



**THEORETICAL ARCHAEOLOGY  
GROUP  
ANNUAL CONFERENCE 2013**

**‘TAG-ON-SEA’**

**16 – 18 December**

**Bournemouth University**

**ABSTRACTS**

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## Monday 16 December - Afternoon

### **A. Land, Sea and Sky: a “3-scape” Approach to Archaeology**

Session Organisers: Fabio Silva

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#### **Session Abstract**

This session aims to extend the discussion on Landscape and Seascape Archaeology, by considering their interaction with a third ‘-scape’: the Skyscape. Land, Sea and Sky are three components of any coastal or maritime society’s world-view. In fact many cultures, both historical and ethnographic, use the sky for land and sea navigation, whether by naked-eye observation or through the medium of tools, such as the astrolabe.

Contributors will build on this premise and discuss topics as broad as: the use of the sky to navigate the Sea- and Landscapes; the cosmology of riverine, coastal and island communities; time and calendars particularly as related to environmental and celestial cycles and the sea (tides); the relationship between bodies of water, the wider environment and monumentality; and methodological aspects of the integration of Land-, Sea- and Skyscape Archaeology.

Contributions will be drawn from a variety of periods and regions and we aim to publish them in an edited volume.

#### **The experience of watching: Place defined by the trinity of land-, sea-, and skyscape**

Daniel Brown (Nottingham Trent University, UK)

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The interpretation of astronomical orientated ancient sites has frequently led to the conclusion that a highly educated astronomy cast needs to exist. This group within an ancient society would have a deeper knowledge of the movements of the Sun, Moon and stars derived through observations and analysis similar to the modern day scientific methodology and not accessible to the un-initiated. However cultural astronomy has started to overcome this mistake by describing such ancient astronomically oriented sites not as observatories but as places where a certain phenomenon can be experienced and watched.

This paper will discuss this act of watching and how it is closely linked to a definition of place by introducing the notion of the dialectic image. The triplet of land-, sea-, and skyscape offer common themes and characteristics that allow the watcher to critically negotiate his surroundings and experience the place where he dwells. All three form a trinity and are actually part of one skyscape that invokes feelings, illustrates tensions and asks for action. Experiencing this unity is essential to watching. At this stage there is no deeper astronomical knowledge required that is only accessible to the initiated few. Cosmic cycles that manifest themselves through the motions of the Sun, Moon, and stars as well as seasonal and tidal rhythms become obvious to everyone. Skyscapes at astronomically orientated sites capture this meaning. If we step back from observing and engage in watching we can recapture this meaning in the trinity of land-, sea-, and skyscape.

#### **The archaeoastronomy of Tomnaverie Recumbent Stone Circle: a comparison of methodologies**

Liz Henty (University of Wales Trinity Saint David, Wales, UK)

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Archaeoastronomers face a methodological dilemma when selecting sites for survey. Clive Ruggles suggests that meaningful results can only be obtained by analysing a large group of monuments of

similar design and applying statistical methods to the results. Despite the advantages of this methodology, it is difficult to put into practice as there are so many megalithic sites such as Stonehenge, which are unique. Additionally archaeoastronomers are increasingly aware that their findings must be complementary to the archaeological record, yet full excavations are mainly only carried out at sites of considerable significance. Also it could be argued that in terms of landscape, each monument has individual properties which need to be explored. In the light of these conflicting methodologies, this paper looks at the archaeoastronomy of Tomnaverie Recumbent Stone Circle which has been fully excavated by Richard Bradley. The RSCs are a group of monuments which Ruggles used to exemplify his statistical methodology. By comparing the results this study may offer fresh insights into the way the methodologies can be combined.

### **Riverine cosmologies of the Neolithic**

Pamela Armstrong (University of Wales Trinity Saint David, Wales, UK)

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Drawing on current research for her MA in Cultural Astronomy and Astrology Pamela Armstrong will discuss three Cotswold Severn earthen tombs. They are all upland structures found close to the sources of riverine systems, one of which feeds the mighty Thames and the other the River Severn. This paper looks at the architecture of these headwater tombs in order to explore whether the communities who built them linked their monuments to celestial horizon events. Further discussion devolves on whether they display evidence of practical astronomy and Neolithic cosmology.

### **The land, sand seascape in context of megalithic temple structures of prehistoric Malta**

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The exploration of the Mediterranean seascape goes back to the foragers of the early Holocene period around the ninth millennium BC. However there is no secure evidence of human settlement of the Maltese Archipelago before the end of the sixth millennium BC. How the early Sicilian seafarers arrived in Malta, what type of boats were used or system of navigation are not known. Under good weather conditions Mt. Etna (3340 m) and the Iblean highland southeast on Sicily are visible from Malta and Gozo, as the Archipelago may be visible from the same geographical areas of Sicily, however, unlikely observable from sea level. Stars may also have been used for navigation.

Approximately one thousand years later, the unique style of megalithic constructions that later became known as the Temple Period commenced. This period lasted for about another millennium and suddenly came to a halt for no apparent reason, leaving no further trace than the monuments themselves. However, based on the extant material culture as artifacts, iconography and the orientation and location of the temples, there are indications that the Temple Period society may have had a conscious awareness of a holistic cosmology that integrates the land, the sea and the sky. As Grima states, land and sea are the two most inevitable components of an islander's cosmology. Using thick description, this paper will look at how the seascape provides a third component of the prehistoric Maltese cosmology based on archaeology, archaeoastronomy and landscape.

### **Hypogea and large rock piles in the Azores: possible solar ritual associations?**

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The Azores archipelago was historically discovered, and subsequently colonized, by the Portuguese in the fifteenth century. The islands were believed to be uninhabited prior to their arrival. However, there is a growing body of archaeological evidence that alludes to an earlier human presence.

In the island of Pico, the landscape is dominated by over one hundred pyramidal rock piles, some of which include an inner corridor and chamber. Their original purpose is unknown, however they display preferential orientations towards the summer solstice sunset, above nearby Faial island; winter solstice sunrise, just above the slope of the island's volcanic peak; or directions orthogonal to these. Similarly, three rock-cut hypogea in the island of Terceira display ritualistic elements, including four basins that were illuminated by the setting sun in successive months from the spring to the autumn equinoxes.

This paper will present the preliminary results of recent excavations of some of these monuments and explore the ritualistic connections between the sky-, land- and seascapes that their unknown builders embedded in them.

### **Greek and non-Greek worship in the Greek sanctuaries of Asia Minor, Sicily and Cyprus: the orientation of Greek temples in sanctuaries that housed both Greek and non-Greek religious cults**

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The triad of Land- Sea- and Sky-scape is one that has yielded many interesting results in the study of ancient Greek culture. This paper investigates one aspect of the use of the night sky: that associating it to religious practice. The paper presents the first results of a project that involves the study of ancient Greek temples of Cyprus, Asia Minor and Sicily. As these were areas where the ancient Greeks came into contact with non-Greek religious practices and beliefs, the paper asks questions relating to possible local influences that may have affected the way that Greek temples were positioned and oriented. In order to address these questions in a focused manner, the data presented in this paper comes from Greek sanctuaries that show evidence for worship of foreign gods in the same sacred space. The second aim of the paper is to compare the results of this study to those of an earlier one on the orientation of ancient Greek temples located in mainland Greece and their relation, if any, to astronomical events that would have been significant for the ancient Greeks. This comparison could shed light and initiate a discussion on the way that ancient Greek religious practice was 'translated' to the Greek colonies of Asia Minor, Cyprus and Sicily.

### **Dragons in the sky and the Welsh landscape**

Bernadette Brady (University of Wales Trinity Saint David, Wales, UK)

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Dragons abound in the folklore contained in the *Prophecy of Merlin* of Geoffrey of Monmouth's *History of the Kings of Britain* (c. 1130). Of note is the recounting of the appearance of the Dragon Star, a saviour star of the Welsh that foretells of King Arthur's birth and which gave victory to his father, Uther Pendragon, against the Saxons. Based on this victory and heavenly event, Uther Pendragon embedded the dragon as a symbol of his name and sovereignty (Monmouth, 1904,212). Additionally the saviour son, Arthur, is often described with his golden dragon helmet *simulacro draconis* and his name is linked to the north as shown by his dream of an aerial battle between a dragon and a bear (Tatlock, 1933,229). Thus in Welsh folklore there is a relationship between kingship, dragons, and the north. This paper argues that such a relationship could potentially have sky and landscape roots since in the mid first millennia the constellation Draco, the constellation of the Dragon, at the time of the coming of spring around the feast of Candlemas, appeared to be standing directly on its head in the early evening light at a bearing on the horizon of due north while also at sufficient elevation to enable its head to be seen butting into the mountains. The paper suggests that the dragon of Arthur and Welsh folklore has its origins in the relationship between earth and sky.

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### **Over the hill – King’s Quoit dolmen and a sky-based wayfinder system**

Olwyn Pritchard (University of Wales Trinity Saint David, Wales, UK)

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The rationale for the location of the King’s Quoit dolmen, set half-way up a headland in south Wales has been an enigma since Victorian times. The monument builders chose, not the spectacular sea views of the south-facing slope, but the apparently more mundane inland vista of the north side, with a near horizon comprising a low ridge on the far side of a small valley, now a beach. Recent research by the author into the astronomical possibilities at this site have revealed possible markers for cardinal north, in conjunction with the lower culminations of Deneb and Vega, as they would have been observed during the 3rd and 4th millennium BC. This has led to another discovery, which will be summarised in the session, namely, that a still traceable route way of roads and footpaths leads north from this monument across Pembrokeshire, passing close by several Neolithic monuments and settlements as it does so, before reaching a sheltered bay and another, south facing, dolmen on the north coast. The southern end of this possible ancient trackway is located on Carmarthen Bay, and the northern end, on Cardigan Bay. Both bays encompass a lengthy stretch of relatively sheltered coastal and estuarine water. The overland route would enable the users of fragile craft to move from one to the other while avoiding the often stormy seas and rocky coast of Strumble Head.

### **Forbidden horizons: Interpreting the Stonehenge Palisade through multi-disciplinary convergence**

Lionel Sims (University of East London, UK)

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During the middle of the third millennium and for nearly two miles a palisade fence of oak posts over 6 meters high stretched along the western side of the last section of the Avenue and past Stonehenge (Darvill 2005, 55). This has been interpreted as an exclusion fence to keep lower class sections of the population from seeing the rituals taking place to the south-east (Pollard 2008, Pitts 2008). Yet it remains to be explained how a linear monument with end termini could not be easily circumvented. Nor can the main current archaeological model of the Stonehenge monument complex, the materiality model (Parker Pearson 2012) explain why such a large structure of wood is associated with the sarsen stones of Stonehenge. For this model wood signifies the land of the living and stone the land of the dead ancestors. By adopting a multidisciplinary approach which includes anthropology and archaeoastronomy, and comparing the Stonehenge and Avebury monument complexes, tests suggest that instead of the palisade being designed to exclude some people from looking to the south-east, it was intended as an obscuration device to stop all people seeing the horizons to the north-west (Ruggles 1999). Through multi-disciplinary convergence these tests further suggest that instead of stone and wood being categorically differentiated during late Neolithic ritual, they were diacritically combined (Maddock 1979) in the service of a reversing cosmology (Sims 2006).

### **“A tomb with a view”: Neolithic stars and the megalithic dolmens of Iberia**

Fabio Silva (University of Wales Trinity Saint David, Wales, UK; University College London, UK)

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The Atlantic and riverine landscapes of the Iberian Peninsula are dotted with megalithic structures dating back up to six thousand years. The most widespread of these, particularly in western Iberia, are the dolmens: structures composed of an orthostatic chamber, sometimes also featuring a megalithic corridor, which was surrounded by an earthen mound. The purpose of these structures is unknown but they have been associated with burials and votive offerings.

This paper will look at the land- and skylscapes of some clusters of these Neolithic structures. The methodology previously applied to a single Portuguese cluster (Carregal do Sal), presented in last

year's TAG meeting, will be applied to several other clusters in western Iberia and the findings interpreted with recourse to Neolithic subsistence strategies.

It will be shown that the dolmens in these clusters, previously believed to be loosely orientated towards sunrise, were actually built so that particular stars were visible from within their chambers. Such stars could have been used as temporal markers by these communities of hunter-gatherer-horticulturalists, their heliacal rising marking a transition in their settlement, and subsistence, pattern.

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## **B. ANT(ics) and the Thingliness of Things: Actor-Network Theory and other Relational Approaches in Prehistoric and Historical Archaeology**

Session Organisers: Harold Mytum (University of Liverpool, UK) and Ben Jervis (English Heritage)  
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### **Session Abstract**

Archaeologists, with their rich variety of sources and opportunity to work at a range of scales from the individual to the global, are often confronting complex patterns of relationships. This session offers a range of papers that consider archaeological data by applying theoretical approaches that emphasize the importance of the relational. It asks questions such as 'How do we identify and understand relationships in the past?'; 'What relational approaches have allowed effective new understanding of the past?'; 'How do prehistorians work with such approaches, compared with archaeologists studying literate cultures?' The session embraces a variety of examples of relational analysis from prehistory to the 20th century to indicate the potential of these theoretical frameworks, and the diverse ways in which they can be employed.

### **People, pots and patterns – ANT in the Neolithic**

Tobias Danborg Torfing (University of Kiel, Germany)  
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When pottery was introduced in Scandinavia at the end of the Mesolithic, it not only changed the way social interactions connected to cooking, eating and drinking were performed. The pots were also a new medium in which to explore and recreate group affiliations through ornamentation. After a modest start with simple or no ornamentation and few stylistic distinctions, the stylistic variation exploded in the early Neolithic, especially from around 3.800 BC onwards. After this time various local groups can be distinguished. But not only spatial differentiation can be observed; superregional trends came and disappeared in short phases. Vessel form, ornamental patterns and techniques as well as the tools applied varied in the extreme - hardly two vessels were the same.

It was not that the Mesolithic had lacked art; we have found ornamented bone tools and wooden paddles. But the introduction of pottery changed the way the social network was created, which areas of life were emphasized. Pottery came to be the focus of small bog sacrifices, as well as large scale sacrifices at the monumental burial structures and at causewayed enclosures. But how can pottery fragments from sacrifices be used to reconstruct broader social networks? In the paper, I will discuss this interaction between people and pottery, and how stylistic elements can be seen as actors in the same way as objects.

### **Assemblages for understanding relations: The emergence of an Early Bronze Age on the Isle of Man**

Rachel Crellin (Newcastle University, UK)  
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In this paper I explore a relational approach to understanding the emergence of the Early Bronze Age on the Isle of Man. The location of the Isle of Man, in the middle of the Irish Sea, exposed prehistoric communities to a wide variety of differing practices and traditions. Adopting a relational approach I seek to understand how relations with different regions of Britain and Ireland affected the emergence of a Bronze Age on the island. Drawing on the work of authors such as Manuel DeLanda and Jane Bennett, I adopt an assemblage based approach to consider how different objects and practices become 'territorialized' and 'deterritorialized' differently through time and space.



### **Lost in translation? Or identifying and understanding complex patterns of relationships by examining the multiple causality that affected Maori material culture change**

Caroline Phillips (University of Auckland, New Zealand)

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Interdisciplinary research of Maori occupation along the Waihou River in northern Aotearoa New Zealand provided evidence of a number of small-scale changes over a period of 350 years (1450-1800 AD). Changes were found to have occurred in the environment, economy, settlement systems and socio-political organisation. Identifying and understanding the dynamic and complex relationships between these interconnected elements requires a relational approach, such as a multiple causality which examines three possible causes of change: the evolutionary or selective processes by which one system is translated into another; the immediate reasons for the change; and the intentions and choices made by the inhabitants that led to the various actions. Importantly, this approach links diverse observations, tests existing assumptions, forces the researcher to be openly reflective, suggests future research directions and facilitates more effective archaeological understandings of Maori material culture change.

### **Foot-fall and hoof-hit – landscape, relational agency, linear earthworks and trackways**

Adrian Chadwick (University of Leicester, UK)

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Does landscape possess agency? Recent theoretical discussions within archaeology have explored notions that objects, animals and plants may be invested with agency, and have drawn upon ideas of relational agency and Actor Network Theory posited within cultural geography, anthropology and other social sciences. Can the same also be said of natural and anthropogenic features within past landscapes? This paper explores such questions, using two principal sets of British examples – firstly, late prehistoric linear earthworks; and secondly, trackways or droveways associated with later prehistoric and Romano-British field systems.

The ditches and banks of linear earthworks and trackways imposed habitual patterns on the embodied movements of people and beasts (q.v. Ingold 2000, 2011; Jackson 1989), but these features also emerged out of the very same activities and tasksapes. People and animals helped shape these landscapes, but in turn such places affected them and their shared movements and memories (Chadwick 2007; Chadwick, Martin and Richardson 2013; Lorimer 2006). Relationships between people, animals, linear earthworks and trackways were thus entangled in complex constraints and affordances within webs of agency, materiality and memory, and the landscape. In this paper, I will discuss the agency of these features, and the implications of such ideas for archaeological practice.

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### **Trajectories of practice: from terra sigillata to the Roman empire**

Astrid Van Oyen (University of Cambridge, UK)

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ANT has taught us not to invoke hollow labels like ‘the social’ or ‘Science’ to account for the human–thing interactions that gave rise to archaeological patterns. But in the process of implementing this dictum, archaeology threatens to forget about the Big Questions of power, identity, etc. that lurked behind the now jettisoned interpretive tags. This paper will argue that we can have our ANT-cake and eat it, by showing how a non-representational analysis of so-called ‘terra sigillata’ pottery can shed light on the particular power structure of the Roman empire.

The analysis is based on the principle that things, the parameters by which they are evaluated, and the kinds of action they allow for, are defined in practice. As practice is situated, it follows that the same thing is multiply defined, and that we cannot assume its continuity and stability in different contexts. This paper introduces the concept of trajectories of practice as a way to trace how the different ways in which terra sigillata was defined through production, distribution, and consumption, fed into each other and helped create the conditions of possibility of the Roman empire. The specificity of sigillata’s trajectory and the attendant possibilities for action will be highlighted through contrast with the trajectory of another kind of Roman pottery, so-called ‘Rhenish’ wares.

### **Texting the past**

Lisbeth Heideman Torfing (Aarhus University, Denmark)

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In this paper, I will examine how ANT can be used to understand abstract properties of objects in past times through a combination of literary and archaeological material and methods. Objects are often overlooked in literary research, which is not primarily concerned with the material world. In archaeology, abstract mental properties of objects are practically untraceable. Combining the two through the theoretical frame of ANT can reveal hidden links and associations in the social network.

In Old Norse culture, the physical production processes and properties of alcohol, especially mead, were closely connected to mental phenomena such as poetry, wisdom and numismatic knowledge. Drinking was also a formalised social ritual in which not only the substance, but also the container was essential. In a culture so invested with stories and significant meanings, we must respect their assertions regarding the consumption of liquids and look beyond our modern understanding of the physical effects of alcohol.

By moving the focus to the ways in which alcoholic liquids link to other actors in the social network, ANT opens up new perspectives for studying the processes of drinking. The question is not what actors inherently are, but what they do and how. When following the actors, it becomes obvious that the processes of mead production are inscribed in its consumption and effects. What we already knew comes into clear focus: That people in the Viking Age lived in much closer contact with physical processes of production, deeply immersed in a world of materiality.

### **Citations in stone: Relationality in Early Medieval monumentality**

Howard Williams (University of Chester, UK)

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This paper will consider the theme of relationality in terms of mnemonic citations — strategies for creating links to the past and promoting memories into aspired futures — in early historic societies. I apply this theme to the study of early medieval stone sculpture from the British Isles and Scandinavia. As monuments with long biographies of use and reuse, but often initially commissioned and deployed within complex commemorative practices, early medieval inscribed and sculpted

stones provided a medium by which relational interplays might operate within and between locales to project and promote social memories in competitive and conflicting ways. I show not only how citations operated within individual stone monuments, but how, as cumulative assemblages, stone monuments cited each other and garnered evolving genealogies and mythologies. Crucial for the session theme will be a consideration of the interplay of text, materiality and space in how these mnemonic citations operated.

**Celtic collections and imperial connections: behind the scenes in late Victorian/Edwardian national and provincial museums**

Sally Foster (University of Aberdeen, Scotland, UK)

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How does where in a network we target our research enquiry affect the methodology and outcomes of our research? Museum histories tend to focus on their higher echelons yet the people they omit were involved in extensive networks that often made the critical difference to what actually happened on the ground. The practices of the Circulation Department of the Victoria and Albert (V&A) Museum in the late 19th and early 20th centuries offer a good illustration of this: it supported the nascent 'provincial' (regional) museums of Britain and Ireland in delivering the South Kensington, central government objectives of improving design and manufacturers, as well as public taste, through a better appreciation of good art. The extensive availability of reproductions of archaeological objects, notably plaster casts of sculpture, was a key mechanism for achieving this. A specific example was the creation of bespoke collections of plaster casts of 'Celtic' sculpture for the 1901 Glasgow International Exhibition and museums in Dundee in 1904-11 and Aberdeen in 1905. These provide a Scottish lens on the wider phenomenon of South Kensington's role in the provinces, museums and 'imperial localism', burgeoning curatorial professionalism and networking, and its modern-day legacies. The value of a 'provinces-up' approach is evidenced by appreciating the work and networking of one 'Officer of the Circulation' R.F.Martin, someone who is omitted from V&A institutional histories but whose local agency was significant.

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## **C. Songs of the Caves: Acoustics and Prehistoric Art in Northern Spain**

Session Organisers: Rupert Till (University of Huddersfield, UK), Chris Scarre (Durham University, UK) and Simon Wyatt (University of Bristol, UK)

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### **Session Abstract**

Reznikoff and Dauvois among others have suggested there are specific relationships between decoration in Palaeolithic caves (e.g. paintings and carvings), and acoustics, sound or music. The Songs of the Caves project explores such relationships within caves in Cantabria (La Garma, El Castillo, Las Chimeneas, La Pasiega) and Asturias (Tito Bustillo), that are part of the Altamira and Palaeolithic Cave Art of Northern Spain World Heritage Site.

This project has involved comparing sonic and archaeological characterizations of the spaces in order to theorize what role sound may have had played in the activities performed in those caves. It involved collecting hundreds of acoustic impulse responses of the spaces; computer assisted analysis of relationships between motifs or images (positioning, type, date, density) and acoustical parameters (reverberation, loudness, clarity, envelopment); experimental music archaeology, i.e. playing of working models of prehistoric sound making devices in the caves; audio, photographic and digital video recording.

Papers in this session examine relevant methodological issues; the archaeological and sonic characteristics of the caves, and their relationships; what we can learn from such a study and how the results relate to the various contested theories about ritual and prehistoric decorated caves; what we can learn from sound about the lives of those who decorated the caves; and how artistic and phenomenological approaches can be used to generate further understanding, using experiential and practice-based research to develop non-representational theories (NRTs).

### **Recent dates on European cave art: Implications for the origins of symbolic behavior and the use of caves**

Alistair Pike (University of Southampton, UK)

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Our recent dating evidence shows that the tradition of painting in caves in Europe dates back to at least the arrival of the first modern humans, if not before. If it first appears with, or shortly after the arrival of the first modern humans, then it forms part of a suite of new cultural manifestations (e.g. musical instruments, figurative sculpture) that appear earlier in Europe than anywhere else. But why do these appear in Europe and not Africa where the use of ochre and perforated shells date back to at least 70ky?

The dates also reveal that not all caves with archaeology have contemporary painting, and that not all painted caves have archaeology contemporary with the paintings. For the latter, something other than the suitability of a cave for everyday activities is attracting the painters. The new 'long chronology' for cave painting shows episodes of painting in some caves spanning tens of thousands of years. Is art attracting more art, or are the special characteristics of these sites as equally important in the Magdalenian as they are in the Aurignacian?

### **Opening the senses for a deeper understanding of Upper Palaeolithic cave art**

Paul Pettit (Durham University, UK)

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It is probably fair to say that most archaeologists treat European Upper Palaeolithic 'cave art' as simply that - art - and most people's understanding of it derives in the main from textbook reproductions of famous images or through cave tours undertaken by electric light. The original

production and experience of such 'art' could not have been more different. Caves provided an alien and transitory sensual world, in which fear, exploration, difficulty, discovery and many other factors presumably played a role in 'ritual' activities that on occasion included the production of art. By way of introduction to the caves discussed in this session, I take a holistic approach to such factors, arguing that aural clues and palpation - the close-up scrutiny of cave surfaces - formed two quantifiable ways in which 'cave artists' experienced and gave meaning to this mysterious world. I use examples from Tito Bustillo (Asturias), El Castillo and La Garma (Cantabria). It follows that the subterranean artistic 'canvas' was far more nuanced than we have given it credit for.

### **A methodological model for recording of spatial and archaeological data during archaeoacoustic fieldwork**

Raquel Jiménez Pasalodos (Universidad de Valladolid, Spain), Cristina Tejedor Rodríguez (Universidad de Valladolid, Spain) and Íñigo García Martínez-de-Lagrán (University of the Basque Country)

The new archaeoacoustics discipline presents several methodological challenges. The recording of diverse data during fieldwork could be considered especially relevant in order to ensure its usability, in post-fieldwork analysis, and the repeatability of the measurements. Therefore, new methodologies need to be proposed in order to resolve different problems, which will vary depending on the archaeological context.

In this paper, we will suggest a methodological model for the recording of spatial and archaeological data during archaeoacoustic fieldwork, in decorated caves. This model has been developed and put into practice during the archaeoacoustics campaigns that took place in the summers of 2012 and 2013 as part of the "Songs of the Caves" project. This investigation aims to study the relationships between acoustics and rock art in Palaeolithic caves in northern Spain.

The physical differences between the caves, the different types and concentration of decoration and the disparity in the availability of bibliographical and geophysical information has led us to develop a methodological model (using several methodologies such as maps and plans, measurements and new spatial data in the caves, and GIS tools) that can be adapted to this variability. We will propose a solution for the multiple difficulties faced during the campaign which have included the measuring and recording of the positions of sound emitters and microphones, taking into account the occasional lack of 3D scans and georeferenced maps and the limited amount of time, and additionally the register of paintings and other archaeologically relevant data in relation to the acoustic testing.

### **Relationships between decoration positioning and acoustic response in the Cantabrian caves of La Garma, Las Chimeneas, La Pasiega, El Castillo and Tito Bustillo**

Bruno Fazenda and Jonathan Sheaffer (University of Salford, UK)  
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During the 1980s Reznikoff and Dauvois published a number of investigations that showed a correlation between the acoustic response and the location of Palaeolithic decorations in the caves of the Ariège department located at the foot of the French Pyrenees. The studies published were carried out mainly using voice or whistling and complemented with measurement equipment available at the time. This exploratory approach revealed some interesting relationships between the location of decorations and the acoustic response of the caves. However, the methodology employed had a number of flaws, which are addressed in this paper.

The work presented here investigates similar relationships between acoustic response and the location and type of decorations in the Cantabrian caves of La Garma, Las Chimeneas, La Pasiega, El Castillo and Tito Bustillo. The acoustic response of the caves has been measured using standardised

methods for acoustic characterisation and state of the art measurement equipment. A number of possible correlations between decorations and features of acoustic response are investigated using statistical analysis.

### **Songs of the shamans? Acoustical studies in European prehistory**

Chris Scarre (Durham University, UK)

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Sound is one of the lost dimensions of the prehistoric and early historic periods. In recent years, multisensory approaches to the past have sought new ways of addressing this deficiency, moving beyond approaches developed by music archaeologists to consider not the sound producers (instruments) but the spaces in which sounds and 'music' may have played a particularly important role. This has included analyses of Palaeolithic painted caves and Neolithic chambered tombs and stone circles. The otherworldly significance of special sounds is well attested by ethnographic studies. The transfer of such a general perspective onto mute prehistoric structures is however fraught with difficulty. This paper briefly reviews recent work in this field and urges caution, where careful attention to the archaeological evidence may sometimes be effective in constraining the range of possible scenarios. Whether music was used to induce altered states of consciousness or heightened awareness among participants within these ceremonial structures remains open to question, and parallels drawn from shamanism require careful contextual support.

### **Structuring prehistoric sound: Representations of sound making devices informed by artefacts, imagery and ethnography**

Simon Wyatt (University of Bristol, UK) and Carlos Garcia Benito (University of Zaragoza, Spain)

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Lawson's (2010) two-level scheme defined models of sound making devices and the types of sound produced on them. It would, perhaps, be helpful to consider models based on different forms of evidence in a similar way. A complete find informs a more accurate model than a fragment but relies on interpretation when exploring methods of sound production and a second tier would be informed by fragmentary finds. The tertiary level would be based on images implying that people knew the animals from which such devices could be made, the final level by those represented in the ethnographic record.

Subsequently, sound produced on the initial model would be thought to be closer to the original. While the more hypothetical the model the more speculative the sound would be. We may also wish to consider the manner in which the object structures sound. Does a more structured object imply a more rigid structuring of sound? We hope to provide a representation of past sounds yet we are subjective, and producing influenced by ethnography may be seen as biased and even guilty of "primitivising" our contemporaries. While an object shapes sound we have to be careful how we use it and perhaps the more unstructured the sounds we produce the more likely we are to not frame it through present analogies and the closer we are in the sense that the sounds we produce provide a feeling of distance and strangeness which is how sounds of prehistory most probably would be to us.

### **Songs of the caves: music and Paleolithic cave art in Cantabria and Asturias**

Rupert Till (University of Huddersfield, UK)

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This paper explores to what extent music can be used to explore archaeological sites such as La Garma, Las Chimeneas, La Pasioga, El Castillo and Tito Bustillo, five of the caves that form part of the Cave of Altamira and Paleolithic Cave Art of Northern Spain World Heritage Site. These caves feature Paleolithic art that is up to 40,000 years old, such as dots, hand stencils, animal and abstract shapes, in the form of paintings and engravings. Reznikoff and Dauvois, amongst others, have suggested that

the positioning of such images is related specifically to sound. As part of a larger project exploring this thesis, musical sound sources were used to explore what range of sounds could be generated in the caves, and to illustrate their acoustics. Acoustic characterisations, impulse responses, were also taken in the cave, and these were then used to add the sound of the caves to various studio recorded sounds.

This paper addresses a range of theoretical and methodological issues surrounding the idea that music and sound can be used experimentally to learn more about an archaeological site. It discusses various approaches that can be taken, and the kind of results that could potentially be obtained. It examines the nature of and terminology used to describe music, sound and acoustics, and addresses how such modern terms relate to the acoustic ecology of the past.

### **Songs and visions in the caves: creating mixed media artwork**

Aaron Watson

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Alongside acoustic analysis, an integral element of the 'Songs of the Caves' project is to explore creative responses. The fieldwork included improvised musical performances that responded to the sonic properties of diverse underground spaces. As well as using the voice, reconstructed Palaeolithic instruments and resonant geological features were played. High quality recordings can also be enhanced in post-production using data from the acoustic analysis, enabling new compositions to be set within specific environments. In a similar way, the striking visual impact of working in the caves was documented through video and photogrammetry. This allows later exploration of qualities that could not easily be reproduced in the caves themselves, including the effects of flickering firelight upon painted and engraved imagery.

While it is not possible to know exactly what sounds or visions people experienced in the caves over twenty thousand years ago, we can creatively explore the sensory potential of environments which, in many cases, have remained unchanged since their original use.

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## **D. Vertebrates Without Bones**

Session Organiser: Mark Maltby (Bournemouth University, UK)

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### **Session Abstract**

This session will explore how archaeologists can investigate the relationships between humans and animals without having to rely solely on zooarchaeological and scientific studies such as isotope analysis. There are many other potential lines of enquiry including iconography, studies of landscapes, buildings and artefacts that could be used to investigate this topic.

### **Understanding the boundaries: Inferring decision making in livestock husbandry from land divisions**

Clare Randall (Bournemouth University, UK)

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Fields and field systems are a frequent feature of later prehistoric British archaeology. They have largely been discussed in relation to understanding territory or tenure of land, and often assumed to relate purely to arable agriculture. Alongside this, we have also had a tendency not to situate animals within landscapes, generally considering them in relation to the site from which their remains were recovered, but not considering their lived existence. A number of features of fields can be identified as having no definable purpose other than in animal handling. Consequently there is a need to re-examine the potential intention of prehistoric land division in addressing the needs of animals.

A case study from Somerset, England, taking the sheep's eye view, enables new perspectives on the variety of different ways of dividing one particular area of land throughout later prehistory. The form of fields and field systems, and their presence and absence over time may be seen as related to various economic aims and the immediate environmental possibilities, but also differing approaches to the practicality of livestock husbandry, dictated by the nature of the beasts. Beyond this, it also reflects technological choices which are social in origin.

### **Of dewponds and dungheaps: Evidence of prehistoric animal management in the landscape.**

Paul Tubb (University of Bristol, UK)

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The results of recent extensive fieldwork on the chalklands of central and northern Wiltshire, England, have demonstrated the value of large-scale landscape based investigations in enhancing our understanding of first and second millennium BC animal management in these areas. Combined with an understanding and appreciation of the now threatened human-created ecosystems found on chalkland, this multidisciplinary approach offers new insight into animal management regimes and their impact on the human societies of the period.

### **Animals in rocks: a review of rock art in north Russia**

Anton Murashkin (Saint Petersburg State University, Russian Federation)

The history of the rock art studies in North-West Russia extends for over 150 years. Currently, six rock art sites are known in Karelia and the Kola Peninsula. Two of the sites have rock paintings (Mayka and Pyaive), and four have rock carvings (Chalmn-Varre; Lake Onega; the Vyg River mouth; and Lake Kanozero). The small number of known sites, compared with Scandinavia and Finland, reflects, in my opinion, the weak archaeological exploration of the area. Currently the Lake Onega site has produced 1270 rock carvings in 21 groups of panels; the river Vig site includes 2153 rock carvings from 11 localities; the Late Kanozero site includes 1245 rock carvings in 18 groups. The scale of these sites puts them on a par with world famous rock art monuments such as Alta or Namforsen. They contain images of people, marine and terrestrial mammals, fish, amphibians, boats and



symbolic figures. Considerable areas of the carvings are, however, unclear, being fragmented or heavily damaged.

Many researchers have considered the rock art of North Russia to be a unified entity that emerged from one tradition. However, there are dramatic distinctions between the sites in the content of the images. For example, at Lake Onega images of waterfowl provide 44% of all carvings, whereas at Lake Kanozero their number does not exceed 1%. The compositions are as varied: scenes of sea hunting are extremely common in the Kanozero and Vig, but are very rare at Lake Onega. These variations could be explained by chronological variations between the sites, differences of economic structure and/or religious beliefs of societies which created the rock art.

### **Birdseye view of craft, technology, belief and nature in Bronze Age Europe**

Darko Maričević (Bournemouth University, UK)

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Images of birds, particularly waterfowl, were some of the most frequent iconographic themes explored by Bronze Age and Early Iron Age potters and bronzesmiths in Europe. Bird-shaped clay vessels and rattles, for example, occur widely in both settlements and cemeteries of Central and Eastern Europe from the Middle Bronze Age onwards. While the ideas and the symbolism at the root of this widespread manifestation were at least broadly shared, the ways in which different communities and craftspeople adopted and expressed these ideas varied. Many of the bird representations, while recognizable as birds, either lack features such as a head or wings, or have extra features 'borrowed' from other animals or humans. Others are more realistic and even recognizable as particular species. The variable degree of naturalism/abstraction and the apparent conflict between 'domestic' and 'ritual' contexts of deposition have influenced and sometimes polarised interpretations of the role of these objects in society (e.g. children's toys vs. religious paraphernalia), thus emphasising the intended function rather than the creative process behind their production. This paper will use a pan-European dataset of ceramic bird-shaped/ornamented objects, created as part of the HERA-funded project 'Creativity and Craft Production in Middle and Late Bronze Age Europe' (<http://cinba.net/>), to address a complex set of relationships between the crafts, technology, beliefs and the natural world. It is argued that the changing trends in bird iconography are representative of the change in attitudes towards water birds amidst wider societal change brought on by the advancements in metallurgical technology and production.

### **Are we talking about the right animals? Or, how I learned to stop worrying about bones and appreciate brooches**

James Morris and Justine Biddle (University of Central Lancashire, UK)

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Animal bones are one of the most ubiquitous finds from archaeological sites highlighting the central importance of animals to human society. The importance of animal remains and their ability to inform on almost every aspect of human culture and society are now well recognized by the majority of archaeologists. However, zooarchaeology is still primarily reliant on past human agency resulting in the deposition of faunal remains and therefore the animals we study are those domestic and wild species that have been subjected to such actions. There may therefore be a whole host of animal species viewed as important by past societies but not represented in the zooarchaeological data. This issue will be explored using a synthesis of Romano-British zoomorphic material culture available on the Portable Antiquities Scheme Database. This will lead to questions about the conceptual place of common domestic species, the use of animals for cultural and personal expression, and what is an animal?

### **Boneless zooarchaeology: Dogs in Anglo-Saxon art and literature**

Pam Crabtree (New York University, USA)

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Zooarchaeological data have provided much new information on Anglo-Saxon dogs including information on animal sizes, ages at death, paleopathology, and evidence for the treatment/mistreatment of dogs. However, many aspects of the relationship between humans and dogs in the Anglo-Saxon period cannot be understood on the basis of animal bones alone. This paper will explore the non-archaeozoological evidence for human-dog relationships in the Anglo-Saxon period drawing on evidence from literature and art history.

### **From MNI to MNS: Collaborative approaches to studying animals and human societies**

Mark Maltby (Bournemouth University, UK)

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It is generally accepted that the study of animal bones can only give a partial picture of the complex relationships between humans and animals. Because of the artificial compartmentalisation of archaeological expertise into convenient categories of specialists for post-excavation programmes, it is rare for zooarchaeologists to consider, or even be aware of, other forms of evidence that can have a bearing on their interpretations. Conversely, there are occasions when their results have been ignored or misinterpreted by others when considering how animals have been exploited and perceived. Drawing upon examples – and mistakes – from projects with which I've been involved, this paper will advocate that a more inclusive approach both in research and in publication is more likely to produce dividends.

### **Re-evaluating the fear of wolves in late Medieval Europe: a multi-disciplinary survey of converging ecological and cultural change**

Aleks Pluskowski (University of Reading, UK)

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The stereotype of the bloodthirsty man-eating wolf, exemplified in fairy tales, is often thought to be a product of medieval European culture. The wolf certainly featured as a metaphor for the devil in medieval Christian symbolism, along with many other animals. However, trends in wolf hunting during the Middle Ages can be convincingly linked to regional political agendas and aristocratic cultures rather than religious zeal, which resulted in the extinction of the species in England by the fifteenth century. In Continental Europe and Scandinavia wolf hunting was carried out unevenly, with populations of *Canis lupus lupus* surviving into the nineteenth and twentieth centuries, and today beginning to re-colonise several of their former ranges. In 2002, a group of European biologists working with large carnivores published a comprehensive study of wolf attacks on people in Europe, which provided the impetus for subsequent, more detailed studies of these attacks. It appears that the culturally engrained fear of wolves - in the form we recognise today - began at the very end of the Middle Ages. Heightened wolf attacks coincided with the depletion of wild ungulate populations, changes in predation strategies and rabies epidemics, as well as cultural changes including heightened religious anxieties and livestock husbandry, prompted increasingly antagonistic relationships between people and wolves. Zooarchaeology can only partially contribute to our understanding of these fundamental ecological and cultural changes on either side of the Middle Ages, and a broad diversity of sources needs to be mobilised in order to provide a context for the emergence of the wolf's "ferocious stereotype".

## E. Researching Audiences in Archaeology: Theory, Methods and Evidence

Session Organisers: Donald Henson and Chiara Bonacchi (University College London, UK)  
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### Session Sponsored by Maney Publishing: Sponsor's Introduction

Journal of Community Archaeology & Heritage is a new journal being launched by Maney Publishing in 2014. It is a journal intended for participants, volunteers, practitioners, and academics involved in the many projects and practices broadly defined as 'community archaeology'. This is intended to include the excavation, management, stewardship or presentation of archaeological and heritage resources that include major elements of community participation, collaboration, or outreach.

The editors are currently seeking submissions to the journal on the following subject areas:

- Strategies for community engagement with archaeology, and for archaeological engagement with communities and their heritage
- Critical/theoretical assessments of participatory archaeological practices and projects
- Collaborative/community-led curation, conservation, or stewardship
- Archaeology and heritage as case studies of volunteer/avocational programmes

Submit your papers to the editors at *communityarchaeologyjournal@gmail.com*

### Session Abstract

As archaeologists, we develop interpretations of the past for various audiences, including the so called 'general public'. This public is however multi-faceted. How far have we gone in understanding their composition, motivations for and ways of engaging (or not) with archaeology?

This session will explore how we can go about researching our audiences, as well as looking at what we might find. We welcome papers from all areas of archaeological interpretation and research, covering heritage sites, online archaeology, audio-visual programming on radio and television, and digital media applications.

Public archaeology is in strong need of reflexivity and an evidence base to characterise 'the public' for archaeology. This session aims to bring together existing and ongoing research on this topic to inform future public engagement practice. Issues we might explore could include: theory and methods for researching audiences, the socio-demographic profile of different 'publics', drivers and barriers to engagement, conflict between audience desires and archaeological objectives, the evaluation of the public appeal of archaeology on screen media, the role played by gender, authority and disciplinary boundaries in determining the success of presentations of the past.

### Assessing television as a guide to audiences for archaeology

Donald Henson (University College London, UK)  
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This paper will draw upon work previously published by Angela Piccini for the Council for British Archaeology in 2006 on heritage audiences and situate this within a wider context of the presentation of the past on UK television.

I will suggest a categorisation of the past on television and examine how these relate to different broadcasting formats. These will form the basis for a discussion of potential audience satisfaction and how we might begin to analyse the desires of television audiences in their consumption of the past. Suggested categories of the televised past will include the past in its own right, the

investigation of the past, the past as a commodity, the past as a setting, TV programmes as a window into the recent past, and the device of timeshifting to elide boundaries between time.

Audience satisfaction will derive from various psychological needs, many well understood (for example through the work of David Lowenthal), for example, nostalgia, entertainment, understanding, stimulation, inspiration, participation, guidance and mild diversion.

This will then be placed within the context of archaeologists' increasing wish for a meaningful dialogue with the various publics that we engage with in our professional practice. I will suggest that we have as yet a very poor understanding of what people want from our work.

### **Unpicking 'engagement' from 'broadcast': Exploring social media audiences in public archaeology**

Lorna Richardson (Centre for Digital Humanities, University College London, UK)

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This paper will summarize my research into the intersection of social media and digital technologies and Public Archaeology in the UK from a Digital Humanities perspective. It will explore the understanding of the online audience in UK archaeological organisations, against a backdrop of wider, critical Internet Studies. It will discuss why the use of proprietary, distributed social media platforms has made relatively little impact on the ability for organisations to engage in meaningful, evaluation-ready public engagement and dialogue through these technologies, and suggest future, strategic applications for this form of Public Archaeology.

### **More face than book: Using Facebook as a tool for online activities in museums**

Ignacio Rodríguez-Temiño (Conjunto Arqueológico de Carmona, Junta de Andalucía, Spain)

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There is much talk of the necessary presence of museums in social networks as a mean to communicate with a virtual (which means universal) audience. Even increasing the number of followers online has become a matter of prestige for the institutions at which time and staff are devoted. Between the social networking sites, Facebook is the most popular with more than 500 million registered users. That is why an overwhelming majority of museums maintain presence in Facebook. However, as Facebook is a very recent social phenomenon, its use to interact with virtual audiences is still underdeveloped for museums and so far, it seems to be used solely to promote the institution by communicating news and events.

This paper presents the preliminary results of a descriptive and exploratory study involving Facebook use by the Conjunto Arqueológico de Carmona [Carmona Archaeological Ensemble] (Seville, Spain), an open-air archaeological museum, to carry out a typical museum activity online. The results not only show a superficial knowledge about virtual audiences, as we do know almost nothing about the motivations to click "like", but allow us to define a micro-public sphere, roughly coincident with local public whose main common element is a previous offline knowledge of Conjunto Arqueológico de Carmona.

### **Archaeologists as video producers: The Shapeshifters Project**

Sarah Colley (SMC Research & Consultancy; University of Leicester, UK ) and Sally Brockwell

(Australian National University, Australia)

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'Shapeshifters: Visualising Cultural & Natural Taxonomies' involves producing and sharing videos about Australian archaeology, history, cultural heritage and palaeoenvironmental research. Stage 1 (2011-14) features Colley's research in the Sydney region of NSW and draws on images of fish bones from Australian National University reference collections from a parallel sustainable digital archive project developed by the presenters in collaboration with the University of Sydney Library

eScholarship Repository. Some videos also use digital copies of historic images from other libraries and content produced and owned by project members. A key aim of the wider project is to explore the effectiveness of different kinds of audio-visual narratives rendered through digital video produced by ourselves (as experienced teachers and researchers) to support, extend, communicate and do research. The relational nature of such processes becomes obvious when creating and using digital video in online environments to visualize archaeology, history and cultural heritage. More pragmatic challenges of the project include the affordance of the technology, costs, skills acquisition, publication and archiving. Depending on content and treatment, the videos also raise issues of representation, reality and actuality, intellectual and cultural property and ethics. The paper contrasts 'Shapeshifters' with another teaching-related video project (Colley & Gibbs 2013) to discuss audience expectations and reactions and issues that can arise when making different kinds of video public and/or publicly accessible online.

### **Testing the lie of the land – Citizen Science and the *Atlas of Hillforts* project**

Gary Lock (University of Oxford, UK) and Ian Ralston (University of Edinburgh, Scotland, UK)

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The theme of this paper is connecting communities with their past.

This paper will explore our initial experiences of the use of citizen science inputs within the AHRC-funded Atlas of Hillforts of Britain and Ireland project, and will consider questions raised, reactions encountered, and information submitted to date.

### **Making meaning of archaeology in museums: Professionals' practices and visitors' perspectives**

Chiara Zuanni (University of Manchester, UK)

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Museums are a privileged site for observing the relationship between professionals and their audiences. This research aims to investigate how museum practices relate and react to other media narratives; how museum professionals' and visitors' expectations and practices are influenced by these diverse accounts; and how visitors' perceptions change in relation to different sources of information about archaeology.

Drawing on a case study in the Manchester Museum, this paper will briefly discuss how archives can enlighten the changing relationships between the museum and its audience, and it will then focus on a research carried out in its new Ancient Worlds galleries. Interviews and observations involving both museum professionals and visitors have explored the diverse approaches to the exhibits and the understanding of archaeology by various stakeholders. Also, the case of the 'spinning statuette' at the Museum has allowed observing the process of meaning-making by both museum professionals and audiences, and it has further emphasised how a variety of individual interpretative frameworks, interests and motivations, which may reflect popular (or alternative) representations, shape the public understanding of archaeology.

The paper will therefore discuss the methods used in this case-study to investigate the relationships between professionals' and audiences' perspectives: archival research, interviews, observations, cognitive maps, and social media analysis. Secondly, it will argue that museums have always been a place for the interaction of multiple approaches and accounts of the past, where new and continuously changing narratives of archaeology are produced in the encounter between visitors and the institution.

### **Theories and methods for the investigation of the role of archaeology in local communities: three cases from Greece**

Anastasia Sakellariadi (University College London, UK)

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In Greece, archaeology has been based since its beginnings on academic elitism and the newly founded state's need to build a national identity. The discipline's 'national mission' and the development of archaeological heritage protection and conservation as an exclusive, state-run operation have impacted on both Greek archaeology and on the Greek people's relationship with the discipline, the Archaeological Service and antiquities themselves. As a result, the national narrative, projections of various identities and other local agendas define the role of archaeology in contemporary Greek society, a particularly fluid and perplexing context, under the influence of both historical and more recent developments, such as the on-going crisis.

This paper will discuss a study of three communities adjacent to archaeological sites in Greece with respect to their populations' perceptions of the past, antiquities and archaeology, how they relate to local archaeological sites and archaeologists and their level of engagement with them. Drawing on a range of social theories on the state and bureaucracy, nationalism, power, social structuration, the public sphere and identities, the paper will demonstrate the ways a combined methods approach best serves this type of enquiry through the presentation of some of its findings.

### **Student development of integrated archaeology: *The Post Hole* as a case study**

David Altoft (University of York, UK)

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This paper will propose that an integrated archaeology, if fully applied to the discipline as a whole, will go far further than conventional public archaeology in incorporating the views and experiences of people in dissemination and discussion of the past. It will also suggest that students are ideally placed to develop integration in archaeology by looking at the case study of *The Post Hole* student-run archaeology journal.

*The Post Hole* was established in 2008 as "a student-run newsletter for all those interested in archaeology" with the aim "to promote discussion and the flow of ideas in the University of York's Department of Archaeology and the wider archaeological community" (Issue 1). Over the last five years, *The Post Hole* has developed into a journal with the mission of "expanding the limits of the discipline and increasing discourse throughout all levels of archaeology, *The Post Hole* offers an unprecedented opportunity for anyone to publish their innovative research, views and news related to the past" ([www.theposthole.org](http://www.theposthole.org)).

This mission was formulated in 2012 with three barriers in archaeological discourse in mind: communities, locales and disciplines. *The Post Hole* subsequently focused on engaging with people across these three barriers, which in consequence has produced interesting observations in the dynamics and demographics of its growing readership and authors.

The changing nature and agenda of the journal's authors and its unique relationship with the peer-reviewing debate will be explored, hopefully encouraging meaningful discussion on the potential of student-led integration of archaeology.

## **A methodological framework for assessing the value of public engagement with archaeology through crowd-sourcing**

Chiara Bonacchi (University College London, UK), Andrew Bevan (University College London, UK) and Daniel Pett (The British Museum)

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This paper will present the methodological framework designed for assessing the experiential, cultural and economic value of using crowd-sourcing and crowd-funding to engage different kinds of archaeological enthusiasts with research into the human past. Our interest arises out of the recently started AHRC project *Crowd and Community-fuelled Archaeological Research*, conducted by the UCL Institute of Archaeology in collaboration with The British Museum. To capture value, the following areas will be investigated both individually and in their interrelation: (a) motivations for contributing to an archaeological crowd-sourcing or crowd-funding project; (b) the dynamics of community building and the kinds of relationships that are built and sustained; (c) the types of cultural and economic resources that are mobilised via different community members. Our analysis will address existing works on these topics within the science and cultural heritage domains, but will also look to deepen their insights with respect to archaeology and history in particular. For example, previous research such as Raddick *et al.* 2009, Haklay 2011 and Ridge 2013 can be built upon by closer attention to contributors' understanding of the subjects they engage in through our project. The framework will be applied using a mixed quantitative and qualitative approach, and by combining more 'traditional' methods borrowed from the social sciences with "natively digital" ones (Rogers 2013) that (with due attention to ethical considerations) harvest cultural tastes and practices from social networks and try to understand how they influence community formation processes.

### **Do we choose our audiences or do our audiences choose us?**

Doug Rocks-Macqueen (University of Edinburgh, Scotland, UK; Landward Research Ltd)

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Archaeology started out as an upper class pursuit among land owning male antiquarians several hundred years ago. Since then, archaeology has expanded both its reach and its audience. For example, the latest Profiling the Profession project reports that it is no longer a male dominated workforce. However, most surveys of audiences in the UK find that it is still the pursuit of upper to middle class, white people. Except for the addition of women to those allowed to pursue archaeology, why has archaeology still stayed the purview of the upper, and white, classes?

Is archaeology something that is inherently only interesting to a certain group of people? Or is it how archaeology approaches and targets its audiences that determines who is interested in archaeology?

This paper aims to explore these questions and look at examples of archaeological work in hopes of finding an answer.

## The Antiquity Lecture: Archaeology and Science: Their Many Relationships

**Professor Michael B. Schiffer**

**University of Arizona, USA**

*<http://www.u.arizona.edu/~schiffer/>*

### **Abstract**

For many archaeologists, the phrase “Archaeology and Science” means the application of modern scientific knowledge and instruments to artifacts and deposits. In this construal, archaeology stands in a dependent relationship to other sciences. It is argued here that other sciences—and the history of science—also depend on the products of archaeology. This paper illustrates the many inter-relationships among archaeology and other sciences through brief examples and a case study. Three sets of relationships are of special interest here. (1) The substantive and conceptual contributions that archaeology makes to the physical, biological, and social sciences. (2) Archaeological research on the remains of scientific activities, which helps to illuminate the materiality of early modern and modern science. (3) Investigations of both the processes of science and its knowledge products. Illustrating the third set of relationships, the case study shows how archaeologists can fashion models of discovery processes that crosscut different people, investigators, time periods, social groups, and polities by generalizing about the people-artifact interactions that led to discovery claims.

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## Tuesday 17 December - Morning

### **F. Archaeologies of Margaret Thatcher (Part 1)**

Session Organisers: Sarah May (Heritage for Transformation)  
and Sefryn Penrose (Atkins Heritage; University of Oxford, UK)  
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#### **Session Abstract**

The recent death of Margaret Thatcher revealed the sharp societal divisions that still remain over twenty years after the end of her tenure as Prime Minister. Despite this, the messages of Thatcherism now seem so embedded that the acres of press coverage that followed her death seemed hard pushed to imagine how it could have been any other way, while simultaneously acknowledging the force of will that had been necessary to break the post-war consensus. The material significance of Thatcher's legacy is as present as the apparent acceptance of Thatcherism as an ideology. This session will examine the archaeological legacy of Thatcher as ideologue.

Johnson, Leoni, Mrozowski and others have attempted to draw out archaeologies of capitalism, and Buchli's *An Archaeology of Socialism* goes further in identifying the material context of ideological movements, their absorption and rejection. This session will address archaeologies of Thatcherism, principally through two avenues: the impact of ideological political measures and events such as privatisation, planning legislation or the Miner's Strike; or through the role of the individual in shaping the material landscape.

#### **Margaret Thatcher or Mortimer Wheeler? Who bears the greater responsibility for the current state of UK archaeology? Recollections of archaeology during the Thatcher years**

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Whilst many of the current ills of UK archaeology are blamed on the results of policies developed during the premiership of Margaret Thatcher (and continued by subsequent governments), it is easy to overlook some of the advances that UK archaeology made in the period 1979-1990. Likewise the failings of the 'Wheeler' generation of archaeologists (those in positions of 'archaeological' power in the immediate pre-Thatcher period) have been largely overlooked and certainly under-discussed. This paper will present the authors recollections of archaeology during the 'Thatcher years'.

#### **From Franco to Eurovegas: Spanish archaeo-politics in the shadow of liberalism**

Jaime Almansa-Sanchez (JAS Arqueología S.L.U., Spain)  
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The legacy of Thatcherism in Spain can be clearly identified during Aznar's government (1996-2004), with an ongoing aftermath in 'Aguirrist' Madrid. While the political debate still recalls Franco and traditional definitions of left/right, reality has overcome this debate establishing liberal agendas with a strong impact.

Archaeology has been immersed in this political scenario, transforming from an academic practice into a commercial activity in service of liberal interests. The past is not important anymore, but only another bureaucratic step in city planning and infrastructure building whose legal framework is also being 'relaxed'. Moreover, the past itself dominates an archaeological discourse devoid of critical perspectives of the present.

Analyzing the impact of liberal politics in landscape and society from an archaeological point of view offers a critical response to reality. The privatization and liberalization of telecommunications, and the growth of new landscape markers in the form of antennas; the construction bubble and the

uncontrolled growth of towns and villages; the reconfiguration of historical buildings for commercial use; the commoditization of granting events like the gay pride parade; the expansion of symbols and objects as part of our common material culture; even clothing or social stratification, are some examples. Moreover, liberal policies have gobbled socialist trends in similar figures like green energy, transport capacities or social actions, which follow the same trends and have the same impact.

The relation between politics and archaeology is not just a matter of nationalism anymore, and the legacy of Thatcherism is a good example, even in Spain.

### **Excavating the organizational forms of Thatcher's conservation managers**

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Public sector ideologies and language saw a fundamental shift in the 1980s, as the capitalist political agenda was driven through policy development and the management of public services. This is typified by the creation of English Heritage as a 'next steps' quango in 1984. The paper will focus on the dichotomy of the rise in 'managerialism' in heritage management to drive supposed efficiency and effectiveness into the sector, set against the lack of actual engagement with the academic discipline of management in heritage. An excavation will be made of major heritage organisations' form and function and changes heralded through the influences of "new public management", "digital era governance", "network governance", and "co-creation". There are material traces of management approaches within the frameworks we use, distinctly visible in the remnants of past (and future) organisational forms, suggesting that heritage organisations in their own right provide rich material for study.

### **The archaeology of perestroika**

Sergii Paliienko (Kiev University of Tourism, Economics & Law, Ukraine)  
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The new stage in the history of the USSR called perestroika began after Mikhail Gorbachov came to power in the middle of the 1980s. Reforms and changes touched all spheres of the Soviet society from economy to culture. These processes did not pass over the Soviet archaeology. Archaeological researches were carried out in full during this period because state financing of science was continued despite economic problems in the USSR. Therefore the majority of soviet researchers welcomed changes in the country. New unexplored and earlier prohibited topics began to be studied actively due to the reduction of the ideological control in the Soviet science. Researchers with anti-Soviet views stopped pretending to be Marxists. Western ideas and theories came into fashion among scientific intellectuals disappointed in the Soviet regime. Rising of international cooperation between Soviet and foreign archaeologists favored this activity in the second part of the 1980s. This was the result of improvement of the relations between the USSR and the West.

The concept of 'strong archaeology' developed by Leo Klejn became popular in this period. It declared the source-studying status of archaeology. This phenomenon can be correlated with the spread of post-processualism in the western archaeology. Trends in the Soviet theoretical archaeology reflected a formation of liberal ideology in the Soviet society during the perestroika period.

### **Thatcherism, pedagogy and power**

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Pedagogy, at first glance, might seem to have nothing to do with Thatcherism, and nothing to do with TAG. You may be thinking, "it's just teaching, isn't it?" In this paper we argue that that

pedagogy is never “just teaching”. By tracing the impacts of Thatcherism on the ways that we teach and learn archaeology, we will demonstrate how pedagogy is always entwined with power, with politics and of course with research. Because of this we argue that pedagogy needs to be adequately theorised, and here we propose a means to do this, which moves away from a Thatcherist legacy of hegemonic power politics and instead resituates the practices of teaching and learning as entwined with everything that we do as archaeologists.

### **The impact of the Shackleton report on developments in the Falkland Islands post-1982**

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In 1976 the Labour Peer Lord Edward Shackleton was asked to produce an economic survey of the Falkland Islands focusing on their current viability and development potential. His main findings were that the Falklands were suffering from decapitalisation (there was a net gain to the British exchequer over a 20 year period) and that there was significant natural development potential (e.g. in agriculture, fisheries and hydrocarbons). He also made recommendations on fiscal procedures and infrastructure. His main recommendation was that the large company-owned farms should be sub-divided and sold as individual family run units – very radical agrarian land reform for the late 20th century. The report was largely ignored. During the Falklands Conflict, Prime Minister Thatcher asked Lord Shackleton to revisit his 1976 report, update it and make recommendations for post – conflict development. Shackleton did not change his initial report much and the added impetus (and money) given by the Thatcher Government meant that most of the recommendations could be implemented. The Falklands subsequently prospered eventually becoming (by 1988) financially self-sufficient from Britain. Farm sub-division had a positive effect on rural infrastructure. Margaret Thatcher’s willingness to support the Shackleton report is significant and her legacy in the Falklands post – 1982 is essentially one of implementation of these recommendations.

### **Commemorating Thatcher’s war: The South Atlantic Task Force Memorial**

Howard Williams (University of Chester, UK)

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As an exercise in the contemporary archaeology of memory, this paper will endeavour four things. First, I will explore the spatial, material and textual components of the South Atlantic Taskforce Memorial at the National Memorial Arboretum, Alrewas, Staffordshire, opened in 2012 to mark the 30th anniversary of the conflict. Second, I will consider how the memorial augments, and operates within, a network of memorials at the NMA where the conflict is commemorated. Third, I will identify how the NMA’s commemorative network is situated within a wider mesh of commemorative contexts, material and virtual, to the British casualties and survivors of the Falklands War. Finally, I will address the degree of entanglement between these memorial environments and the ideological legacy of Margaret Thatcher and her administration. The key question of this study is how, and to what extent, is the Falklands conflict materially commemorated as ‘Thatcher’s War’?

### **‘Another murder for Maggie’?: The 1981 Hunger Strikes, Margaret Thatcher and the continuing controversy of Long Kesh/Maze prison**

Laura McAtackney (University College Dublin, Republic of Ireland)

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The 1981 Hunger Strikes, in which 10 Republican prisoners held at Long Kesh/Maze prison died, has long been considered a seminal event of the Northern Irish Troubles. The intransigence of Margaret Thatcher in dealing with the prisoners – including her reiteration that ‘a crime is a crime is a crime’ - was viewed with distaste by Nationalists and often despair by Thatcher’s own civil servants (as

evidenced in recently released government files). Whilst her stance resulted in a public, if pyrrhic, victory in the defeat of the Hunger Strikes, it could be argued that allowing these prisoners to continue the nationalist tradition of 'blood sacrifice' ultimately resulted in defeat of her policies.

Through taking a long-term archaeological approach to the site of Long Kesh/Maze this paper will argue that the defeat of the 1981 Hunger Strikes has enduring material consequences. Firstly the paper will explore the impact of the Hunger Strikes on prisoner conditions and experiences of the functioning prison site. It will argue that the more negotiated relationship between prisoner and regime that followed reveals the fallacy of a built environment being able to control a non-complying prisoner body. The paper will then address the legacy of the Hunger Strikes in post-conflict Northern Ireland. It will examine the memorialisation of the deaths in Nationalist areas through wall murals and monumental memorials, and the form that Thatcher appears in these, as well as the continuing repercussions in deciding the fate of Long Kesh/Maze prison as a contested remnant of the Troubles.

### **Thatcher's petrified children: The Sighthill Stone Circle in Glasgow**

Kenneth Brophy and Helen Green (University of Glasgow, Scotland, UK)

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This is a story about a modern stone circle in Glasgow that came to the attention of Margaret Thatcher and displeased her. This stone circle is situated in parkland reclaimed from industry on the fringes of the M8 motorway and Sighthill, a high-rise estate that was part of the historic regeneration of Glasgow's East End in the 1960s. It was designed as a monument to archaeoastronomy in the late 1970s by Duncan Lunan, part of the Glasgow Parks Department Astronomy Project. The circle was designed and built by participants in a Labour government Jobs Creation Scheme in the city in 1979, the megaliths flown in by Ministry of Defence Sea King helicopter.

But the project was never fully completed. Work came to a halt soon after the Conservatives came to power in May 1979. Perhaps apocryphally (but importantly), Thatcher was heard to say in a radio interview: 'we shall be restoring full employment by the end of 1980 and there will be no more nonsense like the Glasgow Parks astronomy project'. Several stones were left lying beside the circle, never to be erected, because of Thatcher's ideological objection to a project viewed by the Tories as indicative of socialist, lefty, arty, waste-of-tax, self-indulgent policies. This was just one example of Thatcher's indifference to prehistory, and to its value for society.

In this paper, we will discuss the context of the stone circle's construction - 1970s socialist Glasgow – and Thatcherism's subsequent legacy, including top-down governmental decision-making and large-scale developments, which today further threaten this monument with destruction or removal. We will also present our own vision for the future of the Sighthill stone circle, and outline how we believe the standing stones can continue to play a role in the life of Glaswegians, and benefit the local and wider community.

## **G. Theory Starts in the Grave: or ‘Help! There are human-shaped holes in my cemetery!’**

Session Organiser: Martin Smith (Bournemouth University, UK)  
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### **Session Abstract**

This session will explore relationships and synergies in theoretical approaches relating to funerary interpretation as practiced by anthropologists/ osteologists and other archaeological specialisms. By viewing the body as a culturally modified biological structure through which mortuary activity and culture are enacted, this session proposes to build bridges and reinvigorate debates around the ways in which the living relate to their dead.

The material residues that make up the archaeological burial record attract the attention of various specialists (lithic, ceramic, faunal, environmental, anthropological etc.) who each provide important insights regarding a portion of the evidence. Often human remains occupy a somewhat under-emphasized position where they are seen as relatively static biological entities that might differ in terms of a few basic variables (age, sex, stature etc.) but otherwise are essentially fixed with the other components of a burial assemblage constituting the aspects that offer ‘readable’ information in terms of human agency and the intentions of those creating the burial. In fact the human body undergoes a range of culturally mediated transformations both during life and after death that render it as much an ‘artefact’ as any other aspect of funerary remains. In this respect the human body is a rare example of a true cultural universal that is inscribed/ imprinted by social action.

This session will provide a platform for exploration of examples and possibilities that can place human remains back at the centre/ foreground of mortuary interpretation as opposed to viewing the skeleton as a vaguely defined bony frame on which other specialists’ ideas are hung. We welcome input from presenters of all backgrounds in considering how to address the ‘human shaped hole’ at the centre of many funerary interpretations.

### **From grave to grave: Mobility, personhood and the role of the living within Bronze Age mortuary practices in the Levant**

Jennie Bradbury, Graham Philip, Chris Scarre, Charlotte Roberts, Douglas Davis, Mandy Jay (Durham University, UK)

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The human body and the ways in which it is treated after death can be a powerful symbol, highly emotive and closely associated with concepts of personhood and identity. Contrary to popular conceptions which highlight the primacy of the individual human body, the “individual” as a discrete entity is not the norm throughout history. Bearing this in mind, how can we interpret body parts that have been curated and deposited separately from the rest of the corpse or, alternatively, burial monuments which, despite the existence of favourable taphonomic conditions, contain no human remains at all? Based on research being carried out as part of the “Invisible Dead” Project (John Templeton Foundation, Durham University) this paper will examine evidence for Bronze Age Levantine mortuary practices which appear to have treated death not as a single event, but as a process, different parts of which may be identified archaeologically. It will discuss how changing concepts of the body, personhood and ownership during this period may be reflected via the movement of the dead, in whole or in parts, between monuments, cemeteries and amongst the living. By examining the relationships between the living and the dead it will also consider at what point evidence for the “individual” is manifest within the archaeological record and the impact that this may have had upon Bronze Age mortuary practices, as well as modern understandings and archaeological interpretations of the funerary record.

### **Body mutilation at the Late Neolithic cemetery of Tell Sabi Abyad, Syria**

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One of the more obvious attributes that make certain burials stand out from the rest of the buried population is evidence of body mutilation. While archaeological interpretations of such cases often relate to a negative individual identity, within anthropological accounts violent treatment has been shown to accompany the deaths of esteemed kings and does not necessarily need to be founded on the identity of the buried individual. This talk will present two cases of (group) mutilation from the Late Neolithic cemetery of Tell Sabi Abyad, Syria, and discuss these in relation to archaeological modes of interpretation of unusual mortuary practices.

### **Burial companions: A reconsideration of the human-animal relationship**

Brittany E. Hill (University of Southampton, UK)  
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Claude Levi-Strauss (1962: p. 89) once said animals are not only good to eat but are 'good to think'. Furthermore Ingvild Gilhus (2006: p 98) said animals are also 'good to feel' with.

This study draws from multi-disciplinary backgrounds alongside the field of archaeology, attempting to bypass the boundaries of zooarchaeology and human osteology to find a balance between the two disciplines. This allows for a deeper holistic questioning of the changes between human-animal relationships as it is exhibited in the burial arena. Focus will be placed on these changes occurring during the transition from Late Iron Age (150 BC-43AD) to early Roman occupation of Britain (43AD-410 AD) which led to the inclusion of animals as "grave goods" in inhumation and cremation burials Southern Britain. Concepts of recognising surviving material culture as potential evidence of funerary rites are explored by questioning the significance of animals which have been found within in both inhumed and cremated contexts in structured burial grounds. Questions of suitability of ritual are explored through the cross examination of the age and biological sex of the animals buried alongside humans at various points in their lifecycles. Other factors that may prompt or prevent the inclusion of animals in the burial practice are considered. This includes the gifting of food for the gods and/or the deceased, ensuring of fertility, points of socio-economic gain and/or solidification, extension of the self or as markers of "native" identification.

### **Pre-Columbian ancestor worship: What is the osteological evidence?**

Karina Gerdau-Radonic (Bournemouth University, UK)  
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Research on ancestor veneration during pre-Columbian times in the Central Andes has mostly focused on the material cultural record, historical and ethnographic accounts and, occasionally, the remains of mummies. Though the available evidence to date shows that ancestor worship revolved around the human remains or part thereof, little attention has been paid to the osteological record itself. This paper focuses on this forgotten aspect of the archaeological record, and explores the available osteological evidence that in conjunction with other evidence can be indicative of ancestor veneration. It presents the traces an activity such as ancestor veneration, which involved the regular manipulation of human remains, can leave in the archaeological record.

### **Structure and environment: social and natural agency in the Neolithic cave burials of Britain**

Rick Peterson (University of Central Lancashire, UK)  
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There are 43 cave burial sites in Great Britain with published Neolithic radiocarbon dates. Changes in cave burial practice will be studied through two related traditions of thought about agency. First, the analysis (Barratt 1988) of the interplay between social structure and individual agency over time.

Second, the dwelling perspective (Ingold 2001, 172-88), which grants agency to a wider range of actors than human subjects.

Barratt draws on Giddens' theory of structuration. Human subjects are assumed to be knowledgeable agents who construct the social world through their actions, but these actions are also constrained by the world in which they are created. This duality between agency and structure is played out over time and through space. Human intention is the primary driver of agency, material culture and the environment are objects which are acted upon (Barratt 1988, 9).

However, the dwelling perspective describes the agency of both human and non-human subjects in the same way. All agency arises from interactions with the cultural and natural environment and acts to create and structure that environment through time. One could argue that what is important in agency is not that the actor should have intentionality, but that some human subject should perceive that it does. Therefore actors, be they cave environments, animals, people or plants, have agency once they act upon human subjects.

Cave burials have the potential to be products of both social structuration and environmental agency. They are intriguingly sited at the overlap between two conceptions of agency.

### **The manly tale of warriorhood: A bespoke identity in the light of funerary and osteological evidence**

Nivien Speith (Bournemouth University, UK)

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The idea that warriorhood was a lived reality for high-status men in early medieval Europe is traditionally fuelled by the archaeological findings of weapons in Frankish and Alamannic burials and a historiography deeply attached to the image of the manly warrior roaming post-Migration period Europe, an area and period marked by social and political instability.

This paper presents a bioarchaeological consideration of "warrior identity" in its multiple forms, by contrasting funerary and skeletal evidence of "weapon burials" of two Alamannic societies. It will be explored how we can challenge traditional assumptions about individuals buried with weaponry and understand social mechanisms that may display "warriorhood" as a lived identity versus reality.

### **A different approach to osteo-biographies: Using burial processes and the biological life-course to discuss individuals in the past**

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Approaches to individuals in the past have mostly been focussed on unusual individuals through associated artefacts, or osteological descriptions. An osteobiography may be defined as a life history as recorded in bone (Saul and Saul 1989). Similarly, Kopytoff (1986) suggested following the life of an object to create object biographies which explore the relationships between objects and people.

If these approaches were used to identify biographies of individuals and places, this would result in a more detailed interpretation of how people lived and interacted in the past. For example, human biographies might be accessed through burial processes, artefact associations, site formations and chronology, and, the life-course as seen through osteological evidence.

Here case studies of Early Bronze Age individuals are given a different form of osteo-biography which use both biological information from the skeleton and archaeological information from the burial context to explore life and death events. These events may be used to create a narrative of

individual stories, bringing the human element forward in a way which is accessible to a wider audience.



### **Emotion, mortuary performance and the human experience**

Duncan Sayer (University of Central Lancashire, UK)

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Multiple burials have been interpreted as the product of violence. However, the three individuals placed in grave 109 at Oakington, an early Anglo-Saxon cemetery, were placed with their limbs interlocked. As a result this body position appears deliberate, the result of staging for a funeral event creating a diorama designed to evoke an emotional response within funeral participants. In this paper I will argue that body position, grave location and the visual experience are important features of a grave which can be used to imbibe the exploration of ancient mortuary behaviors with evidence of the human experience.

### **Context isn't quite everything: Interpreting complex prehistoric mortuary rituals at Cranborne Chase, Dorset, England**

Martin Smith (Bournemouth University, UK)

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Since antiquarian times excavators have placed great importance on grave goods, styles of burial, monument typologies and stratigraphic relationships in judging the contemporaneity of burial events. Such judgments generally rest on an assumption that burial promptly follows death and by extension the lives of individuals and their demise can be chronologically defined. On the whole such an approach is entirely reasonable and is generally supported by multiple lines of alternative and mutually supporting evidence.

This paper presents several Neolithic and Bronze Age burials excavated from Cranborne Chase in Dorset where the opposite is true and differing aspects of the burial evidence give rise to contradictory interpretations. A potential criticism of the way funerary archaeology is often approached is that insufficient attention is given to the human remains that really constitute 'burials'. These bones are seen as things of limited variability (age, sex, stature etc.) to be reported on by an auxiliary specialism (anthropology) but which ultimately have little bearing on how mortuary practices will be interpreted or how the respective society and their cosmology will be understood.

Both during life and after death the human body is a sort of artefact in itself, a product of the choices, beliefs and experiences both of the deceased and those who survive them. Here it is argued that if insufficient consideration is given to this point, important aspects of funerary treatment may be missed altogether, leaving a picture of past practices that is as bland as the assumptions it is based upon.



## H. The Material Dimensions of Cognition (Part 1)

Session Organisers: Antonis Iliopoulos (University of Oxford, UK)  
and Duilio Garofoli (Eberhard Karls Universität Tübingen, Germany)  
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### Session Abstract

Cognitive archaeology has lately come of age by recognising and focusing on the pivotal contribution of materiality to the making of the human mind. In fact, it is by probing into the archaeology of mind-world interaction that recent theoretical perspectives, such as the 'Material Engagement Theory' (Malafouris 2013), have successfully shed new light onto our cognitive becoming. This session will therefore delve into the interwoven dynamics of mind and matter via a twofold manner: firstly, by challenging traditional, yet problematic, notions, such as 'modern human behaviour', the 'linguistic idiom', and 'internalism', and advancing fruitful theoretical alternatives; and secondly, by illustrating how various archaeological artefacts, situated in different contexts, are implicated in human cognition. Moreover, in exploring how the mind is enacted through things, actions, and objects, this session aspires to clarify the emergence of meaning through our embodied engagement with the scaffolding provided by material culture, as well as elucidate its neural implications. For, in order to better understand the human condition, we must strive to appreciate the process of redesigning ourselves through the synergistic coalescence of brains, bodies, and things.

### Reference

Malafouris, L. 2013. *How Things Shape the Mind: A Theory of Material Engagement*. Cambridge (MA), MIT Press.

### Is "behavioural modernity" still a useful concept for cognitive archaeology?

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The notion of behavioural modernity has recently played a crucial role in the archaeology of Middle-Upper Palaeolithic transitions. Evidence of artefacts commonly associated with the European Upper Palaeolithic has gradually accumulated in the record of early modern human and late Neanderthal populations. In the cognitive archaeology domain, these behavioural practices have been adopted to draw inferences on the cognitive equivalence between primitive and modern human populations. Such use of the behavioural modernity notion, however, comes with some major problems. The aim of this paper is to identify and discuss some of these issues. First, the notion of behavioural modernity seems to represent a behaviourist fallacy, for modern human prototypical behaviour does not necessarily entail the underlying presence of a modern cognitive architecture. Second, it appears to be incommensurable with cognitive science analytic categories, since it does not represent any component of behaviour that can be reasonably mapped onto cognitive systems. Third, it is used to produce analogical inferences from modern human behavioural and cognitive components directly onto the archaeological record of extinct hominins, thus biasing the resulting explanations in a *sapiens*-centric way. Overall, behavioural modernity risks to foster the generation of incommensurable theories that contradict other candidate proposals by virtue of their different methodological roots and not of their contents. A method grounded in the semiotic analysis of behavioural systems identified in the archaeological record followed by cognitive mapping will be proposed to flank these problems. The possibility of eliminating behavioural modernity from the cognitive archaeology debate will be ultimately discussed.

### Applying Peirce's semiotic theory on early ornamental shell beads

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Recent discoveries, such as the *Nassarius kraussianus* shell beads unearthed at Blombos Cave, South Africa, which date at c. 75 kya, have led many archaeologists to see in them an unambiguous marker

of symbolism. However, the precise inferential step that led to such a conclusion remains elusive, as it appears to have been merely grounded upon the notion that collectively agreed-upon meaning was imbued onto the ornaments. Such an emergence of communicative meaning is reminiscent of the way wordsmiths generate linguistic units. It is erroneous, however, to conflate the two ontological domains (i.e., language and material culture), for they signify in radically different ways. In this paper, I therefore turn to the theory of signs developed by Charles Sanders Peirce, due to its applicability on material culture. Most importantly, his semiotic theory acknowledges that conventional material signs need not be arbitrary, but can also be iconic or indexical. I thus delve into his writings, in order to illuminate the denary framework that I adopt for the evaluation of ornamental shell beads. As they signify via an existential spatiotemporal connection to their wearer, the interpretation of which is guided by a rule, ornamental shell beads are identified to have functioned as dicentric indexical legisigns. Hence, the widely held disposition, according to which personal ornamentation is inherently symbolic, is deemed unwarranted. It is therefore concluded that Peirce's theory of signs, which has thus far been surprisingly underexploited by archaeologists, is invaluable for the purpose of illuminating the significative nature of discovered artefacts.

### **Encoding and decoding evolutionary landscapes: Artefacts, semiosis, and the 'other' in the earliest archaeological records**

Matthew Pope (University College London, UK)

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The *Homo* lineage, from its earliest origins, has left durable traces of its landscape use in the form of stone tool scatters. Without this record any archaeology of early hominin behaviour would be virtually untenable. Yet little consideration has been given to the potential raw semiotic utility that individual stone tools and scatters might have had to the hominin populations which created them.

When examined at landscape scales, structures and consistencies are sometimes apparent and these underpin archaeological interpretations of past behavior in the archaeological present. It is therefore possible to contend that such structured accumulations contain encoded information of potential adaptive utility to any hominin groups with the cognitive ability to decode that information.

In this paper I propose that we explore the semiotic potential of individual artefacts and artefact scatters. This would require consideration of the interactivity between early hominins and their own material traces and the temporal scales in which structured landscape records might have developed. The concept of the Hominin Semiosphere is proposed to describe landscape records containing passively and actively encoded information. Such records could be considered as an early expression of allogeneic engineering or niche creation.

Finally a semiotic mechanism is proposed which enables the recognition and effective decoding of individual artefacts and scatters. Emerging complexity in social cognition may have allowed for the conception of the 'other', both as 'author' of material traces and as potential 'reader'. An Extended Social Cognition is theorized as a capability which allowed for the effective emergence of a fully semiotic environment in human evolution.

### **How things help us think: Material culture as scaffold for the social brain**

Fiona Coward (Bournemouth University, UK)

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The production of material culture has long been considered a fundamental defining characteristic of modern humans. However, primatologists and ethologists have increasingly demonstrated tool use and even manufacture in many other species, most notably primates but also in only very distantly related lineages of the animal kingdom such as birds. Such findings may seem to question the relevance of technology in definitions of humanity, but while modern human technologies are clearly sharing many features with those of other species, they are nevertheless markedly different

in other ways. This paper will identify those features of human material culture that distinguish it from that of other species, focusing on the social and emotional investment in material culture by humans as a unique characteristic of humans, and attempts to identify when and why such investment may have occurred during hominin and human evolution.

### **Remote capture technology and material engagement**

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Recently traps and snares (also known as remote capture technologies) have been emphasized as possible indicators of cognitive modernity in the MSA. Evidence for trap and snare use has been primarily derived from an increase in diverse faunal remains of small animals that are more easily acquired with remote capture techniques than with hunting techniques.

What has not been well defined is what the differences are in these technologies in relation to the variables that are involved in the capture of small game. These differences can greatly inform the interpretation of archaeological data from a cognitive perspective. Remote capture technologies vary greatly in their design, employment and success. Some remote capture technologies can be employed opportunistically when specific game indicators present themselves and do not require extensive preparation or resource expenditure on the part of the user. Other capture systems require systematic distribution and rotation, with success depending greatly on quantity and efficient harvesting techniques.

By taking a close look at the variables involved in different remote capture technologies, more information can be inferred about the cognitive abilities of the individuals associated with specific patterns. These variables can be used to better define the influences of the material world on the molding of human cognition.

I hypothesize that by closely analyzing remote capture systems and the evidence for their use in Middle Stone Age and Middle Paleolithic populations, evidence for cognitively influential engagement with the material world can be inferred.

### **Touch teaches us numbers**

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The somatosensory sense of finger quantity combines knowledge of the fingers (finger gnosis) with the perception of quantity (numerosity), both of which are functions of the parietal lobe, which is uniquely expanded in *Homo sapiens*. Haptic perception is the perception of active touch, which integrates cutaneous and proprioceptive cues. Haptic perception senses object quantity—a macrogeometric property understood through behaviors such as pairing, which falls within the behavioral repertoire of non-human primates. Macrogeometric quantity is then compared to finger quantity through one-to-one correspondence, enabling the quantity of objects to be known in the same way that finger quantity is known. This interaction between mind and material yields initial number concepts—‘one’, ‘two’, ‘three’, and ‘many’—that open up the possibility of the higher levels of abstraction involved in numeracy. Adjectival properties of quantity detach from their material scaffolds to become recast as entities in their own right, a noun-like status that enables them to be manipulated by rules such as the operations of arithmetic operations and the successor function. In this way, the experience of materiality enables our abilities for conceptualization and high-order abstraction. The neuropsychology of numbers provides a paradigm for interpreting artefacts for quantification: finger-signs (27 KYA), notched bones (28 KYA), and beads (100 KYA); there are also implications for culture and language.

## **I: Women Hidden by History**

Session Organiser: Katy Bell (University of Winchester, UK)  
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### **Session Abstract**

From prehistory to the modern period (and including diversions at sea) women have had a diverse role in ensuring the survival and prosperity of the human race. This session looks at how these roles have been hidden by later “historical” edits of the past and how we can use archaeology (both theoretical and practical) to learn more.

Starting with how women’s role in prehistory has been constructed through engendering of objects, with an added refrain of “women don’t hunt” perpetuated by individuals from Mary Stiner through to Germaine Greer. This session will take the story of “hidden women” up to the modern historical era by looking at the engenderment of household space, women at sea (as mothers, lovers and “others”) and a range of other scenarios when women are not quite where they should be, filling the roles that we all “know” they were doing, or simply where it was not thought important to record what they were doing.

This session aims to challenge the preconceptions that we carry and open up academic discussion on how we can connect with our past.

### **Prehistoric woman the hunter**

Katy Bell (University of Winchester, UK)  
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“Women can’t hunt. They are not strong enough.” This paper look at how our understanding of the past is constrained by our own narratives and understanding. It examines reasons why women have stopped hunting from looking at the influence of land grabbing incomers to religious leaders telling them to stop. Close examination will be made of the view that women only gathered, and consideration will be made of where it comes from and how deeply imbedded in our current consciousness the idea is. As well as examining the behaviour of certain historic and anthropological groups such as the Metis and Klung!, consideration will be made of modern women hunters the prejudice and other difficulties they face and the acknowledgment that many of them are incredibly good at what they do.

Once the idea of “Prehistoric Woman the Hunter” has been established consideration will be given to how gender roles may have slowed down the progression of agriculture and lead to split society part hunter-gatherer part agriculture.

### **DNA evidence supports female mobility in the European Neolithic - implications for social organisation, knowledge transfer and material culture dispersal**

Keri A. Brown (University of Manchester, UK)  
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Male mobility is often cited as an explanatory mechanism for the spread of prehistoric technology and material culture, especially in Bronze Age Europe (heroic smiths, traders, warriors and seafarers). However the scientific evidence for female movement is very strong, including not only Strontium isotope analysis but also human DNA. Studies of present day mitochondrial DNA have shown that women have much higher migration rates than men.

In my paper I will discuss the ancient human DNA evidence from Neolithic sites in Europe and how this can be interpreted to shed light on female mobility. The most parsimonious explanation for this mobility is patrilocal exogamy, a hugely important social structure found in over 70% of societies

which creates alliances and kin networks. If women are indeed more mobile than men we must ask just what role they played the transfer of knowledge and technology, and why patrilocal exogamy is so under used (even ignored) as an explanatory mechanism in prehistory.

### **“A realm of kings and warriors”? Female burial traditions of the British Early Bronze Age**

Alice Rogers (University of Reading, UK)

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For the British Early Bronze Age period, 2500 – 1500 cal BC, most of our conceptions of differences between the sexes have been based upon the burial evidence collected by the nineteenth century antiquarians. However, this evidence has its limitations; not least in the fact that many of the human remains within the burials were not anthropologically sexed. Instead sex was often assigned to the burial through artefact associations based upon Victorian sensibilities. This has led to a highly masculine interpretation of the period, the so-called “realm of kings and warriors” (Ashbee 1960:172), where females, and their roles, are hardly considered at all, except in relation to men.

My research (Rogers 2013) was designed to answer a call for a reappraisal of the evidence of female burials in the British Early Bronze Age (Brück 2009). In a study of 247 anthropologically sexed female burials from modern excavations, I examined how females were represented in the burial record during this period. This paper will present some of the results obtained, concerning the roles females were represented as having within burial practices, their changes through time and also how age of the individual affected her representation. Finally, I will discuss the complexities of examining sex representation within the archaeological burial record.

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### **Boudica: ‘The first British woman’**

Tais Pagoto Bélo (University of Campinas, Brazil)

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From Antiquity to contemporary material culture, Boudica, Breton Queen, from the Iceni tribe, who led an army against the Roman Empire during 1 AD, is a polyvalent symbol to the British and she is in their collective memory; she was and still is regarded as a feminine representation, to the powerful women of England, Queen Elizabeth I and Victoria, to the suffragists, and to the modern population as shown by being utilized as a national insignia.

Women were not only hidden by History, but when they were evidenced their images were distorted, such as Boudica when she was described by the ancient Roman writers, Tacitus and Cassius Dio, which characterized her as a masculinized woman, with a harsh voice, with a man weapons and incapable to lead an army. Her image was later utilised to justify feminine power or to give strength to women.

### **Secular material culture and resistance in Portuguese nunneries: Archaeological evidence and literature (17th and 18th centuries)**

Ana Rita Trindade (Universidade Nova de Lisboa, Portugal)

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This paper aims to introduce some elements of discussion about gender resistance towards the vows of obedience, poverty, chastity reflected on material culture of secular origin found in archaeological excavations. This material culture is described and widely criticized in 17th and 18th centuries

moralistic literature produced for the correction of the secularities of nuns who did not strictly followed the rules.

Secular and sumptuous artefacts such as ceramics, glass, furniture, clothing or jewellery not quite suitable in the modesty and austerity expected from religious communities are part of a complex culture of resistance created by non-resigned women to the condition of nun and its restrictions, with the support of secular powers. Society and the family promoted religious professions where secular and material motivations had more expression than truly spiritual vocation. Along with material culture, socialization, literature, music, amongst others, are also manifestations of this culture of resistance that somewhat intended to turn life at the convent into an extension of secular domestic life or even an intricate kind of emancipation from some of its limitations, in a more or less subversive way.

#### **All at sea: Women aboard ship in the 16th and 17th centuries**

Rose Drew (University of Winchester, UK)

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Women have always been involved in military campaigns: from protecting family during raids, to accompanying husbands to front lines, to passing as boys in order to fight, to picking up a weapon to avenge fallen partners. Women have not merely filled relatively passive roles as nurse, cook, prostitute. This paper discusses skeletal remains of females and very young children on the Swedish warship *Kronan* and two possible females aboard the *Mary Rose*.

#### **A landscape without men- women leaders in the Southwest**

Doug Rocks-Macqueen (University of Edinburgh, Scotland, UK; Landward Research Ltd)

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This paper presents a case study, from Southeastern New Mexico, of a whole landscape, hundreds of square miles, which is devoid of the presence of male leadership and in many cases even men. Using a variety of datasets, archaeological evidence and methods like agent based modeling it will be demonstrated that there was little to no male presences in the project area leaving only a female presence. This information will then be combined with ethnographic evidence to show that in the past women assumed complete control of their groups' leadership in this landscape. In addition, the archaeological evidence provides indication that the leadership roles that these women assumed in this landscape translated to positions of authority in more traditional male dominated areas of leadership, such as warfare, even when men were present.

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## **J. General Session: Connecting Communities**

Session Organiser: Natasha Billson (Bournemouth University, UK)

### **Solar symbolism and long-distance interaction in the Irish Late Bronze Age**

Katherine Leonard (National University of Ireland, Galway, Republic of Ireland)

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In the Irish late Bronze Age (c.1200-600 BC) there is a notable increase in the use of a formalized solar symbol on high status metal objects. The symbol is composed of a number of concentric circles (consisting of solid lines or bosses) surrounding a central boss. This formalized solar symbol occurs across much of Europe in the Bronze Age, appearing on high status metal objects, in rock-art, and in some areas on pottery. The use and expression of this symbol in a variety of ritual and other socially significant contexts likely amplified the scale of its recognition across the social spectrum and across cultures. This paper will propose that the repetitive use of similar solar iconography in various regions of Europe is likely related to, and expressive of, contact and communication between groups and via widespread networks of interaction. It is suggested that this symbol was an implicit visual cue of shared cultural understanding which enabled discourse between disparate groups with perhaps different languages and/or etiquettes of interaction. The recognition of a known significant symbol in far-away lands may have helped to alleviate tension for both parties, and thus facilitated the building of relationships. The exact nature of all Bronze Age cultural interactions is of course uncertain, however it is clear that variants of this symbol were depicted on high-status (ritual?) objects in many regions and that these objects were moved along the long-distance networks. Therefore, what may have initially been an 'exotic' symbol became well-known and widely utilized.

### **Contacts of the Bronze Age Population of Kola Peninsula (North-western Russia) and Scandinavia and their reflection in the burial rites**

Anton Murashkin (Saint Petersburg State University, Russian Federation)

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Some new evidences of contacts between inhabitants of Kola Peninsula and Scandinavia in the Early Metal Period were obtained in last decades. These links existed both to the Northern and to the Southern Scandinavia and were reflected in the different categories of material culture – pottery, stone, bone and bronze implements. The question about the nature of these long-distance contacts between inhabitants of these regions remains open. At the moment we cannot rule out both direct, however rare contacts as well as permanent down-the-line barter exchange.

In the analysis of burial rites on the Bolshoy Oleny island cemetery and single burials, known on the coast of the Barents Sea, a group of unusual burials was separated. Their differences from the majority of burials are the orientation of the skeletons to the west (instead of the east), the cremation of the remains (instead of the inhumation), burying on the ground (instead of the grave pit), creating a stone cairn, using imported artifacts as grave goods. These features can be interpreted as evidences of infiltration of small groups or individuals from Scandinavia. The reported study was partly supported by the RFBR (Research Project number 12-06-31075 MOL-A).

### **Rethinking the double axe. Contextual and associative strategies to approach Minoan symbols**

Elena Soulioti (University of Durham, UK)

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Minoan archaeology (Bronze Age Crete) has generally treated artifact categories in isolation and by individual specialists in the research of the specific artifact category. This approach led to predisposed and narrow viewpoints in the treatment of material culture, such as solely architectural, artifactual or iconographical, and thus immediately excluded the potential of viewing objects in a wider range of associations and in possible integration to a more complex framework of social interpretations.

In this paper I wish to make two points in particular. First, to propose ways in which contextual approaches of the artifacts can create a ground for an organically integrated understanding of the objects in their find space (constructed or natural). Second, to demonstrate how extensive associative research, which employs all the available sources for a category of artifacts, can enormously enhance the possibilities of gaining insights into the artifacts' function and meaning. In my doctoral research on the social interpretation of Minoan symbols I apply a methodology that relies on recording artifact groups in database tables that contain all the relevant and available information about their characteristics and context. Building on this research I will use the double axe as a case study to prove the benefits of the contextual and associative methods. Finally, I will demonstrate how studying an artifact group in its totality, both in terms of material means and in terms of its context, can produce impressive results on the understanding of material data.

### **Early globalization: Trade and cultural exchange. An interpretative model based on Indian Ocean Trade**

Serena Autiero (Sapienza University of Rome, Italy)

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The study of Indian Ocean Trade in the immediately Pre-Islamic period will enhance our knowledge of the international interaction at that time and also in the subsequent period. From a methodological point of view this work can provide an interpretative model for early globalization. Yet there is still a gap in the documentation referring to the period of so-called Indo-Roman trade in the fourth century CE and the Islamic expansion. A good amount of archaeological data is being unearthed and a number of artworks concur in displaying a new picture of interaction and reciprocal influence in the Indian Ocean at that time. Artworks and archaeological remains are the most visible forms of cultural interaction in this network.

To face this topic we can consider five main issues; conditions and outputs of Trade contacts and resulting cultural exchange along the Indian Ocean Routes in the pre-Islamic period; the distribution and extent of archaeological remains witnessing these contacts; the reciprocal influence in art and its results; the peculiar role of different and distant states and kingdoms in the Indian Ocean Trade; the role of monotheism and universalistic religions in the development and growth of commerce and resulting cultural exchange.

### **Seeing sound: Archaeological visualizations of architectural acoustics and soundscape on the Big Island of Hawai'i**

Jesse W. Stephen (University of Hawai'i at Manoa, USA)

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The visualization of sound within archaeological contexts has not often been attempted, yet the significance of sound in past cultures and societies is certain. Monumental architecture offers a unique opportunity to study sound in a setting where the importance of vision has already been frequently cited by archaeologists, but often without full consideration of the other senses. This paper presents efforts to study the acoustic properties of an ancient Hawaiian temple as well as the soundscape in which it is situated, and outlines a methodology for the study of sound and the results of fieldwork conducted at Pu'ukoholā Heiau National Historic Site on the Big Island of Hawai'i. The visualization of sound is discussed for its potential importance to not only archaeology but also historic preservation and cultural practice, all venues where the "seeing" of sound appears to be critical for thinking and doing anything about this important and fundamental facet of the past.



### **We talk about sustainability – but what do we mean and what does it mean?**

Sarah Howard (Ironbridge International Institute of Cultural Heritage;  
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In archaeology, our understanding of sustainability is framed by the report *Our Common Future* (1987) and particularly the idea of self-sustaining systems preserving finite natural and cultural 'resources'. This economic reading fitted well with the emerging field of heritage management, where archaeological materials were seen as 'finite resources' requiring protection for the benefit of future generations. The concept of sustainability is primarily associated with professional heritage practice, particularly conservation as part of economic development and regeneration, as well as lessening the environmental impact of heritage operations. This has led to a distinct lack of theoretical debate regarding our current and future understanding of the concept, and its reduction to a meaningless 'buzzword'. As disciplinary paradigms have shifted towards considerations of the cultural and social significance of the past to contemporary society, it has become clear that this understanding of sustainability has limited the potential of the concept. Archaeological materials might no longer be considered finite but they do still require careful management, not only in terms of preserving their fabric but also maintaining, or where necessary changing, the processes and frameworks that secure this preservation to meet the needs of contemporary audiences and practitioners. We think we understand the benefit of 'sustaining' archaeological heritage, but without paying attention to the cultural, economic and social systems that support the conservation, access to and appreciation of this heritage, we risk losing what should be at the heart of any sustainable approach, the notions of value and dynamism.

### **Ancient Haifa – an illustration of the Israeli-Palestinian conflict**

Talia Shay  
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Two things have influenced my reading of local reality- my archaeological training and the Palestinian-Israeli conflict. Although trained as a traditional archaeologist of early periods with empirically grounded cultural approach, the development of archaeology, especially postcolonial archaeology has led me to be involved in what would become Indigenous Archaeology. I have become aware not only of the subjective nature of archaeology but also of the inequalities and power differentials that exist within its realm. All too often indigenous communities, and the so-called "others", have had little say in decisions over their heritage, or have received little benefit from research conducted on it. As a result, I have turned my interests to the contemporary past of the Ottoman period (16-20th centuries), which is related to the troubled heritage of recent history of the Palestinian/Israeli conflict.

Haifa, my hometown in Israel, is rich in historic Ottoman remains concentrated in Lower Haifa, where most of the Palestinian minority lives. Haifa is believed to offer its Palestinian citizens more symbolic actions, such as touristic events, services and political influence, than other "mixed cities" with ethnic divide in Israel. Through my inquiries in Lower Haifa the gentrified Ottoman remains stood out in contrast to the extensive reconstruction of Jewish remains in the same area.

In my paper I will refer to the visual presence of downtown Haifa and suggest that the efforts to make it into a touristic project follow the national political system that since the establishment of the State in 1948 has treated the control of the Palestinian urban space as a national project.

### **Engaging East Lothian**

Cara Pearce (University of Sheffield, UK), Tom Gardner (University of Edinburgh, Scotland, UK), Doug Rocks-McQueen (University of Edinburgh, Scotland, UK), and Alexander Westra (University of Edinburgh, Scotland, UK)

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The practice of engaging people with archaeology has its roots in antiquarian times and has continued to the present day. However, throughout that period archaeologists have at times struggled to engage with all communities and to create an inclusive environment. This paper presents the results of efforts to engage with communities in East Lothian. Several case studies will be examined and the resulting best practices from these experiences will be discussed. Furthermore, the pitfalls and problems encountered will be analysed. Hopefully, this work will create a framework for future endeavours to engage people with archaeology.

### **Murder, Nazis and pineapples: Excavating a pinery-vinery in Scotland**

Doug Rocks-McQueen (University of Edinburgh, Scotland, UK), Stuart Dinning (Lowland Archaeological Services) and Tom Gardner (University of Edinburgh, Scotland, UK)

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Since 2011, community excavations have taken place at Amisfield Walled Garden in Scotland. These excavations have added to our understanding of the sordid history of the location which at one time was owned by the 'Rape Master General', location of the last murder to be tried 'by blood' and the location of a German prisoner of war camp during WWII. The project has now entered its final year and this paper will present the cumulative results of the excavations and investigations into the history of the place. Specifically, this presentation will look at how the excavations have confirmed or rebuked the local history of the site. Moreover, it will discuss some of the insights that the archaeology has given into the past not mentioned in the historical records.

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## Tuesday 17 December - Afternoon

### F. Archaeologies of Margaret Thatcher (Part 2)

#### **When coalfields became battlefields - living in the 80s, the Post-Industrial Revolution and difficult heritage**

Jon Humble (English Heritage)

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The 1984-5 miners' strike was the most divisive confrontation of Margaret Thatcher's 11 years in power - a bitter industrial dispute that resulted in 11 deaths, more than 11,000 arrests were made and more than 8,000 people were charged, mainly for breach of the peace.

The strike irrevocably changed the face of Britain and its industrial landscape - and therefore the shape and character of the nation's industrial heritage, together with the range of attitudes that underpin how it is valued.

Nearly 30 years on, memories of the events and the ideology that prompted them still cause pain and division for some - and political euphoria for others. Selecting and conserving a representative sample of the physical remains of the industry has also not been without significant difficulties and challenges.

This paper will consider the post-1980s legacy, 'heritageisation' and commemoration of coal-mining - a once mighty industry which, at its zenith in 1913, employed about one in ten of the British working population.

#### **Frac' em all; Current representations of Thatcher and the miners by the heritage industry**

David Sables (University of Wales Trinity Saint David, Wales, UK)

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2014 marks the 30th anniversary of the 1984 /85 miners' strike; an event so cataclysmic in British industrial relations that it is still shaping the society we live in today. Yet there is still a reluctance by the heritage industry, to examine honestly and openly, the way the media coverage of the events of that year have influenced how we portray Thatcher, the miners, our industrial heritage and how we view whole sectors of society. This paper will look at some of the issues involved and the different ways the national mining museums of England, Scotland Wales have chosen to approach them.

#### **'Where there is despair, may we bring hope': Industry, archaeology and ideology**

Paul Belford (Clwyd-Powys Archaeological Trust)

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The Conservative Government of 1979-1990 was responsible for significant changes to the UK's industrial and economic situation. The coal and steel industries were particularly affected; in retrospect the miners' strike can be seen as a seminal moment in the nation's history, the point at which the post-war political consensus broke down. After closure, many collieries were rapidly demolished without record and landscapes transformed, in part as a deliberate policy to prevent monumentalisation. Perhaps ironically, November 1990 not only saw the resignation of Margaret Thatcher, but also the introduction of PPG16. The next two decades saw the inexorable rise of commercial archaeology, within which developed a strong strand of interest in subaltern archaeologies of the more recent past. The theme of 'domination and resistance' which emerged in the 1990s has subsequently led to more nuanced recent work on archaeologies of protest. One consequence has been that the once-dry subject of 'industrial archaeology' is now a discipline with the potential to engage critically and radically with the issues raised by the legacies of the Thatcher government. Using the coal and steel industries as case studies, this paper will examine the close

relationship between the process of de-industrialisation, the rise of developer-funded archaeology, and the emergence of new theoretical paradigms.

### **Big bang towns, family silver parks: the spaces and places of deregulation and privatization**

Sefryn Penrose (Atkins Heritage; University of Oxford, UK)

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The economic neoliberalism that became one of the defining ingredients of ‘Thatcherism’ enabled the release of large land parcels for transitional, postindustrial private economic pursuit. ‘Sweetheart deals’ meant enormous wealth was created through the disposal of assets formerly part of nationalized industries to private entities. This paper considers the postindustrial reinvention of some these sites, hopeful creations that became the foundation stones of the service economy. Tracking the emergence and development of these privatized commercial hubs within the political context of the 1980s, through to the current well-established position that they occupy in the landscape of Britain. And if the other major agenda\* of Thatcherism was its social conservatism, can this too be read in the business parks and trading entrepôts that continue to operate today?

### **Planning for Armageddon: Margaret Thatcher and the resurrection of government self-preservation**

Bob Clarke (University of Exeter, UK)

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In 1980, the new Conservative government published a review of the national Home Defence policy. Initially intended as a budgetary investigation, the report, Influenced in part by the Soviet invasion of Afghanistan, became a manifesto for the inclusion of local government as part of the nuclear deterrent. That same year it was announced that over 220 Ground Launched Cruise Missiles were to be stationed at two locations in the United Kingdom. Then in 1981 Margaret Thatcher discovered a sole mate in the new American President Ronald Reagan - to many this ‘partnership’ signalled a period recognised in popular culture as ‘the Doom Boom’. Whilst the material culture from the period is scarce it is, however, recognisable through a number of major construction projects in the local government sector.

Margaret Thatcher’s overtly belligerent attitude towards the Eastern Block, supported by a reinvigorated ‘special relationship’ has provided us with a wealth of contemporary archaeological markers. Markers that continue to force us to confront our recent past. Many, such as the Frankie Goes To Hollywood classic Two Tribes, are as chronologically recognisable as they are shocking in their imagery. Other aspects are not so well known. The central concept of Conservative Home, later Civil, Defence was the increased involvement of Local Authorities through central government funding initiatives. This paper demonstrates the range of structures constructed during the ‘Doom Boom’ that were intended to protect Local Government asking the question – just what is below your local town hall?

### **“It’s my dirt, nobody else’s”: Right to Buy and the transformation of the built environment**

Emma Dwyer (University of Leicester, UK)

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During the second half of the twentieth century Britain is perceived to have been transformed from a nation that rented its homes, to a nation of homeowners. The decades before and after the Second World War saw the construction of over six million houses and flats on suburban and inner city estates by local authorities, meeting higher standards for the provision of homes, let out at rents that were affordable for much of the population.

Relatively small number of tenants had been able to buy their council houses throughout the twentieth century, but Margaret Thatcher’s aim to turn Britain into a property owning democracy

saw the extension of the 'Right to Buy' to millions of local authority tenants - two million homes have been bought by their tenants since 1980 - and transformed the environment of suburban housing estates, and the experiences of those living there.

John Dolan (1999) stated that on a personal level, the shift from tenant to owner potentially produced a disturbance of the identity of the tenant, and a need to articulate a new identity, through decoration and changes made to otherwise structurally sound homes - an identity that was in opposition to those who continued as tenants. But what about the experiences of those who remained as local authority tenants, and what was the material impact of the extension and acceleration of the Right to Buy, and the concurrent reduction of the role of the state in everyday life, on what had been originally designed as integrated suburban estates?

### **'She's not dead yet!': Archaeology & Margaret Thatcher's enduring impact on homelessness in the U.K.**

Rachael Kiddey (University of York, UK)

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Homelessness is a subjective concept both defined and rationalised by political and legal discourse (Neale 1997). Therefore, an archaeological consideration of homelessness must begin with an understanding of prevailing ideologies under which welfare provisions are made because these have material consequences. This paper tracks the impact of political ideologies on the materiality of homelessness from the arrival of the 1977 Housing Act through to the present day. Key changes to housing and homeless policies introduced in the period are examined and their material consequences revealed. Data presented include analyses of finds excavated archaeologically and collaboratively with homeless people at a site of contemporary homelessness in York. Data indicate the site was most heavily used between the late 1970s and the late 1990s, arguably a period that correlates with de-industrialisation and the arrival of substantial investment in homeless services under New Labour. Biographies of homeless colleagues also illustrate how deindustrialisation, the Right to Buy Act 1980 and the Criminal Justice & Public Order Act 1994 directly contributed to a rise in homelessness. It is also argued that policies implemented under New Labour and the present coalition government remain ideologically Thatcherite in their constructions of homeless people as socially deficient or pathologically to blame for their situation.

### **From Section 28 to 'Gay Marriage' - Thatcher to Cameron: Queering the Conservative's legacy in contemporary sexual politics**

Thomas A. Dowson (Independent)

Although passed only 25 years ago, Section 28 seems to be a dim and distant memory. In fact given that the Queen's ink on the 'Marriage (Same Sex Couples) Act 2013' is barely dry it sometimes feels a tad churlish to be even thinking about Section 28 at all. Haven't we all moved on? In a word, No. Section 28 is alive and well in many schools and academies today, despite Blair's repeal of and Cameron's apologies for Thatcher's discriminatory act. And Cameron's commitment to ending discrimination on the grounds of sex orientation has been questioned more than once in the last few months. In fact, Thatcher's Section 28 and Cameron's Same Sex Couples Marriage Act are not as contradictory as some might want to believe. The Conservative attitudes towards the family, which were explicit in justifications for Section 28, have not changed in the last two or more decades. These same values are still present albeit more subtly in the Marriage Act, hence the now radical idea that this act has more to do with entrenching traditional, conservative social norms than extending social justice. While same sex couples can now get married, the Capitalist definition of 'the family' has not changed. In this paper I explore this neo-liberal normalisation of sexual identity and how it has influenced constructions of sexual identity in archaeology. The same neo-liberal politics that enables society to accept same sex couples to get married is at play in the acknowledging of

homosexual identities in the past. Archaeology continues to underwrite a heterosexual history of humanity.

### **The material culture of Margaret Thatcher**

Sarah May (Heritage for Transformation)

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Most of the papers in this session look archaeologically at the consequences of Margaret Thatcher's tenure as Prime Minister of Britain. This paper looks more at what archaeological traces there are of her as a person. Born in 1925 and dying in 2013 her life spans a remarkably complex period in Britain and that complexity is reflected in material culture. Can we use her life and death as a thread through that complexity as Piccini did with the gutter in her film, *Guttersnipe*?

Is the archaeology of a single person possible, useful or desirable? Historians regularly focus on the life of a single person, especially the powerful, but it is rare in archaeology. The reception, for example, of the research on Richard III has been mixed. Contemporary archaeology has also been ambivalent about individual archaeologies from an ethical perspective. Buchli and Lucas's investigation of a recently vacated council flat raised questions of intrusiveness that have yet to be resolved. But the use of an individual as a filter, a sampling device, a trench edge to frame the overabundance on contemporary material culture, is beguiling. Some archaeologists have used auto-archaeology to sidestep some of the ethical, and indeed practical issues. The ethical and practical considerations of working on an individual both powerful and public are different.

This paper will explore what can be found, explored, and understood of Margaret Thatcher from her physical traces.

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## H. The Material Dimensions of Cognition (Part 2)

### **I know what you did: How material things reveal actions and emotions**

Davide Nadali (Sapienza University of Rome, Italy)

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Materiality of things has been largely quoted in recent studies as the necessary counterpart in the cognitive process of archaeological researches, in a double complementary approach: first, as the generic consideration of the physical (material) categorization of the archaeological context; second, as the specific materialization of objects involved in the process the archaeological context reveals.

If the materiality of things can be a concrete issue, since it deals with the materials that the things are made of, it seems as much interesting to go into the analysis of the im/materiality of actions and emotions: the materiality of things implies the pragmatic use of objects; the materiality of actions and emotions implies the pragmatic effect of objects onto human body and mind (for example by reconstructing sound and light effects produced by objects while involving certain things).

Taking into consideration the recent results of neuroscience, can simulation be the useful concept in cognitive archaeology by which we might be able to reach the possible and dynamic knowledge of ancient life?

### **Embodying language: The lessons of Russian defectology**

David S. Webster (Durham University, UK)

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The advent of *cognitive archaeology* and *neuroarchaeology* reflects a concern of archaeologists to link their own research to that of Cognitive Science and Neuroscience, through highlighting the role of material culture in human development. In this concern with material culture and cognition, archaeologists have been confronted with different views on how to characterise cognition and mind. For example, cognition is computation; is embodied; is situated; and distributed. Prior to these, cognition (thinking) was inextricably linked with language.

In this paper, I discuss the teaching of congenitally deaf and blind children who are, consequentially, also a-lingual. In short, the clinical application of Lev Vygotsk's culture-historical psychology. This encompasses situated and distributed cognition within the embodiment of language as a deep problem of defectology: the activity-based remediation of cognitive defects and neurological insults. Obviously implicated here too is the development of the personality and agency of these children. Theoretically central to such remedial programmes of education are psychological tools – i.e. the role of culture-material semiotics in the establishment of new functional connections between hitherto independent, normally functioning parts of the brain.

### **The necromantic ordering of days**

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Time-keeping and calendars emerge from cognitive interaction with digits, animal migrations, aging, pregnancy, vegetative cycles, sun and phases of the moon, the hydrological cycle, i.e. from objects and the events they generated. Once established calendars also affect the way we perceive time.

The Maya calendars are necromantic devices. They are objects formed by people, long time dead, but whose past contributions affect temporalities long time thereafter, even in a completely different context as in the case of the global internet “2012-phenomenon.” The Maya calendars were designed to order the days, i.e. the passing of time. However, their usage changed after great upheavals occurred in the 10th century AD. The accumulative time of the Long Count disappeared in

favor of the cyclical Short Count. For at least 1000 years the “divine kingship” (ajawlel) was associated with the Long Count until the cessation of dated monuments at the beginning of the 10th century AD, an event that coincided with the so-called Maya collapse. From the structure of the Long Count there is no evidence that it was cyclical as is commonly believed. In the Postclassic period the Short Count dominated among the Yucatec Maya and it did so until the Spanish conquest of Noj Petén in 1697. This calendar consisted of cycles of 256 years and its importance in the Postclassic coincided with myths of previous ages. Knowledge of earlier history and perception of ruins enforced an understanding of previous creations and their associations with repeated periods of time.

### **The cultural dimension of cognition**

Trevor Watkins (University of Edinburgh, Scotland, UK)

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Around the transition from the Pleistocene to the Holocene, human skills in cultural niche construction were qualitatively upgraded in order to support the formation of the first large, permanently co-resident communities and regional interaction networks with new and sophisticated forms of symbolic action and representation. The transition from small, mobile forager bands to networks of large permanent communities that occurred in southwest Asia between >20,000 and 8,500 years ago was enabled by 'cognitive engineering' in the form of systems of 'external symbolic storage'. The over-arching role of symbolic culture became the highly developed core of the cultural niche within which and by means of which children learned, and adults understood and expressed their identity and their place in the world. The extraordinary plasticity of the modern human brain and its developmental responsiveness to context meant that individuals were able to form their complex social identity within a powerful cognitive-cultural niche. While we are accustomed to literacy and think of ourselves as dependent on written authority, they were more adept with other media, particularly ceremonies and rituals, and the making of memory in monuments, artistic representations, and signs. Their achievement of the social reality of large-scale communities is the foundation of our present world.

### **Kayak construction as a didactic process: An ethnoarchaeological perspective on the building of tacit knowledge through technical enskilment**

Matthew Walls (University of Oxford)

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This paper considers material dimensions of cognition by examining the process through which individuals develop unique capacities for sensory awareness and creative responsiveness through technical enskilment. I contribute to this topic by presenting ethnoarchaeological fieldwork conducted with an Inuit community in Greenland who build skin-on-frame kayaks and practice traditional hunting skills as a means of better understanding the lived experience of their ancestors. Kayak hunting is a difficult skill to learn, and it can take many years of careful practice to develop the requisite abilities – through enskilment, kayakers attune their senses to subtleties of the environment which would not be apparent from any other perspective. In this context, the community specifically finds meaning in the persistence of kayak construction because it is an important mechanism of intergenerational experience, and because the physicality of the skill contains forms of cultural and environmental knowledge that can only exist through practice. By illustrating the *chaîne opératoire* of kayak construction with ethnoarchaeological observations, it will be demonstrated that the technical process is an 'education of attention' that acts a framework for the development of personal experience. Kayak hunting is a skill that has been practiced by Inuit in Greenland since their ancestors first arrived in Greenland about 800 years ago; I will argue that understanding the inherent creativity through which embodied knowledge is re-grown in the experiences of each generation of kayakers allow for a more nuanced archaeological narrative that emphasizes the agency of skilled practice through time.



## **A shifting sense of human scale: Tracing 'Deep Time' aspects of human depiction**

Martyn Woodward (Plymouth University, UK)

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A contemporary interest in the often-neglected geological 'deep time' of the late nineteenth century regarding the study of human history within the humanities, arises with questions regarding the material and immaterial limits of the development of human cognition, and the methods by which a human history is documented (Shryock and Smail, 2011). What has been termed a 'deep human history' attempts to study the development of such a distributed human cognition and creative activity through the traces of the development of human cognition and consciousness that extend into, and are left upon the environment: the material artefacts, objects and materials of a culture.

This paper, through a juxtaposition of diverse visual ephemera drawn from the seventeenth to the late nineteenth century: that of geological images, biblical depictions, modern painting, satirical illustrations and everyday depictions of emerging technologies, will trace the 'deep time' aspects of the development of a historically contingent imagination, cognition and perception that manifest within such depictions of the human form. Utilising especially the anthropological concept of meshwork (Ingold, 2011), and the neuroarchaeological concept of 'enactive signification' (Malafouris, 2007), this paper will point to an approach to the study of the development of human depictions that acknowledges the material and immaterial dimensions of human cognition and perception. By juxtaposing these approaches with that of contemporary art historical methods (Papapetros, 2012) it will point particularly to the importance of the multi-sensory, imaginary and spiritual dimensions of cognition that will be argued as entangled within the meshworks of material engagement.

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## **K. It's All Material Culture, Ain't It! Connectivity and Interdisciplinarity in Material Culture Studies**

Session Organisers: Ben Jervis (English Heritage) and James Morris (University of Central Lancashire, UK)

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### **Session Abstract**

Material culture embraces a broad range of things which are literally material manifestations of society. From an archaeological perspective this may include buildings, artifacts and ecofacts. It can also be taken to include text and art, which, despite their specific qualities, can be considered specific forms of material culture, rather than something altogether different. These various forms of material culture are typically studied in isolation yet are materialisations of the same cultures, entangled within the same courses of action and social contexts. This session seeks to explore methodologies and theoretical approaches which allow us to embrace the promiscuous connections and associations between underused types of material culture, to explore the processes through which they became meaningful to past communities and become meaningful to archaeologists in the present day.

The aim of these discussions will be to move towards an interdisciplinary archaeology, in which the relationships between things become as important as the study of the things themselves, as it is within these relationships that cultures materialize.

### **Between text and objects: the value of consumption of metalwork amongst the medieval English peasantry**

Ben Jervis (English Heritage)

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This paper discusses the result of an interdisciplinary study into the material culture of the English peasantry through the examination of inventory record and objects excavated from medieval rural sites in England. The potential of inventories for the study of medieval material culture has long been recognized. However, these documents have rarely been used by archaeologists and little critical attention has been paid to the relationship between these documents and the objects which they list and value, with their use largely being limited to filling gaps in the archaeological record. The paper seeks to advance an interdisciplinary approach to medieval material culture, focussed on exploring the processes through which documents are produced and become meaningful with these objects.

Inventories contradict the archaeological record in relation to metal objects; dress accessories are numerous archaeologically, but rarely appear in inventories, whilst the opposite is true of kitchenware. This observation will be used to problematize the relationship between these sources of data. The aim will be to consider the processes through which the inventory records were formed as material culture in themselves, and to explore the value systems which are made and reproduced through the drawing together of people, documents and artefacts in the act of inventorying. In doing so it will be possible to demonstrate how a context and value system was formed in the act of inventorying and to begin to get to grips with the implications of this perspective for moving towards a truly interdisciplinary approach to medieval material culture studies.

### **Maps of survey: The Mexican *diseno* versus the American plat map**

Melonie Renee Shier (University of Central Lancashire, UK)

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Historical documents can represent the key ideologies of the people who created them. Maps are particularly interdisciplinary in nature as they are created and used by a wide range of persons.

Through his work on the American-Canadian Northwest, Jeff Oliver (2011) observed that although maps provide a spatial history, they are linked to relations of power within the colonial setting. The people who make the maps and the people whom use the maps are of the same social group, they are agents of a similar mentality, colonialism. Looking at similarities in mentality can shed light on the system of value people had in the past. The idea of systems of value is based on the work of Gosden (2004), who observed how groups viewed and gave different worth to a particular object. I propose to look at how the difference in the system of value of survey of two different colonial groups influenced the San Emigdio Hills of south Central California, particularly in the transition from the Mexican period into the American period from 1840 to 1850. I further propose to show that by viewing the two maps from this framework that the differences between the two maps, are shown to be more than two different methodologies of mapping.

### **New connections for old collections: The impact of current archaeology agendas for English Heritage's Architectural Studies Collection**

Charlotte Newman (English Heritage) and Matthew Jenkins (University of York, UK)

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This paper explores the impact of new research agendas for English Heritage's Architectural Studies collection. The collection consists of unique samples of architectural elements from predominantly 18th and 19th century London houses, from the more usual staircase and fireplace to the less usual bell-jack and light bulb changer. Traditionally curated and interpreted by art/architectural historians, to date the collections research agenda has primarily focused on object construction and function. Building on these foundations, archaeological approaches to material culture studies, particularly structuralist and biographical theories, offer an alternative lens through which to interpret this unique collection.

Within the context of urban London, this paper will explore how archaeological methodologies such as GIS can re-connect these objects. Taking a multi-scalar approach this data can be used to investigate the neighbourhood, street or building offering new ways to explore London streetscapes and spaces. Using the example of Brooke House, this paper will demonstrate how the broad range of material culture associated with this site, such as historical surveys, census data, London maps, wallpaper, ceiling samples and archaeological finds to name but a few, can reconstruct a fascinating history of this property not previously explored.

### **Entangled evidence; Activities, artifacts and architecture from Assyrian tell Sabi Abyad, Syria**

Victor Klinkenberg (Leiden University, Netherlands)

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At the site of tell Sabi Abyad in Syria a large fortified settlement, a so-called dunnu, from the Late Bronze Age (c. 1600 – 1200 BCE) has been excavated. The excavation yielded thousands of finds from seemingly in-situ contexts and architectural remains which were preserved up to four meters in height. Also numerous cuneiform tablets were discovered, containing a wealth of information about the workings of this settlement.

Earlier research into the different find categories from the site has led to a number of individual, mostly specialized, publications. An important issue which is often overlooked by these specific analyses is the presence and effect of archaeological formation processes at the site. These processes are fundamental for the understanding of the nature of the archaeological remains.

As part of an ERC funded project, an attempt is made to reconstruct the activities which were carried out in the settlement using all available evidence from the site: architecture, objects, deposits and texts. A systematic approach is presented which meaningfully links all available types of

archaeological evidence from the site. The methodology is an attempt at using the body of evidence from the site as a connected whole, rather than a 'sum of parts'.

### **Using materials, constructing spaces**

Ana Vale (University of Porto, Portugal; FCT)

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The aim of this paper is to address two Portuguese sites from the Late Neolithic (Castanheiro do Vento, in northeastern Portugal, and Santa Barbara, central Portugal). The two archaeological sites display contrasting ways of constructing spaces, in one case by the construction of walls and in the other by the digging of pits. Can the analysis of the relationships between the different materials help us to arrive at a possible understanding of the different contexts and to escape from the functional explanations that still persist, in which form always indicates function?

Recent work (e.g. McFadyen, 2006) has addressed the archaeological interpretation which can be found in the multiple relationships between materials, and more specifically, between architecture (walls or pits) and what can be called "small things", such as ceramics or burnt seeds. However, although different approaches came into play, the majority of studies that stress the different relationships between materials seem to end up confirming initial explanations. It can be argued that the problem lies in the fact that the archaeologists' attention is usually focused on relationships that can be detected in the office, usually between a structure and a complete vase, ignoring the material fragments.

The study of material relationships implies a different approach to the excavation itself. Instead of constructing ideal scenarios, tied to (pre)conceptions of past lives, the study of material relations can open a space for the construction of other images where spaces are designed by the use of materials.

### **Putting people into space: From artefacts to spatial behaviour**

Gary Nobles (University of Groningen, Netherlands)

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Archaeology, by definition, is the study of past peoples through the material remains which they leave behind. As such specific specialists have studied these 'assemblages' in isolation, defined by their find type: bone, ceramics, stone, flint, botany, residues etc. Such an isolated approach can produce an over simplified narrative specific to the individual material studies. The combination of specialisms through interdisciplinary discussions can vastly enhance our understanding of the people we study. The incorporation of material within their spatial setting is a crucial aspect of multidisciplinary research, such spatial research is a specialism in itself requiring much theoretical forethought prior to the adoption of any spatial techniques. The association of various materials can indicate areas of activity; as such these inherently social activity areas lead to an understanding of the spaces and places in terms of the underlying behaviour(s) which have been involved in their creation.

This paper argues that a full and collaborative framework is worth much more than the sum of the individual parts, offering a more rounded encompassed view of the past. With the aid of new research of Late Neolithic settlement sites from the Dutch coast the people are investigated through their past actions and activities, ultimately offering insight into their past behaviour. Case studies from settlements are presented, this includes new discoveries not envisioned at the outset of the project and only achievable within a multidisciplinary framework.

Therefore to what end can a multidisciplinary approach aid in the study of past peoples through their behaviour?

### **Incised stones of the Great Basin**

Randy Ottenhoff (University of Central Lancashire, UK)

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This paper will explore the close associations incised stones have with other artefacts through a chronology at multiple sites in the Great Basin. Incised stones are small, portable, mostly flat stones that have designs incised on the surface. Left at caves, rock-shelters and open-air sites these stones are a poorly understood artefact class not only in the Great Basin, but also worldwide. The placement of an incised stone beside other artefacts in just one excavation level may not hint at a pattern. However, my research is looking closely at every excavation level with incised stones from two sites: Hogup Cave and Ruby Cave. In each site, incised stones have been grouped with its closest artefactual neighbours. Does a pattern emerge? After a brief introduction of the chronology of incised stones, a combination of plan maps, graphs and photos will walk through the deposition of incised stones. Patterns in the record will be discerned, and suggestions of what this pattern means, will be made

### **Seeing is believing: Painting and meaning at Çatal Hüyük**

Eloise Govier (University of Wales Trinity Saint David)

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In this paper I move away from recent interpretations of the wall paintings at Çatalhöyük which have tended to focus upon symbolic meanings trapped in the images (Hodder and Meskell 2011). Instead I propose a causal relationship between pigment, palette, painter, and painting to suggest that this entangled relationship between person and things created a potent form of agency. My argument focuses upon the act of painting rather than the symbolic content of the artwork, and instead of talking of histories and memories I suggest that the treatment of the paintings, along with the associated tools used to create such images, implies that this was a powerful and potentially toxic act that was carefully controlled by the community. To argue this case I highlight discrepancies in the archaeological record which indicate that the paintings may not have been 'seen' in the traditional sense, and instead I propose that engaging with the paintings was a multi-sensoral (person-thing) experience

### **A bloody mess: animals as cultural objects in Anglo-Saxon burials**

James Morris and Duncan Sayer (University of Central Lancashire, UK)

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Considerations of material culture normally concentrate on objects and possessions, such as brooches or pottery. Animals, the most common and arguably important possession within a society, are often excluded from such considerations. In part this is due to the composition of the archaeological profession with different material type specialists, but it is also because material culture, as a manifestation of society, is viewed as the product of human creation, invention and endeavour. This paper explores the use of animals as material culture by concentrating on animal remains within Anglo-Saxon burials. It uses specific examples such as the recent Oakington cow burial to elucidate the many human actions and associated means these deposits represent.

## L. Seeing, Thinking, Doing: Visualisation as Knowledge Creation

Session Organisers: Gareth Beale (University of Southampton, UK),  
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### Session Abstract

Decades of enquiry have borne witness to the importance of visualisation as a critical methodology in archaeological research. Visual practices are intimately connected to different ways of thinking, shaping not only how we interpret the archaeological record for diverse audiences, but how we actually see and conceive of that record in the first instance (before investigative work has even begun). A growing body of volumes (Molyneaux 1997; Smiles & Moser 2005; Bonde & Houston 2011), workshops and symposia\* testify to the centrality of visualisation in processes of deduction, narrative construction, theory-building and data collection – all those activities which lie at the heart of the discipline itself. But these testimonials generally still lay scattered and detached, with researchers and visual practitioners often talking at cross-purposes or working in isolation from one another on issues that are fundamentally linked.

Following the success of Seeing, Thinking, Doing at TAG Chicago in May 2013, we seek here to delve further into such issues, concentrating on those bigger intellectual tensions that continue to reveal themselves in discussions of the visual in archaeology.

\*e.g. "Seeing the Past," Archaeology Center, Stanford University, Stanford, USA, February 4–6, 2005;  
"Past Presented: A Symposium on the History of Archaeological Illustration," *Dumbarton Oaks*, Washington, DC, October 9–10, 2009;  
"Visualisation in Archaeology," University of Southampton, Southampton, UK, April 18–19, 2011.

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Session blog: <http://seeingthinkingdoing.wordpress.com/tag-2013-bournemouth>

Session twitter: [@visualarchaeo](https://twitter.com/visualarchaeo)

### Reality based surveying, archaeological information visualisation, and the construction of archaeological reality

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In archaeological excavation we can find ourselves caught in the gap between the situation on the ground that can be recorded, and what we want to communicate our understanding of said situation. The uptake of detailed digital recording methods, in particular Structure From Motion (SFM), for excavation recording further problematizes this distance between recorded and archaeological realities. The strength and curse of these detailed digital SFM models is exactly that they are detailed and explicit, and at the same time visually arresting – and this is the key point. There are, of course, practical solutions to separating and indicating where these gaps exist. But can we simply highlight places where recorded reality and archaeological reality don't line up, and add polygonal models to extend contexts to their interpreted limits? I will argue that this may not be enough because of how we engage with visual materials, particularly those created through SFM. It's hard to 'un-see' a visualization, particularly an engaging one, or to force ourselves to look at low variation parts of an image or 3D scene which have high variation regions, so in a scene with

polygonal and SFM models, the SFM models can easily dominate the viewer's reading of the evidence, even where they should not. Redressing the balance of the perceived informational value of the SFM models and the models used to represent our interpretations is an important challenge we should meet as we work to find new ways of visually representing archaeological knowledge.

### **Virtual-Materiality: The digital re-creations made as part of the Glenmorangie Early Medieval Research Project**

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As part of our research at the National Museum of Scotland, we have used innovative digital technology to re-create Early Medieval objects based on the fragmentary evidence. Re-creations made in collaboration with Relicarte, of a Roman silver dish from Traprain Law and the Monymusk Reliquary can be viewed here -

[http://www.nms.ac.uk/collections\\_\\_research/early\\_historic\\_scotland/traprain\\_law\\_dish.aspx](http://www.nms.ac.uk/collections__research/early_historic_scotland/traprain_law_dish.aspx)

The tension between virtual fabrication and traditional craft techniques is explored in the re-creation of a Pictish drinking horn mount.

This paper will explore how using digital technology as a re-creation methodology has developed our understanding in different ways;

- Digitisation as Craft: Although using cutting edge 3D digitisation and visualisation techniques, these re-creations can tell us about the skills and material know-how belonging to craftspeople in the past. In fact, this method can solve the problem of re-creation by traditional craft techniques where a particular skill is now lost.
- From Part to Whole: Creating 3D models from archaeological fragments allows us to appreciate how they may have been experienced as new.
- Digital Discovery: These innovative technological techniques offers solutions and benefits for manipulating and interrogating large quantities of archaeological objects. Crowd-sourcing data collection has the added potential to engage people with real archaeological objects not possible behind glass in the museum.

### **Real uncertainty and uncertain reality in archaeological visualization**

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Visualization in archaeology is not just illustration; it is instead a substantial component of interpretation. Our research concerns the use of visualization techniques since the first steps of archaeological research. We imagine that archaeologists progressively draw a mental representation of their interpretation, sometimes sketching it on paper, and we believe that currently available tools may support this visual approach, but at the same time they force creativity into rather tight constraints. We aim at discovering how these constraints may become opportunities for improving the interpretation process, and how the techniques need to be changed to comply with research needs. In this framework, 3D visualization technologies made popular by consumer applications may provide innovative and effective support to archaeological reasoning.

We have applied such technologies in several on-field investigations and want to assess this practice from a theoretical perspective. We will present a number of case studies demonstrating that organizing archaeological data into a well-documented and transparent visualization framework enhances the interpretative process. Representation of inherent or induced uncertainty will be considered as well.

### **Is rock art research ocularcentric? Embodiment theory and somatic society**

Jamie Hampson (University of Western Australia, Australia)

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Rock art images appear at first glance to be direct visual records people made of their own worlds. Yet the directness of visual recognition may be deceiving: the painting may take the form of a deer, but is it a picture of a deer? In addition, the recording of rock art images often overlooks tactile and aural engagements with the motifs and with the rock itself.

Using case studies from southern Africa and west Texas, I argue that the notion of embodiment, and Turner's (1996) concept of 'somatic society', allows researchers to usefully treat rock art images as metaphorical comments on prehistoric and historic social processes. This in turn helps redress ocularcentric biases in rock art research.

### **Seeing things differently: The impact of digital visual technologies upon recording and the generation of knowledge at Çatalhöyük**

James Taylor (University of York, UK), Nicolò Dell'Unto (Lund University, Sweden), Åsa Berggren (Lund University, Sweden) and Justine Issavi (Stanford University, USA)

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This paper aims to present a review of digital visual methods used in the primary recording of archaeology at the complex Neolithic Tell site of Çatalhöyük, south-central Turkey. As software and hardware become more affordable and robust, digital approaches to recording are becoming more and more prevalent in field archaeology – however, the use of these technologies remains mostly new and unfamiliar in terms of a critical theory. The Çatalhöyük Research Project has always strived to engage with these technologies from its outset, seeking to harness them within its strong reflexive methodological framework. Here we aim to outline how new tools for visualisation, in particular 3D visualisation tools in combination with tablet based recording, have changed the way we approach on-site recording and engage with the more traditional visual components of 'knowledge creation' on the site (specifically the graphic and photographic archive) within the context of non-representational thinking. Furthermore, we will critically consider some of the advantages and disadvantages of 'going digital' in the field.

### **Visualizing the invisible: Pushing the craft in archaeological screen media**

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The archaeological project, whether carried out in actual excavation, virtual exploration or in conceptual investigation, requires the development of craft skills in spatial reasoning and visualization applied to a complex knowledge base. The ability to envision varied relationships between time and space, to reason through the diachronic, the synchronic and other potential relationships amongst the remains of cultural materials past and present under investigation are crucial.

Yet these are amongst the most difficult of archaeological processes to capture in representing archaeology through visual media. Archaeological media for public consumption may seize on classic storytelling tropes, the pragmatics of thematic interpretation driven by specific goals, or rely on authoritative or charismatic narrators to move things along, but a perhaps un-intended consequence is that these core craft practices in the construction of archaeological knowledge are passed over in favour of developing a new narrative about history or a portrait about the archaeologists as heroic figures on a quest.

This paper proposes a parallel problem in visualization, by archaeologists and their screen media interlocuters, both of which centre on rendering the invisible envisionable.



### **Topology vs. topography: Visualising the Islamic city in the Medieval and modern mind**

Matthew Harrison (University of Southampton, UK)

The dominant paradigm for the representation of spatial phenomena in archaeology is that of topography. On an intra and inter-site level, the plan, elevation, location map and terrain map all take form and position in Euclidean space as their basis. However, the recent popularisation of network analysis in archaeology and the humanities has brought to the fore the use of topology to visualise spatial archaeological data; representing the connections between phenomena rather than their form and position.

These developments will be considered in light of my doctoral research: the three-dimensional digital visualisation of the medieval city of Fustat, Egypt. I will demonstrate that the archaeological and historical source data for the form of the city are in themselves filtered through different modes of visualisation. Medieval eyewitnesses described Fustat almost exclusively in topological terms; elucidating the connections between streets and markets, rather than their dimensions, orientation or location. 20th century historians adapted these descriptions into largely abstract two-dimensional plans, in keeping with European, post-Enlightenment modes of representation. These plans are difficult to reconcile with topographic representations of the archaeological remains of the city, excavated over the course of a century.

These discrepancies are symptomatic not only of working with different data types and representation frameworks, but also of incomplete and imprecise data sources. The holistic nature of 3D visualisation must, as ever, come to terms with the uncertainty of archaeological and historical data. This paper will explore the idea of exploiting the contrasting strengths of topographic and topological visions of the city, in both our sources and visualisation methodologies, in order to engender different interpretations of the past and confront the lacunae of the underlying data.

### **Geovisual perspectives on late 20th century Indian archaeology: Putting “place” in visualization**

Neha Gupta (Lakehead University, Canada)

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Archaeologists, more so than colleagues in history and anthropology, are accustomed to visualizing complex scientific results. In this paper, I introduce geovisual perspectives using geographic information systems (GIS) to examine unseen geographic and spatial patterns and relationships in archaeological fieldwork in late twentieth century India. Geovisual, short for geographic visualization, results from the interaction with, and creation of visual media and technologies to enrich the scientific process and promote unexpected insights on time-dependent spatial phenomena. Using a time-sensitive geovisualization, I draw out the influence of geography or physical and social space on archaeological fieldwork in the aftermath of the demolition of the Babri Masjid in 1992 in the northern city of Ayodhya. I demonstrate that visualizing specific places where archaeologists carried out fieldwork at particular moments, offers an innovative method of historical inquiry to examine how knowledge is interwoven with power and space, a critical factor in understanding change and continuity in archaeological practices.

### **The strange case of Dame Mary May’s tomb: Deciphering the visual and biographical evidence of a late 17th century portrait effigy**

Nicole Beale & Jude Jones (University of Southampton, UK)

In 1676 Dame Mary May commissioned her tomb from John Bushnell, a famous Restoration sculptor and placed it next to her pew in the chancel of St Nicholas’ parish church, Mid Lavant, West Sussex where she worshipped until her death in 1681. Tradition has it that after her death from smallpox her relatives obeyed her wishes that her effigy should be faithfully lifelike and caused its face to be stippled with pockmarks. In the next two centuries the tomb was moved about the church and eventually hidden in the May vault below the chancel. Only in the 1980s was it brought out and re-

erected in the north aisle of the church. Using Reflective Transformation Imaging (RTI) to investigate the current state of the effigy, this paper examines the controversy which has taken place since then concerning the nature of female effigial portrait sculpture and the reactions of 18th-19th century congregations to potentially disfigured sculpture. In addition this paper is a reflection on the theoretical implications of the process of documentation of archaeological objects, which came out of a digital image capture session, using RTI, of this tomb and its effigy. Both authors were present at the recording session, one of whom is an expert in digital documentation and the other an expert in early modern archaeology and the analysis of post-medieval parish churches and their monuments.

The paper will explore the notion that digital documentation techniques offer the possibility of a unique engagement with archaeological objects and consequently it fits into the 'Innovative approaches to representing the archaeological record' theme. The paper will emphasise the performative and collaborative dimension of imaging with RTI and will discuss the commonalities with other forms of image making (such as drawing) as well as emphasising the inherently social nature of an image making process which requires multiple participants. It is also intended to throw light on the responses of the tomb's past viewers to a gendered object which may, at the time, have been perceived as visually transgressive.

### **Visualism and archaeology: The case of prehistoric Malta**

Robin Skeates (Durham University, UK)

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The scholarly privileging of sight goes back to the Greek philosophers, notably Plato and Aristotle, and to successive thinkers such as Descartes who made it clear that the sense of science was to be sight. It is hardly surprising, then, that the sense of sight has tended to dominate archaeological practice and theory. But, over the last two decades, scholars interested in the body and in the senses have increasingly challenged the visual bias (or 'visualism') of modern Western culture, including its communication media, scholarship and scientific practice. Archaeological theorists, for example, have questioned their use of visual terminologies, such as 'view' and 'perspective', and of visual techniques, such as aerial photographs, distribution maps, and GIS-based visibility analyses. As a consequence, it is now well-established that visual representations used to record and reconstruct archaeological remains are never innocent providers of information, but rather involve particular visual conventions (or 'ways of seeing') and representational strategies used to construct knowledge.

In this paper, I build upon this critique, undertaking a kind of literary and art criticism of historic and contemporary representations of prehistoric Malta, with particular reference to the senses, in order to chart, historicize and contextualize the sensory experiences and perceptions that have surrounded the development of archaeology in Malta over the last four centuries. What I find is that, particularly since the mid-seventeenth century, the Islands' ruins and their buried remains have been appropriated by outsiders, who have incorporated them within their own poetic and political orders. Above all, it has been their visual culture that has dominated modern representations and experiences of these places and their artefacts, as pleasurable, instructive, and nostalgic sights to be consumed, primarily through the eyes. The other senses have never been entirely excluded in this process, but they have been restrained.

### **Rendering the invisible visible: The moves of London Stone**

Alessandro Zambelli (Bartlett School of Architecture, University College London, UK)

It has been argued that modern imaging techniques in archaeology enforce an alienation between subject and object – an alienation which began with the scientific enlightenment (Thomas 1993; 2008). Or that enlightenment specialisations and cults of difference stifled the fluidity of a peculiarly

analogical and visual form of creativity (Stafford 1999). How then to recover the visually analogical from the ocularcentric?

In a niche behind a grille facing the road at 111 Cannon Street is London Stone. An artefact of ancient but uncertain origin (Clark 2007), it might be thought of as an archaeological object, but almost no work of that category has ever been done upon it set adrift, as it has been, from its ancient contexts. Neither is it comfortably an architectural artefact, though architects have attempted to incorporate it into the buildings which have hosted it. Instead of, or perhaps because of this, a web of myth and poor scholarship now surrounds it. A hazard to traffic, the Stone was first encased in the seventeenth century. Burned and reduced in the Great Fire it was moved, and moved again, ultimately to be put behind glass and grille. Forgotten and displaced, it has become invisible. It is the very invisibility of London Stone, the accidental removal of its ocularcentrism which I attempt to recover for the visual, and recast through the re-enactment of its choreography and through the performance of the texts which have become its contexts.

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#### **Art and archaeology: Figure and ground**

Louisa Minkin (Central Saint Martins College of Art and Design, UK) and Ian Dawson (Winchester School of Art, UK)

Over the past year artists and archaeologists at the University of Southampton have engineered a set of meetings, encounters and events to stimulate exchange of ideas and practices. Initially framed around the trans-disciplinary implementation of digital visualization technologies, the exchange has involved practical workshops, visits, exhibitions, and an artist's residency at an excavation over the summer.

This paper will present an opportunity to open out some of the outcomes of this exchange and discuss the potential of creative methodologies for producing new formulations of image data and to contribute to the visualization and materialization of complex thought. Part of the project involved the reconstruction of a nineteenth century Photo-Sculpture apparatus, an antecedent to contemporary 3D prototyping. We would take this as a case study to assess the implications and paradigms produced in working through historic imaging systems and technical modes of representation.

## **M. Teaching with Artefacts and Texts, a Workshop for Postgraduate and New Teaching Staff**

Session Organiser: Don Henson (Higher Education Academy)  
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### **Session Sponsored by Higher Education Academy**

#### **Session Abstract**

This workshop session will explore good practice in teaching archaeology and related subjects through using artefacts and texts.

Many archaeology undergraduates are now studying joint honours or courses that integrate archaeology with other disciplines, such as history and classics. There are significant methodological differences between the teaching cultures of these subjects. Many higher education teachers may not feel confident about teaching beyond their immediate area of expertise by analyzing historical texts in an archaeology course. Yet, interdisciplinary learning provides a richer student experience and can enhance learning outcomes and employability. Teachers need to feel confident to develop their existing teaching practices by incorporating material or approaches from subjects outside their area of direct experience.

One good source of archaeological evidence for use in teaching is the collections held in museums and other heritage organisations. These rich teaching resources are extensively used by schools, but relatively underused in undergraduate teaching. There is clear benefit to the students in engaging with material culture in their learning. Teaching staff would also benefit from contact with museum educators, whose approach to learning is based on engagement with artefacts, having skills notably lacking in traditional academic teaching practice.

This workshop is intended to address the disjuncture between the study of textual and material sources in the historical and cultural disciplines and to empower teaching staff with theories, examples and practical tools that enable them to introduce elements of inter-disciplinary teaching.

This is for new and aspiring lecturers and tutors. It will address the use of textual and material sources in teaching across history, classics and archaeology. The workshop will help teachers feel confident about incorporating material and approaches from other disciplines. We will also explore the approach to learning of museum educators, who have a range of alternative skills to those of higher education. The workshop will be as much discussion as presentation, and will be invaluable CPD for early career HE lecturers and postgraduates.

#### **Higher Education Academy**

Peter D'Sena

#### **The Nestor Cup: a study on bringing text and artefact together**

Alan Greaves

#### **Excavating collections: supporting student research with the University of Reading collections**

Rhianedd Smith (University of Reading, UK)

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Archaeology students interact with objects in the field and in the classroom, but what happens when these objects become part of museum collections? When archaeology classes enter museums they are often presented with a table of pre-selected objects for a handling session. However, at dissertation and post-graduate level they will find that the selection of these objects was the result

of expert navigation of the collection on the part of the curator. This paper examines how lecturers and collections experts can work together to provide structured support that develops the independent research skills of students.

Since 2006 the University of Reading has been using the university museums and collections to develop the research skills of undergraduate students. In 2013 a new BA in Museum Studies and Archaeology/ Classical Studies was launched alongside a doctoral programme in collections-based research. This paper examines the need for collections-based training at an undergraduate and post-graduate level. It will outline some of the structures that have successfully been used at Reading.

This paper also examines the potential benefits of collections-based research for students. Collections-based research turns students into keen detectives, navigating a range of different resource discovery tools. It encourages them to think in inter-disciplinary ways and to examine the epistemological legacy of their 'home' discipline. They see how key individuals, institutions and processes have shaped collections and resulting representations of the past. Finally through re-interpreting collections for the public they examine their own role in preserving and presenting the past.

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## Wednesday 18 December - Morning

### **N: 20 Years of Taskscapes: From Temporalities to Ceramiscenes (Part 1)**

Session Organisers: Phil Mills (University of Leicester, UK)  
and Ulla Rajala (Stockholm University, Sweden; University of Cambridge, UK)  
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#### **Session Abstract**

In 1993 Tim Ingold published 'The Temporality of the Landscape' in *World Archaeology*. This concept, of a socially constructed space of human activity in the form of the cumulative areas of everyday actions, has influenced not only landscape archaeologists, artists and recently ceramic specialists in the form of the 'ceramiscene' (Mills and Rajala 2011). This session addresses two different themes. Firstly, the importance of taskscapes in archaeology and their application to the study of cultural landscapes; Secondly, the developments of the taskscape concept in the last twenty years. Papers in this session will evaluate the concept of taskscape as related to heritage, landscape and material studies from any region and for any period. The session has an invited key-note speaker together with innovative papers applying taskscape and related concepts in order to promote a lively and open discussion.

#### **Taking taskscape to task**

Tim Ingold (University of Aberdeen, Scotland, UK)  
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It is strange to think that 'taskscape' has been around for twenty years. In that time it has grown arms and legs, and seems to have taken on a life all of its own. Now and again, I catch a glimpse of what it is up to: sometimes I like what I see; sometimes not. But I was never really too happy with the concept, and introduced it only in order to show why – once the temporal dimension of the landscape is properly recognized – we don't really need it any more. In this paper I review the circumstances that led me to come up with the concept in the first place, and consider its applicability in terms of my subsequent thinking about the land and what it means to shape it.

#### **Is ceramiscene a taskscape?**

Ulla Rajala (Stockholm University, Sweden; University of Cambridge, UK) and Phil Mills (University of Leicester, UK)  
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The authors have recently introduced the concept of ceramiscene (Mills and Rajala 2011a; 2011b) as 'a landscape that is defined by the manufacture, use and discard of artefacts made from fired clay'. This concept was inspired in part by Ingold's (1993) concept of taskscape, 'a socially constructed space of human everyday actions'. However, does 'ceramiscene' achieve analysing and describing the temporality as suggested by Ingold (1993) or are material studies destined to be chronological? In this paper the authors will discuss the character of the temporalities that can be studied through the analysis of ceramic material and pinpoint the strengths and drawbacks of ceramiscene and the related methodology. They will differentiate between different theoretical concepts and show examples of what can be achieved with the application of this specific concept, ceramiscene.

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### **Personhood, landscape and history: Towards a critique**

Andrew Fleming (University of Leicester)

In recent years some prehistorians' narratives of the archaeology of landscape have been permeated by the concepts of habitus and personhood, which seem to have become the theoretical 'cutting edge' of the subject. As a response to two decades of angst over the perceived problem of 'absence of people' in landscape archaeology, and as an escape from the well-rehearsed constraints of Western, post-Enlightenment (etc.) thought categories, this appears to be a desirable direction of travel. However, from a wider historical perspective, this also looks like a rather introverted development. If we leave it here, we risk ignoring the many questions which landscape study poses and facilitates, and also the historical dimension. We may need to sharpen our focus and set more ambitious goals.

### **A dynamic taskscape with agent based modelling - is it time to move past GIS?**

Doug Rocks-Macqueen (University of Edinburgh, Scotland, UK; Landward Research Ltd)

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For the last 20 years taskscapes have influenced landscape studies in archaeology. In that time the creation of taskscapes has been dominated by the use of GIS. This domination was with good reason as GIS provides many advantages for such work. However, this paper asks the question have archaeologists reached the limit of what GIS can do for taskscapes? This paper explores moving taskscapes to the next level of complexity by combining GIS with agent based modelling in an effort to tackle some of the restrictions present in GIS when creating taskscapes. The project area discussed is the arid environment of New Mexico but the models created and problems tested are applicable to a variety of regions and time periods.

### **Towards a "site-free" interpretation of the archaeological record: Theoretical and practical alternatives for quantitative analysis**

Adam Lodoen (Bournemouth University, UK)

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Since the introduction in England of "Planning Policy Guidance 16: Archaeology and Planning" (PPG16; now superseded by PPS5) by the government in 1990 a large and diverse body of archaeological data has been collected, a resource which is constantly growing. This resource remains underutilized. For example, data held by Historic Environment Records (HERs) is the most comprehensive source of archaeological information in Britain. This is a very rich and constantly expanding resource (currently over 1 million records from England and Wales). Manual analysis of such a vast material is difficult, ultimately impossible. For this, it is necessary to use statistical or mathematical methods. However, such attempts comes up against a different problem: The categories used for recording archaeological remains are simply too many. Meaningful analysis of the data requires that the number of categories are reduced. This can only be achieved through employing a special framework of interpretation, consisting of a limited number of higher-level interpretations on the one hand (i.e. a set of concepts), and a rule-based method (i.e. an algorithm) of "translating" the data from lower-level interpretations to higher-level concepts. At this particular juncture, quantitative and qualitative methods must come together and, so to speak, join hands. This paper focus on how this set of higher-level concepts could be defined. Different theoretical frameworks that could potentially be used are discussed, including the "archaeological site" concept, Tim Ingold's taskscapes, and Lev Vygotsky's "functional-graphic perception".

### **Variations in taskscapes – signs of different cultural templates? Analysing raw material procurement strategies during the Stone Age of Southern Norway**

Astrid Johanne Nyland (University of Oslo, Norway)

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The idea of taskscapes, the socially construction of space through the ongoing activities of people, is a cornerstone in my interpretations of rock procurement during the Stone Age in Southern Norway. My analysis of raw material procurement shows variations in choices of procurement strategies and taskscape organisation between regions, and through time. Rocks were gathered from moraine and beaches, but were also quarried. There are many small open-pit quarries, but also large ones that show traces of use through more than 4000 years. The variations in this specific type of land use are interpreted as reflecting different groups' cultural templates for organising their taskscape – or quarryscape -and variations in groups' relations to land, rock and place.

Ethnographic studies have shown how certain raw material sources may be connected with myths of ancestral beings or ideas of origin. Rock from a certain quarry are in addition to having preferred physical qualities often assigned specific meaning, reflecting the carriers cultural affinity, being mementoes of a certain place, myth or group. Continuing the quarrying of rock at one quarry, the activity would keep history and tradition alive, present and visible. Such continuity may be interpreted as materialising a sense of historicity among particularly groups in Western Norway. The opportunistic gathering strategies, found more commonly in the South Eastern parts of Norway, show another taskscape organisation, thus variations in relations to land and lived-in landscape. Comparing taskscapes, choices and strategies of raw material procurement might help identify groups (clans?), where perhaps typological studies fail.

### **A student task to fit a prehistoric taskscape: The value of student input to landscape archaeology**

Tom Gardner, Alex Wood and Alex Westra (University of Edinburgh, Scotland, UK; Yadlee Stone Circle Project)

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The Yadlee Stone Circle Project is a project conducted by four members of Edinburgh University in the Lammermuir Hills in South East Scotland. The Project aimed to analyse the purpose of Yadlee Stone Circle and its surrounding landscape, the relationship between site and landscape, and any functions this then revealed. The site was preliminary dated as Late Neolithic to Early Bronze Age and sits in a natural bowl surrounded by a ridge of land. This isolated spectrum of visible landscape creates a 'taskscape' associated with the site itself and lends to our interpretation of its function; the observation of solar cycles which we hypothesize could be used to roughly time and confirm agricultural activities.

The purpose of the Project was to emphasize the under-used role which student archaeologists can play in the gathering and dissemination of valid archaeological research, without the limitations or influence of 'coursework'. This itself formed a cognitive 'taskscape' for those involved, which now represents itself through a publishable record, and personal organic experience.

<http://yadleestonecircleproject.tumblr.com/>

<http://photosynth.net/userprofilepage.aspx?user=YadleeProject&content=Synths>

(Yadlee Stone Circle: NT 65403 67319 Scottish Borders, Spott Parish: TD11 3SW)

### **The secret taskscape**

Bob Clarke (University of Exeter, UK)

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The taskscape has become a necessary interpretive component when considering human endeavour. No more so than when investigating the archaeology of Cold War Britain. By its very



nature the Cold War maintained a level of subterfuge; often transitory activities of a secret or clandestine nature segregated the general populous from the activities acted out by those who were initiated into its order. In the Western World this forced increasing tensions between state and public, manifesting itself in civil disobedience or apathy and disenfranchisement. Now just over two decades later we have an opportunity to investigate the secret landscape of the Cold War.

Recent work has demonstrated that a perceived landscape of security fences, miss-representative signage and ordnance survey designations intended to mislead the user does represent an array of related activities. Moreover, those who participated in the development of this taskscape, moving through their own, and the organisations life-cycle, are still available for comment. Engaging with those who were members of secret organisations allows for a hitherto un-narrated account of a taskscape now made visible. Ingold reminds us that boundaries are features of the landscape (1993, 156) – when such boundaries are abandoned do they lose their impact? Do they naturally become assimilated into the wider human experience, and are those boundaries initiated by secret organisations purely physical? This paper investigates the premise that secret landscapes, whilst transitory, do maintain longevity through the memory of those who now act out remembrance by telling their story.

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## **O. 'Rabid Functionalism', 'Environmental Determinism', or 'Grim Reality'. Alternative Perspectives of Hunter-gatherer Landscapes.**

Session Organisers: Laura Basell (Queen's University Belfast, Northern Ireland, UK), John Stewart, Tony Brown and Timothy Darvill (Bournemouth University, UK)

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### **Session Abstract**

The influence of climate and environment in the development of specific cultures became a central tenet of processual archaeology culminating in functional and models of optimal resource utilisation. By contrast, physiological and behavioural adaptation over generations remained in the realm of evolutionary biology. With the flowering of post-processualism, and particularly between the 1970s – 1990s environmental interpretations came under attack with claims that these were normative, reductionist and essentialist; that the environment could not be considered as a recognisably bounded set of interacting parts. Instead the role of the human agency, gender, identity, social relations and even the role of chance and subjectivity became dominant themes in relativistic interpretations.

This session aims to consider the changing role of the environment in interpretations of hunter-gatherer landscapes from early human evolution through to the recent past. The motivation for exploring this subject is twofold:

Firstly, while the critiques produced by post-processualists are alluring, the application of such approaches for hominin hunter-gatherers from whom we have only a sparse material record can be 'challenging'. This is especially the case when considering hominins before *Homo sapiens*; and sites which are not high-resolution, in-situ, "super sites" such as Boxgrove, (which does offer scope to consider individual agency).

Secondly, in recent years the prominence of climate change in the political (and funding) agenda has resulted in a proliferation of papers dealing with the role of environmental, ecological and climate related interpretations in archaeology, at the same time as a wider range of disciplines have engaged with "ecosystem services" and similar functionalist approaches. This has led to some naïve and simplistic explanations of behavioural change, with no reference to archaeological theory and in many cases only highly selective use of archaeological data.

On the positive side the explosion of environmental change research which has included remarkable improvements in chronological resolution has the potential to go beyond deterministic narratives. Emerging concepts of the niche are not only multi-dimensional but also include the recognition that organisms, especially hominins, do more than passively survive in hyperspace but modify their niches and those of other organisms through their metabolism, activities and choices. While the environment remains active, this action forms an integral part of fluid adaptive societies and lifeways in which the social, environmental, cultural ebb and flow as different rhythms become dominant at different place-times.

### **The case of environment vs. culture at the end of the Hunter-Gatherer era**

Daniella Vos (Bournemouth University, UK)

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The ongoing debate on the essence of the Neolithic transition in the Near East presents a straightforward case study for the clash between the two main factors that have often been put forward as grounds for change in archaeology; environmental circumstances and independent cultural development. The divergence in the relative importance given to environmental or cultural factors in regard to the substantial changes that took place in modes of living at the end of the last

ice age is more than merely a different interpretation of the archaeological data at hand. It relates to the wider nature versus nurture debate and to a long history of a human – animal dichotomy in social sciences. As archaeology relies on both environmental-biological and cultural-social evidence in order to reconstruct past lives it is not surprising that it struggles in determining the amount of importance each type of evidence carries in shaping human action and lifestyle. This paper will explore this issue by addressing interpretations of the Neolithic transition in the Near East.

### **Exploring human-environment relations during the British Mesolithic**

Tyra Standen (University of Southampton, UK)

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During the British Mesolithic, hunter-gatherer communities would have experienced the variable environmental changes associated with the early Holocene. Our ability to model some of these changes, such as sea-level rise, has progressed greatly over the years with the development of higher resolution models and improved computing capabilities. However, recent works have stressed that in addition to the improved understanding of broad scale environmental changes through time, it is important for archaeological investigations to address how such changes within the landscape would have been encountered at a human level. An improved understanding of the nature of human-environment relations during this period is thus required - something that can be difficult to obtain due to the varying resolutions of available datasets. This paper will therefore explore the development of our current perceptions of Mesolithic human-environment relations, reviewing some previous studies and highlighting how recent discoveries have the potential to alter the way in which we view the effects of environmental changes on human communities during this time. In doing so, it aims to show how the adoption of a more interpretive approach may result in a more humanistic narrative of environmental change during the Mesolithic, rather than an environmentally deterministic account of the past.

### **Moving with sense: Early Mesolithic mobility and wayfinding in the Kennett Valley, Berkshire**

Raymond Nilson (University of Manchester, UK)

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Traditional views of human mobility in the Mesolithic of England have focused on economic and environmental drivers. In the earlier to mid 20th century, numerous Mesolithic excavations prompted Grahame Clark to conflate intentionalities of mobility with seasonal and economic factors. Such views have hitherto dominated debates in archaeology, which seek to discuss how and why hunter-gatherers travelled. It is argued that these ideas advocate for a Cartesian and ethnocentric approach to Mesolithic mobility studies by placing environments at the mercy of human dominance and human requirements. As a response, this paper directs attention to early Mesolithic mobility of human groups in the Kennet Valley, southern England. Drawing on the anthropological studies of Tim Ingold, I wish to explore the notion that such hunter-gatherer mobility may be alternatively illustrated through the concept of wayfinding. As traditional archaeological opinions divide relationships between human beings and their environment, wayfinding suggests that such relationships are infinitely bound together through sensory engagements with the world. It is therefore argued that Mesolithic mobility was not entirely driven by subsistence and economic factors, or determined by long-distance seasonal routes. Through an analysis of the geographic positions of the early Mesolithic sites in the Kennet Valley, accompanied by a consideration of hunter-gatherer knowledge of the valley's environmental constituents, we may, instead, investigate how Mesolithic humans moved within their environments through their sensory immersion in the world, where unplanned pathways may have been perpetually negotiated.

## **From perceiving data in the present to perception in the past?**

Benjamin Gearey (University College Cork, Republic of Ireland) and Seren Griffiths (Cardiff University, Wales, UK)

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The role the climate and the environment have played in the lives of people in the past has been a focus for archaeological research since the early days of the discipline. Recent work has foregrounded the importance of past human perception of environmental change in period specific (e.g. Leary 2009 on the Mesolithic), thematic (e.g. Chapman and Lillie 2004, Sturt et al 2013, Leary 2011), and broader paradigmatic approaches to processes of climate change and the archaeological record (e.g. Van de Noort 2011). Historical case studies demonstrate that the relationship between processes of environmental change and the perception of these changes by people is not necessarily straight forward (Pillatt 2012) whilst the concept of 'perception' itself remains one of significant philosophical debate (e.g. Bayne 2009). It can also be argued that there are various methodological issues concerning the definition of the relationship between 'proxy' climate records and palaeoclimate parameters which serve to further complicate issues of 'perception' of past character and tempo of environmental change. The contemporary context of our own work (Crutzen 2002) emphasizes the 'situatedness' of understandings, representations, inferred causes and potential responses to climate change. Whilst movement towards more explicit integration of archaeological and palaeoenvironmental data is therefore to be welcomed, we suggest that such work is often accompanied by a range of often poorly resolved theoretical as well as methodological problems. In this paper, we will focus on the concept of 'past perception' and consider ways in which we might move from our own perception and interpretation of data, towards heuristic models of 'perception-response' in prehistory. We will propose that recognition of the strengths and weaknesses of specific data sets as well as robust and explicit chronologies are the first stage in any such undertaking. We will illustrate this position using two short case studies focusing on processes of environmental change during the Mesolithic-Neolithic: relative sea level change in the Severn Estuary of southwest England and the Elm Decline on the North York Moors of east England.

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## **Exploring environment & culture relationship through critical realism**

Alexander Westra (University of Edinburgh, Scotland, UK)

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The history of archaeological thought pre-dates the creation of archaeology and usually originates outside of it. In addition, an established philosophy of Archaeology still remains at large. Exploring the interactive nature of determinism and agency, of evolution and the causations attributed to them is a question of theory that is central to understanding the past. Using as a backdrop the Annalists and Braudelian Longue Durée, in their dissection and reconstruction of multilinear timescales, this paper would aim to explore key theoretical implications intrinsic to the environment and culture relationship. Such as, the theoretical framework established through a premise of either functionalism or determinism being divergent ontologically to the relativism and subjectivism inherent in post-processualism (one observes realism, the other upholds non-realism). In fact, this

paper would seek to make a case for the revival of an ontology of critical realism, alluding to Engels and Historical Materialism as examples of the opportunities offered by intellectually filtered perceptions, and therefore interpretations, of the human past.

### **Environmental determinism is alive and well**

John Stewart (Bournemouth University, UK)

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New methodologies, and particularly the aDNA analysis and ultrafiltration radiocarbon dating of bones, are allowing us to better understand the biological nature of humans and other vertebrate remains. This has led to discoveries of previously unknown populations and possibly even species. Also investigated have been processes such as extinction which have been revealed as more complex than previously realised. Collared lemmings have been shown to have a series of population extinctions at the lower latitudes in Europe where they lived at during the Late Pleistocene. These turnover events appear to be caused by sub-Milankovitch climate change taking place through the last 50 thousand years of the Pleistocene. It would appear that humans had similar population turnovers as represented by the different archaeological industries found in the same region.

Environmental determinism is alive and well. Ultimately it is the only way to understand biological processes in humans such as extinction, range change and evolution.

### **From tools to landscapes: changes in hominin presence in NW Europe c. 500 kya.**

James Cole (University of Brighton, UK)

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Within Palaeolithic studies accessing the thoughts and behaviours of our hominin ancestors is a primary concern in understanding hominins. In the story of NW Europe, there appears to be a dramatic shift in hominin presence c. 6-500 kya. Although there were clearly hominins present in NW Europe prior to c. 6-500 kya, based on the archaeological signature they do not appear to have been present in large numbers or for extended periods. This may be to some extent a result / bias of taphonomy but the archaeological pattern visible today cannot be entirely explained away as such. This paper will explore the relationship between changes in hominin cognition and complex behaviour visible in the artefactual record and see whether such changes could be applied to changing attitudes to landscape allowing for a more obvious hominin presence after c. 6-500 kya.

### **Site distribution at the edge of the Palaeolithic world: a nutritional niche approach**

Antony G. Brown (Palaeoenvironmental Laboratory University of Southampton (PLUS), UK) and  
Laura S. Basell (Queen's University Belfast, Northern Ireland, UK)

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This paper presents data from the English Channel area of Britain and Northern France on the spatial distribution of Lower to early Middle Palaeolithic pre-MIS 5 interglacial sites which are used to test the contention that the pattern of the richest sites is a real archaeological distribution and not of taphonomic origin. These sites show a marked concentration in the middle-lower reaches of river valleys with most being upstream of, but close to, estimated interglacial tidal limits. A plant and animal database derived from Middle-Late Pleistocene sites in the region is used to estimate the potentially edible foods in the typically undulating landscape of the region. The lower floodplain is shown to be the optimum location in the nutritional landscape (nutriscape). In addition to both absolute and seasonal macronutrient advantages the floodplains could have provided foods rich in key micronutrients, which are linked to better health, the maintenance of fertility and minimization of infant mortality. Such places may have been seen as 'good (or healthy) places' explaining the high number of artefacts accumulated by repeated visitation over long periods of time and possible occupation. When combined with other benefits, the high nutrient diversity made these locations the optimal niche in northwest European mixed temperate woodland environments. However, this

niche was shared with crypto-synanthropic species and was in turn altered by hominins. It is argued here that the use of these nutritionally advantageous locations as nodal or central points facilitated a healthy variant of the Palaeolithic diet which permitted habitation at the edge of these hominins' range

**Scientia, society, and the progress of knowledge: Archaeology as a creative science**

Timothy Darvill (Bournemouth University, UK)

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The epistemic basis of knowledge creation has long been a subject of interest in archaeology. Tensions between the epistemologies of east and west, and between archaeological sciences and the humanities, have been well to the fore in much of this and have been the centre of much wider debates within archaeology. But there is a bigger picture, and one that has importance in theoretical, practical, and professional terms. Taking one step back from the epistemology of particular knowledge sets this paper considers a broader ontology of knowledge, an excursion into the metaphysical nature of knowledge, its constitution, and its application in contemporary society. It is suggested that archaeology is essentially a creative science, but one that on the international compass embraces a wide range of different kinds of knowledge of potentially equal value and interest albeit applied in different ways by different societies and subcultures.

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## **P. Archaeology *with* Art: Space, Context, Fabrication and Gesture (Part 1)**

Session Organisers: Joana Valdez-Tullett and Helen Chittock (University of Southampton, UK)  
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### **Session Abstract**

Archaeology has long had a close relationship with Art and Artistic practices, focusing mainly on aesthetics. Traditional approaches assume that visual arts encode several levels of information relating to the artist's cultural and social background. Following Ingold's concept of Anthropology *with* Art, we do not wish to "treat art as a collection of works" that are randomly "caught up in a texture of social and cultural relations that we can study" (Ingold 2013:8). Recognizing that artworks are not static or fixed works that encode meaning, this session will focus on the process of *making* highlighting that art is a state of encounter and the materials used being partners in the process of creation. In this sense we can talk about an 'archaeology *with* art'.

The process of *making* involves a complex interaction between technical action, materials and creative design, and an on-going dialogue between subject and object, the maker and the material employed. This session will explore the *humanity* of the human hand (LeroiGourhan 1993:240); its capacities, its uses and the gestures it entails, as well as the movements and feelings that the act of making and fabricating awakens in the interpreter. By relating these actions with the spatial and cultural contexts where they were performed, we intend to re-assess how things, people and places interact in this process of making, reconsidering the notion of context. Contributors will examine these issues in relation to both site-specific art (especially rock art) and portable art in a variety of contexts.

### **Artists materials: Making late Neolithic art**

Andrew Meirion Jones (University of Southampton, UK)  
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This paper examines the debate surrounding the definition of art and aesthetics in the anthropology of art, especially Howard Morphy's reading of the work of Alfred Gell.

Using two case studies from the British Neolithic – the rock art of western Scotland, and the passage tomb art of eastern Ireland – this paper will argue that insufficient attention has been paid in these debates to the significance of materials and practices of making. By taking into consideration materials and practices of making it is possible to re-address the question of aesthetics posed by Morphy to argue for a definition based less upon static perceptions and more on mutually unfolding relationships. Finally, the paper will argue that a consideration of materials offers important insights both to the archaeology and anthropology of art.

### **Reference, repetition and reuse: Processes of interaction in the rock art landscapes of the north of Ireland**

Rebecca Aroon Enlander (Independent)  
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The aim of this paper is to synthesis the processes and decisions behind rock art production (carving) in order to explore the ideology behind rock art. Through interpretive methods (including artefact biographies and ethnographic considerations), a number of distinct processes or sets of behaviours will be discussed and include practices of reference, repetition and reuse.

Regional expressions of rock art often reference very subtle elements of their localities and, in many ways, the individual stone surfaces have influenced the very motifs carved upon them. While no means novel to more general studies of the European Neolithic (ritual and mortuary architecture for instance), themes such as the experiential qualities of process, or the materiality of surface, have not

been explored in regards to the open-air rock art localities of Ireland. The incorporation of culturally significant stone into megalithic architecture is argued to embody and redefine potent places in the perceived world. This narrative could be developed in regards to rock art sites, where inscription itself acted as a medium to draw meaning from the natural world and perhaps even formalising this significance. By exploring the often subtle differences in the choice of natural topography, geological form and abstract imagery in Irish rock art, a long-term relationship between local communities and their local landscapes may have been present in prehistory. Local communities were influenced by distinctive local geologies in the production of rock art, with rock art feeding back into the social memory of these very communities, giving rise to the gradual development of equally distinct rock art hubs, complete with characteristic rock imagery.

**Rock art and its canvas. The dialog between motifs and rock surface at Laje da Churra (Viana do Castelo, Portugal).**

Ana C. Santos (Universidade do Minho, Portugal)  
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Laje da Churra is a granite outcrop of approximately 400m<sup>2</sup> located on the west hillside of Santa Luzia Mountain in Paçô (Carreço, Viana do Castelo, Portugal). This granite surface is the stage of continuous engraving activity that comprised over 1200 motifs of varied iconography over time. The engravings, of different typologies, styles, techniques and in various states of conservation are distributed over 19 panels.

The relationship between motifs, panels and rock surface has been studied over the last 20 years (i.e. Bradley 1997, Santos Estevez & Criado Boado 1998, Santos Estevez 2008, Fábregas Valcarce 2009 and 2011, amongst others). We noticed at Laje da Churra that, to view some panels the audience would have to walk on the outcrop, possibly on top of some motifs. Also, certain panels were only viewed from one perspective whilst others, could be viewed from different angles around the outcrop. In addition, depending on the angle of the sun, some panels and some specific motifs were only visible at certain times of the day.

Because Laje da Churra is a great example of the combination between Atlantic art and Schematic art styles in the Portuguese North-western façade, this paper aims to explore the dynamics of the use of the surface space.

**Different contexts, different meanings? Atlantic Rock Art across the Atlantic façade.**

Joana Valdez-Tullett (University of Southampton, UK; CEACUP, Portugal)  
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Atlantic Rock Art is currently known for its circular motifs and Atlantic geographic distribution. Whilst in some regions it can be found in open air contexts, in others it is mainly inscribed on megalithic monuments. Nevertheless, researchers tend to group these representations under the same designation, based on the argument that they share a unified iconography. But can we speak about a universal Atlantic Rock Art style beyond the motifs? Would these manifestations be created with a similar purpose across the different regions where they can be found?

In this paper I will discuss the existence of this prehistoric tradition of rock art in western Europe, the different contexts in which the symbols were carved and assess differences and similarities that may support an informed decision as whether Atlantic Rock Art represents a homogenous phenomenon along the Atlantic seaboard.



### **Shaping rocks, meanings and practices: Some recent explorations on the creation of rock art**

Marta Díaz-Guardamino (University of Southampton, UK)

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European post-paleolithic rock art has been traditionally regarded as a static feature to be examined through a 'disengaged', that is, a non-experiential approach. The process of rock art creation itself has been usually overlooked, frequently because it has been deemed unapproachable. Recent research focusing on the contexts and material properties of rock art is providing invaluable insights on the roles of these creative settings in ancient social life. Yet, these recent examinations are also exposing the necessity of looking at the very processes of rock-art-making to grasp the experiential details that underpin the interactions between rocks and people, and the meaningful and creative processes generated through them. In this paper I will present some recent explorations on the creation of engraved rock art. On the one hand, I will comment on the application of innovative digital technologies (i.e. Reflectance Transformation Imaging and high resolution laser scanning) for the study of rock-art-making, their potentials and limitations. These techniques offer an enhanced visual experience of rock art engravings and the opportunity to explore them from a technological point of view. Still, these techniques are not able to bring us to the very process of rock art creation, the ways in which it may develop and its experiential facet. Therefore, in the second part of this paper I will describe a recent experiment to 'create' rock art engravings. This account will be focused on the concrete interactions in which the stone being engraved, the tools employed and the person are engaged.

### **The making of figurative art – examples from the Scandinavian Bronze Age**

Peter Skoglund (Gothenburg University, Sweden)

The Scandinavian Bronze Age has a rich figurative tradition where motifs like ships, horses, circular motifs and many others are reproduced in both metalwork and rock-art. This paper will consider the role of various materials and formats in the making of Scandinavian art during the time span 1450-800 BC.

Metal and rocks both have their own specific qualities that will interact in any process of making art. The materials can be manipulated and used differently depending upon the purpose of the artisan. A certain motif can be reproduced in metal as plastic art or as an engraving; while the same motif in rock art may be pecked only once and thus barely visible, or it may be pecked repeatedly resulting in a clearly visible image.

Thus, by manipulating the material motifs may be done highly visible or they may be done in a technique that makes them difficult to observe for anyone apart from the artisan. This contrast between visible and barely visible motifs indicate that different materials were chosen and manipulated in order to be used in various kinds of social and ritual contexts. Profound changes in the use of techniques and materials would thereby reflect changes in a wider social context. This latter issue will be addressed by a discussion of changes in Scandinavian figurative art occurring around 1100 BC.

### **Moving, changing, becoming: Applying Aristotle's kinesis paradigm to rock art 'with' landscapes**

Andrew Valdez-Tullett

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In 'Physics', Aristotle develops the concept of kinesis. As a term, kinesis fails to translate directly into English but carries connotations of both movement and change as things transform from one state to another. Within this transformation there is also the notion that something is being brought into being, moving from potentiality to actuality when a possibility is attained. That is, what is creatable being manifested through kinesis out of the material conditions of the pre-existing state.

This paper will explore whether an alternative Aristotelian way of viewing the creative process can help us a more nuanced appreciation of the emplacement of rock art in the landscape. It will look at what we understand as the materials and conditions that are transformed during the creation of rock art and what is ultimately produced.

**Everyday aesthetics: Absence and presence in the visual culture of Iron Age East Yorkshire**

Helen Chittock (University of Southampton, UK; The British Museum)

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Iron Age East Yorkshire is famous for its elaborately decorated metal objects. Chariot fittings, swords, shields, spears and jewellery were expertly designed and crafted, sometimes using rare and exotic materials, and laid to rest in rich burials as part of the unusual funerary practices associated with the Arras culture.

The domestic material culture of the region is considered to be comparatively drab. Plain ceramic vessels of standardised form accompany the burials and are deposited in pits on domestic sites. Small objects of bone, chalk and occasionally wood are also present, but are generally unembellished.

This paper explores the production of this distinctive regional aesthetic and the mechanisms through which this notable presence and absence of decorative pattern has been manufactured. Focus will be on the plain aesthetic of everyday material culture, directed towards the question ‘why not decorate?’. Does the lack of decoration on everyday objects within the region represent a lack of desire to engage with decorative aesthetics within domestic life, or does this absence actually constitute the presence of something else entirely?

Detailed contextual studies from sites in East Yorkshire will be presented, looking at the full and complex material and decorative repertoires associated with the archaeology of the region. The performance and process (or lack thereof) of decoration will be considered in the discussion of how the Iron Age aesthetic was negotiated and executed, and how its presence affected those living around and within it.

**Art in the hand, art in the mouth: Imagery and interpreting Etruscan pots**

Lucy Shipley (University of Southampton, UK; Andante Travels)

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The process of making art does not end with the final touches to a drawing, or the casting off of a pot from a wheel. This initial creation of art is only the beginning. Through a series of encounters, objects are remade, reformed and reinterpreted by each individual user who comes into contact with them. Gell (1993, 1998) emphasises the potentially powerful nature of images, and their intense relationships with the human beings who interact with them. Yet the context of art is always central to its agency- the power that Gell observed is exerted no less through form and function.

This paper explores the nature of such interactions between objects, images and humans in the context of ceramics from Archaic period Etruscan Italy (600-450 BC). These striking vessels, with their figurative decoration depicting human figures, have long been conceived of as “classical” art objects. Yet I argue that it is only by interrogating the specific relationships formed between users and vessels in the context of their use that the images themselves may be successfully interpreted. By examining the ongoing processes of art production, and the power of images through an analysis of 1200 vessels, I suggest that the role of pottery and its decoration was central to Etruscan social interactions.

## **Q. Exploring Ancient and Traditional Salt-production Sites in their Environs and Moving Towards Better Ways of Investigation and Interpretation: New Research**

Session Organisers: Sarah-Jane Hathaway (Bournemouth University, UK)  
and Andrew Fielding (ECOSAL UK)  
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### **Session Abstract**

This session provides an overview of current and new approaches to the investigation and interpretation of ancient and traditional salt-production sites. Earlier studies of salt-production have often been limited by a lack of well-preserved sites and a bias in the evidence preserved, resulting in a heavy reliance on briquetage form studies. Fortunately, the investigation and revealing of new sites in the last two decades, as well as new projects exploring and preservation of traditional salt-production, which can greatly inform on ancient techniques and organisation, have significantly accelerated and expanded our understanding of this important industry. This session firstly explores the creation of Ecosal; a project bringing together traditional salt-production sites and salt makers from different countries. Then there is an emphasis on research which aims to contextualise earlier salt-production in their greater environs, including organisation of production, the impact of production on surrounding landscape, and the use of modern techniques (LIDAR) to enrich the number of known sites as well as their position in the landscape. New approaches to briquetage studies will also be presented, which aims to explore new ways in which this material can be used to reconstruct technique, as well as use of space (in the workshop). New ways of sampling sites will also be discussed. At the end of the session there will also be the opportunity for the speakers and the audience to contribute to a workshop focused on pragmatic and much needed strategies to investigate and make sense of salt-production sites in the archaeological record. This will include discussion and debate about the best way that this can be achieved, and the issues arising when working with these often challenging sites.

### **Introducing ECOSAL-UK : What can a new body do?**

Andrew Fielding (ECOSAL UK)  
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Between 2010 and 2013 a team from Bournemouth University participated in a three-year project funded by the EU Atlantic Fund to establish an Atlantic Route of Traditional Salt Making. The project involved partners and supporters from Portugal, Spain, France and the UK. The focus of the EU partners focused on established salina sites to preserve traditional working practices and integrate aspects of sustainable eco-tourism and bio-diversity by exchanging ideas and data that could be used to create a heritage route promoting traditional salt making.

The UK followed different agenda, not having any working salinas we focused on the heritage assets and identified and collated heritage data about archaeological and historic salt working along our Atlantic coast from Lymington to Orkney including Northern Ireland.

As a legacy and to act as a coordinator of traditional salt making sites and associated culture a not for profit organization, ECOSAL UK has been established to provide a voice for all aspects relating to our heritage of making and using salt, incorporating the Atlantic Route and extending it to the whole of the UK shore line and inland salt making sites.

Further information on ECOSAL UK can be found at [www.ecosal-uk.org.uk](http://www.ecosal-uk.org.uk)

### **The creation of new modes as a tool for exploring the organisation of Iron Age and Romano-British salt-production in southern Britain**

Sarah-Jane Hathaway (Bournemouth University, UK)

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Previous discussions of salt-production, including the organisation and distribution of salt in Iron Age and Roman Britain, have traditionally rested upon the study of briquetage forms and distribution. This is not surprising given substantial amount and excellent preservation of briquetage in the archaeological record. This is in comparison to the often fragmented, incomplete salt-production sites themselves. It could be argued therefore, that this has created a significant bias in our understanding and perception of salt-production in general. Whilst briquetage does provide many insights into technological choice, and importantly the technique of production, it is just one element of a much larger picture. Discussions have also often tended to rely upon older sources, which in themselves, were based upon a relatively limited understanding of the evidence. Fortunately however, this has started to change, especially due to the revealing of new and better preserved sites over the last two decades.

Due to the general lack of in depth study into the organisation of salt-production in southern Britain, before creating a new theoretical structure for this, examples of other 'organisational modes' for other production processes were explored. This included modes of pottery production (Peacock, 1982), and similar modes of textile production (De Roche, 1997). Salt-production sites have their own unique character, and therefore as opposed to attempting to apply these modes directly to salt-production sites, a new set of modes were created. This was achieved primarily, by focusing upon sites from the three key salt-producing regions in southern Britain during the Iron Age and Roman period: Somerset, Dorset and Kent.

### **Lidar, landscape and the pursuit of coastal salterns**

Tom Lane (Heritage Trust of Lincolnshire)

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In landscapes such as Fenland and former coastal marshes hunting out specific site types can be difficult. Prehistoric and Roman saltern sites in particular may lie 'hidden', sealed beneath later flood deposits. Recent mapping in the Fenland using processed Lidar data indicates subtle landscape changes and later silting events which add significantly to our knowledge of where potential saltern sites may be located. For the medieval period the mounded sites from the then 'new' salt extraction processes show in spectacular fashion using Lidar. Finally, the relationship between William Haiwarde's 1595 map of the saltern mounds at Marshchapel and the Lidar data of the area will be considered.

### **Evaluating the environmental impact of prehistoric industrial-scale salt production in the Seille Valley, NE France**

N.G. Riddiford, Nicholas P. Branch, L. Olivier, C.P. Green, S.J. Armitage, K. Williams, C.R. Batchelor and M. Smith (University of Reading, UK)

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Sedimentological, palynological and geochronological data have been integrated with archaeological records in the Seille Valley, NE France, to evaluate the relationship between human activities and environmental change during a period of extensive proto industrial prehistoric salt production. Landscape-scale geoarchaeological research was undertaken to establish a Holocene sedimentary and palaeoenvironmental model for the valley, and to explore evidence for environmental change following the onset of salt production. These findings have been tested and refined through targeted borehole surveying and high-resolution sedimentary and pollen analyses at the main excavation site, Marsal, where an early Iron Age workshop (8th to 6th century BC) is being investigated. The aim of this research is to examine the precise spatial and temporal relationship between changes in the

floodplain environment and salt production. The results suggest that a close relationship existed between the salt industry and the river. At Marsal, briquetage disposal on the floodplain and in the river channel appears to have triggered changes in the fluvial regime, increasing the workshop's vulnerability to flooding. This probably contributed to the abandonment of salt making activities at this site in the 6th century BC. Increased flood frequency following establishment of the industry has also been inferred from the wider (landscape-scale) sedimentary record, and there is evidence for accelerated alluviation due to floodplain erosion at salt workshops. Overall, this integrated approach has provided valuable insights into the landscape context and environmental impact of salt production.

### **Bitter briquetage: Some preliminary thoughts on the role of fired clay in the removal of bitterns in salt**

Brian Astin, John Beavis, Mark Brisbane, and Iain Green (Bournemouth University, UK)

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Motivated by speculation about the role of clay in removing bitterns during salt production, we set out to attempt to construct a set of lab-based analyses to demonstrate through experimentation the 'road-worthiness' of further research to analyse the ability of clay vessels like those used in the late Iron Age (i.e. briquetage) to retain soluble products from the process of salt-making.

Using a variety of clays, the first step was to make a number of ceramic vessels capable of holding concentrated brine which, when heated, produced salt and left residues on the clay surface. We then wanted to quantify the distribution of selected anions and cations in the visible crystalline product and within vessel fabric initially using portable XRF.

The ultimate aim is to determine the extent to which the fabric itself captures minerals remaining in solution in the final stages of salt crystallisation (by physical absorption, chemical adsorption or ion exchange) thus testing the possibility that the clay could perform a function other than providing a receptacle for solid salt. In other words, could the clay take up those by-products of salt-making that could give it an unpleasant taste (the so-called bitterns), thus being capable of performing an important part of the technology of the salt production process, as well as serving as a container/evaporation pan.

### **Chlorites, sulphites, silica and carbon; Sampling Lymington's salt works**

Frank Green (New Forest National Park Authority)

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Perhaps some of us do sit above 'the salt' well not exactly as may have happened in the middle ages, but from my office here in Lymington, a bit higher than the surrounding coast; more details of our local and once highly important and thriving commercial sea salt production industry is being revealed. Archival research has provided a rich seam of new information.

The rare survival of a salt boiling house and store building led to two seasons of small community based excavations preceded by the buildings being full recorded. Work was linked to the Heritage Lottery and English Heritage funded maritime rapid coastal zone assessment project. The work has been helped by links with the European funded Atlantic Coast Ecosal project's local partner, Bournemouth University.

Soil samples are now beginning to reveal a wide range of environmental and other data; plant remains and diatoms. Unlike salt production sites in southern Europe the lack of sun and heat and greater rainfall required fuel to fire the evaporation pans, for brine to be evaporated, in the final stage of the process and to provide a range of chemical products.

All the evidence is suggesting that the earliest fuel source consisted of turf from marine and terrestrial environments that charcoal may have been used, but that coal was probably only used as

fuel source from the end of the 17th century through to the industries demise in the 1860s. That landscape changes to meet the industries requirement for coal and increased production took place in the early-mid eighteenth century.

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## R. Poster Abstracts

### **Topographic vision: Exploring the role of aerial photography and computer-generated imagery in communicating archaeological narrative for a lay audience**

Kieran Baxter (Duncan of Jordanstone College of Art and Design, University of Dundee, Scotland, UK)  
*k.a.baxter@dundee.ac.uk*

While aerial photography and computer-generated imagery are well-established methods for archaeological analysis, both move away from lived experience. This research explores how these methods can be used creatively to tackle such issues and enhance public engagement with the visible remains of built heritage, as well as its archaeological narrative.

### **Isabella de Fortibus: The lady and the law**

Katy Bell (University of Winchester, UK)  
*katy.bell@winchester.ac.uk*

This poster looks at the life and times of Isabella de Fortibus and how she used a clever combination of continuous litigation and (if necessary) force to retain land and power. Based on the Isle of Wight she drew wealth from land in Devon and Yorkshire and the custom of “wreck”, becoming one of the richest women in England. During her 33 years of widowhood she became one of the most powerful people in the thirteenth century and even dared to defy kings.

### **Connecting with the past: The new Heritage Centre @ Hengistbury Head, Dorset, UK**

Gabrielle Delbarre (Bournemouth University, UK), Nick Barton (University of Oxford, UK) and Mark Holloway (Bournemouth Borough Council)  
*gabrielle.delbarre@yahoo.co.uk*

Interpretation plays a key role in public understanding of the past. With 12,000 years of human occupation, Hengistbury Head on the UK's South coast, possesses a unique history. This poster presents a new concept of public participation in the preservation of a local archaeological heritage of international and scientific importance.

### **A swan can break a man's arm? Medieval human-animal relationships – The Swan**

Sean Doherty (University of Nottingham, UK)  
*acxsd3@nottingham.ac.uk*

This poster takes a novel approach in challenging the overemphasis of ‘symbols of status’ applied to wild animals in the Medieval period. This research examines the representation of swans at medieval sites, as well as examining pathologies in surrounding burials. This data is used to offer the suggestion that the presence of broken arms may well be evidence for a more closer, and perhaps more realistic relationship with wild animals than previously believed.

### **Prehistoric wetland-dryland interactions on a buried island, Walpole, Somerset, UK**

N. Hollinrake, C. Hollinrake, and M. Law (C&N Hollinrake Ltd)  
*lawmj@cardiff.ac.uk*

Ongoing excavations at Walpole Landfill Site, near Bridgwater, Somerset, since 2000 have revealed a now –buried island surrounded by wetland crossed prehistoric wooden trackways. This poster presents a chronology of the site, exploring wetland and dryland prehistoric archaeology.

### **Rockburn at Fogo Island (Canada): An artist's and archaeologist's dream site**

Marjolijn Kok (Bureau Archeologie en Toekomst, Netherlands)  
*marjolijnkok@gmail.com*

During my artist residency on Fogo Island this Fall, at the edge of the ocean I found a dream-site. Rusted tools were lying on a rock like a workshop had burned down. I explored it as an archaeologist and artist and in doing so questioned methodologies.

### **Using remote sensing to interpret the New Forest landscape**

Lawrence Shaw, James Brown and Frank Green (New Forest National Park Authority)

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The New Forest is a protected landscape famed for its open heath lands and forested enclosures. As well as being a protected landscape and National Park it is still a working landscape managed for its wood and large managed private estates. All these aspects create challenges when looking at undertaking large archaeological survey and working with land managers to understand, interpret, conserve and protect the archaeology.

The National Park Authority have looked to overcome these challenges by commissioning a complete National Mapping Program, which has been complimented with complete coverage of lidar, infra-red and recent aerial photography. This can be now used for remote survey when areas are of limits and allow targeted verification survey with volunteers when access is possible and in response to land manager requests or specific works.

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## Wednesday 18 December - Afternoon

### N. 20 Years of Taskscapes: From Temporalities to Ceramiscenes (Part 2)

#### **The ceramic taskscape of the Neolithic Tavoliere: insights from archaeometry**

Keri A. Brown (University of Manchester), Craig Alexander (University of Cambridge) and Robert Tykot (University of South Florida)

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The Tavoliere (Puglia, Italy) was the site of some of the densest settlement known in the European Neolithic. Beginning around 6200 BCE a large number of ditch-enclosed settlements of widely varying size were constructed. Most of these are known primarily from aerial photographs. The people of the settlements produced a wide range of ceramics, ranging from the relatively coarse through to the very fine.

Our project, which began in June 2013, uses pXRF (portable X-ray fluorescence analysis) of fieldwalking-gathered ceramics, museum collections and clay samples to understand the nature of the ceramic taskscape. Where did the people extract their clay? How far was it transported? Did social ties lead to the exchange of ceramics amongst settlements? Were some settlements home to craft specialists?

#### **Excavating a taskscape and ceramiscene in the Black Country**

Matt Edgeworth (University of Leicester, UK)

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This paper describes the excavation of a 16th-17th century pottery production site on the outskirts of Wednesbury in the Black Country in 2007. The terms 'taskscape', 'flowscape' and 'ceramiscene' can be applied to the site as it was in the early post-medieval period. But the terms also apply to our excavation of the site in the 21st century. The usefulness of these concepts is explored in relation to 1) the production of pottery in the past and 2) the production of archaeological knowledge in the present.

#### **Unlocking past taskscapes: Interdisciplinary archaeology from Aotearoa/New Zealand**

Caroline Phillips (University of Auckland, New Zealand)

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Despite what might appear to be a limiting environment, due to the threat of frequent flooding, historical information documents that by the time of European colonisation the Hauraki Plains had become a prominent Maori landscape. Temporality in this landscape is evident over a period of 300 years, not only in archaeological information, but also through environmental data, Maori oral narratives and European histories, all of which hint at a network of interrelated taskscapes. Unlocking these could not be achieved by examining the archaeological record alone. Therefore an interdisciplinary method of inquiry was trialled in which each discipline's material was analysed within its own epistemologies, while focusing on commonly occurring phenomena that were inherent in the data, including aspects of the economy, settlements and organisation. The findings were then combined, compared or contrasted to achieve a provisional synthesis. In particular, Maori concepts were employed concerning cultural practices, resource use and political histories, which are embodied in the Maori landscape. These enabled a deeper understanding of the cycles, developments, and interwoven technical, social and ritual activities that comprise the temporality of this landscape. The study also identified events that encompass "a pattern of retentions from the past and protensions for the future" (Ingold 1993:157): to be the subject of forthcoming research.

## **S. Archaeology and Anthropology: Squabbling siblings, star-crossed lovers or bitter enemies?**

Session Organisers: Fiona Coward, Rosie Read  
and Stephanie Schwandner-Sievers (Bournemouth University, UK)  
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### **Session Abstract**

The relationship between the disciplines of archaeology and anthropology (social/cultural and biological) goes back a long way, but the nature of that relationship has varied hugely over that time. The papers in this session seek to investigate how archaeology and anthropology relate to one another today, academically and professionally, and to debate whether the disciplines should work to come together in future, or contemplate a permanent separation. Does archaeology offer anything to anthropologists, or anthropology to archaeologists? In what areas might closer collaboration be useful? Or have the two disciplines drifted so far apart that no rapprochement is possible or desirable? This session will aim to address these questions from as broad a perspective as possible, including for example papers considering the historical development and/or future trends of the disciplines, the academic or professional relationship between them, case studies demonstrating how the disciplines might benefit (or indeed not benefit) from closer links, or why they should forge their own, more independent identities etc.

### **Archaeology and cultural anthropology in the case study of Oetzi, the Ice Mummy: an example of star-crossed lovers**

Marta Villa (University of Milano-Bicocca, Italy) and Domenico Nisi (Science Museum of Trento (MUSE), Italy)

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The authors want to show that archaeology and cultural anthropology, if they work together, they can enable new discoveries. The case study, that saw the two disciplines help oneself, is the case of Oetzi, the Ice Mummy.

In twenty years of field research and surveys on the territory of Similaun, Schnalstal, Vinschgau (Italy) and Oetztal (Austria) have achieved a lot of important results.

The conclusion of the authors is that it is a man's tomb in the high mountain, maybe after a ritual sacrifice. The crossed contribution of the two disciplines have allowed to discover the penetration's Mesolithic route in this alpine area and subsequently uses from Neolithic and Copper Age shepherds, corresponding to the current sheep's transhumance.

The study of oral traditions and knowledge (customs, legends, social position, religious traditions) allowed to frame and understand the ancient situation: the megalithic sites, discovered from one of the authors, cupmarks and zoomorphic menhirs are in relation to worship's places and these routes. The place of the Ice-Man discovery is protected from the medieval sanctuary of Madonna di Senales (Unserfrau in Schnalstal), a black Virgin Mary, traceable to the cult of the prehistoric Mother Goddess.

The radiometric dating, the specific sites found by the authors and the anthropological in-depth territory's study have allowed to formulate a hypothesis more certain about the Oetzi's life and death which will be explained in this intervention.

**‘Bandaging the wounds’ – How forensic applications of mummy studies highlight the need for a multidisciplinary approach between anthropology and archaeology**

Sarah Clark (Goldsmiths, University of London, UK)

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Mummies, as ancient remains, are traditionally seen as the remit of archaeology, particularly the specialism of Egyptology. This paper presents an illustration of how the forensic applications of mummy studies demonstrate a need for a more collaborative approach between archaeology and anthropology, providing a model for the forensic anthropology community to develop forensic techniques and understanding through the study of archaeological material. CT scans of an Ancient Egyptian mummy and a modern individual were comparatively analysed to determine whether mummies could make viable case studies for developing forensic radiology techniques. This study was undertaken as there is an increasing need for forensic anthropologists to be able to perform skeletal analysis based on CT scans or x-rays rather than physical specimens, but research ethics make it difficult to develop these skills on contemporary data. A collaborative approach between anthropology and archaeology provides an excellent solution to this, as ancient remains such as mummies have forensic applications that have not been fully explored. This approach is reliant on both anthropological techniques of bio-profiling and archaeological approaches to understanding the funerary context. This paper will argue that too strong a divide between the disciplines would have a strongly negative effect on future research.

**Present belief, or past behaviour? Obtaining subjective meaning from objective data in childhood health and palaeonutrition.**

Ellen Kendall, Rebecca Gowland, Andrew Millard and Ross Kendall (Durham University, UK)

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Interest in the development and potential of stable isotope methodologies for palaeodietary study is arguably at an all-time high. This interest coincides with an increased recognition of the significance and previous neglect of the study of lives of children in the past. Biogeochemical analyses appear to offer a direct, objective method of accessing evidence of childhood diet, while providing an indirect method of inferring related information on parental investment, fertility patterns, and differences in health and status. While many anthropologists have explicitly acknowledged the inherent problems of ethnocentrism and prejudice affecting researchers studying infant feeding patterns in the present, stable isotope studies have commonly failed to show this awareness and have assumed a more processualist approach. Since breastfeeding is a biocultural activity that is heavily influenced by belief and endowed with meaning, with archaeologists being no less subjective than other researchers, a reflexive approach is required to address existing biases within these studies. This paper identifies a range of overt and more subtle assumptions present in archaeological breastfeeding studies, and evaluates them in the light of research in comparative evolution, cross-cultural ethnography, biogeochemistry, and biomedicine, as well as personal experience. We conclude that an epistemology derived from a broad-based, holistic approach encompassing this range of converging disciplines is a valuable safeguard against the beliefs of the present occluding the practices of the past.

**Not for the pot: Archaeological and anthropological perspectives on the cultures of cockfighting**

Garry Marvin (University of Roehampton) and Mark Maltby (Bournemouth University, UK)

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Garry Marvin is one of the members of a new interdisciplinary research project that explores the relationships between chickens and humans. One element of the project involves a close cooperation between archaeology and anthropology in terms of the interpretation of the contexts and significances of the lives of chickens in human societies and cultural practices in the past. Archaeologists have suggested that the nature of chicken remains and the sites of where they have been found indicate a significance of these creatures beyond that of a source of food. In this

presentation we will discuss how archaeological evidence might be interpreted in terms of male birds being used for cockfighting. The anthropological element will suggest ways in which the ethnographic study of present-day cockfighting can generate both a rich cultural interpretation of the event and questions that archaeologists might find useful for re-examining and for further interpreting material remains of chickens.

### **Archaeology and anthropology in a world of hybrids, cyborgs and posthumans**

Fiona Coward (Bournemouth University, UK)

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Archaeology is usually defined as the study of past societies from their material remains, while social or cultural anthropology focuses on contemporary societies and groups and biological anthropology on the biological adaptations of different groups throughout the human past and present. These definitions immediately set up a range of oppositions between the disciplines between the past and present, things and people, bodies and cultures. However, many of these distinctions are becoming increasingly contested in the contemporary world – if, indeed, they were ever entirely valid. I have argued elsewhere that human social and biological evolution was scaffolded by our interactions with material culture and technology; however, these processes have obviously gathered pace in the contemporary world. In a world of human and human-animals transplants, artificial external and internal prostheses, gene therapy and genetic modification, smartphones in our pockets, cameras in our glasses and smart drugs which affect the very make-up of our brains, the distinctions between those who study human society, material cultures and bodies are becoming increasingly relevant. I will argue here that in a world of hybrids, cyborgs and posthumans, archaeology and anthropology must work hand in hand to monitor, question and shape the next steps in human evolution.

### **Digital taphonomy: Data management as a social process of narrating, presenting and constructing the subject**

Aeron O'Connor (University College London, UK)

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Based on ethnographic research looking at how people organise and safeguard their digital data, this paper asks a series of questions around how people conceive of and discuss their data; how they find and organise it; how they engage with it in the present; and how they imagine and prepare for data in the present to become data from the past in the future. By asking these post-processual questions, parallels are drawn between the way people manage their data and the way archaeologists engage with artefacts. This paper proposes a new term for how digital users engage in near-archaeological practices of materialising, preserving, burying, stratifying, excavating and rewriting the self: digital 'taphonomy'. Since people and digital devices and platforms cannot exist in and of themselves, but must be understood in conjunction with one another, the division between subjects and objects is no longer useful. As a corporeally ambiguous social process of narration, presentation and construction, digital taphonomy is therefore presented as a technique of the subject, whereby the 'subject' is a body-mind-material culture assemblage. This paper ultimately calls for discussions around how archaeologists write history to be applied to how people today 'write' their own history in the digital world, as they constantly engage with material traces, or artefacts, of the past, present and future.

### **The idea of 'the Ancient': Amerindian perspectives**

Istvan Praet (University of Roehampton, UK)

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This paper proposes to look at Amerindian notions of "the ancient" and examines how indigenous people in South America relate to those exotic people who are so keenly interested in all things ancient – archaeologists. More specifically, I focus on Chachi shamans, whose toolkit consists of obsidian projectile points, flint axes, and pre-Columbian figurines and pottery, among other things.

These archaeological artifacts are usually conceived of as imbued with ancestral powers. Chachi shamans maintain that they were originally made by uyala, powerful cannibals, while they themselves are often perceived as latently dangerous and are indeed sometimes referred to as man-eaters. What is more, those who purposefully search for that kind of things are often envisaged in strikingly similar terms; Chachi people sometimes suspect latter-day archaeologists to be sorcerers keen on human flesh. By means of this ethnographic case I seek to spark a discussion on what counts as 'ancient' and on how it influences the contemporary lives of people like the Chachi.

**Anthropology and archaeology: A case for continued co-operation**

Robert Layton and Peter Rowley-Conwy (Durham University, UK)

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The processes driving social change are of interest to both anthropology and archaeology. Two broad approaches have been used in both subjects: change is interpreted either as adaptive or as progressive. Adaptation is explained within a Darwinian framework. Progressive change is either seen as the inevitable outcome of 'complexification' or, as Marx argued, the outcome of changes in the control of manpower and resources. This presentation will summarise the conclusions of a recent project carried out jointly by Bob Layton (as an anthropologist) and Peter Rowley-Conwy (as an archaeologist), in which we draw on both anthropological and archaeological evidence to explain the appearance of complex hunter-gatherer societies. We conclude that collaboration between the two disciplines is essential to address this issue.

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## **T. Towards an Archaeology of Becoming**

Session Organisers: Rachel Crellin (Newcastle University, UK), Oliver Harris (University of Leicester, UK) and Katie Davenport Mackey (University of Leicester, UK)  
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### **Session Abstract**

Despite suggestions from some quarters that his work remains the last bastion of French philosophical pretentiousness, the work of Gilles Deleuze (both alone and in conjunction with Felix Guattari) is becoming increasingly important across academia, including in archaeology. The importance of assemblages as modes of thinking and the emphasis on materials as in-flux and pregnant with morphogenetic capacities are perhaps the most influential currently, but other areas from the concept of the Body without Organs, via notions of the virtual and the actual, to difference in itself, also offer rich potential for further engagement. Furthermore, his work clearly chimes with recent attempts to develop an ontological turn in archaeology. In this session we seek to explore how this line of thought can be mined to open up different forms of encounter with the past. We welcome papers engaging in any aspect of Deleuzian thought, either directly, or through the work of other scholars influenced by this perspective including Jane Bennett, Manuel DeLanda, Elizabeth Grosz, Tim Ingold and the raft of non-representational thinkers in geography.

### **Introduction: Tracing lines of flight, Deleuze and archaeology**

Oliver Harris (University of Leicester, UK)

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Although increasingly influential in the last few years, the work of Gilles Deleuze has had relatively little impact on archaeological thought in comparison with some other neighbouring disciplines, notably geography. In this introductory paper I aim to set the scene for the session by tracing some of the intersections between his work and our discipline that have taken place in the past and to explore the intensive connections that are currently forming. In so doing, this will pave the way for some speculative suggestions about where these ideas might escape to in the future.

### **'A life proper to matter': On Deleuze and Guattari's re-animation of materials**

Chantal Conneller (University of Manchester, UK)

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The hylomorphic model, which assumes the passivity of matter and the primacy of form, remains central in much archaeological thinking. In their writing on metallurgy, Deleuze and Guattari (1999, 411), by contrast, argue for a 'material vitality' or 'life proper to matter'. This paper examines the implications of these ideas of the animacy of materials, in particular exploring the implications of their emphasis on materials as process. While these understandings help to move beyond the hylomorphic assumptions of much archaeological work, I explore whether a meta-theory of material animacy can be extrapolated from the 'excesses' of metallurgy.

### **Reference**

Deleuze, G. & Guattari, F., 1999. *A Thousand Plateaus. Capitalism and Schizophrenia* London: Athlone.

### **From typologies to techniques: A relational approach to lithic analysis**

Katie Davenport Mackey (University of Leicester, UK)

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This paper argues that archaeologists are struggling with all sorts of oppositions (between ideas and materials, being and world, humans and environment) in their interpretations of flint and stone tools. These dichotomies have been particularly problematic in the study of the Creswellian. Here archaeologists have argued for chronological patterning in the archaeological record based on changes in projectile technology - from angle-backed points to curve-backed tools and penknife

points. However, problems of interpretation have arisen between proponents of processual and post-processual perspectives.

This paper finds the reasons for this in four modes of thinking 1) essentialist thinking 2) typological thinking 3) extensive thinking 4) hylomorphic thinking. To overcome these limitations, the paper adopts a Deleuzian flat ontology that focuses on the immanent relations between heterogeneous elements (the 'assemblage') - such as objects, bodies, expressions, qualities, and territories, and the dynamics of individuation (termed 'becoming') - from the intensive and formless virtual to the extended and differentiated actual. This approach allows us to analyse lithics from a new perspective and open up new understandings of the development of Late Upper Palaeolithic technology.

### **Mesolithic moments and materials OR phenomenology and Assemblage Theory: A paper about uncomfortable bedfellows**

Hannah Cobb (University of Manchester, UK)

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I love phenomenology! So why give a paper in a session about Deleuzian approaches to the past, where the human experience is so explicitly, and fundamentally, decentred? Phenomenology and the variety of New Materialist perspectives are certainly not always comfortable bedfellows. And yet, I can't help but feel that there are similar threads, and useful connections, specifically between Assemblage Theory, as developed by Manuel DeLanda, and Heideggerian Phenomenology. In this paper I will outline and explore these links further. I don't anticipate this will be an easy project – and I certainly don't want to try and say the two are the same, because they are not. But here, with a case study from Mesolithic western Scotland, I hope I will be able to elucidate how a combination of the two (uneasy as it may be in some ways) may provide a productive way for thinking through the different scales of past hunter gatherer lifeways.

### **Critical becomings**

Penny Bickle (University of Bristol, UK)

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Deleuze's philosophy of the body is radical; no longer a political centre of action in the world, but rather a dynamic assemblage that struggles to contain itself. This notion of bodily presence as always in the process of becoming has significant implications for how we write archaeologies of (pre)historical change because it unseats the actors driving it and challenges us to take seriously non-western ontologies. Calls for histories thus democratised through assemblages of things-peoples-animals, however, have not gone without critique — most substantially through a concern with whether it dehumanises the past, in so much as the presence of those who cannot speak for themselves becomes dissipated amongst the entanglements and assemblages. This has been a central concern for feminist philosophy as it has tackled reading Deleuze and the proponents of this approach. Thus while welcoming the challenge to otherwise reified political structures, how do you maintain the power of the (female) body when becoming does not guarantee constancy? This paper explores the response of the philosopher Rosi Braidotti to the ambivalence she argues this created, particularly her response to and appropriation of Deleuze and Guattari's nomadic subject as a means of supporting affirmative views of sexual difference. I argue through this approach, archaeology can benefit from the material turn and respond to the various calls to 'take things seriously', without losing its central project of writing human history.

### **Changing assemblages**

Rachel Crellin (Newcastle University, UK)

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In this paper I explore how the ideas of Deleuze, as interpreted by Manuel DeLanda and Jane Bennett in particular, can be brought to bear on change in prehistory. I implement an assemblage based approach that draws on the concept of vibrant matter as the basis for all change. Materials are viewed as vibrant and in flux, never fixed. I seek to create a heterogeneous view of change where assemblages, or parts of assemblages, may change at varying speeds and rhythms; to do this I draw on concepts such as DeLanda's notion of a phase transition. Phase transitions are understood as moments when assemblages change radically. I present these ideas as new relational approaches to change in prehistory. Applying these ideas to the Late Neolithic and Early Bronze Age, I look at how this kind of thinking can allow us to study change differently.

### **Burial sites as assemblages, assemblages as moments, moments as haecceities**

Sophie Moore (British Institute in Ankara, Turkey)

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This paper will address the concept of archaeological assemblages as moments. Burial assemblages contain within them a series of nested moments including, but not limited to, the memories of the living, the beliefs and wishes of the dead, deposition of the body and dispersal of possessions. By focusing on the relational nature of assemblages I will argue that we are encouraged to engage with issues of experience; we can never remove experiences, either our own or those of people in the past from the assemblages that we are part of by studying. In this paper I will address one aspect of Medieval Byzantine mortuary practice – choosing a grave site – as an experienced assemblage, as a moment. This will allow me to attempt to draw out the relationship between moments which are always experienced and haecceities which are always becoming. Through looking at the analysis of both single burial events and the wider patterns of depositions they are involved in, this paper will aim to apply some of the methodologies being developed within the relational turn to historic period material and available archaeological datasets.

### **Water as a process or as an object? Continuity of becoming vs. becoming without continuity**

Johan Normark (University of Gothenburg, Sweden)

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Bergsonian and Deleuzian becoming is one of continuity, of fluidity. Water is a popular example in this case. That is not the only way to view becoming. Whitehead's and Latour's view of becoming are without continuity. Object-oriented philosopher Graham Harman sees the first group as "underminers" of objects. They seek a deeper unity (monism), a virtuality, a creative force that creates creatures. Objects are secondary to the process that precedes it (objects relate to a more profound process). People of the second group are "overminers" of objects. They see objects as dependent on their actual relations (eternal objects or networks). Hence, what both groups of "becoming" do have in coming is that they are all based on relationism. An object is either reduced to deeper (immanent) relations or to external (transcendent) relations. To Harman both perspectives are wrong as the object never is exhausted by its relations. The real object has its own essence but that is always withdrawn from access. The object is always split between the real and the sensual.

Sensual objects of water emerge when water forms relations with other objects. Water extinguishing fire, setting of avalanches, empowering steam engines, making clay plastic, eroding caves, etc. are all the result of water creating temporary relations with other objects. Only within the sensual object is there becoming. The real object is unaffected by these relations. Water as an archaeological object needs no continuity or fluidity. This is a becoming that always is in the present



### **Contemporary archaeology or the becoming of a potential threat to the state**

Marjorlijn Kok (Bureau Archeologie en Toekomst, Netherlands)

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In this paper I want to explore the multiplicities that are involved in contemporary archaeology. While researching a No-Border Camp you deterritorialize and reterritorialize your identity; becoming an archaeologist, a protester, a citizen, a potential threat to the State. Your work travels out of academia and into the city. There is not one clear subject, there are multiple subjects that change direction the moment you try to catch them. Your questions change your surroundings the moment you ask them. There are no clear paths to follow, only outlines of movements you can try to draw into a new movement. Methodologies that seemed so solid in the textbooks dissolve into fragments that you try to hang on to, while everything around you negates their existence. Your site of investigation moves in all directions, making flights into areas you were not familiar with. The scope of your project enlarges and shrinks at the same time as there are too many lines of flight to follow and only so much you can do. However, this does not have to be a negative experience. It broadens the horizon to what your profession might be or could become. How flexibility may be a good thing and methodological rigidity may hinder your development into becoming the archaeologist you desire to be. You do not let go of all sense, but try to make new sense, which envelopes the researched and the researcher into a rhizomatic structure.

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## P. Archaeology *with* Art: Space, Context, Fabrication and Gesture (Part 2)

### Imagining and illustrating the archaeological record

Dragos Georghiu (National University of Arts, Bucharest, Romania) and Georgina Jones (Bournemouth University, UK)

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The problems created by the limits of the representation of the archaeological record in archaeology lead to the discovery of art as a potential source of inspiration and refinement of the hermeneutical discourse. Due to its possibility to use symbolic thinking, art could become a tool to approach the reality of the Past, functioning on the principle of analogy like experimental archaeology or ethno-archaeology.

Nevertheless the subject is still in its infancy, both at theoretical and applicative level.

The present paper (the result of a collaboration between an archaeologist-experimentalist and a graphic designer) discusses, from an applicative perspective, the uses of art as instrument to improve the archaeological imagination and to illustrate the Past, from the reconstruction of the objects to that of human agency.

### The problem of ocularcentrism?

Damien Campbell-Bell (University of Southampton, UK)

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In the last decade there has been a reaction by many archaeologists against vision. Critiques often focus on feminist ideas such as the 'male gaze' that portray vision as distancing, privileging the perspective of the white male and concerned with power and domination (Thomas, 1993). Many also argue that the other senses have been under-researched because of ocularcentric attitudes, especially in research into art and what we might term style. In response there has been a proliferation of archaeological research into how the other senses might be used to explore questions of meaning, production and consumption (Cummings, 2002; Goldhahn, 2002; MacGregor, 1999; Malafouris, 2008; Rainbird, 2002). Few would now question the validity of researching how sound or smell might be involved, but vision has become something of a dirty word, its study something which must be justified. However, past inattention to the study of the other senses is not justification for abandoning research into vision. At the heart of the supposed problem of ocularcentrism is the idea that people from other cultures do not perceive in the same way as archaeological researchers. This paper will aim to demonstrate that many of the critiques of vision are misguided and that visual research does not reinforce the bias of the modern western white man. Instead, I argue that vision is the primary sensory modality of many cultures, that visual study is evidently still an important aspect of investigations into art and style and that inclusive critical research into vision can be undertaken.

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## **U. Marine Archaeology**

Session Organisers: Dave Parham and Paola Palma (Bournemouth University, UK)  
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### **Session Abstract**

The session will explore the different ways that archaeologists deal with the various facets presented by maritime archaeology, it will cover the how seascapes are conceived, the challenges faces from commercial salvage and the problems posed by the wrecks of the 20th century and how the public can be engaged in a subject that fascinates them but is often presented in very simplistic ways

### **Whose treasure? Maritime Archaeology, treasure and repetition**

Dave Parham (Bournemouth University, UK)  
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### **Title TBC**

Fraser Sturt (University of Southampton, UK)  
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### **Archaeological research and outreach: a merge for the benefit of all. The case study of the Swash Channel Wreck**

Paola Palma (Bournemouth University, UK)  
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### **Heavy metal and human hearts: Developing a community based archaeology of 20th century maritime conflict**

Andy Brockman

### **Landscapes and seascapes**

Peter Skoglund (Gothenburg University, Sweden)

### **The Bamburgh Beach Wreck; Community and maritime archaeology**

Kevin Stratford (MAST – Maritime Archaeology Sea Trust)

### **The diffusion of technical characteristics between cogs and Scandinavian ships in the 13th and 14th century**

Thomas Dhoop (University of Southampton, UK)  
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This paper focusses on the diffusion of technological characteristics between cogs of the Kollerup-Bremen tradition and Scandinavian ships in the 13th and 14th century and how these changes in technology are the result of a rapidly changing Scandinavian society.

In the course of the research that led to this paper, 60 ship finds were collected and catalogued; 27 cogs of the Kollerup-Bremen tradition and 33 Scandinavian vessels. These were investigated for technological similarities and overall development compared to the Viking ships preceding them. Two case studies were put forward; the vessels Haderslev and Gedesby. Both exemplify this diffusion of technology, but in a different way. The results were that from ca. 1200 the diffusion did indeed take place and due to the close geographical and chronological correlations, it is deemed likely that the inspiration for these changes in Scandinavian technology came from the Kollerup-Bremen tradition. Finally, it is argued that this new way of building ships is largely the result of a changing Scandinavian society (economic and demographic boom, territorial expansion, Christianization,...).

The paper will (in short) convey the diffusion of technological characteristics through the 2 case studies mentioned above, after which the overall results and social context will be presented. Finally, it will be argued that this is an example of diffusion in technology as a result of network interactions between the Hanse and its competitors.

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## Version Control

Version No.	Date	Amendments
16	05/12/13	Printed version
17	06/12/13	<ul style="list-style-type: none"><li>• Martin Smith email address corrected</li><li>• Tom Gardner email address corrected</li></ul>
18	09/12/13	<ul style="list-style-type: none"><li>• Session H 'The Material Dimensions of Cognition': Refreshed all abstracts, including replacement of Webster abstract and addition of references to Woodward abstract.</li><li>• Session O 'Rabid Functionalism...': Two running order changes, correction of Session Organiser affiliation and typo.</li></ul>
19	10/12/13	<ul style="list-style-type: none"><li>• Session P 'Archaeology with Art': Malone paper withdrawn. Abstract deleted and Contents page renumbered.</li></ul>
20	12/12/13	<ul style="list-style-type: none"><li>• Session P 'Archaeology with Art': Updated Campbell-Bell abstract</li></ul>
21	13/12/13	<ul style="list-style-type: none"><li>• Session U 'Marine Archaeology': Added session abstract, paper titles and speaker details.</li><li>• Session H 'The Material Dimensions of Cognition': Anderson paper withdrawn. Abstract deleted, paper order changed and Contents page renumbered.</li></ul>