images and cult images of the Great Mother Goddess. But one protome of the deer (probably) from Chalcolithic ceramic rhyton was the real discovery of this secondary review of the artifacts. It is an unexpected manifestation of creative genius, who splattered his unique style and form creativity in ritual vessels and portrait heads that surround the outrageously broken ceramic deer head. And semantics of graphic messages and creativity forms are part of an amazing art style. The two bowls, the deer and somewhat the bearish head are made from the same artist. The parallel lines are specific to them. On top of the two heads is the triangle – i.e. birthmark. The two bowls, along with the deer, are similar in parallel lines, but different signs are hatched here – S, semi-oval, and triangle. The pattern itself represents alternation of two equal in importance things, 0 and 1, empty and full – let's say, matter and light.

The presence of mythological vestiges, which survived in folklore, made the scene complete. And so, from the restoration of artefacts to their introduction in the virtual world we create a kind of mixed reality. The images of print edition stimulate the virtual applications using Augmented reality technology for a mix of original archaeological picture with some details and actions, unthinkable until today for professionals and even more for the audience. We reached to the Art and Archaeology of the Sacred and - perhaps - to the oldest paraphernalia?

**Producing petroglyphs: the image and the technique**

Nathalie Ø. BRUSGAARD (University of Leiden, Netherlands)

The material turn in rock art research has seen a shift from studies on 'the image' to studies exploring the process of creating rock art, the rock itself, and the context. In the discussion on the materiality of rock art, technique plays an important role as it can reveal choices made in the production process. Increasingly advanced recording methods, such as photogrammetry and RTI, also continuously reveal new insights into the production techniques and choices. Yet it remains difficult to determine what these choices reflect and how to understand them in view of the end result, 'the image', without imposing our modern views on art and aesthetics. This paper examines this dichotomy using examples from rock art from the Black Desert of Jordan. I explore the microarchaeological approach to documenting and studying petroglyph techniques in and out of the field and discuss how a close study of the chaîne opératoire and the images themselves can further our understanding of the societies that created them.

**Questioning bright carvings: interrogating a new discovery of figurative early prehistoric rock art from the mountains of the Lake District**

Steve DICKINSON

Phenomenological approaches to 'landscape archaeology' are well established in systems of embodiment and aesthetics linked into a moving present. Where prehistoric rock art is encountered, phenomenological experiences occur within worlds that can only be

measured and tested by individuals, all of whom will have different interpretations of the art.

Notably reluctant to ascribe meaning to rock art images due in large part to a succession of interpretative challenges, most UK and Irish archaeologists have taken to avoiding this subject, or ascribing to it basic levels of informative value. As the majority of UK and Irish rock art comprises geometric or abstract designs, this is not surprising. However, figurative motifs occur in mainland European rock art where mobile prehistoric populations are inferred; for example, in Norway, (Alta, Vingen), in Sweden, (Nämforsen), or in Galicia, (Campo Lameiro, Laxe das Ferraduras).  These, and their associated environmental contexts, have enabled the construction of interpretative propositions based on the meaning of the art to the societies that made it; such as sacred localities, landmarks, boundaries, and the nature of the figurative motifs employed.

Acknowledging that the construction of meaning from rock art is a diverse active and re-enactive process, a new figurative early prehistoric rock art discovery found as a façade-element of a prehistoric cairn in the Lake District in April 2015 is presented and interpreted within its monumental montane context.

**Capturing the gaze: constructing the materiality of rock art**

Magnus LJUNGE (Stockholm University, Sweden)

The practice of illustrating Scandinavian rock art was established in the mid-19th century. Early on, a cartographic perspective was adopted, where rock art imagery was drawn from an elevated and all-seeing position. This resulted in a production of graphical representations showing rock art as clearly distinguishable images against an empty background. The antiquarian gaze, searching for depictions on rock panels, has dictated the norm for graphic illustration of rock art. Hence, archaeological rock art illustrations require a de-materialization of rock art, which in turn favours interpretations of rock art as abstract symbols of things and phenomena beyond themselves.

The intricate relationship between graphical representation of rock art, and the interpretation of its meaning in prehistory, has ultimately led to a transformation of the actual remains. At present, Scandinavian rock art contexts is painted with red colour in order to come into sight for visitors. Painting rock art is carried out based on the graphical representations made when documenting it, which literally turns the prehistoric imagery into the appearance created by the archaeological gaze. The painting of rock art is obviously related to a present priority of images over materiality, but perhaps there is also something to be learned from the long relationship between rock art and archaeologists. It seems that the visual power of figurative images captures the gaze, and the meaning of imagery is constantly created by experiencing visual qualities of the materiality of rock art.


**Rock art and the archaeology of institutionalisation**

David ROBINSON (University of Central Lancashire), Michelle WIENHOLD (University of Iowa, U.S.A.) and Devlin GANDY (Independent Researcher)

Since the shamanic turn of the early 1990s, the rock-art of the Chumash has been interpreted from a cognitive framework.  However, earlier researchers were exploring the possibility that the images produced in territory attributed to the Chumash were linked to

the indigenous institution known as the 'antap. Recent fieldwork and theoretical approaches have called into question that shamanic perspective, with evidence mounting that the art was imbricated within ideological notions and practices. This paper presents new data suggesting that within the corpus of Chumash rock art imagery, a form known as set-piece art is likely an indicator of a form of institutionalization within indigenous society. Interpretation. This interpretation brings with it temporal and theoretical ramifications including concepts related to the 'antap and its antiquity, the archaeology of institutions, and the application of assemblage theory.

## Vibrant thoughts on solid matter? - a contribution to the debate on the relationship between theory, method

Lara BACELAR ALVES (CEAACP, University of Coimbra, Portugal)

In the 1990s, an increasing interest in the study of post-glacial rock art developed alongside the advent of a variety of theoretical and methodological approaches working in fast succession (or in concurrence) and the resilience of empiricist traditions in some niches of research across Europe. Many of the novel approaches were first presented and discussed at TAG sessions.

Although TAG encapsulated the critical tension between the so-called theoretical and scientific archaeology over time, it seems to be widely accepted that, in the turn of the millennium, theory has been losing popularity in determent of archaeological science. In 2009, in her contribution to the 'The death of theory?' session, Kate Giles suggested that the generation that have seen the emergence of post-processualism became 'mainstream' archaeologists and therefore, it would be expected that the new ideas were incorporated into the mainstream. Is that so?

It is undeniable that the latest research on rock art has been predominantly engaged in introducing, experimenting and delivering information on the application of digital imaging technologies. Much have been said, for instance, about 3D recordings but there has been a disappointing lack of debate on how they are to be woven with theorizing rock art. They have been primary thought as a means of objective documentation, preservation and public dissemination. But, if at the heart of TAG is reflexive thought, our challenge should be to think theoretically about methods and *praxis*. This paper intends to track down some of the vibrant ideas emerging in the 1990s and examine how did they consolidated (or not) in rock art studies across Western Europe. It will also discuss the extent by which they have been influenced by the recent epistemological trajectory of mainstream archaeology.

# RETHINKING THE ARCHAEOLOGICAL MAP

**Session organisers: Mark GILLINGS, Piraye HACIGÜZELLER and Gary LOCK (University of Leicester, University of Leuven and University of Oxford)**

From the very beginning of archaeological practice, maps (and plans) have been one of the discipline's most fundamental tools. The number, variety and prominence of maps in archaeology have been increasing further since the beginning of the 1990s due to the availability of a growing range of digital technologies used to collect, visualise, query, manipulate and analyse spatial data. It is therefore surprising that whilst generalised critiques of mapping as a modernist practice have been ubiquitous, direct and focused critiques of "the archaeological map" have been rare.

This slow development of archaeological cartographic critique should be considered a missed opportunity given the growing dissatisfaction in other areas of the social sciences with the modern Western map and particularly its grand claim to represent "the world as it is". We suggest that this multidisciplinary dialogue with post-/non-representational, more-than-representational, neo-pragmatist tones would undoubtedly enrich archaeological thinking. Moreover, archaeology could significantly contribute to this dialogue, thanks to its vast and multifaceted experience with maps and mappings as well as its well established tradition of thinking about cultures through the visual, material and other performative qualities of the images that they produce.

The session aims to present an opportunity to scrutinise the archaeological map and the possibilities for diversifying archaeological mappings. The meeting will be open to both theoretical and empirical approaches providing they seek to destabilise and unsettle the current status of maps and mappings in archaeology.

Among the issues that could be addressed in the session are the need for a critique of archaeological maps and mapping practices; performativity of archaeological mapping practices; the map as assemblage; promises of epistemologically modest genres of archaeological maps (e.g. explicitly performative, narrative, affective, playful); deep-mapping; maps as a creative artistic process; counter-mapping; maps and visual literacy; maps as story-telling; idiosyncrasies of archaeological cartographic discourse; gender issues in archaeological mapping; archaeological map in the digital age; archaeological map as a part of archaeological visual culture; and the potentials and promises of 'science-technology-studies' in the study of archaeological mapping.

### Rethinking the conversation: a geomythological deep map

K.E. KAVANAGH (Independent)

*"Deep maps do not explicitly seek authority…but provoke negotiation between insiders and outsiders, experts and contributors, over what is represented and how. Framed as a conversation and not a statement, they are inherently unstable, continually unfolding and changing in response to new data, new perspectives and new insights."* (Bodenhamer 2015)

In this way, the deep map can become a conduit for rethinking geomythological research and representation. Traditionally, geomythology has been the study of landscape stories through the purview of geoscience (Piccardi and Masse 2007) with little regard for myth's own voice. Bounded in the epistemic bias of orthodox perspectives storytelling has been

dismissed as an inferior feature in the landscape; a source to be critiqued or stood behind as a bridge for public engagement but not as a partner to be afforded equal value.

This paper challenges that stance, suggesting that an alternative is possible wherein established archaeological practices are overthrown in favour of a more interdisciplinary methodology (Kavanagh 2015) through conceptual deep mapping. For 'the world as it is' in which we live does not stand still, it does not pose for a paper-held cartographical portrait; it is forever in flux.  This refers both to the aesthetic topography and to the social structures it supports, as well as the intellectual data it can yield. To therefore map a landscape is more than geography, it is to facilitate a palimpsest of cultural narrative which struggles to be contained within the rigid parameters of a conventionally academic bracket, as so often seen with historic landscape characterization. One solution to this, is not to even try. Instead to bring together the polyphony in a manner that is at once playful and scholastically sound without overt agenda. This is offered by way of introducing a 'work in progress' short film that responds to geo-archaeological fieldwork in collusion with art, music and myth to represent one stretch of coastline across time, space and disciplines with the aim of not compromising integrity and to re-establish the very foundation upon which normative perspectives reside.

Bodenhamer, D.J., Corrigan. J. and Harris, T.M. (eds). (2015). *Deep maps and spatial narratives*. Bloomington: Indiana University Press

Kavanagh, K.E. (2015). *Of myth & man: Essaying the space-between in geomythological theory.* Unpubl. M.A. Thesis. University of Wales, Trinity Saint David.

Piccardi, L. and Masse, W.B. (eds) (2007). *Myth and geology*. Geological Society, London, Special Publications No. 273


**Mapping risk: new visualizations of maritime networks in the Aegean Bronze Age**

Garry PRATT

How useful can network analysis be in maritime settings if based on invariant spatial relations? A model of maritime networks across the Aegean in the Middle Bronze Age (MBA) has been proposed by Knappet, Evans and Rivers (2008, 2011. Knappet, 2013) using distance between sites as a core measure, which they acknowledge as inadequate.  By constructing new maps based on a data set of average travel time under sail between sites and proposing a new measure of 'risk' of travel, remarkable different network patterns are revealed, highlighting the inherent problems in the use of the modern Western map in archaeological contexts, offering a step to visualising the real risks and 'worlds' of Bronze Age mariners, and supporting Sindbaeks (2014, 129) proposal that '…network analysis in archaeology should not be regarded primarily as a means of mapping out data pertaining to past relations and interactions, but as a method of framing, assessing, and criticizing such data'.

**Mapping sound: creating a synaesthetic landscape**

Dianne SCULLIN (Columbia University, U.S.A.)

A core principle of phenomenology states that as human beings we experience the world with all of our senses simultaneously. Merleau-Ponty (1962) describes this process as synaesthesia, literally all sensations together. No one hears a sound removed from touch and vision, and no one sees an object divorced from sound or spatial awareness. Since every human experience is a synaesthetic one, the analysis of the lived experience of an archaeological site should be approached with this concept in mind.

Through the use of modern acoustic testing equipment including speakers, amplifiers and recording devices, archaeologists can experience how sound behaves in an archaeological setting and record the objective and subjective properties of sound in specific contexts. Yet in order to analyze the consequences of the interaction of sound and space, one must transform the sonic into the visual: the sound map.

This paper explores the consequences of this transformation, what is gained and what is lost in this process of discussing and analyzing a sonic experience in purely visual terms.


**Archaeological maps: performance and effect**

Piraye HACIGÜZELLER (University of Leuven, Belgium)

The aim in the presentation is to reconceptualise archaeological cartography from a practice-based, more specifically performative, perspective. In order to pursue this task, I will present a theoretical discussion on "maps as performance" followed by case studies featuring four ways in which archaeological maps are often performed and, accordingly, archaeological places are often imagined: matter-ing, base mapping, picturing and mono-locating. In the final part of the presentation I will keep with the pragmatist philosophy and issue an invitation to revise the way in which the value of archaeological maps is assessed. Specifically, I will suggest that rather than being judged on the basis of how well they correspond to a reality independent from them, archaeological maps should be judged as actants, that is, on the basis of their performative effects, what they do in the world.


**From 'Flatland' to the real world. Archaeological mapping in the Digital Age**

Jacopo TURCHETTO and Giuseppe SALEMI (University of Padova, Italy)

Archaeological maps have been usually conceptualised and realised within a 2D or, at least, a 2.5D framework, in which 'height' (z axis) is not independent, but is an attribute of a set of x, y coordinates. A strict collaboration between an archaeologist and a geomatics expert both conducting researches on the historical landscape of central Anatolia (Cappadocia) and on its transformation during the course of time (from the Greco-Roman age to the Byzantine period), brought to light, on the contrary, the necessity of approaching the archaeological mapping of that territory from a different 'perspective' and from different 'points of view'.

In particular, the exploitation of the potential of the 'third dimension', in which x, y and z were three independent axes, appeared to be of great usefulness. A 3D approach, indeed, allowed to 'extrude' all the morphological features of that area (characterised by the

mountain chain of the Taurus, deep valleys dug into the rock, semi-flat upland and isolated volcanic peaks), enhancing their representation in the maps, thus enabling a multi-parameter-based interpretation of the archaeological record and stimulating the application of more detailed and targeted GIS analyses. As for the layout of the routes, for example, such a mapping not only permits to visualise the connection between point A and point B, but also to 'perceive the difficulties' (slope) of travelling along them, due to the direction of the roads (outbound or inbound, ascending or descending). It allows also to evaluate the existence (or not) of a certain level of intervisibility between settlements and their subsequent topological relationship.

The aim of this paper is twofold: (A) to present some case-studies in which the application of a three-dimensional approach in the process of the archaeological mapping stimulated different and alternative ideas/hypotheses than those traditionally arisen by 2D maps; (B) to propose further developments, especially related to the conversion of the Digital Elevation Model of Cappadocia into a real solid object through a 3D printer. This 3D non-virtual model could act as the 'base layer' for some virtual simulations (Serious Games Theory), which would allow to visualise the different features and characters (natural, anthropic, archaeological, etc.) of Cappadocia, making general public experience history and archaeology, fostering the potential of digital interactive technologies as means of life-long learning experience.


**Airborne laser scanning in landscape studies. A revolution in archaeological procedures?**

Łukasz BANASZEK (Adam Mickiewicz University, Poland and Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology, Vienna, Austria)

Application of ALS in archaeology does not only lead to plain improvements such as detection of new features of known sites and landscapes or simply enable an 'easy' access to areas (forests) which previously used to be omitted by archaeologists. In this paper I will present that the use of ALS derivatives forces also complex consequences for heritage management and cognitive procedures within archaeology. Traditional relation between discovery, identification and documentation seems to be absolutely inverted, since past meanings are brought into being at a particular point of data processing and interpretation. Moreover various aspects of ALS data usage in archaeology allow treatment of this kind of datasets as a new type of archaeological source. I will also show that the method has a major impact on archaeological narration.

# (EN)TANGLED: ON THE NEED FOR AGENT PLURALITY IN UNDERSTANDING IDENTITY FORMATION PROCESSES AND COSMOLOGIES IN PREHISTORIC COMMUNITIES

**Session organisers:  Beatriz BASTOS, Rebecca NICHOLLS and Maï-ly DUBREUIL NGUYEN (University of Bradford)**

Borrowing Gavin Lucas' (2012) concept of "archaeological entities" as a starting point, this session proposes to revisit the growing need for plurality of agents and agencies in the assemblage of biographic narratives of prehistoric sites. Adding time and timings to the equation, we're intent on discussing the growing role of objects' (as well as structures', landscapes' etc.) own actuant properties on actor-network based analysis in understanding the contingent and negotiated views of the world of prehistoric communities.

Assessing events of objects' life-spans by the means of laboratory techniques, this session also proposes the construction of small scale narratives and biographies, toward their entanglement in the building of wider scale pictures of site and regional timings and identity networks and shared cosmologies.

**Anthropomorphic representations: objectifying the human or humanizing the object?**

Patricia CASTANHEIRA (Independent researcher)

Anthropomorphic figurines represent an important part of our discourses on religion and belief in Prehistory. In Southwestern Iberia they assume a wide variety of shapes, sizes and raw materials during local Late Neolithic/Chalcolithic. They've been the target of various interpretations and all kinds of approaches have been rehearsed. However, to this day, the most wide-spread and accepted interpretation remains the female/male dichotomy of religious figures of a Mather Goddess in opposition to a younger Male figure. More recently, new approaches have come to light, ranging from heraldry (Lillios 2008) to body theory (Valera and Evangelista 2014), the former regarding anthropomorphic schist plaques used as heralds for the dead; and latter exploring different possibilities and meanings for physical treats, as posture and proportion of carved ivory figurines.

Elsewhere (Valera, Evangelista and Castanheira 2015), it has also been suggested that miniaturization (in that particular case regarding animal depictions) might have more to do with actual representation, that is the ability to handle the miniaturized version of something or someone enables the control over the represented – this is the same principle behind voodoo, for example.

That being said, the aim of this paper is not to elucidate, but to deconstruct and discuss: are anthropomorphic figurines representations of certain individuals and/or ideas or are ontologically independent when seen under the light of an action based social network, with acting capacities of their own? Are they the objectification of all things human, or are they objects humanized through the concession of agency and their integration into complex animistic social scenarios?

Lillios, K. (2008) *Heraldry for the dead: memory, identity, and the engraved stone plaques of neolithic Iberia*, Austin: University of Texas Press.

Valera, A.C., Evangelista, L.S. (2014) Anthropomorphic figurines at Perdigões enclosure: naturalism, body proportion and canonical posture as forms of ideological language*, Journal of European Archaeology* 17(2): 286-300.

Valera, A.C., Evangelista, L.S. and Castanheira, P. (in press) Zoomorphic figurines and the problem of Human-Animal relationship in the Neolithic and Chalcolithic Southwest Iberia, Menga.

## A brief event in the life of a small but interesting stone from Ilkley

Mike COPPER (University of Bradford)

During the preparations for TAG 2015 an incident occurred in which a decorated stone from Ilkley Moor forced its attentions upon the conference organising committee in an unusual way. Although dealt with quickly and without ceremony, the incident highlights some important issues concerning the use of the term 'agency' by archaeologists, the nature of archaeological entities, and the links between social and scientific archaeology. It will be proposed in this presentation that, for better or worse, the term agency effectively black-boxes the nature of the relationships into which people and things enter and obscures the processes by which change occurs. It will be suggested that a focus on the polythetic, assembled and constantly changing nature of all archaeological entities, from artefacts to social systems can help to better illuminate the nature of the relationships that such entities enter into, the processes of change that arise from such relationships, and the nature of the forces at work.

## Linkage in archaeological network conceptualisations

P JACOBSSON

To use the concept of networks we need to show that the entities in question are indeed linked with one another. In most disciplines dealing with living subjects, establishing linkage is a matter of straightforward observation as to how actors interact with one another. However, this is not the case in archaeology, as the interactions have to be inferred from other, often circumstantial evidence. In general the archaeological establishment of linkage can take place through either spatio-temporal proximity, or through reference to some historical process. Spatio-temporal proximity relies on archaeological events being in close proximity and synchronous to one another, thus making it probable that they were related. Linkage through historical processes most often relies on culture-historical observations, such as typological similarities between assemblages, but can also take more diverse forms, such as through provenance of raw materials.

The key question asked by the paper is: "how do these two different modes of establishing linkage affect our interpretation of prehistory?". While the spatio-temporal approach in first instance forms the basis for tracing very similar to that of Actor-Network Theory (ANT), linkage through historical context will often invoke a number of complex entities that might not be accessible by ANT methodology. This, in effect leads to the emergence of three distinct modes of inference: one where only spatio-temporal linkage is possible in first

instance; one where only historical linkage is possible and one where the two directions are combined to form a hybrid dynamic. It is within this hybrid dynamic that different entities exert the greatest force upon one another within the process of archaeological inference, thus leading to what perhaps is the closest entanglement.

**I went outside and I thought about cows: looking for agency on the prehistoric Yorkshire Wolds**

Emily FIOCCOPRILE (University of Bradford)

The geographer Marwyn S Samuels (1979: 64-65) argues that 'landscapes without authors would be like books without writers'. To understand the rural, monumental landscapes of later prehistoric Britain, we must consider the authorship of not only people, but also of animals and monuments themselves. This paper is two-fold. Firstly, it explores how the life histories of the linear earthworks of the Yorkshire Wolds were intertwined with those of people, animals, objects and other features within the landscape. Secondly, it considers how the antiquarians and archaeologists who have studied these earthworks have become part of their life histories. The paper draws upon a variety of field- and desk-based resources, including targeted geophysical fieldwork, aerial photographic transcriptions and antiquarian maps.

Taking a biographical approach to landscape (after Samuels 1979), it is possible to chart the life histories of particular places on the Yorkshire Wolds and to investigate the collective authorship of the wider landscape. By focussing on the relationships that bound together linear earthworks, animals and people, we may begin to understand the ways in which monumentalised landscapes both reflected and generated the cosmologies of prehistoric communities. As landscapes are dynamic and our own life histories may become entangled with theirs, we must not confine prehistoric agency to the past; rather, we should develop ways of looking for agency that recognise and celebrate our own role in the creation of biographies of landscape.

Samuels, M.S. (1979) The biography of landscape: cause and culpability. In Meinig, D.W. (ed) *The interpretation of ordinary landscapes: geographical essays*, 51-88. New York and Oxford: Oxford University Press.

**An approach to Atlantic connections in the Bronze Age from Actor-Network theory: a case study in North-western Iberia and Brittany**

Juan LATORRE-RUIZ (University of Oxford)

By using actor-network theory, the objective of this communication is to offer new answers to an old question. Since the first half of the twentieth century, archaeologists have been discussing why, during the II millennium BC, similar bronze artefacts were deposited in similar contexts, mainly deposits, all over the Atlantic seaboard. It has been suggested the possibility that populations who lived in different areas of Atlantic Europe could have shared not only artefacts but also rituals, beliefs and perhaps a common elite identity, which will explain why similar metalwork was deposited in similar ways. However, others argue that maintaining an ideological structure of that kind would have been impossible because it would have required a lot of interaction between populations living far away from each

other. Nevertheless, these explanations and critiques consider that humans were the only element in the Atlantic system with agency and that the materials exchanged were passive. However, what would happen if we consider the metalwork also as an agent with an active role in the distribution and deposition of bronze artefacts? The picture that emerges is quite different. From that point of view, the exchange of bronze metalwork in Atlantic Europe would have been a complex network of human and non-human actors interacting in similar ways. In that context, non-human actors, like Bronze daggers or cauldrons, could have travelled long distances and still could have played similar roles in different societies. In other words, human actors would have not been the only ones maintaining an ideological structure of common rituals, beliefs and identities but they would have been aided by the metalwork they used. In summary, this communication will explore the agency of the metalwork exchanged and deposited in Atlantic seaboard regions during the Bronze Age. This approach will be presented using Bronze Age materials from North-western Iberia and French Brittany.

## THE ELEMENTAL (RE)TURN. THE ARCHAEOLOGY OF ELEMENTARY PHILOSOPHY AND HUMORAL PRINCIPLES

**Session organisers: Richard JONES, Holly MILLER and Naomi SYKES (University of Leicester, University of Nottingham and University of Nottingham)**

This session encourages archaeologists to (re)engage with pre-Enlightenment doctrines—namely elemental and humoral theory—which, it will be argued, are more relevant for archaeological interpretation than much of current theoretical discourse. Its aims is to show how these ancient theoretical paradigms might be marshalled to provide more direct readings and robust analyses of the archaeological record, provide fairer representations of past cultures, heal present rifts in the discipline's arts- and science-based research, and position archaeology at the forefront of debates concerning future sustainability and resilience.

Throughout the western world, and for at least the last 2,500 years, all aspects of human life, lifestyle and behaviour—diet, farming practices, health, life-cycles and overarching cosmologies—were perceived, explained and dictated by the principles of the four elements (earth, air, fire and water) and their corresponding humors (melancholy, sanguine, choler, and phlegm). Detailed evidence for these belief systems is found everywhere, from the Vedas of India through pre-Socratic Greek philosophy and the later works of Pliny and Galen, to medieval and post-medieval agricultural, culinary and medical treatises. Living traditions remain fundamental to practice and belief across large parts of Asia and the New World; while many indigenous and First Nations peoples follow cognate cosmologies.

The near total neglect in current archaeological dialogue of the centrality of elemental and humoral theories to so many cultures past and present is thus astonishing. Even phenomenologists, who explicitly seek to engage with lived experience and environmental immersion (both ideas foundational to elemental and humoral theory), have been very slow to ask about the *actual* philosophies that informed past experience. The discipline's general failure to acknowledge the importance of elemental and humoral theory appears to

be the result of timing: the birth of archaeology and the demise of elemental philosophy both belong to the 'Age of Reason'. Because of this coincidence, and perhaps also because of the historical legacies of British empiricism which privileged substantiated facts over unsubstantiated popular lore, archaeology has neither explored nor rejected the paradigm of elemental philosophy; it has simply looked forward not back, perhaps viewing any return to pre-Enlightenment ideas as retrograde.

This session challenges this stance.  It will suggest that elemental philosophy and humoral theory represent the intellectual paradigm that archaeologists have been striving to invent since the discipline's creation—one that considers entanglement, agency, materiality, object biographies, individual identities and life course; one that sees no separation between nature and culture or religion and daily practice, and one through which arts- and science-based archaeologists can best converse.

## Elemental theory: a dummies' guide for archaeologists

@archaeoelement represented here by Richard JONES (University of Leicester)

In recent months, as we have showcased our thoughts on the value of elemental theory in archaeological interpretation, it has become apparent that few practitioners in our discipline are aware of elemental theory and fewer still understand its guiding principles.  As an introduction to this session, therefore, the fundamentals of elemental theory—at least as it was understood in the Greek, Roman, and medieval European worlds—will be presented. It will be demonstrated how elemental theory was implicated in every aspect of human experience: its foundational role in humoral theory; how the months and seasons were reckoned in elemental terms; how elemental theory mapped on to the human life-style; how it guided thoughts about the planets, meteorology and even terrestrial geography.  It's cosmic man!

## Getting a sense of humors in zooarchaeology

Naomi SYKES (University of Nottingham)

Archaeologists often go to great lengths devising complex theoretical models about social practice (often developed from anthropological ideas) without considering the evidence provided by the ancient societies under consideration. Textual and iconographic evidence make clear the centrality of humoral principles to Roman and medieval minds: not only did all living things possess their own humors but these could be transferred to 'consumers' through any of the bodily senses. Yet there is little mention of the humors in discussion of Roman and medieval archaeology; this is an astonishing oversight. Using a variety of zooarchaeological case-studies, this paper will explore how new interpretations and insights concerning human-animal-landscape interactions might be gained if we consider senses and humors.

## The slightest elements of material culture

Emma BAYSAL (Trakya University, Turkey) and Holly MILLER (University of Nottingham)

Artefact analyses have been long dominated by studies of typology and technology. Only in recent decades have we begun to look beyond 'form' and 'function' for more esoteric meaning in the archaeology of material culture, yet there are categories of artefacts that are still under-studied and under-theorized in this way, such as beads. Understanding the socio-cultural-economic significance of beads is obscured by their general classification as 'ornamentation', which implies an outward-looking, visually driven, social practice, with decorative purpose. Conversely, ethnographic studies show us that beads, with their physical closeness to the human (or other) body, often have an important role in sympathetic magics that are invoked to counteract the ill effects of elemental imbalances. In this paper, we will attempt to trace a continuity of ideas, if not practices, through modern pastoral and Bedouin groups into the prehistoric record of bead related practices in Anatolia and the Near East. In this way we highlight how our current, post-enlightenment approaches to these items may be inadequate and how viewing these items with the aid of an elemental lens may enhance their interpretation.

## The Medicine Tree: pollen analysis as a window into the elemental world of Tibetan Buddhism

Suzi RICHER (Worcestershire Archive and Archaeology Service) and Benjamin GEAREY (University College Cork, Ireland)

The (re)turn to elemental philosophies and using interpretations that are based on the cosmologies of the people who are being studied, potentially offers a fresh and invigorating way of reinterpreting environmental data. Approaches based more broadly in a posthumanism perspective are also attracting greater archaeological attention, but these have been primarily within the realms of period-based studies, zooarchaeology and osteoarchaeology (e.g. Fredengren 2013; Garcia-Rovira 2013; Sykes 2014). Arguably, these sub-disciplines offer either a theoretical or a direct link between people and the past; whether it is through the artefacts they made, the food they ate, and the animals they raised. Can we apply a similar approach to *proxy* palaeoecological data such as pollen analyses, whereby we attempt to de-centre our western anthropocentric, positivistic perspective and offer equally valid interpretations based on alternative frames of reference? This paper presents an example of how an elemental perspective can provide a reinterpretation of a pollen diagram from a Buddhist dominated area in the Himalaya of Nepal. In particular, we draw on the deeply complex elemental philosophy and knowledge of an *Amchi* (medicine man) to posit an interpretation focussed on *potential* entangled meaning within the landscape, rather than purely as an ecological 'reading' of the diagram following a 'conventional' disciplinary framework. We will also propose that such dominant, avowedly apolitical modes of academic enquiry may be anything but and will consider how we might foreground and negotiate these and related concerns.

## Scientific fields? Medieval peasants, sustainable farming and elemental theory

Susan KILBY (University of Leicester)

Our current understanding of the medieval rural environment is largely based on scholarly writings focusing on the landscape policies pursued by the social elite. This study re-examines manorial sources from the perspective of local peasants to reconstruct the physical—and in some respects, metaphorical—environment of the lower orders in two contrasting English villages between 1086-1348, and to determine how this led to the development of the local economic strategies that can be pieced together from the records of the medieval manor. Maintaining soil quality was fundamentally important since peasants' survival was closely linked to their agricultural success. Local peasants clearly understood that the land needed nourishment, but they also had to decide where and how best to deploy their limited fertiliser stocks, and this required a thorough understanding of the land they worked. Nothing emphasises this more than the wide variety of local field-names, coined by the peasants themselves. Many field-names were selected and retained over a long period, and describe the specific qualities of individual cropping units. This paper argues that some of the most enduring field-names survived as part of a collective mnemonic system used by local farmers in conjunction with commonly held scientific ideas, from which they determined how best to treat their fields. It suggests that, although uneducated in any formal sense, some peasants nevertheless had a strong grasp of contemporary scientific thought, and there is evidence to suggest that elemental and humoral scientific theory informed their approach to the sustainability of soil quality.

## Bodiam Castle and Longthorpe Tower: elemental readings of later medieval building design

Richard JONES (University of Leicester)

The interpretation of Bodiam Castle (East Sussex) has been hotly contested.  Was Bodiam designed as a functioning defensive structure or was it an old soldier's conceit, a dream house and nothing more?  Much of this debate stems from consideration  of Bodiam's position in the landscape, the role of the moat, consideration of the fields of fire afforded by its gunports and arrow loops, levels of fenestration, and  analysis of the internal arrangement of, and lines of movement through, its rooms and services.  Here medieval rather than contemporary landscape theory is applied for the first time to the reading of Bodiam.  Since the basis of good medieval landscape design lay in the application of elemental theory, foregrounding elemental (and humoral) theory brings critical insights that help us to understand Bodiam's design and the thought processes of its architect.

Longthorpe Tower (Peterborough) contains some of the best surviving late medieval wall paintings to be found in a secular context.  The scheme depicts key ideas of medieval natural philosophy.  The elements are subtly integrated into the scenes, providing an unique opportunity to examine how they were used as part of interior décor at the beginning of the fourteenth century.

**Food, identity and humoral theory in early modern England: a case-study from Leicestershire**

Rachel SMALL (University of Leicester)

Archaeological studies of food have generally taken an isolationist approach: they have tended to consider animal and plant remains separately; and have largely failed to integrate written sources fully into their discussion. Furthermore, interpretations have tended to focus on the economics of production (e.g. an increase in the consumption of calves can be explained by a rise in dairy production) or on identifying aspects of dietary identity (most commonly social status). A major omission in current scholarship is consideration of humoral theory as a framework that guided contemporary attitudes to diet and good health. This was particularly true for the early modern period.  My research will attempt to address this problem through an interdisciplinary case-study of an early modern aristocratic household at the forefront of cultural change—the home of the Grey family at Bradgate House, Leicestershire. In this presentation, I will outline and exemplify how I will integrate and interrogate archaeobotanical and zooarchaeological evidence alongside household accounts within a humoral framework to reconsider the role of humoral theory in influencing consumption behaviour and its influence on the construction and negotiation of group identities.

**What's on?  Elemental archaeology my dears.  A discussion**
We see this session as a starting point. Despite the richness to interpretation showcased by the papers presented here, we have only scratched the surface in terms of what we might do. We look forward to a world in which elemental and humoral theory is implicated, wherever culturally and historically appropriate, in every aspect of archaeological enquiry. This discussion provides the space for collective consideration of how and where we might apply elemental theory and the opportunity to map out new theoretical and applied pathways.