



Autumn Meeting

# Movement and mobility in the Neolithic

The British Museum, Great Russell Street, London  
5th November 2012

Organiser: Jim Leary

## Programme

- 10.00 *Coffee (available for purchase at outlets in the Great Court)*
- 10.30 Welcome  
*Timothy Darvill*
- 10.40 Archaeology, mobility and the lived experience  
*Jim Leary*
- 11.00 Feeding Stonehenge: patterns of human, animal and goods mobility in the late Neolithic  
*Sarah Viner, Umberto Albarella, Ben Chan, Jane Evans, and Mike Parker Pearson*
- 11.20 The *Linearbandkeramik* (LBK) on the move: using isotope analysis to understand different scales of mobility  
*Penny Bickle, Alexander Bentley, Robert Hedges, Julie Hamilton, Linda Fibiger, Daniela Hofmann, Christopher Dale, Geoff Nowell and Alasdair Whittle*
- 11.40 Women on the Move – The DNA evidence for female mobility and exogamy in prehistory  
*Keri Brown*
- 12.00 Movement, migration and the introduction of agriculture to Ireland  
*Thomas Kador*
- 12.20 Discussion
- 13.00 *Lunch (make your own arrangements)*

- 14.00 Maritime mobility and the Mesolithic-Neolithic transition in Britain  
*Duncan Garrow and Fraser Sturt*
- 14.20 Coastal connections: movement along the British North Sea in the Neolithic  
*Alice Rogers*
- 14.40 Routeways of the Neolithic  
*Fiona Haughey*
- 15.00 *Tea*
- 15.30 Monuments and mobility  
*Roy Loveday*
- 15.50 Axe trek  
*Peter Topping and David Field*
- 16.10 Where spirits walk: an archaeology of (dis)embodied non-corporeal movement  
*Joshua Pollard*
- 16.30 Discussion
- 16.55 Close



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# Movement and mobility in the Neolithic

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## Meeting abstract

Mobility is a fundamental facet of being human and should be central to archaeology. Yet mobility itself and the role it plays in the production of social life, is rarely considered as a subject in its own right. This is particularly so with discussions of the Neolithic people where mobility is often framed as being somewhere between a sedentary existence and nomadic movements.

The objective of the day is to examine the importance and complexities of movement and mobility, whether on land or water, in the Neolithic period. This can be everyday mobilities – the routines and rhythms of daily life from herding animals to collecting water; occasional mobility, such as travel to funerals and festivals; proscribed mobility, such as movement in and around monuments; and large-scale migrations and movements around the Continent and across seas. Papers on all aspects of the movement of people, ideas, animals, objects, and information, and using the widest range of archaeological evidence available will be considered, including: isotope analysis; artefact studies; lithic scatters and assemblage diversity; and computer applications. Other facets that could be discussed include understanding differences in mobility across regions and groups due to, for instance, disparities in the environment and topography or discrepancies within society, associated with age, gender or culture. Methodological and theoretical papers will be equally welcome.

## Paper abstracts

### Archaeology, mobility and the lived experience

*Jim Leary (English Heritage)*

Our understanding of the world around us is shaped by the way we move through it, yet mobility is rarely studied by archaeologists, who prefer instead to discuss notions of place. Whilst place maybe reassuringly tangible, it is also fixed and bounded. Mobility on the other hand is dynamic, providing a more nuanced understanding of what it is to be alive. Mobilities allow the movement of people, ideas, objects and information from place to place, and person to person – it should be central to archaeology.

However, mobility is a complex subject to understand. It does not only depend on the physical environment that can be easily reconstructed using computer technologies, but is to a large degree socially and culturally composed. Mobility varies greatly and is unevenly distributed across and within societies. It can be freedom, opportunity, an act of resistance; and it can be restricted, controlled and feared. Some movements can be socially encoded, whilst others are socially discriminatory, affecting, for example, genders differently. Furthermore mobility, whether a long journey or an everyday routine, is embodied and corporeal; it is a physical, tactile and sensuous experience and is often entangled with feelings, emotions and memories. Models of past mobility are largely disengaged from this lived experience, often seeing individuals as objects independent of their social and political world, thus distorting the fluid dynamics of life on the move.

This introduction will discuss how the recent ideas of the new mobilities paradigm can be applied to archaeology and discuss why mobility is and always has been diverse, socially constructed, and loaded with meaning, and why we should all be talking about it.

### **Feeding Stonehenge: patterns of human, animal and goods mobility in the late Neolithic**

*Sarah Viner<sup>1</sup>, Umberto Albarella<sup>1</sup>, Ben Chan<sup>1</sup>, Jane Evans<sup>2</sup>, and Mike Parker Pearson<sup>3</sup> (1. University of Sheffield; 2. NERC Isotope Geosciences Laboratory, Keyworth; 3. University College London)*

Work that we undertook as part of the ‘Stonehenge Riverside Project’ illustrated that the late Neolithic (mid 3rd mill. BC) Stonehenge landscape attracted people from a wide geographic area. Strontium isotopic ratios from cattle tooth enamel – related to the nature of the rock substratum on which animals pastured – indicated that livestock from the site of Durrington Walls (Wiltshire) was diverse in terms of their geographic origins. This initial work was, however, undertaken on a relatively small sample size and required verification. The onset of the ‘Feeding Stonehenge’ project has broadened the Strontium isotope analysis programme, and preliminary results based on a much larger sample provide support to the initial results, as well as a more nuanced pattern of geographic variability. This work will also be interpreted in light of other – new – lines of isotopic analysis that we have undertaken as part of our current project, such as the ongoing investigation of carbon, nitrogen and particularly oxygen values. Parallel zooarchaeological work undertaken on the very large animal bone assemblage supports the idea of the site as a focus of imported livestock, with little or no evidence of on-site breeding having been found. The exogenous nature of much of the livestock (and, by proxy, people) provides an interesting contrast to the local origin of raw materials for the production of lithic tools and pottery, whilst the analysis of stone tools also provides insight into the composition of the communities that gathered at the site. The aggregation involved in both ceremonial practices and monument construction that took place in the area required both the introduction/importation of supplies but also the working of local resources by a diversity of communities. Thus a context was provided for the cultural transmissions of skills, the homogenisation of material culture and potentially for the exchange of goods and livestock.

### **The *Linearbandkeramik* (LBK) on the move: using isotope analysis to understand different scales of mobility**

*Penny Bickle<sup>1</sup>, R. Alexander Bentley<sup>2</sup>, Robert Hedges<sup>3</sup>, Julie Hamilton<sup>3</sup>, Linda Fibiger<sup>4</sup>, Daniela Hofmann<sup>1</sup>, Christopher Dale<sup>5</sup>, Geoff Nowell<sup>5</sup> and Alasdair Whittle<sup>1</sup> (1. Cardiff University; 2. University of Bristol; 3. University of Oxford; 4. University of Edinburgh; 5. University of Durham)*

The mobility of the *Linearbandkeramik* (LBK; 5600–4900 cal BC) population has long been a widely debated topic — whether discussing the initial spread of the Neolithic across Europe or attempting to model the social networks across its distribution. As the LBK is the first Neolithic culture in much of its geographical distribution, when strontium isotopic analysis was first applied to this culture, it was with the expressed intention of throwing light on the nature of the Neolithic transition and to map the large-scale migrations that might have taken place in its earliest phase. Since those first attempts, however, this method of investigation has helped to move discussion from generalised accounts of Neolithic mobility to detailing the specific forms movement may have taken. In this paper, we present the strontium isotope ratios from over 500 individuals, interred in LBK settlements and cemeteries from Hungary to Alsace, undertaken as part of *The First Farmers in Central Europe: diversity in LBK lifeways* project. This project (2008–2012; Universities of Cardiff, Bristol, Oxford and Durham, funded by the AHRC) undertook analysis of a range of different isotopes (strontium, oxygen, carbon, nitrogen and calcium) and integrated the results with a detailed archaeological and osteological survey of the LBK, to explore patterns of diet, health and movement. In examining how different scales of movement were combined within individual lifeways and everyday routine, the diverse roles mobility played in identity and community formation will be discussed, alongside how the forms of movement identified in the strontium

results impact on models of LBK agricultural and subsistence practices, kinship structures and cultural change.

### **Women on the Move – The DNA evidence for female mobility and exogamy in prehistory**

*Keri Brown (Manchester Institute of Biotechnology)*

Male mobility has been cited as a factor in the spread of prehistoric technology and material culture in Europe. The heroic travels of smiths, traders, warriors and seafarers has been seen as instrumental in the transmission of knowledge and the formation of connections between elite groups in different parts of the Old World. The Amesbury Archer, for example, found in the vicinity of Stonehenge, has been interpreted as an heroic traveller, a member of an elite, an especially mobile male, thanks to strontium isotope evidence.

However the scientific evidence for female mobility is very strong. Both mitochondrial DNA and strontium isotopic analyses have shown that individual women also moved locations during their lifetime, mainly but not always as a result of exogamy. Somehow there seems to be little archaeological evidence for this movement in the material culture record. Is it a case of no-one looking for this evidence, are the traces left by women so ephemeral compared to males – or have archaeologists simply omitted female mobility as an explanation of material culture change? The answer is that the archaeological study of female mobility is an under researched area compared to that of male mobility.

Questions that should be asked include – what types of motivation could be urging women to migrate – are they different from men’s motives? Does biological sex – for instance childbirth – make it more difficult to travel longer distances? Did past cultures ‘disapprove’ female movement and thus prevent it? Do our perceptions of sedentary farming communities colour our assumptions about female mobility when we assume it is a given in gatherer-hunter societies? We should also distinguish between different types of female mobility – population migration, seasonal mobility and once in a lifetime movement, such as exogamy. Exogamy is hugely important as a way of creating alliances between groups and reducing conflict – we might consider the wearers of Wessex type amber necklaces as elite women who married into other elite groups in order to create alliances and elite women may have moved over long distances to join other elite groups.

This paper aims to redress the balance by shifting the emphasis away from male activities and mobility and the interpretive bias that technology and knowledge transfers are only mediated by men. The evidence I wish to consider is mitochondrial DNA, which is inherited through the female line and remains unchanged over the generations, as well as strontium isotopic analyses. The scientific evidence for female mobility is convincing and it is time that archaeologists started to consider female mobility seriously in their interpretations of prehistoric social organisation, material culture, technology and knowledge transfer, even when the archaeological evidence is sparse.

### **Movement, migration and the introduction of agriculture to Ireland**

*Thomas Kador (University of Bristol)*

In this paper I will highlight the commencement of a research project at the University of Bristol, utilising isotope analysis to identify people’s movement patterns in early Neolithic Ireland. It will also draw on the results of a recent pilot study of isotope analysis on a small number of Irish early Neolithic and late Mesolithic human remains and a more broadly based postdoctoral research project which combined traditional archaeological, genetic and bioarchaeological datasets to investigate the role of movement and migration in the introduction of agriculture to Ireland.

As part of the paper I will discuss the difficulties in combining these very varied data sources and outline the challenges of carrying out isotope analysis with a relatively limited dataset. However, I will also demonstrate the promising results of the research to date and provide an overview of the currently ongoing work of the project. Finally, I will discuss how the newly gained data for human movement in prehistory from isotope analysis and genetics can be reconciled with traditional archaeological evidence and our models of mobility during the Neolithic period.

## **Maritime mobility and the Mesolithic-Neolithic transition in Britain**

*Duncan Garrow<sup>1</sup> and Fraser Sturt<sup>2</sup> (1. University of Liverpool; 2. University of Southampton)*

The processes involved in the emergence of Neolithic ways of life across Europe lie behind some of the longest standing discussions of mobility and change in the archaeological literature. This paper presents the results of ongoing research (as part of the AHRC-funded ‘Stepping Stones to the Neolithic’ project) into how this process played out across the western seaways of Britain. This zone of interaction has long been considered crucial to the process of transition. Equally, the islands within it offer an opportunity to capture snapshots of movement between larger land masses. The archaeological record there can be used to challenge current concepts of colonisation. It forces us to think about the nature of maritime mobility, to ask how and why sparsely populated spaces were colonised through maritime activity, and to consider the nature of interaction and mediation between different groups of people. In this paper we argue for an approach to maritime mobility grounded in the detail of the data that pulls out the variable nature of those processes. It is important to consider how we might combine large scale narratives of change with regional records of difference. Only through working between these different scales, and through considering mobility, movement and mediation, will the dynamics of change truly emerge.

## **Coastal connections: movement along the British North Sea in the Neolithic**

*Alice Rogers (University of Reading)*

In recent years there has been a focus upon the maritime travel of Neolithic communities in the British Isles. However, in the absence of excavated remains of Neolithic sea-worthy vessels, approaching the idea of sea travel has had to be from the archaeological remains of material culture. Much of this research has focussed upon the western seaways between Britain and Ireland (Cummings and Fowler 2004; Cummings 2009), or the role that the English Channel had to play in the introduction of the Neolithic way of life to these isles (i.e. Whittle *et al.* 2011). However, the north–south axis along the eastern seaboard has been neglected as a prehistoric maritime route (the North Sea has only been considered in terms of movement across the water to the continent rather than specifically along it; i.e. Van de Noort 2011). This is an oversight and I argue that the British North Sea coastal route was a vital resource in the exchange of ideas and material culture between communities in the Neolithic period and beyond.

Several different aspects of material culture have a distinct British North Sea bias, such as certain groups of polished stone axes, and, furthermore, recent research has revealed that north-east Scotland is one of the earliest regions to demonstrate evidence of the Neolithic way of life (Whittle *et al.* 2011). How have these patterns come about? The most convincing argument is that Neolithic communities were using the British North Sea coastal sea route as a means of travel, facilitating exchange and interaction between those communities living alongside it. This paper will outline some of the British North Sea coastal distributions of material culture and ritual practices, and then introduce the methodology employed in my thesis looking into how this exchange could have been facilitated. This examines the role that geography has in determining movement and mobility in prehistory, examining specifically the land/sea interaction along the British North Sea coastline. This work also draws upon the social and ritual importance of coastwise travel, as outlined by Braudel (1972) and Helms (1988). By considering geographical evidence alongside the archaeology we can fully appreciate the use of this coastline for movement during the Neolithic period.

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### **Routeways of the Neolithic**

*Fiona Haughey (Freelance archaeologist and director of Archaeology on the Thames project)*

Moving water creates an air of mystery in the landscape – where has it come from and where is it going to? It provides natural movement and mobility that can be harnessed within a static vista. In the Neolithic, rivers functioned as both economic systems and symbolic highways mirrored in dry-land monuments. Moving through often heavily wooded areas, rivers would have provided the elements of surprise and the unknown as people travelled along them. By looking at and contrasting with examples from the Americas, NW Europe and Great Britain, with particular reference to the Thames, the changing use of rivers and their relevance during the Neolithic period will be explored.

### **Monuments and mobility**

*Roy Loveday (University of Leicester)*

The relatively even distribution of monuments encountered in classic regions such as the Upper Thames Valley, the Nene/Welland fenland basin and Wessex leads us consciously or unconsciously view them as central places for surrounding communities. But the wide separation of cursus complexes and the often gigantic proportions of their component monument force us, in their case, to consider different models. These complexes can hardly have been the products of local endeavour. Nor can cursus monuments anymore be explained in terms of aggrandisement of long barrow mortuary ritual by dominant lineages – dates for construction are as early, if not earlier, in the north where spatial connection with long mounds is absent. A cursus was, it seems, a monument form in its own right – the distinctive type-fossil of a period of very significant change, the first half of the Middle Neolithic.

Terrain selection sets cursuses apart from earlier and later monuments but what is this telling us? Preferential siting at river confluences has invoked cosmological notions but there are reasons to question these, whilst apparent exclusivity of valley floor selection across the country is belied by those monuments to be found on chalk downlands.

Could the environment of the complexes provide an insight? All shared an apparently extensive open aspect, in some cases of long standing. Were cursus complexes then features of shared pasture locales, seasonally utilised by far-flung transhumant groups? This might explain accommodation of the disruptive dimensions of the monuments in the landscape, their clustering at complexes and the frequent nodality of the centres. It might also explain the house plan reference built into cursuses – as symbolic statements of seasonally massively expanded group identity. There are implications here for the development of both festival pilgrimage and Middle Neolithic society – pastoralism and mobility perhaps underpinning both.

Does the return to a pattern of more locally spaced monuments in the Late Neolithic point to a return to a more static pattern of settlement or simply to a new ideology/political structure with a less communal focus?

### **Axe Trek**

*Peter Topping<sup>1</sup> and David Field<sup>2</sup> (1. Newcastle University; 2. Freelance archaeologist)*

The widespread distribution of Neolithic ground axes, often to enormous distances from their rock source, is testament to either lengthy journeys or movement via extensive exchange networks as well as their great cultural value. Group VI axes, for example, were transported not only throughout the UK ranging from northern Scotland to the Southwest peninsula, but some 100 were carried

across the Irish Sea to Ireland and the Isle of Man. In contrast, Group IX axes originating in Northern Ireland, travelled in the opposite direction eastwards to various parts of the UK.

Ethnographic records, in for example Australia, detail journeys to quarries of distances between 500km [311 miles] and 1,000km [621 miles], demonstrating the deep cultural value sedimented into long-distance travel for stone acquisition. The lack of settlement evidence at any extraction site so far excavated in the UK, suggests that those exploiting them may also have travelled from a distance.

This paper outlines the evidence for movement to and from extraction sites in the United Kingdom and, utilizing ethnographic evidence from North America, Australia and New Zealand, suggests that the tools which resulted from some journeys may have been used to embed cultural narratives, reinforce kinships, clans and alliances, and underpin belief systems. Returning with an axe, or the material for it, may also have satisfied rites of passage, or been proof of success in supernatural encounters. These axes were treated with great respect, often unused functionally, sometimes placed in hoards, they were occasionally juxtaposed with other special artefacts to create culturally important deposits. The rarity of the raw material, its recognisability or means of authentication, the biographies surrounding the artefact and the distances crossed, all created a cultural aura for the well-travelled axe.

### **Where spirits walk: an archaeology of (dis)embodied non-corporeal movement**

*Joshua Pollard (University of Southampton)*

We come to understand the spatiality of the world through our feet, and so knowledge and revelation of landscape is experiential and embodied. But this presupposes one kind of ontology, one that is embodied. If however we acknowledge, as seems reasonable, that past communities thought of worlds as dwelt in by spirits, ancestors and other non-corporeal agencies, then the possibility of disembodied experience must be entertained. Could the ethereal worlds of spirits and ancestors have an archaeological presence, and could that presence tell of mobility? Here thought is given to the potential role of earthwork and stone avenues of the later Neolithic as ancestral paths, and to the notion of parallel worlds of movement, encounter and being.