

Moving on in Neolithic studies: understanding mobile lives

Book

Accepted Version

Leary, J. and Kador, T., eds. (2016) Moving on in Neolithic studies: understanding mobile lives. Neolithic Studies Group Seminar Papers, 14. Oxbow, Oxford, UK, pp186. ISBN 9781785701764 Available at <http://centaur.reading.ac.uk/62846/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

Publisher: Oxbow

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

Moving on in Neolithic studies: Understanding mobile lives

Neolithic Studies Group Seminar Papers 14

Edited by

Jim Leary and Thomas Kador

Oxbow Books

Oxford

2016

Foreword

This book presents the proceedings of a seminar held under the aegis of the Neolithic Studies Group (NSG), one of an ongoing series of NSG Seminar Papers. The NSG is an informal organization comprising archaeologists with an interest in Neolithic archaeology. It was established in 1984 and has a large membership based mainly in the UK and Ireland, but including workers from the nations of the European Atlantic seaboard. The annual programme typically includes a seminar in London during the autumn and, in spring-time, a field meeting in an area of northwest Europe known to be rich in Neolithic remains.

Membership is open to anyone with an active involvement in the Neolithic of Europe. The present membership includes academic staff and students, museum staff, archaeologists from government institutions, units, trusts, and those with an amateur or avocational interest. There are no membership procedure or application forms, and members are those on the current mailing list. Anyone can be added to the list at any time, the only membership rule being that the names of those who do not attend four consecutive meetings are removed from the list (in the absence of apologies for absence or a request to remain on the list).

The Group relies on the enthusiasm of its members to organize its annual meetings; the two coordinators maintain the mailing lists and finances. Financial support for the Group is drawn from a small fee payable for attendance of each meeting.

Anyone wishing to contact the Group and obtain information about forthcoming meetings should contact the coordinators or visit the NSG website at:

<http://www.neolithic.org.uk/>

Timothy Darvill and Kenneth Brophy

NSG Coordinators

Contents

Foreword

Preface and acknowledgements

List of Contributors

1 Movement and mobility in the Neolithic

Jim Leary and Thomas Kador

2 Varied mobility in the Neolithic: The Linearbandkeramik on the move

Penny Bickle

3 Resourcing Stonehenge: patterns of human, animal and goods mobility in the late Neolithic

Benjamin Chan, Sarah Viner, Mike Parker Pearson, Umberto Albarella and Rob Ixer

4 Movement and thresholds: Architecture and landscape at the Carrowkeel-Keshcorran passage tomb complex, Co. Sligo, Ireland

Sam Moore

5 Monuments to mobility? – investigating cursus patterning in southern Britain

Roy Loveday

6 Routeways of the Neolithic

Fiona Haughey

7 Coastal Connections: Coastal mobility in the Neolithic

Alice Rogers

8 Should I stay or should I go? Movement and Mobility in the Hebridean Neolithic

Angela Gannon

9 Scattered in time and space: Ploughzone lithics and mobility in the Neolithic

Jonathan Last

10 The social construction of place, mobility and stone in Neolithic South-West Britain: A case study from Mendip

Clive Jonathon Bond

Preface and Acknowledgements

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.

This volume examines the importance and complexities of movement and mobility, whether on land or water, in the Neolithic period. It uses movement in its widest sense, ranging from everyday mobilities – the routines and rhythms of daily life – to proscribed mobility, such as movement in and around monuments, and occasional and large-scale movements and migrations around the continent and across seas. Papers are roughly grouped and focus on ‘mobility and the landscape’, ‘monuments and mobility’, ‘travelling by water’, and ‘materials and mobility’. Through these themes the volume considers the movement of people, ideas, animals, objects, and information, and uses a wide range of archaeological evidence from isotope analysis; artefact studies; lithic scatters and assemblage diversity.

This volume originated from, and represents the proceedings of, the Neolithic Studies Group conference in 2012, organized by Jim Leary and entitled ‘Movement and mobility in the Neolithic’. Jim Leary would like to thank Tim Darvill and Kenny Brophy, the NSG Coordinators, as well as the British Museum, in particular Gill Varndell from the Department of Prehistoric and Roman Antiquities, for allowing and facilitating the smooth running of the conference. The editors would like to thank Julie Gardiner at Oxbow for help and assistance in getting this volume into print.

Jim Leary and Thomas Kador

February 2015

Chapter 1

Movement and mobility in the Neolithic

Jim Leary and Thomas Kador

Mobility lies at the very heart of Neolithic studies; it is one of the defining features of the period and according to much of the literature separates it from the preceding Mesolithic period. Mobility is often seen as a linear process, advancing from highly mobile Mesolithic hunter-gatherers to, as Malone put it in *Neolithic Britain and Ireland*, “one of orderly agricultural production and settled communities” (Malone 2001, 11). “A change took place from small mobile social groups, of no fixed abode other than territory, to larger sedentary communities” (Malone 2001, 21). This is part of a broader narrative that has persisted from at least the nineteenth century and sees humans as emerging from a state of wandering wildness on a path towards settled civilisation (see Thomas 2004 for more on the background of this). In this framework, hunter gatherer mobility is determined by the movements of the animals they follow and hunt; they and their mobilities are at the whim of nature. Settled farmers, on the other hand, have subdued and mastered their environment, and taken control of their mobility. In this account, human progress can be measured by people’s ability to settle down, move less, and exploit the landscape.

The anthropologist Hugh Brody, however, points out in his engaging book *The other side of Eden* that this stereotype of highly mobile hunter-gatherers and settled farmers is in reality often the wrong way around. “It is agricultural societies that tend to be on the move; hunting people are far more firmly settled” (Brody 2001, 7). This is a point also made by Robert Kelly: “many hunter-gatherers move infrequently – some less than many ‘sedentary’ horticultural societies” (1992, 43; 1995). This inversion of mobilities – of mobile farmers and more settled hunter-gatherers – upsets the traditional linear narrative of mobility described above and opens up different ways of framing both the Mesolithic and Neolithic periods. In the British Isles this reversed perspective is supported by the archaeological evidence for large Mesolithic buildings, such as that at East Barns (Gooder 2007), Mount Sandel (Woodman 1985; Bayliss & Woodman 2009), and Howick, which, at the very least, demonstrate “a long-term attachment to place” (Waddington 2007, 110). These buildings date to the early part of the Mesolithic period – well

within the time supposedly occupied by Malone's "small mobile social groups, of no fixed abode" – and therefore cannot easily be passed off as representing some sort of Late Mesolithic 'settling down' ready for the start of Neolithic life. Alongside this there has also been a growing sense, since the beginning of the 1990s at least, of much greater mobility during the Neolithic period; especially in southern Britain (Thomas 1991; 1999; Tilley 1994; Whittle 1997a; see also Last Chapter 9 this volume).

The aim of this book is not to stress this point any further, but to draw attention to the complex nature and different forms of mobility, and the various roles these will have played in the production of Neolithic life. It also looks at how we might recognise mobility in the archaeological record. Life was neither static and fixed, nor highly mobile, but composed of complex mobilities. Mobility is walking, running, climbing, rowing, dancing, hunting and herding; it is cooking, cleaning, pot-making, flint knapping, hoeing, planting and fruit-picking. These bodily techniques will have varied according to cultural conventions (see, for example, Mauss 1935), or to "age, ethnicity, class, family tradition, gender, sexual orientation, talent, skill, circumstances and choice" (Farnell 1999, 343). Mobility is highly variable. People also move on and around for a plethora of reasons: resource procurement, trade, seeking a spouse, adventure, curiosity, misfortune, illness, or to follow an influential leader (see suggestions in Whittle 1997a). Mobility can be used as a mechanism to relieve social tension (Kelly 1992; 1995), or boredom, or it can be motivated for religious reasons, such as going on a pilgrimage. Patterns of movement are culturally induced and indeed can be used as a strategy to maintain cultural autonomy; Kelly draws attention to the fact that some modern groups remain mobile because they feel their mobility defines them or provides a "metaphor for freedom" (1995, 153). There are also many different forms of mobility, from travelling alone, in groups or with animals; on land or on water; and these will have led to different ways of experiencing and perceiving the world. Mobility is not rigid, nor is it a one way street from highly mobile to settled – communities can increase mobility from one generation to the next, just as they can decrease it. To take an example, it has recently been suggested that a rapid decline in the evidence for cereal agriculture in the Middle Neolithic period (coinciding with evidence for an increase in some wild resources, a period of woodland regeneration, and the almost complete disappearance in the archaeological record for any evidence of buildings) may indicate a sudden departure from crop dependence towards a mobile, pastoral based society. This may be the result of climatic deterioration which affected crop yields or caused them to fail (Stevens & Fuller 2012; Whitehouse *et al.* 2014; see also Loveday Chapter 5 this volume). There are also examples in the ethnographic record of

communities whose mobility oscillates between greater and lesser for many reasons, including socially driven ones (Kelly 1995). Mobility can also vary hugely within the same community – no matter how ‘settled’ a group may be there are always segments that have greater mobility (Kelly 1995; Wendrich & Barnard 2008).

The recent literature on mobility from the social sciences has also emphasised the meanings and politics of movement, as well as the social implications of it (Cresswell 2006; Hannam *et al.* 2006; Ingold 2004; Merriman 2012; Urry 2007). Mobility can provide freedom for some individuals and groups, but it can also be used to exert power over others. Some conform to socially acceptable levels of mobility; others do not, and indeed may use it as a form of resistance (Kendall 1997; Solnit 2000). In these instances their movements may be seen as something to be controlled. Different mobilities often reflect inequalities of power within society; perhaps being more available to, say, one gender more than the other. Some people are also dependent on others in order to move – children might have to travel with their parents, or a mobility-impaired person (the ill, the old, the disabled, or the pregnant) may be dependent upon others to help them get around. Some have more mobility and others less, and different people can gain access to different spaces – it is, in other words, unfair and unevenly distributed. People are also affected by mobility, either intentionally or unintentionally, in different ways, so that an increase in one group’s mobility can reduce that of another, while some groups are dependent on the movements of others. It is complex, relational and impacts on people differently. Mobility is also fundamentally an embodied experience involving the corporeal movement of bodies. It uses the senses and is often entangled with feelings, desires and emotions. Far from being an involuntary and behavioural reaction to external stimuli, mobility is a core component of the social world (Ingold 2004). It is complex, variable and frequently socially driven, and the Neolithic period will have been no exception. Mobilities lie at the very heart of archaeology, allowing for the movement of people, ideas, objects and information from place to place, from one person to another (see papers in Leary 2014).

Mobility and the landscape

Modern scientific techniques, such as DNA and isotopic analysis, have provided a renewed interest in mobility in archaeology and offer new perspectives on past mobility patterns, so that something of individual mobility histories has become evident to us. In Chapter 2 Bickle discusses the isotopic evidence for varied mobility in the *Linearbandkeramik* (LBK), showing

that this has the potential to contribute to our understanding of both cultural transmission and Neolithic daily life. She suggests that the movement of the LBK was of addition rather than migration and colonisation, arguing that mobility patterns that make up LBK life were framed by social relationships and kinship. Drawing on the same dataset as Bickle, Bentley *et al.* (2012) have demonstrated how we can utilise strontium isotope analysis to address questions about social and community differentiation as well as access to territory and resources. In turn strontium (and other isotopes) can also be employed to investigate the origins and movements of some of those resources (*i.e.* cereal crops and livestock) themselves (Styring *et al.* forthcoming; Viner *et al.* 2010).

In a closely related context, in Chapter 3 Chan *et al.* consider the results of isotopic analysis from animal remains at the henge enclosure at Durrington Walls near Stonehenge in Wiltshire. The evidence from pig teeth suggests that the majority of pigs came from beyond the Stonehenge landscape, with similar non-local origins for cattle (see also Viner *et al.* 2010), and, therefore, perhaps indicative of “mass droving”. Droving with animals in this way is a very different way of moving through the landscape to moving without animals, requiring different paths and leaving different traces, and leads to a very different perception of the environment. In order to anticipate what the animal will do it requires knowledge of the movement, rhythms and nature of the animals; the drover needs to move and think like the animals. In this sense one’s movement and perception of the world is mediated as much by the feet of the animals as by their own (Ingold & Vergunst 2008). The anthropologist Pernille Gooch describes this in her experience of goat herding in Sweden and contrasts it with buffalo herding in the Himalayas (Gooch 2008). As she describes, successful goat herding requires one to take command of the herd – become the she-goat and perceive the world as she does. That way, when the herd becomes restless it is easy to lead them onto somewhere new. The goat herder leads from the front. In contrast, buffalo herding is a case of walking behind these large, slow, cumbersome beasts. They know their way from the summer pasture along the annual migration route to their winter grounds, and will only go at their own speed. The buffalo herder follows behind. As Gooch neatly sums up: one is a case of “feet-leading-hooves”, the other “feet-following-hooves” (Gooch 2008, 70). Moving with animals, and with different species of animal, therefore, leads to a very different style of moving, which in turn leads to disparate perceptions of the landscape, and diverse ways of being, as well as leaving behind different traces (Gooch 2008).

Pig herding indicated at Durrington Walls is mirrored at other Late Neolithic sites, including Marden henge (Leary & Field 2012) and the West Kennet Palisaded Enclosures

(Whittle 1997b), and represents a distinctive way of moving (see, for example, Albarella *et al.* 2011). The logistics of animal movement, especially when travelling by boat, should also make us think carefully about the introduction of domesticates and in particular cattle to both Britain and especially Ireland (Sheridan 2003; Tresset 2003; Woodman & McCarthy 2003). The same goes for red deer, which may have been a Neolithic introduction to Ireland (Woodman & McCarthy 2003), while wild boar may have been introduced to Ireland in Mesolithic times (Carden 2012). The Neolithic world moved through was crammed with life, from birds and insects to wolves, bears, aurochs and wild boars. To these we can add spirits, ancestors and other non-corporeal agencies. The places where spirits dwell will have been known to groups, and as a result they will have been either avoided entirely – paths taking long circuitous routes around them – and/or act as a focus for travel and movement to them (Llobera 1996; 2000).

Ways of moving also vary radically depending on the terrain one is moving through, and our understanding of past movement clearly has to take the environment into consideration. Although today we are used to walking on smooth, level paths, the natural ground is far from flat, differing depending on the terrain you are on – it is textured and full of objects and debris that can trip you up (Ingold & Vergunst 2008). Moving through woodland is different to open ground, and moving through upland areas, say, accessing the Langdales Neolithic stone quarry, is obviously different to moving along a river valley in a lowland zone. Climbing requires harder work, more vigorous muscle use, and contains greater dangers that focus the mind with each careful step. It is also by nature exclusive – accessible to a more limited group of people: the adventurous, the able-bodied, the fit, and the appropriately attired (including, and especially, suitable foot ware); just think, for example, of the sophisticated and apposite cloths worn by ‘Ötzi’ the Neolithic Tyrolean Iceman. But we need to be careful about our assumptions of how ‘difficult’ landscapes are accessed, and people can be extremely adept at moving through landscapes that may appear to our outsider’s eye as impassable, often learning the ‘appropriate’ way from childhood. Anthropologist Lye Tuck-Po discusses, for example, how the Batek – a group of forest-dwelling hunter-gatherers in Malaysia – move with great speed through thick tangles of forest. Looking at this terrain as strangers to it we might believe that it is impossible to move through it at all; however, the Batek stoop, creep, crawl, climb and slither their way through the forest with ease, as well as “wading across rivers, pushing vegetation aside, cutting fruit-laden boughs, and eating the fruits, navigating the way ... and, of course, talking ...” (Tuck-Po 2008, 25). The forest *is* their landscape. Movement for the Batek is highly social, and the group constantly talk over the best way to proceed, using a type of ‘topographic gossip’;

“walking and talking are inseparable. ... paths are social phenomena” (Tuck-Po 2008, 26). Landscapes require different modes of movement and diverse bodily performances depending on their nature; they afford different protection and dangers, dissimilar ways of perceiving the world around them, and separate embodied experiences.

Monuments and mobility

Much research in Neolithic archaeology has focused on monuments, which, like mobility, have come to define the period. The monuments themselves, however, can, to some extent, tell us about mobility (to them) and movement (around and along them). Pollard, for example, looked at patterns of formal deposition of various artefacts (pottery, lithics and human bone) within postholes at The Sanctuary – a timber and stone setting in the Avebury region, Wiltshire – and considered how they reflect broader patterns of movement around the monument (Pollard 1992). The evidence points to, he argued, movement being structured and organised by the architecture of the monument; it was “restricted and ordered ... to produce formal patterns of access, movement and exit” (Pollard 1992, 223). In a similar vein, Garrow, Beadsmoore and Knight considered the dynamics of deposition around the causewayed enclosure at Etton, Cambridgeshire (Beadsmoore *et al.* 2010), and an early Neolithic pit site at Kilverstone in Norfolk (Garrow *et al.* 2005). By refitting pottery sherds and flint assemblages across each site, potential sequencing of depositional practice could be reconstructed, suggesting “rhythms, tempo, and spatial dynamics of everyday practice” (Beadsmoore *et al.* 2010, 130).

In Chapter 3 Chan *et al.* describe the famous Wessex monuments of Stonehenge and Durrington Walls as a strand in a web of people, animals and things that were brought together. This web will have included the provision of huge quantities of resources (food, labour and materials – the most famous of the latter being the bluestones) during the construction and occupation of the monuments. The networks and meshworks created by the construction of these monuments involved people, materials and tools, and clearly mobility is evident in these monuments – they contain the rhythms, repetitions, and embodied actions of the people that created them. In this way, the form of monuments emerges through the ‘choreography’ of construction (to borrow from James 2003). Such choreography is also evident in the construction of another famous monument in Wiltshire – Silbury Hill. The many phases of Silbury were generated by the pattern of movements between people and materials – the regular, rhythmic motion producing its various forms and incarnations over generations. The rates at which these

various phases of activity occurred provide us with a sense of the rhythms that created the mound: the repeated bodily performances of bringing materials together and re-cutting ditches (Leary *et al.* 2013). We can also imagine other movements that will have occurred at these monuments: the routine, like walking, and the perhaps less routine, such as dancing. Neolithic monuments, in this way, represent “a particular gathering or interweaving of materials in movement” (Ingold 2011, 5). Movements through and around monuments also require one to cross thresholds, physical or symbolic, and this is a subject picked up by Moore in Chapter 4. Moore looks at the Carrowkeel-Keshcorran passage tomb complex in County Sligo in Ireland, suggesting that the monuments were wrapped in boundaries and thresholds, and that movement across these formed an important element of ritual practice. Viewed in this way, thresholds become a form of protection, and crossing them perhaps a rite of passage.

The very form of some monuments has caused researchers to explicitly reference mobility. Cursus monuments, for example, are formed of two parallel ditches that seem to mark out a straight track or routeway – an appearance that caused the eighteenth century antiquarian William Stukeley to interpret them as race courses and give them the name ‘cursus’. In Chapter 5, Loveday discusses these enigmatic monuments, pointing out that the construction of early cursus monuments coincides with the apparent Middle Neolithic crop failure and associated shift in mobility mentioned at the beginning of this chapter. Far from being simple processional monuments, Loveday explores whether they represent assembly points on long-distance transhumance routes; or formed part of emerging pilgrimage festivals; or directed the movement of stone axes; or, indeed, elements of all of these. However we choose to interpret cursus monuments they are very good to think mobility with: “cursus monuments are by their very size an attempt to monumentalise whole tracts of landscape through their linking of natural features and places with earlier monuments” (Barclay *et al.* 2003, 235). They are, perhaps then, monumentalised movement. As Loveday points out (and echoing Moore in Chapter 4), cursus monuments often occur in proximity to rivers, frequently near river confluences, which may well have been part of, and aided, that movement.

Travelling by water

A riverine theme is taken on wholeheartedly in Chapter 6. In this chapter Haughey explores the use of rivers as routeways in the Neolithic period, highlighting the vital role they played in producing mobility and movement through the landscape as people travelled along them. Using

ethnographic examples from around the world, she describes how rivers functioned as both economic systems and symbolic highways. Recent scholarship has emphasised the role of water and, in particular, rivers in prehistory. They provide arteries for movement, and it has been argued that Neolithic monuments are often in close proximity to watercourses because they participated in lines of communication and movement (Mills 2005), and particularly long distance networks of polished stone axes, representing staging points where people met to trade information, resources and objects (Bradley 1984; 1993). Depending on where one wants to travel, though, rivers, like cursus monuments, can also create barriers across the landscape, forcing people and animals to take huge detours or funnelling their movements towards available crossing points (such as fords).

There is another aspect to rivers too, highlighted by Haughey: there are countless examples in the anthropological literature of belief in river spirits and sprites and of the sacred, metaphysical or supernatural role of rivers, of which the River Ganges in India is perhaps the best known (Strang 2001; 2005). This seems to have been the case in the Neolithic period too, and water may have been used in a wide range of cleansing and purification rituals; certainly a connection between henges and rivers has been shown (*e.g.* Richards 1996a & b). Accumulations of Mesolithic and Neolithic stone axes have been found at various places along the River Thames, with particular concentrations in the wide meanders in West London (Field 1989). Similarly, vast quantities of stone axes and other large stone objects have been recovered from some of the main Irish river systems (Kador 2009; Mahr 1937; Woodman 2005). These may have been deposited as part of ceremonies similar to that recorded by George Catlin during his journey along the Missouri in the first half of the nineteenth century in which collections of stone axes and knives were ceremonially thrown into the river by the Mandan Indians to appease the river spirit.

Marden henge, the largest henge in the British Isles, lies at the head of the River Avon in Wiltshire, and clearly water and the river were important to it since they were intricately woven into the fabric of the monument. A large section of the perimeter of the henge is defined by the River Avon, while springs are incorporated within and around the enclosure and even today the ditch holds water for part of the year. At the centre of the henge once stood a large mound known as the Hatfield Barrow which was reputedly second only to Silbury Hill in size, reaching perhaps as much as 15m in height, though it has long been levelled (see Leary & Field 2012 for a description). An account by naturalist James Norris in 1798 indicated that the moat-like ditch around the Hatfield Barrow was constantly fed by springs, while antiquarian Richard Hoare in

1812 also noted that the ditch retained water. The north entrance of the enclosure faces towards the source of the Avon, visible a kilometre away, while a south-east entrance also faces towards the river. A gravel roadway was constructed within this entrance that possibly led down to the river edge, suggesting that the river, and access from or to it, were critical parts of the functionality of the henge. The entrances of the henge directed, focused and controlled the movement of people; access was restricted and movement choreographed.

In a similar way, the double-entrance henges of Newton Kyme and Ferrybridge lie near to the Rivers Wharfe and Aire and have been suggested as marking the 'Great North Route' (Vyner 2007), while Loveday (1998) has previously proposed that double-entrance henges were strung out along, or at the end of, a ritual path or pilgrims' routeway; their entrances both physically and symbolically sending the traveller along the course of their journey (*cf.* Mills 2005). Bradley (1999) has explored the role of prehistoric pilgrimage in the creation of monuments, and Harding (2012; 2013) has pursued this further with specific regard to the creation of the Thornborough henges in North Yorkshire. Certainly along the upper reaches of the Avon valley in Wiltshire Neolithic monuments such as Marden, Durrington Walls and Stonehenge appear to have been strategically placed for access or proximity to the river, which will have aided movement, perhaps as a pilgrimage, between them. Rivers, as Haughey makes clear, were clearly an important element of Neolithic mobility.

Travel by water was a different way of moving when compared to land, and will have provided different experiences and perceptions of the landscape. This is particularly so when travelling by sea where knowledge of the water body was essential, as was an intimate understanding of the heavenly bodies (Leary 2014). Movement around the coast has its own patterns and rhythms of movement; ebbs and flows influenced by the tides that frequently mark it out as somewhere different, providing the people moving on it with a distinct identity. In Chapter 7 Rogers explores long-distance mobility facilitated by Britain's coastline, known as 'tramping', arguing that the coastal route was an important passage for movement during the Neolithic, with people, ideas, objects and raw materials moving along it. Again focused upon movement across sea, Gannon (Chapter 8) looks at mobility to, from, and between Scottish Hebridean Islands in the Neolithic period. She shows that far from being inhabited by isolated and insular communities, the evidence points to considerable channel crossings and island hoppings; movement that linked the islands and connected communities. Mobility across the sea enabled their world to be dynamic and interactive. A complex and fluid interweaving is frequently found within small island groups, seen in, for example, Malinowski's classic account of the Melanesian

archipelago (1922). Land and sea here may be conceptualized as one, and provide a sense of shared identity – “the living milieu as a complex interweaving of land- and sea-scapes”; a “socio-scape” (Mondragón 2009, 116). Gannon’s chapter uses the evidence of artefacts to reconstruct and understand the movement and actions of people and exchange cycles.

Materials and mobility

Artefacts are also good to think mobility with. Clearly people travelled to collect, mine or quarry materials, acquiring them from a particular source and transporting them great distances. And sometimes they went to very great lengths to do this. The exposures of quarries and working floors recorded at Langdale in Cumbria, for example, show that some people in the Neolithic undertook very difficult and trying journeys up the mountains to quarry volcanic tuff to create axe blades (Bradley & Edmonds 1993; Edmonds 2012). The same can be said for jadeite collected from a source in the Alps and circulated widely, including to Britain, the exploitation of porcellanite from very restricted sources in Northern Ireland (Cooney & Mandal 1998), or indeed flint mines, where people went to extraordinary lengths to retrieve material. These places were themselves no doubt important, but so too was the journey; as Boivin notes: “the value of a mineral is very often related as much to the journey that was made to acquire it as to the mineral itself” (2004, 10). Once collected, these artefacts were then circulated over vast distances (Clough and Cummins 1979; 1988). Indeed, just as isotopic analysis is showing that people moved long distances, so too do we know that objects, ‘things’, and raw material travelled considerable distances through movement, circulation, interaction and exchange. They were caught up in their own meshworks. These included, amongst other things, groundstone adze-heads (Bickle Chapter 2), or axes-heads (Pétrequin *et al.* 1998; Bradley & Edmonds 1993; Cooney & Mandal 1998; Edmonds 2012; Loveday Chapter 5 this volume). People travelled and exchanged over immense areas, and it was the movement as much as the place that provided meaning. These mobile meanings were written into the objects.

The flows of people and things are inseparable, and understanding the movement of artefacts causes us to reflect on the movements, interactions and meshworks of people. Artefacts can also reveal smaller patterns of mobility. Last points out in Chapter 9 that lithic scatters identified through fieldwalking are nowadays generally used for prospection and evaluation, rather than as a research tool. As he shows, however, they are much more than this and lithic data can add to the discussion “by recording the ebb and flow of human mobility”. Last calls for

greater attention to ploughzone archaeology and a better integration of data from surface collection with excavation, geoarchaeological models, and monuments. As Wickham-Jones has previously noted in the context of Mesolithic studies, stone tools are “linked inextricably to human movement through the identification of geological sources” (Wickham-Jones 2009, 72; see also Kador 2007; 2009).

Bond similarly focuses on lithic scatters in Chapter 10, specifically within the limestone landscape of Neolithic Mendip. He highlights the role of the materiality of portable stone objects as an indicator of movement and exchange, but also its role in the social construction of place and the creation of identity. Bond discusses the changing perceptions and beliefs tied to long visited locales and the rationale for the selection of specific stone sources. Such perceptions of stone and other elemental properties, he argues, are fundamental to understanding the communities that inhabited and moved around this landscape. In Mesolithic studies, already alluded to above, researchers have long recognised the potential of employing lithic artefact analysis in discussions of mobility. Methodologies developed by Mesolithic specialists, particularly over the past decade or so (Conneller 2005; Kador 2009; 2013; Preston 2013), offer important applications to Neolithic and later prehistoric lithic assemblages.

Conclusions

The above discussion has explored a number of mobility-centred themes, challenging the stubborn dichotomy between the mobility of hunter-gatherer groups of the Palaeolithic and Mesolithic periods on the one hand, and more settled farming communities of the Neolithic and later periods on the other. Mobility, as discussed here, is shot through with meaning and power and the papers within this volume highlight the variety of different mobilities evident in the archaeological record from Neolithic Britain, Ireland and continental Europe. They also demonstrate how movement is an essential part of our lived experience; be it in terms of the regular journeys to acquire resources and raw materials, trips to partake in seasonal gatherings or occasional forays to more distant lands.

There is a wealth of evidence that we can draw upon to study and understand past human movement and mobility, and the papers in this volume illustrate this and the broad range of mobility in the Neolithic period. This evidence includes, but is not limited to, human and animal remains, monuments, landscapes, seascapes, and lithic and other artefact assemblages. Given its

everyday nature, studying mobility in the past sheds light on people's lives. It is a subject worthy of study in its own right, and we can use it to better understand social interactions, community relations, spiritual and religious practices, and economic activities. By looking at the archaeological evidence through the lens of mobility we can produce new ways of understanding the period and 'move on' in Neolithic studies.

References

- Albarella, U., Manconi, F. and Trentacoste, A. (2011) A week on the plateau: Pig husbandry, mobility and resource exploitation in central Sardinia. In U. Albarella and A. Trentacoste (ed.) *Ethnozoarchaeology: the present and past of human – animal relationships*, 142–59. Oxford: Oxbow Books.
- Barclay, A., Lambrick, G., Moore, J. and Robinson, M. (2003) *Lines in the landscape. Cursus monuments in the Upper Thames Valley*. Oxford, Oxford Archaeology (Thames Valley Landscapes Monograph 15).
- Bayliss, A. and Woodman, P. (2009) A new Bayesian chronology for Mesolithic occupation at Mount Sandel, Northern Ireland. *Proceedings of the Prehistoric Society* 75, 101–23.
- Beadsmoore, E., Garrow D. and Knight M. (2010) Refitting Etton: Space, time, and material culture within a causewayed enclosure in Cambridgeshire. *Proceedings of the Prehistoric Society* 76, 115–34.
- Bentley, R. A., Bickle, P., Fibiger, L., Nowell, G. M., Dale, C. W., Hedgesc, R. E. M., Hamilton, J., Wahl, Francken, J. M., Grupe, G., Lenneish, E., Teschler-Nicola, M., Arbogast, R. M., Hofmann, D., and Whittle, A. (2012) Community differentiation and kinship among Europe's first farmers. *PNAS* 109/24, 9326-9330.
- Boivin, N. 2004. From veneration to exploitation. Human engagement with the mineral world. In N. Boivin and M. A. Owoc (eds.) *Soils, Stones and Symbols: Cultural Perceptions of the Mineral World*, 1–29 edited by. London, UCL Press.
- Bradley, R. (1999) Pilgrimage in prehistoric Britain? In J. Stopford (ed.) *Pilgrimage explored*, 1–24. Woodbridge, The Boydell Press.

- Bradley, R. (1993) *Altering the earth: The origins of monuments in Britain and Continental Europe*. Edinburgh, Society of Antiquaries of Scotland.
- Bradley, R. (1984) *The social foundations of prehistoric Britain*. Harlow, Longman.
- Bradley, R. and Edmonds, M. (1993) *Interpreting the axe trade. Production and exchange in Neolithic Britain*. Cambridge, Cambridge University Press.
- Brody, H. (2001) *The other side of Eden. Hunters, farmers, and the shaping of the world*. London, Faber & Faber.
- Carden, R.F. (2012) *Review of the Natural History of Wild Boar (Sus scrofa) on the island of Ireland*. Report for the Northern Ireland Environment Agency, Northern Ireland, UK, National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin Ireland and the National Museum of Ireland Education & Outreach Department.
- Conneller, C. (2005) Moving beyond site: Mesolithic technology in the landscape. In N. Milner and P.C. Woodman (eds.) *Mesolithic studies at the beginning of the 21st century*, 42-44. Oxford, Oxbow Books.
- Cooney, G. and Mandal, S. (1998) *The Irish Stone Axe Project Monograph 1*. Dublin, Worldwell.
- Cresswell, T. (2006) *On the move. mobility in the modern western world*. London, Routledge.
- Clough T. and Cummins W. (1979) *Stone Axe Studies*. London, CBA Research Report.
- Clough T. and Cummins W. (1988) *Stone Axe Studies 2*. London, CBA Research Report 67.
- Edmonds, M. (2012) Axes and mountains: A view from the west. In P. Pétrequin, S. Cassen, M. Errera, L. Klassen, A. Sheridan and A-M. Pétrequin (eds.) *Jade. Grandes haches alpines du Néolithique Européen. V^e et IV^e millénaires av. J.-C.*, 1194–207. Presses Universitaires de Franche-Comté.
- Farnell, B. (1999) Moving bodies, acting selves. *Annual Review of Anthropology* 28, 341–73.
- Field, D. (1989) Tranchet axes and Thames picks: Mesolithic core-tools from the West London Thames. *Transactions of the London and Middlesex Archaeological Society* 40, 1–46
- Garrow, D., Beadsmoore, E. and Knight, M. (2005) Pit clusters and the temporality of occupation: An earlier Neolithic site at Kilverstone, Thetford, Norfolk. *Proceedings of the Prehistoric Society* 71, 139–57.

- Gooch, P. (2008) Feet following hooves. In T. Ingold and J. L. Vergunst (ed.) *Ways of walking: Ethnography and practice on foot*, 67–80. Farnham, Ashgate Publishing (Anthropological studies of creativity and perception).
- Gooder, J. (2007) Excavation of a Mesolithic house at East Barns, East Lothian, Scotland: An interim view. In C. Waddington and K. Pedersen (ed.) *Mesolithic studies in the North Sea basin and beyond. Proceedings of a conference held at Newcastle in 2003*, 49–59. Oxford, Oxbow Books.
- Hannam, K., Sheller, M. and Urry, J. (2006) Editorial: Mobilities, immobilities and moorings. *Mobilities* 1(1), 1–22.
- Harding, J. (2013) *Cult, religion and pilgrimage. Archaeological investigations at the Neolithic and Bronze Age monument complex of Thornborough, North Yorkshire*. York, Council for British Archaeology (CBA Research Report 174).
- Harding, J. (2012) Conformity, routeways and religious experience – the henges of central Yorkshire. In A. Gibson (ed.) *Enclosing the Neolithic: Recent research in Britain and Europe*, 67–80. Oxford, Archaeopress.
- Ingold, T. (2011) Introduction. In T. Ingold (ed.) *Redrawing anthropology. Materials, movements, lines*, 1–20. Farnham, Ashgate (Anthropological Studies of Creativity and Perception)
- Ingold, T. (2004) Culture on the ground. The world perceived through feet. *Journal of Material Culture*, 9(3), 315–40.
- Ingold, T. and Vergunst, J. L. (2008) Introduction. In T. Ingold and J. L. Vergunst (ed.) *Ways of walking. Ethnography and practice on foot*, 1–19. Farnham, Ashgate Publishing (Anthropological studies of creativity and perception).
- James, W. (2003) *The Ceremonial animal. A new portrait of anthropology*. Oxford, Oxford University Press.
- Kador, T. (2013) Taking on the final frontier: Movement, mobility and social change in early prehistoric Ireland. In P. Preston and Schörle, K. (eds.) *Mobility, transition and change in prehistory and classical antiquity*, 17–28. Oxford, British Archaeological Reports (BAR International Series 2534).

- Kador, T. (2009) Moving perceptions: Movement, mobility and the material dimension. In S. B. McCarten, R. Schulting, G. Warren and P. Woodman (ed.) *Mesolithic horizons*, 73–9. Oxford, Oxbow Books.
- Kador, T. (2007) Stone Age motion pictures: An object's perspective from early prehistoric Ireland. In V. Cummings and R. Johnston (ed.) *Prehistoric journeys*, 33–44. Oxford: Oxbow Books.
- Kelly, R. (1995) *The foraging spectrum*. London, Smithsonian Institution Press.
- Kelly, R. (1992) Mobility/sedentism: Concepts, archaeological measures and effects. *Annual Review of Anthropology* 21, 43–66.
- Kendall, S. (1997) Sites of resistance: Places on the margin – the traveler 'homeplace'. In T. Acton (ed.) *Gypsy Politics and Traveller Identity*, 70–89. Hatfield, University of Hertfordshire Press.
- Leary J. (ed.) (2014) *Past mobilities: Archaeological approaches to movement and mobility*. Farnham, Ashgate Publishing.
- Leary, J., Field, D. and Campbell, G. (2013). *Silbury Hill. Europe's largest prehistoric mound*. Swindon, English Heritage publishing.
- Leary, J. and Field, D. (2012). Journeys and juxtapositions. Marden henge and the view from the Vale. In A. Gibson (ed.) *Enclosing the Neolithic. Recent studies in Britain and Europe*, 55–65. Oxford, British Archaeological Reports (BAR International Series 2440).
- Llobera, M. (1996). Exploring the topography of mind: GIS, social space and archaeology. *Antiquity* 70, 612–22.
- Llobera, M. (2000). Understanding movement: A pilot model towards the sociology of movement. In G. Lock (ed.) *Beyond the map*, 65–84. Amsterdam, IOS Press.
- Loveday, R. (1998) Double entrance henges – routes to the past? In A. Gibson and D. Simpson (ed.) *Essays in honour of Aubrey Burl: Prehistoric ritual and religion*, 14–31. Stroud, Sutton Publishing.
- Mahr, A. (1937) New aspects and problems in Irish prehistory. *Proceedings of the Prehistoric Society* 3, 261–437.

- Malinowski, B. (1922 [1961]) *Argonauts of the Western Pacific: An account of native enterprise and adventure in the archipelagos of Melanesian New Guinea*. New York, Dutton.
- Malone, C. (2001) *Neolithic Britain and Ireland*. Stroud, Tempus.
- Mauss, M. (1935) [1973] Techniques of the body. *Economy and society* 2(1), 70–88.
- Merriman, P. (2012) *Mobility, space and culture*. London, Routledge.
- Mills, J. (2005) Movement as a mentalite: Mobile lifeways in the Neolithic and Bronze Age Great Ouse, Nene and Welland Valleys. In Hofmann, D., J. Mills and A. Cochrane (eds.) *Elements of being: mentalities, identities and movements*, 96–106. Oxford, British Archaeological Reports (BAR International Series 1437).
- Mondragón, C. (2009) A weft of nexus: Changing notions of space and geographical identity in Vanuatu, Oceania. In Kirby, P. W. (ed.) *Boundless worlds. An anthropological approach to movement*, 115–33. Oxford, Berghahn Books.
- Pétrequin, P., Pétrequin, A.-M., Jeudy, F., Jeunesse, C., Monnier, J.-L., Pelegrin, J. and Praud, I. (1998) From the raw material to the Neolithic stone axe. Production processes and social context. In M. R. Edmonds and C. C. Richards (ed.) *Understanding the Neolithic of North-Western Europe*, 277–311. Glasgow, Cruithne Press.
- Pollard, J. (1992) The Sanctuary, Overton Hill, Wiltshire: A re-examination. *Proceedings of the Prehistoric Society* 58, 213–26.
- Preston, P. (2013) Bones, stones or ethnography? Challenging the Mesolithic mobility models for Northern Europe. In P. Preston and Schörle, K. (eds.) *Mobility, transition and change in prehistory and classical antiquity*, 29–48. Oxford, British Archaeological Reports (BAR International Series 2534).
- Richards, C. (1996a) Henges and water: Towards an elemental understanding of monumentality and landscape in Late Neolithic Britain. *Journal of Material Culture* 1(3), 313–36.
- Richards, C (1996b) Monuments as landscape: Creating the centre of the world in Late Neolithic Orkney. *World Archaeology* 28(2), 190–208.
- Sheridan, A. (2003) French Connections I: Spreading the marmites thinly. In I. Armit, E. Murphy, E. Nelis, and D. Simpson (eds.) *Neolithic settlement in Ireland and western Britain*, 3–17. Oxford, Oxbow Books.

- Solnit, R. (2000). *Wanderlust: A history of walking*. New York, Verso.
- Stevens, C. J. and Fuller, D. Q. (2012) Did Neolithic farming fail? The case for a Bronze Age agricultural revolution in the British Isles. *Antiquity* 86, 707–22.
- Strang, V. (2005) Common senses: Water, sensory experience and the generation of meaning. *Journal of Material Culture* 10, 93–121.
- Strang, V. (2001) Negotiating the river: Cultural tributaries in far north Queensland. In B. Bender and M. Winer (ed.) *Contested landscapes: Movement, exile and place*, 69–86. Oxford, Berg.
- Styring, A., Fraser, R., Bogaard, A. and Evershed, R.P. (forthcoming) Cereal grain, rachis and pulse seed amino acid $d^{15}N$ values as indicators of plant nitrogen metabolism. *Phytochemistry*.
- Thomas, J. (2004) *Archaeology and modernity*. London, Routledge.
- Thomas, J. (1999) *Understanding the Neolithic*. London, Routledge.
- Thomas, J. (1991) *Rethinking the Neolithic*. Cambridge, Cambridge University Press.
- Tilley, C. (1994) *A Phenomenology of landscape: Places, paths, and monuments*. Oxford: Berg.
- Tresset, A. (2003) French Connections II: Of cows and men. In I. Armit, E. Murphy, E. Nelis, and D. Simpson (eds.) *Neolithic settlement in Ireland and western Britain*, 18–30. Oxford, Oxbow Books.
- Tuck-Po, L. (2008) Before a step too far: Walking with Batek Hunter-Gatherers in the forests of Pahang, Malaysia. In T. Ingold and J. L. Vergunst (ed.) *Ways of walking: Ethnography and practice on foot*, 21–34. Farnham, Ashgate Publishing (Anthropological studies of creativity and perception).
- Urry, J. 2007. *Mobilities*. Cambridge, Polity.
- Viner, S., Evans, J., Albarella, U. and Parker Pearson, M. (2010). Cattle mobility in prehistoric Britain: strontium isotope analysis of cattle teeth from Durrington Walls (Wiltshire, Britain). *Journal of Archaeological Science* 37, 2812-2820.
- Vyner, B. (2007) A Great North Route in Neolithic and Bronze Age Yorkshire: The evidence of landscape and monuments. *Landscapes* 1, 69–84.

- Waddington, C. (2007) Rethinking Mesolithic settlement and a case study from Howick. In C. Waddington and K. Pedersen (ed.) *Mesolithic studies in the North Sea basin and beyond. Proceedings of a conference held at Newcastle in 2003*, 101–13. Oxford, Oxbow Books.
- Wendrich, W. and Barnard, B (2008) The archaeology of mobility: Definitions and research approaches. In H. Barnard and W. Wendrich (ed.) *The archaeology of mobility. Old world and new world nomadism*, 1–21. Los Angeles (CA.), The Cotsen Institute of Archaeology, University of Los Angeles.
- Whitehouse, N. J., Schulting, R. J., McClatchie, M., Barratt, P., Rowan McLaughlin, T., Bogaard, A., Colledge, S., Marchant, R., Gaffrey, J., and Bunting, M. J. (2014) Neolithic agriculture on the European western frontier: The boom and bust of early farming in Ireland. *Journal of Archaeological Science* 51, 181–205.
- Whittle, A. (1997a) Moving on and moving around: Neolithic settlement mobility. In P. Topping (ed.) *Neolithic landscapes*, 15–22. Oxford: Oxbow Books (Neolithic Studies Group Seminar Paper 2).
- Whittle, A. (1997b) *Sacred mound, holy rings. Silbury Hill and the West Kennet palisade enclosures: A Later Neolithic complex in North Wiltshire*. Oxford, Oxbow Books (Monograph 74).
- Wickham-Jones, C. R. (2009) Introduction: Mobility. In S. B. McCarten, R. Schulting, G. Warren and P. Woodman (ed.) *Mesolithic horizons*, 71–2. Oxford, Oxbow Books.
- Woodman, P. C. (2005) It's too light to be right. In N. Milner and P.C. Woodman (ed.) *Mesolithic Studies at the beginning of the 21st century*, 126-143. Oxford, Oxbow Books.
- Woodman, P. C. (1985) *Excavations at Mount Sandel 1973–77*. Belfast, Her Majesty's Stationary Office. (Northern Ireland Archaeological Monographs 2).
- Woodman, P. C. and McCarthy, M. (2003). Contemplating some awful(ly interesting) vistas: Importing cattle and red deer into prehistoric Ireland. In I. Armit, E. Murphy, E. Nelis, and D. Simpson (eds.) *Neolithic settlement in Ireland and western Britain*, 31–9. Oxford, Oxbow Books.