This is an edited Word file, which has been styled ready for typesetting. This is now the **final opportunity** to review your text and amend it prior to publication.

Any queries about the text have been inserted using Comment boxes in the Word files. Please answer these queries in your corrections. Once you have responded to a query, you can delete the comment.

When making your corrections, please consider the following:

- Make sure Track Changes is turned on – this allows us to keep an accurate file history record for the book.
- Please do not change the formatting styles used in this file – if a piece of text has been styled incorrectly, please alert your Editor about this by using a Comment box.
- To see the changes that have already been made, use the ‘Final Showing Mark-up’ view. To hide this and just see the final version, use the ‘Final’ view (in the Review tab).
- Edit and return this file, please do not copy/paste anything into a new document.

Thank you for your co-operation.
Chapter 2
Past Movements, Tomorrow’s Anchors
On the Relational Entanglements Between Archaeological Mobilities
Oscar Aldred

The ground is all memoranda and
signatures; and every object covered
over with hints.
(Emerson 1903 (1850): 261)

Robert Macfarlane opens his book The Old Ways (2012) with a direct quote from Ralph Waldo Emerson. It is not Emerson as such, nor Macfarlane’s engaging prose, that expresses the theme that this chapter discusses, but the attention that the quote gives to mobility in the material world through the notions of memoranda, signature and hints. And it does this in relation to ground and objects; in other words an archaeologist’s landscape and sites. For surely, if we are to argue for the distinctiveness of archaeology’s subject compared to other disciplines, it is its focus on materiality and temporality (c.f. Webmoor and Witmore 2008, Olsen 2010). But what I also want to argue is that another necessary subject is the point of contact and a concern with mobility. If archaeology does not engage with mobility, and specifically the agencies associated with human mobility in antiquity and in its contemporary practices, it is in danger of representing the past as a static image. Which is to say, an image of unconnected histories, which when reproduced bear no determining relevance for the path dependency of future agencies and material outcomes. The study of past landscape and sites – if not archaeology itself – demands greater attention to the union of eventful materialities and human mobilities.

Archaeology is playing catch-up again. Just as Structuralism was changing its direction in anthropology while archaeology was beginning to embrace it (Leach 1973: 763), so too is archaeology in danger of losing the capital it has ‘stored’ in advancing the mobility programme.
(which I will explain shortly). There has already been much work done on mobility in other disciplines, but the task still remains to situate mobility within archaeological practice and theory that both critical reviews the existing programme, but also adopts a practice/theory that works for archaeology. Simply applying themes and styles from other disciplines does not do credit to archaeology, nor does it contribute to the discussions on mobility occurring widely in other disciplines. This chapter has a single aim: to examine what in the mobilities programme has potential for archaeology. As I have suggested, the intention is not to adopt Sheller and Urry’s mobilities paradigm (2006), but rather to identify some divergences and suggest some possible avenues to pursue. This will be done by critically assessing the mobilities paradigm, setting up the argument for its use in archaeology, and examining some of the guiding principles in a short case study situated in Iceland.

**Movement in social sciences**

The mobilities paradigm, if one is to apply Sheller and Urry’s phraseology, has been gaining momentum in recent years. There is the journal *Mobility*, articles in *Environment and Planning*, *Cultural Geographies*, as well as numerous books on the subject within the broader social sciences (for example, Adey 2010, Büscher et al. 2010, Cresswell 2006, Ingold and Vegunst 2008). By tracing a longer path back from the contemporary to the 1970s it is possible to track the influences derived from time geography, associated with, amongst others, Thorsten Hägerstrand, as well as to Allan Pred (e.g., Hägerstrand 1970, Hägerstrand and Pred 1981, Pred 1977, 1986). This was a part of the critique of network geography (Haggert and Chorley 1969) and a reaction to the dominant study of regional transport systems at the time. Hägerstrand can be credited with awakening mobility as a going concern for study, although time geography has on the whole been based on statistical methods and less about the humanity in the system which one can read was originally intended (c.f. Hägerstrand 1970). The contribution nonetheless that it offered was a method for compressing time and space – a temporalization of space, as it were – through the study of movement patterns. This is an aspect that remains fundamental to the
mobilities paradigm’s ‘transcending the dichotomy between transport research and social research, putting social relations of travel and connecting different forms of transport with complex patterns of social experience conducted through communications at a-distance’ (Sheller and Urry 2006: 208). In as much as the mobilities paradigm is conducted at a distance, much of the research in the emerging research is ‘concerned first with the patterning, timing, and causation of face-to-face copresence’ (Sheller and Urry 2006: 217; my italics).

What has gradually emerged since 2006 have been several themes on to which most subsequent mobilities discussions have latched on to; which have been felt in archaeology (c.f. Aldred and Sekedat 2010): co-presence; observation; in-betweeness; and fluid interdependence. These themes, while encapsulating the ‘mobility turn’ led towards particular conclusions about the state of contemporary research on mobility, again pointed out by Sheller and Urry. The argument for this is rather long as it is presented by Sheller and Urry, but it can be reduced to two firmly established elements in social sciences. The first element is a directed critique of sedentarism, the idea that stasis is normal. The mobility paradigm adopts the notion that its opposite dynamism is normal, or at least more normal than stasis. The second is a reformulation of Deleuze and Guattari’s deterritorialization (1988) which argues for an adjustment away from fixed, static structures in society – e.g. the nation as a container – towards more liquid states by examining ‘how social entities comprise people, machines, and information/images in systems of movement’ (Sheller and Urry 2006: 210). Thus, in all of the critique and redirection, several theories and methods have been suggested, the most useful of which simply calls for examining movement from a more mobile, dynamic perspective with a new set of tools.

Movement ‘stored’ in archaeology – a contemporary review

At this juncture, it is perhaps more useful to examine archaeology than to continue to discuss social sciences, by identifying what already exists that can help us formulate a mobile and dynamic archaeological response to the paradigm. But one of the questions I hope to answer is to ask whether there is a need to do so?
It is clear that the majority of archaeological research has directed most attention on the exact opposite of what the mobilities paradigm has suggested should be studied: a focus on sites as places of collation and accumulation from a fixed perspective (Bolender and Aldred 2013). However, this is all fine, except that it has made little head-way into the diverse range of ties that link one site to another through different kinds of fluid mobilities. Site formation and the archaeological record end-up being represented as static, or worse still, thought of as static entities. Furthermore, archaeology is abundant with territorializations, particularly in discussions about the durable and resilient structures that were associated with past agencies. Our conventional approach to the past and the adoption of certain tropes in archaeology, such as site, landscape, society, identity, are two reasons why archaeology has been so slow on the uptake of using the mobilities paradigm, and its antecedents. To take on the paradigm requires a radical overhaul of epistemologies (the structural methods used to examine the world) and ontologies (the relational construction of the past as a world in which people lived) on which archaeology is based. Yet, there are two long-standing currents (or flows) that have been enveloped by mobile thinking that might help archaeology find a greater voice so as to adopt more mobile thinking and approaches; one on the surface, and the other buried.

**Flow one**

Within the current that runs along the surface of archaeology, there are three dominant markers. The first surface is linked to archaeologies of prehistory, principally Mesolithic and Neolithic periods, which have drawn upon the ideas associated with mobile, nomadic people and cultures, and the movement of objects. The issue of colonization, spread, diffusion and invasion have all fed into this mobile narrative (e.g. Childe 1956; Anthony 1990). More recently, there has been a second surface in which there have been discussions on what constitutes people and community identities, whether one could call individuals or groups sedentary or nomadic (e.g. Binford 1978). Even more recently, a third surface has been the presentation of infrastructures associated with past movement. These have gained currency in current studies, leading to some
archaeologists to argue for a correlation between the state of a culture’s mobile infrastructure and its complexity as a society (Trombold 1991, Snead et al. 2009).

While these studies all reveal the material nature of past movement and go some way to explicate their form and temporality, are they not saying anything more than movement occurred and it took a particular form? The adoption of movement as a theme in these studies is nothing more than a statement of the obvious, perhaps a banality. And this is how people tend to view the study of movement, which when put like this is a perfectly reasonable point to make. It is uncertain though, and left to speculation, to what extent archaeology might reach the aims of the mobilities paradigm where the intention is to examine ‘the patterning, timing, and causation of face-to-face copresence’?

One can argue that the three ‘surfaces’ above address the pattern and timing, yet the causation – the social relation rather than just the material – is somewhat lacking. The deferment of causation to larger organizational structures such as identity and society are a dead-end of sorts; they can only advance the thinking about mobility so far. Mobility requires context and a bottom-up approach – a thicker description (after Geertz 1973) – not a general thesis or adoption of a condition whereby movement is black-boxed. So, to what extent do these kinds of studies on the currents of mobility that lie on the surface of our discipline actually add to our knowledge about past mobility? Significantly, it is precisely the criticisms that have been levied against conventional social sciences by Sheller and Urry that the theme of mobility on the surface archaeology confirms: that stasis is normal and a large degree of ring-fencing and territorialization. The replication of what we already know about society from the perspective of movement rarely adds anything to changing the perspective and orientation about the past, or how it is understood or examined. The unfortunate tendency is that the way in which movement on the surface tends to be thought about further solidifies the narratives about the past as a succession of place-markers – the solid material syndrome that Edgeworth refers to (2011: 88). These narratives do not study the ideas that suggest dynamism is more normal than stasis, or deterritorialize the past – to make connections between different places and people. In other
words, the conventional approach to an archaeology of movement exemplified by flow one – these three surfaces – does no more than discuss past movement as a series of straight lines; in terms of the origins and destinations of events, that are also predictable and assuming in character. And in this way, past movement is black-boxed. Yet unpacking the black-box, or avoiding it altogether, may lead to some fruitful, perhaps more significant avenues concerning past mobility and the effect on archaeology’s interpretation about the past.

**Flow two**

A buried and latent mobility however, exists in archaeology that is useful, though one is hard pushed to find it – hence why it is buried inside the inner workings of some contemporary practices. If Hägerstrand can be seen to connect with the disciplinary borrowing that was going on in archaeology through David Clarke and the development of spatial archaeology, it was Allan Pred’s association with geography and sociology, particularly with Buttimer and Giddens, that infiltrated archaeology’s post-processual approaches. In a discussion piece with Mike Pearson and Michael Shanks on performance and archaeology, Julian Thomas identifies the potential that time geography has for the study of archaeology, and in particular its use in shaping narratives about the past. What Thomas suggested was that the places along a route also provide an index with which to trace other ‘routes’ for archaeological narratives; in this sense movement is the ‘raw stuff of narratives’ (in relation to a discussion on time geography c.f. Pearson and Thomas 1994: 158). This extends time geography to archaeology, with the laudable aim of consolidating the spatial and temporal paths of individual histories – both in the past and in the present – by following the movements along life-paths as if ‘an unfolding drama’ (Lenntorp 1976). Although little explored (though see Pearson and Thomas 1994, Barrett 1994, Mlekuž 2010) this archaeological relation with time geography represents some innovative and useful thinking for foregrounding the relationship between archaeology and movement.

Examined through a genealogy in thought, this history lesson is instructive, but it is not so important for this narrative except drawing attention to the existence of a more radical
thought in archaeology: that buried and lurking underneath the spatial, temporal and material ‘paradigms’ or veils that have been laid over archaeology in the last 20 years is a latent mobility. This latent mobility has hardly been explored, waiting for its moment of transformation. Before connecting it with some possible themes there are some specific challenges that archaeology needs to overcome.

The materiality of past movement – the first step

As Sheller and Urry draw attention to, identifying what subjects and objects of enquiry are appropriate is a matter of finding the right practical and theoretical tools with which to examine movement. The tools that Sheller and Urry use for the mobility ‘turn’ in the social sciences are being used to examine issues associated with an increasingly connected, speeded-up world, linking topics such as globalization with the possible outcomes such as the deterritorializing of states, nations, identities and belongings. These themes are by their nature broad, and encapsulating, but does archaeology also have these issues in mind when it thinks about mobility? What then are suitable subjects and objects, and areas of examination? And what tools do we need to carry out mobilities studies in archaeology?

These questions need to be asked because I do not think that our objects and subjects are so alike at our specific level of enquiry as those used by social sciences, suggesting that we cannot simply adopt the tools and approaches that the social sciences have taken towards the study of mobility. One of the areas of potential that drives archaeology as a discipline is our relationship to the materiality of the past, suggesting that objects remain our subject to some extent. In specific terms, this has several implications for how archaeology should operate its concern for mobility. The archaeology of past movement operates in reverse to those understood in the ‘face-to-face’ mobilities that Sheller and Urry discuss. Our objects and subjects for movement have already moved, as it were. To take this idea a little further, our perspectives are primarily about movement as material, related to issues associated with materialization – movement that is materialized. In contrast the social sciences paradigm
observes mobility as it happens. Thus, archaeology and social sciences to some extent operate at each end of a continuum, along which towards one end lies movement as a materializing process and towards the other the turn of its mobility as solid, materialized forms.

However, while the already moved materials are archaeology’s concern, we have also at the core of practice contemporary movements: the ones that we adopt when we carry out excavation or landscape survey. The interface between these two positions – between the state of movement as already happened and materialized in the past, and our movements in interpreting these materials in the present – for this is where the interesting point of convergence lies – poses a number of challenges in translation. Namely, that although it is the material we examine to gain a picture of the past, the material acts as a pivot from which there are other equally interesting mobile questions to be examined. For example, the linearity of the movement operation, the relationship between different agents (human and nonhuman), the rhythms and choreographies associated with past movement, and the nature of movement’s materialization. Furthermore, our own bodies are potential mobile subjects that can be used to gain knowledge of what it was like to move through a landscape using material features to help shape and guide those movements. This is somewhat similar to landscape phenomenology (e.g. Tilley 1994, Edmonds 2006), where the question has been directed towards understand the intersections with an external, material world, and the intentionality behind the construction of sites. The role of bodies in these processes of revealing the material in a more embodied way have helped to shape particular types of perspectives about the past; although usually, too little acknowledged.

The items I have just mentioned suggest that adopting the mobility paradigm ‘as is’ from social sciences is not in the best interests of what archaeology can gain from applying some of its own mobility thinking about the past. Nor does it help to identify what mobility can potentially contribute to other disciplines. Arguably, although not always, the social sciences’ mobility is largely associated with the ephemeral and transitory, mobility as it is observed in motion, so to speak. As I have suggested, archaeology is somewhat opposite. It has tended to
focus on the fixed, permanent and structural, the observation of material things in which the moving bodies involved are our own. As I have also suggested, this poses a number of challenges. As Edgeworth has outlined, studying the fixed, static traces inherent in sites ultimately leads them to becoming somewhat anachronistic and without their dynamic properties (the fixed material syndrome – Edgeworth 2011). Archaeology’s central challenge in adopting a more mobile approach to the past revolves around taking what appear to be the fixed, static material observations and taking a step back. Only in this way is it possible for archaeology to examine the interstitial positioning in-between movement as material and the thicker descriptions associated with mobile materialities – on the move – used to formulate past movement. In other words, exploring the tension between materialized and materializing movements in which the material acts as a pivot mean approach the study of past mobility through the present, in which the archaeologists’ body is used as a kind of surrogate for past bodies (the root of this idea associated with material practices – Lucas 2001: 202). What I want to examine in the next section is a case study with which to link this theoretical polemic on mobility with actual mobility materials.

Vatnsfjörður – a landscape in north-east Iceland

The farm Vatnsfjörður is a central place within the local district called Reykjafjarðar og Mjóafjarðar við Ísafjarðardjúp (see Figure 2.1). Located in the northwest of Iceland, in an area called Westfjords – Vestfjarðir – Vatnsfjörður was one of the most important seats of wealth and power in Iceland’s history when written sources on the history of Iceland were emerging in the thirteenth century (Milek 2011: 15–6). According to the Book of Settlements – a document detailing the settlement of Iceland between AD c.870 to 930, with the earliest extant version dating to around AD 1275–80 – Vatnsfjörður was settled by Snæbjörn Eyvindsson, who laid claim to a large tract of land between Mjóifjörður in the west and Langidalur in the east (Hermann and Edwards 1972: 71). In another source that was compiled in the mid-thirteenth century – according to the Story of the Conversion (Kristni saga) – it is mentioned that by AD
1118 Þórðr Þorvaldsson of Vatnsfjörður was one of the thirteen great chieftains in Iceland (Grønlie 2006: 51). What is more, Vatnsfjörður importance is illustrated by the fact that it was the only chieftain settlement specifically mentioned in the Westfjords region. Another later occupant of the farm at Vatnsfjörður, Þorvaldur Snorrason, established a church before AD 1200, and by 1273 it was reputed to be the second wealthiest church in Iceland (Milek 2011: 15–6).

**Figure 2.1 Map showing the study area (excluding the south-western area)**

During the thirteenth century Vatnsfjörður played a leading role in the politics of power in the Westfjords, and helped to shape the development of the Icelandic nation during the medieval period (Tulinius 2005). Between AD 1277 and 1342 Eirikur Sveinbjarnarson – residing at Vatnsfjörður – was influential in the region as the head of the Norwegian court for the North and West of Iceland (Tulinius 2005: 12). By 1433, a part of Vatnsfjörður was owned by the church, who probably coveted the many rights that Vatnsfjörður owned, such as to farm produce, property and access to resources such as peatland, woodland, and driftwood in the north-west and other parts of Iceland. The farm remained wealthy throughout the sixteenth century, but appears to have lost its influence on domestic affairs by the mid-seventeenth century.

**Figure 2.2 Two landscape archaeologies: 2005–2010 archaeological survey by author; 2010 archaeological survey using Icelandic methodology**

The settlement at Vatnsfjörður has been part of long-term research project that started with the excavation of the Viking period longhouse in 2003 and 2004 (Edvardsson 2003, 2004, Edvardsson and McGovern 2005), expanded in 2005 to continue excavation at Vatnsfjörður but also to study the surrounding landscape (Friðriksson et al. 2005), which has continued to do so
every year since. The main objective has been to investigate the social, economic and environmental changes that have occurred at the farm of Vatnsfjörður and environs between its foundations (probably in the late-ninth to early-tenth century) to its recent history (twentieth century). The approach taken has been a multi-disciplinary one, incorporating textual, archaeological, and environmental evidence, from the collective experiences of an international team of archaeologists, historians, and natural scientists. In so far as the project has a single focus, it aims to investigate Vatnsfjörður as a seat of power has three research questions: to try explain why this farm was chosen as a chieftain’s seat, specially its geographic location; what factors and social processes enabled Vatnsfjörður to flourish as a social, economic and cultural centre between thirteenth to seventeenth centuries; and why its importance declined during the seventeenth century (Milek 2011).

The majority of the fieldwork and use of resources have been directed towards two major excavation areas: the Viking period settlement area, and the early modern farm at Vatnsfjörður. However, the programme of landscape research, while regarding the social, economic and political efficacy of a place like Vatnsfjörður, alongside environmental work (Milek 2011), has also explored the practices past movement. Archaeological survey has occurred in two areas: inside the infield areas of the 19 farms in the region, but also the areas outside the infield and in the spaces in-between settlements. The two surveys are presented side-by-side in Figure 2.2.

Without going into too much detail about the surveys, over 60% of all sites surveyed in the Vatnsfjörður area were cairns (c.570; Figures 2.3 and 2.4). These sites are small stone built features (typically around one metre wide and tall), used for a variety of purposes such as marking boundaries, memorializing folklore, acting as time markers. However, a significant use of cairns was in guiding iterative movement; whereby cairns acted as waymarkers that were spatially extensive across the landscape. Furthermore, there were mobilities associated with these other uses, such as memorializing events, ascribing folklore to ‘wild’ areas as they were moved through, as well as moving to specific locations in the landscape for time marking and in ensuring the confinement of territory in boundary creation. Besides identifying the potential
multiple uses at each cairn, the site was recorded, photographed and located using a GPS. From this data, it has also been possible to reconstruct the material infrastructure relating to movement in a community; a series of routes that dates to at least the late-ninth to early-tenth century in some places, but which have had much longer lasting use into the mid-twentieth century. Today, the cairns are a relict feature, hidden amongst a modern transportation infrastructure of tarmac and gravel roads. Many of the cairns can potentially be dated to the formative phase in the medieval period, if not earlier. Although questions of dating are important in this respect, to examine the nature of change in movement practices and in marking practices over time, distract from the principal aim of this chapter: to demonstrate the potential of examining past movement in the present through the shared interface of the material itself. To do this we need to situate moving bodies with the material evidence of movement. As I have suggested, contemporary archaeologists are surrogates for past bodies, and quite literally through them it is possible to inhabit past movement.

**Figure 2.3 A typical cairn; a fusion of nature and culture (uid 502)**

There are several ways to inhabit movement. To move through a landscape is to dwell in movement, occurring when one relates to and reflects on the material world as it is experienced and moved through. There is parity therefore in inhabiting movement and landscape in the juxtaposition of moving bodies and material systems that were part of the movement operation. In the case study around Vatnsfjörður sites such as cairns were associated with routes across the landscape that have been reconstructed. Whereas, the material systems are the fixed, immobile structural anchors that guided movement and have continued to guide movement as survey targets, the moving bodies are the living, highly dynamic properties in the movement relationship. Unlike the structural anchors which act somewhat passively during a movement operation, moving bodies actively negotiate the passage of movement by either choosing to
follow guides or not, and making the decisions concerning origins, destinations, direction as well as speed.

**Figure 2.4 Cairns (left) and reconstructed tracks (right) with farms juxtaposed (larger black dots)**

The underlying assumption is that the people in the past principally used the routes marked by cairns to guide and take them to different parts of the landscape. This does not exclude other kinds of movements, such as those that were unmarked, just that the empirical ‘science’ that archaeology is a part of requires hard, material evidence and so it is impossible to enter into a discourse about these un-materialized movements without resorting to an unsubstantiated and speculated argument. However, the acceptance of the fact that not all mobilities have become materialized leaves the question of movement usefully open ended. Archaeologists cannot inhabit or know all past movements; this would be a rare thing indeed. This also distinguishes an archaeology of movement from other disciplines about mobility. Archaeology addresses the fragments of past mobility by piecing together the recurring, materialized movements. It has been suggested that archaeologists work on what is left (Shanks 2012) or that what remains residual does so because it is important and has continued to have value for each event of re-negotiation (Lucas 2008). The remains in the landscape, and how we understand the reasons for past movement – within the operation of movement – therefore requires a different set of parameters to be considered. But in order to conceive the immaterial – like much of past movement – archaeology tries to understand it in material terms (Buchli 2010: 185). The entry point for understanding movement in material terms in the case study comes from considering the mobile materiality of cairns.

The construction of cairns in forming routes suggests were large investments in time and resources, and immediately tells us something about a particular kind of past movement in this landscape: that is was important to mark routes for iterative movement. In this type of
movement there was a deliberate intentionality behind the construction of cairns and the formation of routes, which were from time to time repaired, maintained and altered. Thus, it is also possible to discern different phases of construction, use and alteration, demonstrated by the variations in styles and the rebuilding of cairns along many of the routes. However, while the material tells us a lot about potential use and function, it is only through using our own bodies that we begin to enter into a dialogue about actual past movement – about the tactics of past movement (Aldred 2014). There are two sets of tools that can be used to tease movement from archaeological objects: operational chains and rhythmanalysis.

**Cairns, routes and operational chains**

*Chaîne opératoire* or operational chain was Leroi-Gourhan’s extension of Mauss’ *Body techniques* (Leroi-Gourhan 1993, Mauss 1979) and expresses a simple idea: a series of interdependent processes that are connected to one another along a chain of ‘material’ transformations. In archaeology the operational chain idea has been used to examine mostly artefact production (Lemonnier 1993, contra Warnier 2009). And this has generally been used to reflect upon technical processes associated with the ‘manu-facture’ of objects through ‘a series of operations which brings a primary material from its natural state to a fabricated state’ (Cresswell 1976: 6, quoted by Lemonnier 1986: 149); in other words expressing a kind of linearity.

More recently, the idea of ‘material’ transformation has been applied to bodies as well, and the co-constituent forces that are involved in any transformation along an interconnected chain (Dobres 2000, Naji and Douny 2009, Warnier 2001, 2009, Coupaye 2009). In this respect, the *objects* of primary interest for an archaeology of movement are things like cairns but also moving bodies when they enter the chain. The feature of linearity and co-constituents in an operation of movement, also lead to considering resonance and feedback associated with the path dependency of movement. So while cairns have a fixed, material presence in the landscape, when they are viewed through practices that actually involve motion, they become mobilized, as
it were. Mobilized in the sense that they were viewed multiple times, each time differently, at particular junctures along a route bringing into play different forces; c.f. route 2 (Figure 2.5).

Figure 2.5 Visual envelope (viewshed) from cairns 11 and 12 (left), and the visual connections between cairns (right) along route 2

The basic operational chain as a pure sequence is constructed by arranging the passage of moving past each cairn, one by one. This also allows the basic operational chain to be expanded as a kind of narrative device, in a way like the time geography affect discussed earlier. For example, from Reykjafjörður the route that follows the cairns upslope takes the easiest route up through the basalt strata that created geological benches defining the ridge over which route 2 traverses. By following the route it is possible to reproduce another operational chain [with cairns that correspond to the numbers in Figure 2.5]:


This ordering represents an internal logic to the movement operation, but only in one direction. In the opposite direct there is a different chain. In the direction from one farm, Reykjafjörður, to another called Sveinshús, there is a greater visual affordance at the start of the route as many of the cairns (cairns 1–7) are visible to one another. Arguably, cairns were made more mobile by being visible from multiple view points along a route. Visibility was enhanced through design and placement such as by being built on outcrops that elevated their visual affordance, as well as located on edges of the basalt bench (as in cairns 1–6). But the cairns, in general, are also mobile in the sense that they have been built from local stones gathered from around the cairn (but occasionally brought from elsewhere), and built according to different designs, that defines the route up into a series of other stages and other operational chains.
For example, it is possible to explicate the route as a series of transitions through the landscape derived from the staged affect that comes from the actual operation of movement.: from the farm, out of the domesticated land – beyond the homefield boundary, to the ridge (Reykjarfjarðarháls) that separates two settlement areas from one another across which there is a degree of superstition (cairn 11, Figure 2.5), to the next farm’s domesticated land – at Sveinshús at which there are is a welcoming ‘gateway’ cairn arrangement along a ‘corridor’ formed by an old river channel. However, this is a description of the route as another operational chain, but does little more than the previous chain as it describes the topography. However, what is beginning to be revealed are the locales of transformative states through which a person moving along this route would have experienced. Thus, a more revealing operational chain is one that defines more pertinently the on-the-move relationship between the material organization of the cairns and the bodies moving along the route.

Material corridor – Junction - Visual links - Between farms - Gateway - Topographic corridor

**Figure 2.6 Route 2 – operational sequence and status of cairns**

The material transition points along the route itself, and how one stage dissipated into the next suggests the ‘in-togetherness’ of movement corresponding with a series of different parts that also behave as a continuum and as series of transitions. For example, the material systems such as cairns, the underlying topographies, and the people that used them to move from one farm to the next or for other more specific activities such as going to church. Figure 2.6 suggests a possible operational sequence as a narrative that identifies and defines transitions along the route that are defined by their co-constituent set of relationships between different parts; mobilizing the cairns and bodies into a single movement project. This perspective is also a way of addressing an archaeological problem that underlies the study of themes like past movement: how to study a dynamic and mobile practice from fixed and static remains. One technique that is
applied through the operational chain, and which archaeology finds itself in continually, is that in order to conceive the immaterial – like much of past movement – archaeology must try to understand it in material terms (c.f. earlier, Buchli 2010: 185).

Operational chains therefore are used to assign precise descriptions of movement practices through their use. Thus, material sites such as cairns that form broader coherent units such as route (assemblages, as it were), can then be used to compare different movements between various parts of a landscape. Such a perspective gives rise to a better representation of a landscape that was used and continues to be inhabited by people on-the-move, while giving a sound practical and theoretical basis for advancing a problem-orientated archaeological practice.

Another technique that has similar outcomes is rhythmanalysis. Rhythmanalysis has had limited exposure as a practical device for studying dynamic practices, but has had fairly comprehensive theoretical discussion (e.g. Lefebvre 2004, Mels 2004, Edensor 2010). The root of rhythm’s theoretical discussion is derived from Gaston Bachelard’s philosophy, inspired by Lucio Alberto Pinheiro dos Santos (1931). Bachelard suggested that rhythmicized living and thinking could be an alternation of activity and rest could lead to a cure for general depression and mental apathy (Bachelard 1936): ‘a rhythmanalysis that would tend to reconcile and lighten the ambivalences that psychoanalysts find in the disturbed psyche’ (Bachelard 1994: 65). Following and building on these ideas much later, Lefebvre (2004) suggested that an emerging science called rhythmanalysis could investigate the complex interactions of cyclical and linear rhythms from how bodies interact with everyday, temporal rhythms.

In the limited practical demonstration of rhythmanalysis, mainly in social sciences and geography the focus has been directed toward the study of just the body, such as its circulatory system. However, the theoretical basis for rhythmanalysis makes it clear that the potential is co-joining the study of bodies and materials. For instances, the premise for Lefebvre was that ‘everywhere where there is interaction between a place, a time, and an expenditure of energy, there is rhythm’ (Lefebvre 2004: 15). The focus on this interaction has to a large extent been on the body (active) in its relation to (passive) space and its objects. Each body and inter-bodily...
space ‘may be pictured as possessed of specific assets: the *material* (heredity, objects) which serve their starting point, and the *matériel* which they have available to them (behaviour patterns, conditioning – what are sometimes called behaviour patterns’) (Lefebvre 1991: 234).

In advancing rhythmanalysis, and these practical, but general examples, Lefebvre used musicology, exploiting the triad of *melody* (sequence of notes in temporal succession) – *harmony* (relying on notes being played at the same time) – *rhythm* (the placement of notes and their relative lengths), uniting them into a trialectic, an approach that underpinned his dialectical, materialist philosophy in terms of synthesis (Lefebvre 1968). ‘Music integrates the functions, the value of Rhythm … ’ (Lefebvre 2004: 66), just as movement itself integrates the different relationships between material systems and moving bodies. Rhythm therefore has the ability to give an alternative to the mathematical models of calculation and measurement that were prevalent in other mechanisms that aimed to bring together space-time, such as time geography.

The paradox that Lefebvre left us with was that in order to study rhythm one must be placed outside of them: to be in rhythm is not to sense them (Lefebvre 2004: 27); to analyse rhythms ‘one must get outside it’ (Lefebvre 2004: 88) which may mean maintaining a material distanciation. Yet Lefebvre also advocated that to know rhythm one has to live in them. Thus, the contradiction lies in giving an analysis of rhythm enough distance so as to recognize it but without being too affected by its progression and losing its lived-in qualities. Thus, by its necessity rhythm is studied *both* from the interior (at the level of the body) so that one can ‘listen’ and perceive its exterior (from the collective or assemblage of moving bodies and materials). In this way, material systems and moving bodies remain *entangled*. Arguably, the emphasis on these recent studies derives from a systemic misunderstanding of Bachelard and Lefebvre that has focused on the interiority of rhythm as the only ‘site’ or centre of calculation. Whereas to fully account for rhythm in movement – as a means by which to explain past movement – the convergences of multiple rhythms and multi(ple)-sites is foregrounded.
How archaeology studies rhythm in the context of movement, whether from the perspective of Lefebvre, or more recent work by Edensor (2010), Mels (2004) and Ingold (2011), is still wide open. One study has however explored the notion of rhythm as a way of conceptualizing the relationship between humans and environments (Sturt 2006). Although applied to maritime and wetland areas, and in an altogether different period (Mesolithic to Bronze Age), the study flags the potential in viewing the human/environment relations dynamically through rhythm analysis. The emphasis is not so much to do with movement *per se*, but as a way to overcome the tensions that exist in landscape archaeology between Cartesian, map-based approaches and phenomenological, experiential ones through the ideas associated with lived space and rhythm.

The disciplinary problem is one area that rhythm can help to overcome. Another is the actual rhythmic properties and their time-depth in a landscape inhabited by people. The central feature in rhythm and movement is connected with the merging of both time and space through principals of synchrony and synchorisy. As Leroi-Gourhan suggests rhythm is a means of ‘domesticating’ space-time, which creates a more humanized understanding (c.f. Leroi-Gourhan 1993: 313–4), as opposed to an abstract sense, of space and time which many archaeologies employ. And just as in movement, this is more than either measuring distance covered or the time taken to move but combining distance and time into a single entity: rhythm. Rhythm therefore extends movement from an abstract veneer, as something that happens without material effect, into a series of tangible movements that can be measured and compared. Most of these tangible aspects of rhythm are ‘felt’, but what I aim to do is to give them some kind of material form, to express rhythm’s spatial and temporal compression by combining the material systems and the moving bodies into a single entity.

Representing these aspects of rhythm in a form that can be understood by others is challenging because of the difficulties of encoding the forces and the progression of spatio-temporal movement shown as landscape. Usually a landscape is presented as a static image, but it would be better to represent its dynamic and moving qualities by showing the peripatetic and
actual movements as an image through video (c.f. Witmore 2004). Assigning movement with its
dynamic qualities that emerge from displacing space and time is one of the features that come
rhythm from a movement that is felt (interior) to something that is abstractly represented outside
of the body (exterior) is for analytical purchase. This is also useful in so far as it helps find a
means by which to align past materials with contemporary moving bodies, transgressing a major
limitation for examining movement in archaeology; the opposite of that in other disciplines: a
representation of movement that is all material without bodies.

Thus, the aim of rhythmanalysis, and its application in archaeology, is to demonstrate the
extent to which movement can be examined independently its past moving bodies. In this
respect historical enquiry, GIS and embodiment, and time geography can potentially become
thoroughly entangled with one another. This leads to a tantalizing proposition, one that was
alluded to with respect to operational chains. That actual movement in the past that helped to
materialize movement in the landscape, and the virtual images of those movements that
archaeologists reproduce from the material record, can begin to merge through the
representation of movement as a rhythmic signature. The rhythmic signature therefore is a mix
of the actual and virtual in which there is a transference between two sets of movements:
between those that have become materialized in the past and those movements in the present.
Aligning these past materialized movements with contemporary moving bodies produces a
potential actualized movement, and relies on mapping two interdependent layers: the material
system composed of sites, routes and landscapes that have been surveyed and interpreted; and
the movements of archaeologists, recording the distances and times it takes to move along
routes.

Cairns and landscape topography can be employed to realize this approach. Cairns
arranged into well-defined routes, drawing on the collective knowledge of inhabiting the
landscape for many weeks every year, gave the opportunity to experiment on different ways to
document movement, based on the premise of merging the material remnants of past movement
in cairns with those of the archaeologists moving along them. Several of the 85 routes that were interpreted in Vatnsfjörður’s landscape were walked using a GPS tracking device that measured speed, direction and distance related to the movement of those individuals that were tracked. What this produced was a detailed, measured data set with which to relate human mobility to the routes that had been surveyed. The rhythmic quality associated with each route was therefore created by combining the actual data collected while moving, added to the spatial and material arrangements of the route, the cairn and the topography of the landscape, especially the angle of slope (generated from DTM using GIS).

Figure 2.7 The rhythmic signature along route 3 showing angle of slope (real values), cairns (x2) and speed (km/hr) – without the stoppages i.e. 0 km/hr

Although route 3 only contained two cairns, it had a well-defined, hollowed track that ran from the farm of Vatnsfjörður to sheep houses that were old in the late-nineteenth century. By examining aspects of the material – principally the topography, alongside the two cairns, and the speed of an archaeologist moving along the route from Vatnsfjörður to sheep houses, a strong correlation was demonstrated on the graph between the angle of slope and the moving average speed (Figure 2.7). In another example, using a similar technique of combining different facets of the temporal and spatial features onto an abstract graph, it is possible to examine further the transitional features associated with movement that can help to explain past movement practices. Along route 8, although a different archaeologist than the one moving along route 3, a similar alignment appears to be happening between the angle of slope and the speed of moving. Thus, in experimenting with tracking devices in order to determine the kind of relationship that a moving body has with a route, the cairns and the landscape, an actual model can be applied to the landscape and the routes so as to gain a better insight behind past choices being made in the construction of cairns and their placement in the landscape, and why certain parts of the landscape were used for routes and not others. Some of these questions can be
speculated on by other means, but the rhythmanalysis establishes a sound empirical basis for such an interpretation that inevitably leads to reconsidering static and fixed remains such as archaeological sites and the landscape in a more dynamic, mobile way. Therefore, the material is itself constitutive of many aspects of past movement, but in order to get from there to here moving bodies have been used to ascertain the correct formula for unlocking this correlation, which may be different for other landscapes and archaeological sites. However, rhythmanalysis when used in this correlative way is like a *Rosetta stone of movement*. It enables archaeologists to translate a fixed, material property into a dynamic one.

**Figure 2.8 The rhythmic signature along route 8 showing angle of slope (real values), cairns, other features and speed from two different surveyors – without stoppages i.e. 0 km/hr**

**Some conclusions**

In several steps, past movement has been articulated through operational chains and rhythmanalysis. The main objective has been to interrogate the form of past movement as an operation, its strategies and tactics as a material practice, and the role of mobile bodies in advancing an understanding about the inhabitation of landscape. The two tools that I have offered have approached the problem from two different directions that can be neatly summed up (though much reduced) in two statements. Operational chains explored the idea that *movement makes material*, in which understanding the operation of movement has allowed its internal logic, in the study of cairns, to be unravelled: *movement as a journey*. In contrast, Rhythmanalysis explored the notion that *material makes movement*, which produces a rhythmic reaction corresponding to the topography and positioning of the cairns in which the interior of movement is externalized, as it were, through a distanciation: *how* one moves during fieldwork has important consequences for the interpretative process, and presented movement as a conjunction between *body and landscape*. In their composition, both of these approaches have impressed the idea that in order to study movement there is a need to understand it not
dialectically, in-between static materials and moving bodies, but rather through the flows in which these two become co-constituent in movement. Because in as much as we want to define movement as flow, it is also defined by its fixed, structural elements that have often continued to have resonance from the past into the present.

In taking these the ideas forwards from what has been a complicated argument to their logical conclusion, it is necessary to ask two further questions that must to some extent remain unanswered until more work is done. The first question is: what does studying past movement bring to archaeology? Answering this depends on the position one takes about the object and subject of study in archaeology. If the task before us is to study what remains from the past and why there is preservation of past movement in one place and not in another, then understanding the way in which movement may have imbued materials into its project can be used to create an intellectual space for the examination of the structural efficacy of materials and their continued presence. An example that might help to answer this comes from archaeological survey and study of the repetitive reaffirmation of many routes in the same spatial location over the long-term. What this might suggest is that many contemporary movements have deep temporal relationships, say, across multiple generations of landscape’s inhabitants. Simply knowing more about how people moved in the past also means getting to know what the conditions were for the continued use of material forms and behavioural mechanisms behind inhabiting the landscape.

The second question is: what can archaeology add to the mobility paradigm? I think one of the most interesting features of studying movement from an archaeological perspective is the work that goes into linking different temporalities together, such as the present material aspects of movement, over and above the absent human witnesses from the past, and the types of tools that are used to study these. Archaeology has worked hard on trying to understand the formation of its objects and subjects from a living system to an archaeological one (for more work that is influencing contemporary practices c.f. Schiffer 1972, 1985, Binford 1962, 1981, Barrett 1988, Patrik 1995, Hodder 1997, Lucas 2012), and this work is underwriting the approach taken here.
Where it departs from the majority of these perspectives is on whether things stand-still, or if they do at all. Many contemporary practices in archaeology treat archaeology as static, as a so-called straight line: that as soon as a thing becomes buried, as it were, it stops moving. But this is far from the case (cf. Aldred 2014). Past objects continue to move in some form, perhaps much more slowly than when they were used more often or before when coupled with certain agents such as humans. As soon as objects come into contact again with humans they increase in their speed. Becoming ‘archaeological’ is a part of that speed: excavated materials moved around a site, packaged and labelled and processed, and reproduced through these practices; or cairns mobilized for an archaeological survey – translated and represented in new forms. Archaeology therefore is defined not by a simple flow which moves from a living system to a fossilized one, but by inchoate periods of mobility and dispersion operating along operational chains and rhythms, that move at different speeds.

If archaeology is to be defined by its materiality, then it is also defined by these fluctuating mobilities. And this notion of flow and variation in seemingly inert things can be added back into the mobilities paradigm by giving presence to the tensions that tend to be black-boxed: the pairing between fixed, static objects and mobile ones. Indeed, the Emerson quote at the start of this chapter can be extended further: ‘every object is covered over by its hints’ … of past mobilities, and archaeologists can reveal them.

References


Edensor, T. 2010. *Geographies of Rhythm: Nature, Place, Mobilities and Bodies*. Farnham: Ashgate.


