

**Walking Severn Miles:
The Affordances of Fresh Water**



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Carried away by torrents and their own weight, halted by obstacles or their own shape, stones descend and break, carve into the talweg the long path of their fall or movement. Masses of sand, driven by the wind, file away at the mountain.

Ice cracks and breaks stones and trees, cliffs and the earth on the plain, as does drought.

Who is writing?

Water, snow, the return to gentler weather, opiate, granite, equilibrium, density, energy, sun, flora and fauna. This covers, that stains.

On what do they write?

On snow and water, on fauna or flora, on marble or ice. What the earth displays results from the wrinkles it gives itself.

A page.

What we reveal to others is a consequence of the erosion that others and things leave on our faces and skin, or from the shrinking of the harder skeleton, a worn-out frame on the edge of ruin. Whether we write, or are written on, our case is no different from the everyday concerns of geography. The constituent parts of the flesh wear each other out:

biography. (Serres 2008:275)

Beginnings are always arbitrary, always imagined. One can always extend the genealogy and go back further, or move off sideways seeking the skeleton in the closet. (B. Anderson & Harrison 2010: 3)

Abstract

Following a call from Linton (2010) to *think more relationally* about water this thesis seeks to explore the infolding and unfolding relations that take-form between bodies around particular characteristics of freshwater. There is a tradition of exploration regarding the sustainability, quality, monitoring and management of water when we encounter research on human associations with fluvial hydrology, and whilst this work is important, this project looks to enrol more nascent and contemporary geographical themes to broaden our understanding of encounters with freshwater landscapes, and take a more relational approach to fluvial geographies. These works then shall address a gap in the geographical literature and describe the personal, pre-personal and affective worlds that emerge when bodies become *down by the river*.

Whilst this is not specifically a walking project, walking the course of the River Severn serves as a trajectory along which processual ideas of *bodies on the move* shall be mobilised. A series of creatively written segues will link together a sequence of theoretical and conceptually driven site ontologies (Marston *et al* 2005; Woodward *et al* 2010) and relations associated with the Severn and freshwater more broadly. The flow and form of the thesis will reflect the multivariant characteristics of water and its varying speeds and slownesses. The chapters will step into puddles, mooch about in a ships graveyard, rethink the *source* of a river, paddle a coracle and set the scene for how an ontological, relational approach to fluvial landscapes can contribute to geographical thinking. The works will focus on human-nonhuman relations, vibrant materialities and elemental mobilities, in so doing enable further understanding of how we can apprehend sites as moments of coherence in a turbulent world, and contribute to broadening our scope of knowledge of the more-than-human.

Keywords: relationality, site ontology, fresh water, movement, nonhuman agency, entropy

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Prelude: The Way to the Severn

As arbitrary as **beginnings** may be (Anderson & Harrison 2010; Derrida 1997; Foucault 1986) as a point from which all else follows, here we set the scene for what emerges hereafter. This is not a starting point, but is recognition of the preceding events that have come to gather here, to be folded in, and from which this thesis emerges. Later on we shall be more explicitly reminded of the pointillistic (Doel 1999) notion of an *origin* where the *source* of the Severn itself comes to be ontologised as a gathering site, an accumulation of forces into a moment of coherence that unfolds into the rivering of the Severn, offering us possibilities of river (Lavau 2013). From the Severn basin some of the affordances of encounters with freshwater will be elucidated, and its multivariant characteristics of flow and form as Severn stream writes the earth and inscribes its story shall be related to a sequence of ensuing relations, and moments of coherence. My aim is to *write-with* it, my footsteps are what really wrote *on* it.

Severn and I move together, go with each other and at times against each other, along the *thalweg*¹ we tread the valley floor together, carve our paths, we will write this together. Severn stream unfolds from the peak of Plynlimon or Pumlumon (Welsh), the highest point in Central Wales' Cambrian Mountains at an altitude of 610 metres, and follows the fall to the sea over a distance of approximately 220 miles, which makes it the longest river in the UK. The *Severn Way* is a way-marked walking route that traces the Severn and the talweg over its course to Severn Beach where it mingles and mixes with the sea. The footpath itself is just short of the topographical distance of the river as it doesn't exactly follow the channel at all times, a particular example is the sequence of meanders that characterise the Severn's form in

¹ See Serres (2000, 2008) where he refers to the thalweg (also spelled talweg) as a line of declination and optimised flow, a kind of *fall line* where energy will flow along its path of least resistance. Here this relates to the path of the river channel along a valley floor, there will also be a thalweg within the body of water as a sinuous line of optimal flow, a medium of the overall direction, which fluctuates in response to its surroundings and obstacles.

Shropshire, around Shrewsbury. Here the path cuts a straight line, effectively taking a short-cut (Marsh 2014). However, we shall see later in the thesis that measured distance becomes arbitrary as relations come to be configured by intensity, and the always varying speeds and slownesses of participating bodies, rubbing up against each other, hanging together and becoming dispersed yet remaining more-or-less intensely connected. This project then is set within a topological frame (Allen 2011; Dixon & Jones 2015; Marston *et al* 2005; Paasi 2011; Woodward *et al* 2012), and this highlights a tension, between a particularly human sense of journeying, of destination, that cannot help referring to distance, clock time, targets and goals, but this tension to some extent comes to be resolved herein whereby topography becomes a necessary backdrop to a contingent infolding and unfolding of topological relations. It helps keep my body grounded amongst the flows and blockages of things.

The Severn itself is relatively underexplored academically, although Owain Jones has written about the tidal estuary and its affective rhythms (2010; 2011) and has related autobiographies of memory and loss to his passings over the Severn Bridge (2015) and has considered water more broadly, particularly in relation to artistic practices and soundscapes (see contributions to the forum hydrocitizens.com). This project however aims to highlight varieties of flows and forms of freshwater amongst the Severn and its environs between the estuary and the uplands, and describe how particular sets of bodily relations come to be configured around characteristics of speed and slowness as contextual *sites*, which in turn will reveal the agential capacities and affordances of freshwater.

There are several points of literary interest that emerge and recede throughout the thesis and have contributed strongly to its inspiration. For instance, Milton's *Comus* (1634) describes the genealogy of the mythology and legend associated with the Severn that emerges through its alternative name, *Sabrina* (see chapter 4). A.E.

Housman reminds us of how relations with the Severn are embroiled in being a *Shropshire Lad*:

High the vanes of Shrewsbury gleam

Islanded in Severn stream;

The bridges from the steepled crest

Cross the water east and west.

The flag of morn in conqueror's state

Enters at the English gate:

The vanquished eve, as night prevails,

Bleeds upon the road to Wales. (Housman *circa.* 1896: xxviii *The Welsh Marches*)

In *Wild Wales* (1919), George Borrow set out across 'a mountainous wilderness' (577) led by a sheep farming guide to find the *source* of the Severn where he insisted that:

It is not only necessary for me to see the sources of the river(s), but to drink of them, in order that in after times I may be able to harangue about them with a tone of confidence and authority.

Then follow me sir; but please to take care, for this path is more fit for sheep and shepherds than gentle folk. (*ibid.*: 578 brackets added, as the *Wye* and the *Rheidol* also unfold from *Plynlimon*, and Borrow's intention was to see them all, particularly the *Wye*, which he preferred).

Upon reaching that which his guide proclaimed to be the source, Borrow remarks that the small pool of water into which water rises from beneath is:

Rather a shabby source for so noble a stream. (580)

Brian Waters however, in his book *Severn Stream* that narrates his walk from *source* to sea in the 1940s is more intrigued, and also begins to introduce the arbitrary natures of its origin:

You may listen in the bog for the sound of the Severn, and sooner or later you will find its subterranean murmur. The source is not constant, and shifts over several hundred yards within the confines of the bog, but I found its presence in a spongy bubbling mass of iridescent moss. (Waters 1949: 12)

These literatures were to be inspirational guides for the human elements of the undertaking, the desire for discovery, journey and destination. However, whilst I would (at times) feel as if I have walked with these authors and in their footsteps (although now made much easier with the way-marked Severn Way), I would not literally walk from *source to sea*, rather I would walk sections, areas, upstream, downstream, across stream in response to how the Severn emerges and mobilises movement and pulls in bodily relations. The walks would be disparate, single days; two or three days at a time, yet this project will highlight how they were always-already bound to be strung together. Walking with the river in this way is not to unsettle its particular spacetime, but rather to more fully explore how relations around it come to be configured, which isn't always a matter of *going with the flow* in a literal sense. For Serres (2000), turbulence is a necessary force in the forming of relations and the collision of atoms from which life emerges (also see Lucretius 2007). It is the idea of the flow and fall of atoms, turbulence, the swerve, collision, the connectedness of all things, things which are essentially made from the same stuff (Lucretius 2007; Serres 2000, 2008; Spinoza 2001) that serves as an overarching inspiration for this project

I had found my way to the Severn again and this was a returning to an already familiar landscape. This actually highlights a certain taken-for-grantedness of rivers, riverscapes and the provision of freshwater that this project seeks to address as we *think more relationally about water* (Linton 2010). Landscapes and memories, dreams, imaginings, experiences and encounters are embroiled together, more-or-less in tension (Wylie 2007), held in suspension awaiting mobilisation and as such a personal biography will also run through this project as a connective thread. Moments of

introspection, melancholy, thought, recall (voluntary or involuntary) are inescapable, and yet still somehow fugitive and I was never quite sure how they would emerge, but I felt they should feature within the thesis as elements that are inherently bound up with body-site relations.

I had found my way to the Severn again. I grew up in the West Midlands, and not far from there (14 miles) the Severn cuts through the historic market town of Bridgnorth, Shropshire. As such it was a popular family day trip and bank holiday destination, and also a place where I and my friends would live through some of the frivolities associated with the exuberance of youthful experimentation, in a manner of speaking. I have also spent a fair amount of time at other towns and cities that the Severn passes through; Shrewsbury, Worcester, Newtown, Welshpool and some of the smaller villages; Arley, Quatt etc. As such a particular sequence of events would mobilise a gathering together again. We had always been connected, but I had more-or-less forgotten how intensely.

My Father had come back from Canada. I had lost my Mother (his first wife) to the big C nearly 10 years before. He had come back to the UK around the Christmas of 2013 in my first PhD year, following a rupture in the relationship with his second wife. It was now my turn to help my Father. He stayed with us over Christmas, he wasn't himself, he was tired. Nevertheless, in the New Year we hired a van and I helped him move into a property in Glan Y Nant, just outside Llanidloes. After he had settled in we went to visit him and he seemed to be a little more re-energised, which in no small way seemed to be helped by the approachable people of Llanidloes and the setting in which he began to settle. He had started a weekly writing group in a local pub and re-engaged with some of the things he liked to do.

I knew the *source* of the Severn wasn't far away and he opened out an Ordnance Survey map and showed me the *Severn Way*, and the point where the source is marked. We all took a drive to Hafren Forest not far from the house, which is

about as close as you can get by car, and from there one can walk upstream along the river's course to the steep uplands of Plynlimon². After taking a boardwalk upstream alongside the river over some boggy ground, a sign marks the way to the source. With children, a pushchair and little time we didn't feel it the right time to tackle the rocky steps and muddy ground that seemed to characterise the journey from then on (it is also interpreted as a 1-2 hour walk), and so we circled back. As we stood by the river briefly, I became absorbed by its energy, shallow and fast flowing; its inscription, and its relentless suggested destiny and certainty, for a moment I was carried away by its flow, back to Shropshire and the river's capacity to connect things together became apparent. Not just earthly processes of weather, surface, slope, soil, geology, elements, gravity, but also people, nonhumans, dreams, memories, imaginations, lives, deaths and entropy. All at once these elements orbited around this riparian world and stretched out beyond me, as I simultaneously felt the weight of the drainage basin upon me, the gathering in of that which had come before. In this moment I was caught up in a turbulent milieu and I felt close to the Severn in a way that was hard to describe, I just knew something had become clear, I had to walk-with it, I had to write-with it, I wanted to go where it was going, we could tell each other's story. The project was already conceived and the experimentation had already started, I just hadn't known it yet until then.

² Hafren is the Welsh name for Severn, meaning border, and Pumlumon is the Welsh for Plynlimon (see Bibby 2002; Borrow 1919; Waters 1949).

Prologue: Approaching Performance

I had arrived by car at Abercych, a hamlet nestled in rural Pembrokeshire that follows a thread, strung out by the only road that passes through and snakes its way down and up the valley sides of the Cych. I wasn't completely unsure of what I should expect as I approached this weekend, having already been introduced to the work of *human-mover*, performance artist and practitioner, Simon Whitehead through some incredibly rich and inspiring conversations with Carl Lavery. In fact my invitation to the event dropped into my inbox with a simple message from Carl, 'I recommend this. C.' I hadn't really had time to explore Whitehead's work in detail, but some of the underlying themes of the *Maynard, Come Home* event, as expressed in the workshop literature – home(ing), birth, embryo – were enough to offer me a calling, a calling that I would follow to a small car park alongside the Cych. However, I didn't know exactly where to go when I got there, exactly where the village hall was, I also didn't know how the sequence of performances would play out, I just knew that I hadn't passed the hall on the way in, and so I would leave the car on foot, and follow the tarmac thread uphill. I'm no stranger to art galleries, or talks and presentations delivered in creative, performed, expressive ways, but had yet to experience *sitting-with* artists and observing more durational performances. This kind of *watching* is perhaps more of a *witnessing* and requires a particular adjustment to the spacetime of the artist and their work that tells us more about the qualities and types of attention we should give, rather than simply watching, just paying attention (Loveless 2013).

The atmosphere of the event already impressed itself upon me, after turning away from the car I noticed three bodies with backpacks ambling up the hill, along the tarmac thread. I quickened my paces so as to catch up with them, they were indeed moving towards Whitehead's event. One of the people I walked with was David Williams, whose seminar I had attended at Aberystwyth University not long ago as part of the *Ecology and Environment* series, run by Carl Lavery and the Department of

Television and Film Studies. There was already a sense of things coming together and softening into a form of coherence as we quietly flowed towards the hall. Three more bodies appeared, crossing the road to join us as we entered, which further enhanced these senses of arrival, of home(ing) in.

The formal act of registering my attendance seemed to be a strange anchoring point amongst a flow of conversation, meetings, greetings, familiarities, otherness, warmth, unexpectedness. A bank of seats revealed a section of the floor as a stage and amongst the shuffles of bare feet on wooden floor and waterproof jackets being removed was laced the sounds of an electric guitar, in tune, but with a slightly disorientating, strung-out and undulating rhythm. It sounded like somebody sound-checking and seeking a certain amount of reverb, and it never ceased. I realised as I had signed in that I'd been handed a compact disc, upon which the label read *Dulais Remix*. I had yet to make the connection between the strung out echoes that drifted in and out of awareness and the disc I held in my hand, leave alone how it was that this soundtrack was created...but that would become clear.

More people had now gathered and the hall was getting full - there was shuffling room only - as such we began to select our seats and settle down ready to be attentive. Carl Lavery was one familiar face, and his pleasure to see that I had made it to the event was reassuring and saved me from being overwhelmed by *newness*.

Whilst we were settling, Whitehead had been preparing, he was now lying prostrate on the floor, a slender figure, barefoot and all in tight-fitted black. He was laid out such that his legs were underneath a table, which was like one of those old school tables that just about fitted two people and has that strange plastic coating over the cold metal legs. There was no announcement that the performance was about to *begin* but a contagious intuitiveness and attentiveness drew everybody towards him. In fact such performances emerge, and gather momentum, rather than their being a hand clapping, 'right let's get started' kind of approach. As we steadily hushed,

Whitehead's deep, almost guttural breathing resonated. I found myself becoming drawn in to every more-or-less subtle movement, his chest rising and falling, his nostrils widening. Perhaps it is the expectation of movement that draws you in, a moment of incipency (Manning 2012) and it is a sense of knowing when the movement will happen that draws you into the spacetime of the mover and their performance (Bergson 2001). He curls, rolls, stretches and contorts on the floor, tensing, relaxing, curls into and out of embryonic poses. The soundtrack to his movement is orchestrated by the sweeps across the wooden floor and his breathing, and through a sequence of bodily meanderings and floated gestures he makes his way up from the floor, and onto the table. Whitehead and the table enter into a dance, one folds in and out of the other, and as he pivots the table's weight onto one of its legs he commences a spin, as the table rotates hypnotically Whitehead utters words, something along the lines of:

A spacewalking Apollo 9 astronaut describes his view of the earth, an embryo performs growth gestures in utero, a raven flies the same territory its whole life.

The table subtly quickens and slows as he keeps it in balance with himself, representing a connection to the cycles of the orbiting earth, and as it continues to spin he sings the chorus from Bowie's *Starman*:

There's a starman, waiting in the sky, he'd like to come and meet us, but he thinks he'd blow our minds.

There's a starman, waiting in the sky, he's told us not to blow it, 'cause he knows it's all worthwhile, he told me, let the children lose it, let the children use it, let the children boogie...

This is repeated several times as the table continues to spin, orbiting around musings over how the landscape and the universe, connects all manner of bodies together, birth, death and rebirth endure and persist (though not necessarily in that order). The starman of which Whitehead speaks is not viewing the spinning globe from a god-like

position, but he is seeing the earth as a sensing channel for all humankind, and he is up there, still tethered to it by an unseen umbilical cord. This takes us beyond birth, beyond the mother, beyond the human, these birthings we witness are not the beginning but are a continual, durational, birthing and rebirthing that get channelled through the gestational qualities and processes of *home*. The table slows, comes to rest, Whitehead makes his way back underneath, prostrate on the floor, a slender figure, barefoot and all in tight-fitted black. Whitehead's deep, almost guttural breathing resonated, I found myself becoming drawn in to every more-or-less subtle movement, his chest rising and falling, his nostrils widening. Just as there was no introduction or announcement, the performance just seemed to melt away into applause, Whitehead rose up and whispered his thanks.

As continuance of the birthing-rebirthing theme, Anushiye Yarnell brings the audience towards the milieu between childhood and adulthood by performing a dance with her young daughter (2 years old) as a way to break down the constructs of life. As she rotates, gyres, spins and twists her daughter coils with her, runs amongst the audience to return again, continually returning to her mother. Yarnell is expressing the qualities and processes of what it is to *nest*, to have a *nesting site*, as a place of refuge, to fly away from, but to always return. There is unspoken communication between daughter and mother witnessed by the audience as particular looks, smiles, acknowledgements, and as the durational performance unfolds and spreads out the movements and varying speeds of bodies becomes the rhythm.

Rosemary Lee then talks us through notions of abiding as a being-with, staying-with and a being somewhere, orbiting around senses of arrival and returning. Arrivals and returnings become continual, processual overturnings where multiple senses of homeliness persist around feeling centred, connected. Perhaps *home* is a centreless centre, an unstable-stability, a companionship between human and nonhuman elements, an inhabited worldliness that enables a flux of bodies to pass through, to

arrive, to leave, to return, a place that only remains fixed in our sensibilities that are tuned towards feeling the need to be settled, but is actually a place of continual change and process, positioned as it is along trajectories of growth, death, birth, loss, fortune, comfort, dislocation. We often feel as if we have returned home, despite the fact that it was always-already going to be different, yet still senses of *home* persist.

So what does this have to do with the affordances of freshwater, and the characteristics of water in and of itself? Everything as it turns out. It is against this backdrop that this thesis is set, the overarching themes being that of connectedness, non-circular circulations, arriving, gathering, departing, journeying and the trajectories of varying speeds that not only connect these motifs together, but also our imaginings, memories, dreams, experiences, as we travel through a multinatural (Brettell 2015; Latour 2004; J.Lorimer 2012) world, co-constituted and cohabited by humans, nonhumans and quivering vibrant materialities (Bennett 2004, 2010). This isn't to be a manifesto for an all-encompassing, suspended *flowsterism* where everything is caught up in a perpetual, ceaseless swirl (M. Jones 2009, 2010; Marston *et al* 2005; Woodward *et al* 2008), it is a push to recognise that there are watery qualities that can be attributed to our understandings of how things move, vary in speed, and are connected and assembled together, and then dispersed. Like the performances at *Maynard*, as Bergson (1991, 1998, 2001) suggests, it is continual change that *is* the state and it becomes impossible to divide things up, we can however observe patterns, and coherence, where sites are configured by context, are experienced, and encountered through relations formed and reformed. The breaks between performances at *Maynard* were never clear, and were not entirely realised, there was the occasional introduction for more formal presentations but by and large this was a spacetime of interconnected moments of varying attentiveness, where we were ushered through the whole event by a series of quiet gestures and suggestions, on a

path of least resistance, along the thalweg we all flowed along and came to be gathered together.

There were however some more literal connections to water. I recall sitting in a darkened room of Whitehead's cottage watching *Two Sisters* on top of the Black Mountains in howling winds and torrential rain. The camera steady, their bodies huddled together, then exposed, leaning into the gales they formed a union that led to a questioning of what is it that upholds an inside-outside distinction? There these two figures were, connected together, enabling their sheltering from the elements despite being uncovered, a sense of homeness passed between them as the wind and rain swirled around them.

In conversation with Simon Whitehead he expressed how he finds it increasingly difficult to *work* and practise away from Abercych, the senses of homeness that have been configured around there are powerful for him, and he feels a connectedness that allows his creativity to maintain momentum. For some, perhaps including myself, it is shifting states and the pressures of change from which ideas emerge, but for Whitehead it is the continually-returning-returns and durational stays at home that inspire. This was revealed in the context of the whole workshop, and in particular when he allowed us all as a group to share in one of his regular walks around the valley. We crossed the babbling Cych on foot (without bridge) and found ourselves nestled in the crook of a meander. Whitehead told us about *Ping*, a collaborative project with Barnaby Oliver that involves them convening at their local rivers, Whitehead in Abercych, and Oliver in Melbourne, Australia and producing works that become connected through an unbroken body of water (Whitehead & Oliver 2010; untitledstates.net). One of the pieces created by Whitehead, is the *Dulais Remix*, it is beginning to make sense, at his feet is a small battery powered amplifier, and an electric guitar. He tells us that he turns the amp on, and dips the machine head of the guitar into the water, and allows the river to play upon the strings, which he then

demonstrates. Immediately a peculiar echoing sound emanates from the amplifier, it sounds like the guitar is being randomly plucked in a long, low tunnel, so much so that I expected echoed footsteps to accompany the riverine rhythm. As I stood and watched vortices form and trail off from the guitar's head, the water continued its song and I couldn't help thinking about Neil Young, Sonic Youth and the kinds of water-like undulations that course through their instrumentations. Music and musical instruments are powerful tools for humankind, and here, through this cheap looking, glossy red, Fender Stratocaster copy (the kind you'd buy from Argos) we were all brought closer to the *otherness* of the behaviour of water - its vortices, turbulances, eddies, flows within flows, its reactive, persistent, recalcitrant nature - through something with which we were all familiar.

We walked on to find Ben Stammers, reclining in a tree around 12 feet up. He acts as though we are unseen as he makes his way down. He climbs into his waders and boots that were arranged on the bank, steps into the water and makes his way over to the centre of the channel. There he stands for a moment, contemplating, shuffling stones with his feet. He reaches in his pocket for a harmonica, starts to play a refrain, a continual, freestyled tune as he then begins to walk in the river, heading off downstream. There is something melancholy about the harmonica and this is exemplified by this lone figure, *making a walk* through the river. We watched quietly as he pressed on through the resistance of the water, splashing, sloshing, playing the harmonica with each step. As Stammers rounded a bend and headed out of sight, we all moved along the bank - unspoken and without direction - to have him in our sights again and then we would settle to watch. This was repeated several times until eventually our path came to an end, he continued, splashing, sloshing, playing the harmonica with each step. As we made our way back towards Abercych by road, we could still hear his harmonica in the distance, echoing around the valley. I quite like

the idea that he's still in the river now on his melancholy stroll, sending notes out onto the breeze.

I drove back to Ceredigion (some hour and a half away) with Carl Lavery hitching a ride (as he does), and we reflected on the workshop. Our experiences and the performances endured on our journey by car, and they still flow in and out of me now, some 2 years later. We spoke about performance and geography, a popular conversation since the turn of the millennium, and so with these inspirations, and this body of work in mind, and with my intentions to *walk-with* the River Severn as a way of bringing bodies of flesh and bodies of water closer together, this thesis will follow on from the debates and discussions on performance, on landscape, on water, and ask not only what it is that performance can do for geography, but what geography and geographers can do for performance.

This is not a *walking project* per se, the title is something of a suggestion towards the core philosophy of the project in that the world and its character are co-constituted by bodies on the move, albeit with varying speeds and slownesses. The breadth of work relating to walking is vast, and whilst this field is rich, inspiring and valuable a review will not take place here; to do such a thing would require more than one PhD thesis dedicated to the cause. Rather what this project will do is take inspiration from the playful *dérive* of the Situationist International (1957-1972), the *wanderlust* of Rebecca Solnit (2002, 2006), the embodied entanglements and the tensions of landscape expressed through John Wylie (2002, 2005), the underscored amblings of Steve Paxton, the strolls of Marcel Proust, the nightwalks of Dickens and the historic, extensive walks of George Borrow. My experiences of walking the Severn will thus be used to settle the thesis within a broader context which is aimed at describing, (re)revealing, depicting, portraying, expressing the kinds of relational forces at play when bodies converge upon, gather around and are dispersed from *freshwaterscapes*.

CHAPTER 1: Worlding Water: Thematic Flows

Water pervades our daily lives in more or less forgotten ways. In the Western world it is all too easy to slip into taking it for granted. Until there is a problem with its supply, maintenance of nearby management systems, a leak in the bathroom, floodwaters rising or an issue with its quality, it flows by us and through our vernacular practices largely unnoticed. It is, of course, essential for our survival and the cleanliness of our bodies as well as being an essential component in the regulatory systems and processes of earth's environments and ecologies. Water also causes us problems, in the third world it is difficult to obtain and quality is poor, open water is a dangerous and unforgiving place, rivers burst their banks and flood people's homes, vital routes can be left impassable, as such water offers us infinite points of entry into understanding how it comes to be configured in social lives, as both giver, and taker of life.

Chris Bear and Jacob Bull (2011) remind us that water should also be remembered in all of its forms; ice, moisture, dew, condensation, rain, molecules in the upper atmosphere, and that despite its recalcitrance, stubbornness and inconsistency, *water matters (ibid)*. Following a wealth of scholars who have now sought to address the vibrancy and vitality of matter in recognising the stuff that makes up the world as having agencies of their own as they quiver, shimmer and reveal a range of forces into our fields of experience (Bennett 2004, 2010; Deleuze & Guattari 2004), we can now also reveal the hybridised natures of water (mixing up the elemental, social, environmental, cultural, political, material, physical) and its agential capacities. *Water makes bodies do things* and plays a key role in inscribing upon and shaping the surfaces of the earth. As such, it is not only a resource to be managed or a product for consumption; water plays a vital role in forming new geographies (Bear & Bull 2011), and reconfiguring how we approach that which we already thought we knew. Thinking through how bodies gather around sites of freshwater is the main focus of this project,

and as such can broaden our understanding of body-water relations. This indeed is an essential realisation in terms of composing our approaches to how we can understand the affordances of freshwater in light of its taken-for-grantedness, because if, as Jane Bennett suggests, we assume we know what is always-already out there, then we are undoubtedly missing something (2010).

For many years now, it seems geography has been missing something, missing something from the very essence of its own term. Jon Anderson and Kim Peters (2014; see also Steinberg & Peters 2015) affirm the importance of writing the sea into the *geo* of geography, remembering that ‘our world is a water world’ (J. Anderson & Peters 2014: 3) given that 71% of the earth’s surface is covered in water, and seas and oceans are around 96% of that. They argue that a *terra-centric* geography of the past, which has been obsessed with a view of the land should make way for a broader understanding of the earth through approaches underpinned by complexity theory that contend with the chaotic mixtures of vibrant materialities. They suggest that we should reconsider how we go about *writing the earth* in that we should assume our perspectives from a point of view of fluidity, and look for moments of stability, as opposed to imagining we are on stable ground and looking to understand how things become fluid. So this fluid ontology of a porous, open-ended world that is constantly becoming becomes an ontology of *wetness*, whereby water itself becomes composed as a dynamic assemblage that is co-constituted, configured, produced by and productive of the multivariant forces of the human and the nonhuman. This research project affirms this point of view, as being positioned as already being caught up with turbulent waters, and from here shall reveal moments of coherence amongst the freshwater landscape of the Severn catchment, which come to be congregated as a sequence of theoretical and conceptually driven site ontologies. Such *flow thinking* therefore forms a trajectory along which this thesis will travel and shall be written, but as stated in the prologue (and as shall be explored in more detail shortly) this not a

manifesto for a suspended flowsterism amongst which everything is aimlessly adrift (see also Marston *et al* 2005). Rather, flow here is characterised by discontinuity, nonlinearity, irregularity, blockage, as well as movement, consistency, direction and rapids. These works will also continue to acknowledge (in more or less subtle ways) the range of flow characteristics (speed and slowness) and how such forces are implicated in the emergence of particular site ontologies and the relations that topologically ensue around water and how it moves. This processual ontology of the Severn and its form will also be reflected and portrayed in how this thesis is written and comprised, as it will flow and meander through particular sites, all connected together by material form, and representations of the wider walk and ensuing watery encounters.

This turn towards water in *geography* is welcomed, and it has helped to make this project possible, however it has been a long time coming and so it is hoped that this thesis will contribute strongly to a growing body of works. But there is another issue at stake here, there is still *something missing*. Much of the multidimensional approaches to wet ontologies have focused on the salty seas, and if we explore the freshwater literatures as matters of more-than-human geographical concern thus far, we find an all too common return to issues of sustainability, quality, management and flood defence. Whilst such themes are undeniably important and key issues across the whole world, it leaves me wondering what we understand about freshwater as an event-site, a place of encounter, as an emerging field of affective forces and trajectories along which open-ended relations flow and take form, what about the topologies of water and how relations come to be configured around the particular characteristics of different watery bodies? There is growing scholarly interest here, particularly amongst the links between performance studies and geography (see Clarke 2010; Daniels *et al* 2010; Donald 2014; Kramer 2012; Heim 2012; McCormack 2008; Thomas 2012; Thrift & Dewsbury 2000; Whitehead & Oliver 2010), but this

thesis seeks to explore bodily encounters with freshwater through orientations toward site ontologies, in so doing configure a way of approaching freshwater landscapes that allows us to apprehend the affordances of encounters with water, and remember what it is like to be – or rather become – *down by the river*. Magrane (2015) argues that methodologies that bring site ontologies and creative geographies together have thus far not been attempted; however this thesis seeks to achieve this. It is worth pointing out though that efforts have been made elsewhere, (see Brettell 2015; Dixon & J.P. Jones 2015) and there are some suggestions on how this can be done (for instance Woodward *et al*/2010) which will be explored in more detail shortly.

Following Jamie Linton's call to *think more relationally about water* (2010), this thesis aims to reassert the affordances of freshwater in our consciousness and (re)reveal the agential capacities of water in gathering bodies together. This is not an apolitical project, rather it simply intends to focus on relationality, encounter, ontology, activity and materiality, elucidating the riverscape as an emergent field of forces and exploring what happens when bodies of flesh and bodies of water meet, mingle and mix. Through affect and emotions we make sense of the world around us, and so the following chapters and segues will draw upon this to describe the myriad connections between water, the elements, bodies and materialities. There is of course much that we don't have room for here, for instance canals, reservoirs and lakes only receive a few mentions and there is a purposeful meandering around issues of irrigation, quality and management as has been explained. However, how the following ontologies emerge may show how such approaches could be used to reveal something of other watery systems that may also be slipping by us, somewhat unnoticed.

What follows in this chapter will begin to outline how we can think through relational approaches to freshwater, which will set the scene for these themes as they emerge, recede, re-emerge throughout the rest of the thesis. Like the characteristics of water, we shall always remain connected to the under-scorings of the overall

ontology, and the themes will surface, resurface and fade as leitmotifs that co-constitute and configure the flow and the narrative of the project. As such we will also briefly review some of the key points regarding orientations towards ontologising sites as self-organising coagulations around particular forces of relations, and consider how this helps us with approaching and understanding our interactions with fluid landscapes. The growing field of geohumanities will then be acknowledged as providing a useful multidisciplinary setting in which this thesis could settle, and as such will remember the importance of writing and begin to introduce the role creative writing and performance inspired textural form can play in informing our geographical understandings. The history of the Severn and some inspirational texts will then be revealed as key points of interest. Following this we highlight the connectedness of all things and relate these to some of the key thinkers who roam throughout the thesis (in particular Marcel Proust, Bergson, Spinoza and Bachelard), and how their ideas give some coherence to the multivariant speeds and flows in which we find ourselves. The contribution of performance based research to exploring body and freshwater relations will be acknowledged as an inspirational force for the project. At the end of this chapter we will have a route map, which will serve as particularly useful given the ways in which the thesis is compiled, not chaotic, but certainly mobile, interventional and open ended. The practice that is implicit here is not just to write about water, but to write in a watery way.

Relational waters

For well over a decade now, a relational view of the spatialities of the world has moved to the forefront of geographical thinking. Following the work of Whatmore (2002), Massey (1999, 2004, 2005) and Crang & Thrift (2000) - to name a few - space is no longer simply understood as a container in which things happen, but spacteimes are now recognised as hybridised becomings which are co-constituted by and with social (a social which includes humans, nonhumans, animals, objects, materialities)

processes and, like the bodies and materialities with which they are composed, are continually *in-the-making*. In these mobile fluid worlds, mobility not only happens in or across space and time, but actually shapes spacetime, from which a multitude of dynamic spaces and times emerge and weave into and out of each other (Merriman 2012a). Spacetime then, is a continual folding and unfolding of virtual and material presences and absences, something Marcus Doel referred to as an *origami* (Doel 1999 following Deleuze & Guattari 2004). However with nascent themes in relational thinking even origami seems to hint at a topographical, geometric piecing together which coincidentally depends upon a theme that to some extent reflects absolute space (Dixon & Jones 2015). More shall be explored in terms of topological thinking and how this contributes to the schema of this thesis shortly, but for now we shall bear in mind that places are no longer simply locations *in space*, but are emergent through relations that are gathered in as coagulations that take-form along criss-crossing trajectories and lines of flight, where practises, responses and emotions shape and are shaped by these nexus (J. Anderson 2012; M. Jones 2009, 2010; Massey 2005).

Space, place and time are bound up and wound up together and mutually constituted by the relations that take-shape in and around them, all continually in process and being made, unmade and remade. Within this mutual co-constitution, bodies have agency, materialities have vibrancy (Bennett 2004, 2010) and spacetimes too have an actancy, through which the prepersonal surges and swirlings of intensity act out as capacities to affect (Stewart 2007). Amongst this proliferation of vital flows, places and identities are formed co-constitutively in the same way, which are themselves open-ended becomings (Massey 2004; B. Anderson & Harrison 2010). As we shall see in a moment spaces, places and identities are simultaneously locatable, and open, dynamic and fluid (M. Jones 2009, 2010). The term *place* undeniably has tensions within which are echoed in the noun *to put in place*, but suffice to say spaces and places are *by definition* relational (J. Anderson 2012) and dynamic (Massey 2005)

as their characteristics emerge from their connections to others, and through that which passes through. One of the questions driving this thesis then, is how do we reconcile the tension between what is increasingly recognised as a fluid world in motion, amongst which places and identities are continually becoming through infoldings and unfoldings, and things that appear fixed and static (like the landmarked source of a river for example). This is a question that perhaps isn't particularly new to debates around material and social mobilities (Merriman 2012a), but hopefully through using freshwater and the Severn as an example, perhaps we can move some way towards not only providing some answers, but also start to set the scene amongst which relational approaches can de-objectify some of the things which we consider to know well, casting them in a different light, shifting topographical underpinnings towards more topological apprehensions. Consider it if you will, a qualitative turn for fluvial geographies. For J. Anderson (2012) the relational worlding of the surfed wave as a fluid, flowing, convergent folding in is one such example that allows us to view water using a relational perspective:

We and our practises are on lines of flight to elsewhere and 'elsewhen', and place itself becomes a trajectory with a constantly changing destination. Relational places are made up of material objects, living things, and natural processes, alongside the practises, cognitive responses, and emotions that produce and are produced by this intersection. From this perspective places are constituted by, and themselves are, coming together that are by definition relational. (574 *quotations in original*)

Following the work of Jamie Linton (2010, also see Linton & Budds 2014), Alex Loftus (2011), Chris Bear & Jacob Bull (2011, also see Bear & Eden 2011, Eden & Bear 2011), Phil Steinberg & Kim Peters (2015) argue that there is a growing recognition that *water matters*, not only in terms of what it means, but how relations take-shape and are co-constituted by the particular characteristics of watery bodies which in turn begins to reveal water's agencies as a *hydrosocial cycle* (Linton 2010; Linton & Budds 2014; Loftus 2011). Water is stubborn, recalcitrant, and as such Linton

has noted a shift from regarding water as an object of social relations, to an elemental nature that is acted upon by, and acts out to effect/affect social relations, structures and subjectivities. As such water and society continually make and remake each other. This is further highlighted through Linton's promotion of the idea of the hydrosocial cycle, which is attuned to the social natures of flows of water and how they interrelate. As opposed to the hydrological cycle model which up until now has been the principle means of representing water. This model is seen to be not only too simplistic, but also unhelpful in terms of upholding the dualistic distinction of water and society. For Alex Loftus (2011), the hydrologic cycle actually tells a very human story which emerges from a meeting of watery processes and scientific practises (also see Tuan 1968). Society therefore defines what water means, and in turn is shaped by how it acts, water therefore is not an inert backdrop or something external to social lives, but is something that pervades, everywhere, and this project seeks to move water from the vernacular and the taken-for-granted and into the affective web spun by relational achievements and bodily connections (between flesh and water). In terms of what thinking relationally does for water, and indeed what water does for thinking relationally is summarised here, by Linton and his idea of relational dialectics:

Understanding things as related internally means that the properties that constitute them emerge as a function of their relations with other things and phenomena. It implies a shift from thinking of relations *between* things – such as the impacts of humans on water quality – to the relations *constituting* things – such as the cultural, economic and political processes that constitute the particular character of desalinated water, treated drinking water or holy water. (2010: 173 *emphasis in original*)

In other words, water, as a hybridised social and natural mix is *what we make of it*. Linton's narrative though is a largely human one, and as such we must not forget the nonhuman foldings that occur around particular speeds and slownesses, murkinesses and clarities of water, and its multifarious flows and forms (such as puddles, ponds, lakes, canals). It is undoubtedly more likely that stories of structure,

boundedness and cyclical systems are written where people and water meet, but they should be questioned and challenged in the light of relational thought and the pressing need to grapple with a more complex, mixed-up and mingled view of the world that becomes increasingly more difficult to define and divide up.

In a recent special issue of *New Zealand Geographer* (2014, 70(1)) scholars highlighted the connections between freshwater, cultural practises and social institutions. They raised some interesting debates and themes which provide us with more tools in order to grapple with discovering how freshwater comes to be known and understood, and how *freshwater is done* (Tadaki & Fuller 2014: 1). The question of relationality is raised where a word of caution is offered, suggesting that watery bodies, river forms and fluvial processes, although related, relations are not consistent across space. Their differences therefore need to be understood through social connections which configure rivers *in-place* (*ibid*). Chiming with Linton's use of the term hydrosocial the papers echo the sentiment that if knowing the world effects how we shape it, then the ways in which we understand freshwater and how social organisations emerge are also fundamentally linked (Blue *et al* 2014). What emerges through these manifestations around water's particular characteristics and forms are what they propose to be *water places*, where framing them in such a way enables us to understand how sets of relations come to be configured around distinct formings. Taking this view of watery worlds ensures that water is not abstracted (Linton 2010) and that we can get beyond objectifying water as a resource (Gibbs 2014). In a paper by Gibbs which preceded this collection (2009) there was the proposition that *water places* reveal diverse cultures of nature, how humans mediate relationships with nature and the complexities of a more-than-human world:

Water places refers to sites and paths where water flows, sits, sinks, falls, emerges, passes through, and evaporates from, and where histories of interaction between humans, nonhumans, water and landscape *form places*. (*ibid: emphasis in original*)

The Severn, its 'source', and indeed any other watery body, are striking examples of socio-historical mediations of the multinatural world, I understand and value the works presented in this special issue as they invite us to rethink what water means, and what it becomes, and how becomings emerge from it. There is a hint towards groundedness and mooring (Hannam *et al* 2006) in the term *water places*, but we can see in the quote above that there is also an attempt to elucidate places as fluid, which chimes with contemporary geographical themes and debates by acknowledging the passings through and flows that ensue around where relations coagulate and congregate. And of course, senses of groundedness and mooring help us to configure and settle into a dynamic world.

As previously mentioned, there is a continual return in freshwater geography literatures to concerns over management, sustainability, water quality, provision, control, governance. There are a couple of hints in this special issue regarding *living-with* water, and there is a strong acknowledgement of water's agency in that it makes bodies *do* things. However in cultural geography more broadly there is still a lack of explorations into *becoming-with* freshwater, which is something this thesis seeks to address particularly in terms of embodied encounters. I should however point out Chris Bear *et al* and their various rich and valuable explorations for describing the intwinings of bodily practises and the *reading of the river* through sports such as angling, and their call for more attention to be paid to the agencies of water and their claims that water matters (Bear & Eden 2011; Bear & Bull 2011; Eden & Bear 2011). But I think we're still missing something, in that it is not necessarily just how water acts, what water makes bodies do, or how social relations configure what water means, but it is how water makes bodies *feel*, what its emotional and affective capacities are, and what it means to encounter watery geographies and the riverscape as an emergent field of force relations. Of course fleshy and watery relations are not always harmonious (floods, drought, water damage, water leaks etc), water is at once a giver

and taker of life, it is inherently unruly and never entirely predictable, it can be difficult to make sense of, but as Linton (2010) points out, we need water, and water needs us. Let us not forget though the reveries, healing properties, pleasures and affective capacities of water.

Whilst wading in Australasian freshwater literatures I found an extremely rousing paper by Stephanie Lavau on the Goulburn Valley River (2013). Here she makes us aware that notions of flow and fluidity have disrupted the formerly unitary category of *nature* and that through this the qualities and capacities of water are emergent relational effects. What is interesting about the river in the Goulburn Valley is that the representations of it show a clearly defined channel and route, and yet due to the soil types and sediments over which it flows, the reality is that it appears aimless and wandering. Its drainage basin is littered with connected waterless passages and those that are watery are so abundant, it becomes impossible to discern the main body of river. She describes:

There is no definitive route from source to mouth that is the Goulburn River. Instead there are many possibilities for river, some realised and others not. (419)

I find this incredibly thought provoking, all rivers are continually in process and in-the-making, but this one is so relationally complex that its identity emerges as a *possibility*. Perhaps this is how we should envisage all rivers, as possibilities, as unfolding potentialities that can never be bounded or defined completely. Instead of talking about *the river*, maybe we should talk about *a rivering* and make it more verbal, more of a process than a given (Doel 1999), here we open up to potentiality, openness and movement, the drainage basin thus becomes a field of forces spread out in all directions which then gather around particular characteristics of flow, the *rivering of the Severn* (for example) thus becomes an emergent accumulation, a mode of expression of the mobile relations and materialities that constitute it. All of this is somewhat

disruptive to the taken-for-grantedness of *the river*, where contingency meets awkwardly with structure and hierarchy, but:

If we embrace the unsettling metaphysics of relational materiality, then rather than being something to chase away (whether by perfecting techniques, knowledge, or representations), ambiguity is something we must learn to live with. (Lavau 2013: 430)

There will be more on the role ambiguity plays in our relational approach and what it can do for bridging the physical and human geographical gap later on (see chapter 4). For the moment though I would like to point out that there are limits to this relational approach and relational approaches in geographical theory more broadly. Malpas (2012) asserts that relational thinking offers an account of space and broadens possibilities for clearer analysis however we are in danger of adding further to an abundance of concepts. Given the proliferation of the use of the term in the geographical discipline, B. Anderson and Harrison issue a word of caution, in that it is not enough to simply and (perhaps) flippantly say that happenings are constituted relationally, or that they manifest as networky, '*rather it becomes necessary to think through the specificity and performative efficacy of different relations and different relational configurations*' (2010: 16). In other words we can say that rivers and their *riverings* are relational, but what is it about the constitution of relations that makes the Severn the Severn, or the Humber the Humber? Hopefully in the forthcoming chapters we reveal something of how the puddle is relationally constituted and how this also varies from puddle to puddle; we shall see how strange spectralities, materialities and histories gather around the banks of the Severn near the estuary and the ensuing topological relations that ensue at the Ships Graveyard; we will question the pointillism of the *source* and the structuration of the river system; we shall elucidate a coracle as a manifestation of topological relations. All of this is happening around freshwater, there are different relational narratives being told, yet they are all connected. Central to many of the different relational configurations involving freshwater and the Severn, is

the flow, form and agency of the water itself. Of course flow is multifarious, and within the rivering of the Severn is multidirectional, however things aren't always as fluid as they seem. This concern is addressed by Martin Jones (2009, 2010) who insists that we should look towards *phase space* where the co-existence of structure and flow acknowledges the relational making up of space whilst reasserting the confined, the connected and '*always context-specific nature of existence and emergence*' (2009: 489). He raises questions about the pitfalls of flattening ontologies (see Marston *et al* 2005; Deleuze and Guattari 2004) suggesting that what we are left with is an emptiness within which we can no longer account for materiality and emergence. Jones also asks, if we insist on pure contingency then how is that we explain the problem of connection? How is it that different objects get locked in together?

Firstly I would like to issue a reminder of Jane Bennett's work on the vibrancy of matter where she suggests that things may appear immobile, static or fixed, but of course this depends largely upon the perceptions and sensibilities of the beings or bodies encountering them (2004, 2010). For Beth Greenhough (2010) all life forms are constantly in the making and changing in relation with their environment and understanding the world emerges through interactions with it. However it is too easy to fall into the trap of experiencing the duration of events from a human timescale, which is not the same as a fish, a fly, or a tectonic plate. Marston *et al* (2005) themselves are suspicious of suspending things in a ceaseless *flowsterism* and are quick to point out that flow is also about blockage, congealment and slowness, and that sites come to be where things *hang together*. Perhaps this debate could be taken up further elsewhere, but it is my suggestion that what we experience and encounter amongst these multifarious speeds, slownesses, flows and formings, where things appear stable are *moments of coherence*. Even moorings are still mutable, not fixed, but fathomable moments of (quasi)stability within instability, subject to changes around them, still threatened, precariously poised but just *steady enough* for long enough to be

experienced as 'stable' from a particular spatio-temporal point of view (Merriman 2012a). Let us also not forget that the most static of objects are still busily fizzing with atoms and reflecting light and subject to change through being overcome by the elements (Lucretius 2007). All things move, but not in the same ways, and speed is relative to the speed of the encountering body (Bennett 2010). Things are always part of an entropic *mise en scène*, and by their very natures contain scientific knowledges, all of which are subject to energy loss, heat exchange, feedback, growth, decay, reduction, expansion, erosion, development, contraction, control and continually journey between reversible and irreversible processes. Within this world of non-equilibrium, non-linearity and constant energy exchange what we should be attending to are the movements and varying speeds of participating bodies and associated intensities of fluidity and coherence, and what it is that effects the speed of changes which serve to reconfigure relations.

Fixity is perhaps only ever a notion, a playing out of sensibilities as we attempt to make sense of the world around us. In the most fluid and dynamic landscapes and social constitutions there are *moments of coherence* from which emergence happens, from the apparently bounded and out into the open (Malpas 2012), from this change occurs, momentum gathers until things rub up against one another again and appear *held in place* (B. Anderson *et al* 2012). Here we move into Serres' world of Lucretian turbulence, velocity, the fall, *clinamen* (a point of deflection in the path of an atom), the swerve and the void but I just want to keep things here for a moment in how this ontology is forming (Serres 2000). This thesis is an ontology that is not structured, nor is it completely flattened out and symmetrical, it is mobile and continually in the making as a result of varying speeds, slownesses and moments of coherence, this is a wobbling, reverberating, echoing, resonating, fluctuating, sonorous ontology. Amongst this *rivering of things* relations change around variances in speed, speeds of bodies of all kinds, through which sequences of relations are expressed to which bodies react

and alter their flight paths (Spinoza 2001). For instance, the source - coherent as it is - is a mode of expression positioned along climatic, geomorphological, elemental and watery trajectories. It is moving. Slowly. Binding bodies together it is still ambiguous, susceptible to change, migration, therefore its *fixity* as a landmark is at odds with the elemental mobilities of which it is undoubtedly a part.

For Spinoza (2001), all bodies are in a state of motion or at rest, but every body moves, sometimes slowly, sometimes quickly. Bodies are thus differentiated by their quicknesses and slownesses, and a body is determined to be at motion or at rest by another, and then by another, and so on. How things are affected by their motions concerns all affected bodies. All any body is ever trying to do is to increase their powers to act and capacities to affect through forming relations where being in motion or at rest helps to lessen the limits on a body's powers of action. Here it is the *conatus* or will of the thing as it endures, persists and endeavours to persevere in its being and become in relation to its environment. Here conscious beings comprehend nothing but the effects of compositions and decompositions of groupings of heterogeneous bodies which are more or less cohesive (Deleuze and Guattari 2004). Within this capacities to act depend upon the collaboration, cooperation or interference of multiple bodies and forces. Bodies and beings thus emerge as modes of expression of these collaborations (Bennett 2010). If we follow this line of flight through this thesis (as I'm hoping to do) and consider the river as a *mode of expression* something interesting happens to the ways in which its actancy is revealed. The rivering of the Severn in its very becoming expresses the physical, social, historical, elemental, geomorphological collaborations and interferences which it has moved through. The *conatus* of the Severn is in its inertial tendency to persist, its effort is spent on maintaining relations of motion and rest and all of these relations define its modal being. But this is infinite open-endedness, for each and every mode continually suffers actions upon it from other modes which disrupt its relations of movement and rest, and if any mode is to

persist in its becoming it must continually seek out new encounters in order to compensate for any alterations which it has suffered. The more different types of bodies with which one thing can affiliate, the more powerful it is, this line of thinking goes some way to accounting for the undeniable powers of the river. We can therefore begin to think differently about what rivers do and how they do it, and how their character emerges from relations that fold in and out of it in relation to its tendencies towards motion and rest, and what this makes other bodies do. It therefore becomes impossible to rank the river or insist on it as being entirely structural and linear, or defines it as running from beginning to end. Rather we should spread out across the drainage basin and experience all of the reverberations and echoes of a rivering of things, all at motion or at rest, all at once.

Site ontology

So how can this emergent, inherent tension within the project be reconciled? On the one hand, from a physical point of view a river system is by and large structured and linear (although the Goulburn Valley River challenges such assumptions) as it pertains towards base level (sea level) and works toward maximum entropy, its state of lowest energy. And on the other hand, this thesis seeks to elucidate a rivering of the Severn as an emergent accumulation of relational sites that are connected together not by distance, hierarchy or lines on a map, but by intensities of relations and varying speeds and slownesses; and show how particular ontologies emerge through compositions that gather around particular fluvial characteristics of flow and form. And in between these tensions, becoming stretched between them, is my body, walking, moving, performing, which as a human is also guided by topography, a map, an awareness of distance, a sense of journeying. Perhaps there is a tension that exists on journeys such as this between topography and topology, maybe as humans there is never one completely without the other and the differences between them are diffuse. We need maps and markers, and yet we are also subject to

fields of pre-personal relational forces that work by intensity, rather than proximity and distance. Through my body and Severn's body as we move across the drainage basin, perhaps these dialectics become relational and are not distinct, instead they work together to compose an overall experience of embodied encounter with water, this shall be discussed elsewhere in the thesis.

As such, to grapple with how relational configurations are taking form around particular characteristics of the Severn, riverscape and freshwater; and to flesh out the compositions of differential, heterogenous properties from which body-site relations emerge, each chapter – or case study – will be framed as a *site ontology*. This will take inspiration from the work of Theodore Schatzki (2001, 2003, 2005) who saw sites as a particular type of context, and as 'arenas or broader sets of phenomena as part of which something - a building, an institution, an event – exists or occurs' (2005: 467). We shall also follow on from a now familiar debate that was mobilised by the concerns of Marston *et al* (2005; Woodward *et al* 2008, 2010, 2012) regarding scalar thinking as a dominant, hegemonic conception that is rarely challenged, and yet if we are to begin to understand how relations come to be spread out across spacetime, then we need to get around the structurality of scalar hierarchies and *flatten* things out (see also Deleuze & Guattari 2004 on flat ontologies). For Springer (2013), scale becomes distracting and unhelpful as it constricts an approach to open-endedness and kills off the spread of the *rhizome* (Deleuze & Guattari 2004) and so if we are to become more attentive to everyday pragmatisms then we need to consider how things (bodies, people, events, relations) are scattered, dispersed, conglomerate, coagulate across space. Slightly preceding this debate, in the wake of burgeoning debates on globalisation that characterised much of the latter part of the 20th century, Amin (2002) was already suggesting that scale should be thought of in relational, rather than relativist terms where space, place and time are seen as mutually constituted and

produced through practices and things that appear situated are multiple, mobile, nonlinear and nonscalar. It is this kind of thinking, which he takes to:

Suggest a topological sense of space and place, a sense of geographies constituted through the folds, undulations, and overlaps that natural and social practices normally assume, without any a priori assumption of geographies of relations nested in territorial or geometric space. (389)

Movement toward topological thinking over topographical understanding is a key moment in the development of relational geographies, site ontologies and this thesis. Topological thinking emphasises the connectedness of relations and how they are maintained despite distance, and being subjected to twisting, warping and stretching. Configurations of relations (sites or places) are thus mapped by their amount of connectivity, rather than their actual distance apart. Furthermore:

Topology does not merely direct us to the (well-worn) idea that space emerges from the relations between things; it directs to understand the spatial operation of continuity and change, repetition and difference. In other words, topology directs us to consider *relationality itself* and to question how relations are formed and then endure *despite* conditions of continual change. (Martin & Secor 2014: 431 *emphasis in original*)

This is of great importance here, particularly in terms of finding a way to apprehend how relations gather, and sites hang together as coherent spaces amongst turbulence and continual change. What is also of interest is how topological thinking inasmuch as it melts away the boundaries between interior and exterior that have categorised and separated humans-animals, natures-cultures, can allow us to reconceptualise spaces of interest (*ibid*). In this thesis the human is very much written into it, as is the nonhuman, but its aim is to portray a sense of connectedness and varying intensities of relations that are maintained despite changes and distances, rather than assuming an objective position. Any sets of relations and unions described herein are and shall remain open, and so a language of consistency, continuity,

connectedness and convergence prevails over one of fixity, locatedness and coordinates. Of course, topographical place writing still persists and is an important part of how we document and represent the world, as this is where we map surfaces and changes in elevation and record material features of the landscape, but to prioritise distances between here and there is a static way of thinking, a pointillism that depends on fixity and disregards the mobilities of compositional relations and how they reach out to each other across trajectories (Massey 2005). That said this thesis alludes to the role of both interpretations of the world as important to the human. Dixon & Jones (2015) describe the mobilisation of topological transformations as when various energies and materialities *grab on* to each other and assemble and reassemble at various speeds and intensities. They take this type of thinking towards the bodies, which themselves are spread out across space as they both develop and lose biomass. For them there is no single set of connections through which this occurs, rather '*we are embedded in the myriad topologies of other organisms, objects and technologies, each of which has its own particular shape and velocity in relation to others*' (*ibid.* 224). Like Marston *et al*, and as outlined in this piece previously, topological approaches help us to understand how power moves along trajectories across the warpings and twistings, stretches and folds of space and time, but this is not an account of networked spatialities composed by totally frictionless flows and fluidity. What we also need to do is to show attentiveness toward how particular materialities and relations *settle* and move by processes of inertia and conglomeration.

All this considered, topographical understandings and representations are not incorrect or entirely *out of place*, they simply highlight the limitations of our spatial vocabularies which need to be expanded if we are to understand how space/s become reworked by shifting relations and modes of power (Allen 2011; Paasi 2011). In the forthcoming chapters then, this thesis will reveal topographical features as playing their part in encounters with freshwater and the Severn, for instance I couldn't completely

open myself up to walking without a map or any awareness of clock time or distance. But the practice of doing the walk and experiencing the affective capacities of the river rendered topography as something of a backdrop to a field of contingent, contextual relations between body and site that were mobilised by myriad forces. Despite the almost unescapable senses of locatedness and distance travelled that accompany humans on journeys, perhaps this thesis can be best understood topologically as roaming energies and capacities that are plaited, weaved together, compressed, dispersed, congealed from and around particular contexts. There are no neat categories here, rather modes of expression of sequences of foldings and unfoldings through the riverscape, and descriptions of particular configurations whilst remaining attentive to an always present connectedness despite *where* our bodies may be in relation to each other.

In a series of explorations into how we can configure a *new societist social ontology*, Schatzki proposed that we need to engage with practices that move towards embodiment, subjectivity, meaning and normativity as ways of understanding the transformations of social life (2001):

Practice accounts are joined in the belief that such phenomena as knowledge, meaning, human activity, science, power, language, social institutions, and historical transformation occur within and are aspects or components of the *field of practices*. The field of practices is the total nexus of interconnected human practices. (11 *emphasis in original*)

There is an echo of the underpinning ethos of approaches in the geohumanities here, which will be explored in the next section, but for now we begin to recognise that it is how these interconnected practices are gathered together that enables us to apprehend human, nonhuman and material configurations. For Schatzki, this leads us toward a distinct social ontology where, *'the social is a field of embodied, materially interwoven practices centrally organised around shared practical understandings'*

(2001: 12 *emphasis added*), and within this new vision of the social humans are not in control of how nonhumans enter into or impact upon the world. Rather nonhuman agencies direct and orientate human practices and as such the nonhuman helps to constitute our practices of sociality and activity. Social life thus becomes attached to a particular context, or *site*, that is composed of a nexus of bodily practices and material configurations. He proposes that sites don't have to be spatial and to illustrate this uses an example of a student's grade, which is expressive of a moment of grading practices. However, this thesis and perhaps an evolution of these ideas into site ontologies would even render this as a spatiotemporal *moment of coherence*, whereby the student's grade on a certificate, noticeboard, email etc is an emergent encounter in space and time between the student and connected, associated practices of studying, revising, reading, doing, invigilation, examiner, assessing, marking, grading, administration - that are made apparent in space and time by the grades emergence, as perhaps a single letter on a page. The suggestion here though is that as a site is a context, it is inherently spatial as actions are performed and relations gather that serve to compose the characteristics of sites across space.

Following Schatzki, Marston *et al* (2005) emphasise site as a space of possibility, which:

Illuminates dynamic contexts that allow various inhabitants to hang together in event-relations by virtue of their activities. (425)

Here, interrelated stuff is gathered together not in random ways, but in conative ways that reflect Spinoza's notion of bodies enhancing their powers to act through association. Sites then are systems characterised by complexity that simultaneously generate systemic orderings, and open, creative events. Levels of organisation vary as things are drawn in and out of relation, but connections are not broken, rather the intensity of the relation fades and intensifies in accordance with practices and activities. Therefore, site ontology:

Provides the explanatory power to account for the ways that the layout of the built environment – a relatively slow-moving collection of objects – can come to function as an ordering force in relation to the practices of humans arranged in conjunction with it. (425)

And so to reflect the flow and form of freshwater as implicated in the composition of emergent fields of relations where the emphasis is on activity and encounter, this project shall express site ontologies as properties composed by the interactions between materialities, elements, human and nonhuman subjects. Such sites however are not closed off, but are rather seen as environs of practices and events that are more-or-less folded into other sites. The site then is emergent through materially produced actions and events and congeals as:

The *work* of the site – those forces that enable the coming together of these bodies – engenders ‘grounded’ situations that generate a localised relation through resonant, unfolding doings and sayings. This processual bricolage is a matter of dynamic, continuous change, the consistency of which appears as a relative coherence – a pattern – that arises amid its varying conditions. Sites tend to be unexceptional congealments of routines or repetitions that are neither conservative nor radical or progressive: nor are they directed by desires for maintenance or transformation, but instead tend variously toward both. (Woodward *et al* 2012: 210 *emphasis and quotations in original*)

The active conglomeration of sites around the Severn, and the body of the Severn in itself occur as self-organisational relations of what Woodward *et al* (*ibid*) would refer to as *matter-processing*, where matter not only undergoes dramatic changes but also continuously adjusts as it finds its way around its own particular situation. As a result of this its forces and affects become distributed in relatively stable ways, and as such become coherent as site.

Woodward *et al* recognise that there can be no pre-prescribed, prescriptive methodologies that can be applied to exploring sites of a particular context. Rather

there is a need to play a game of *pick-up-sticks*, where the researcher needs to experiment carefully with whatever distributions they encounter and tailor their approaches accordingly as the site and its configuration reveals itself to them through processes of mutual activity. This doesn't necessarily require new methods, but will certainly require a combination of approaches. At this point I will acknowledge that the methodologies employed here reflect the open-ended nature of the exploration. Particular methods will emerge in their particular contexts, in accordance with how site ontologies are revealed, which will reflect how the site emerges. I am however fully prepared to undertake walk-along interviews with people I pass by should the opportunity to present itself (Kusenbach 2003). This interview method is regarded as an effective way of exploring how practices are woven into the characteristics of places (J. Anderson 2004) and involve a following of participants as they perform their *usual* activities and routines; walking-with and talking to them about their experiences and feelings; and allowing the interview to unfold for as long as appears necessary (G. Rose *et al* 2010), and is employed in chapter 1, as I walk with artist, Gavin Hammond:

Research is experimentation, an ongoing process whose results are never a matter of stable states, but rather commentaries on relationality, affects and conditions of dynamic relation. (2010: 276)

Site ontology then shall serve this exploration as an overarching theme, which is referred to in more-or-less subtle or intense ways, but let's be clear its ethos is always present as the works seek to describe the connectedness of stretched out relations that emerge around practices and activities associated with freshwater outlined herein. This way of seeing the world leaves this project and its congregated chapters open-ended and able to respond to the varying intensities of relations that are encountered as unfolding *relationscapes* (Manning 2012), remaining attentive to the things that gather as contingent, contextual practices of activity and event. This thesis then *maps out topologically* a series of site ontologies that should reveal this approach

as relevant in apprehending the coming-together of relations amongst dynamic, mobile and fluid landscapes that are configured and co-constituted by human, nonhuman, material and the elemental. The riverscape comes to be seen as possibilities of river, and the rivering of the Severn offers up infinite potentialities for the coming-together of relations around its modal characteristics as it inscribes upon the earth. We shall also see how such an approach allows for a reconfiguring of a relational approach towards river systems, as a move away from the hegemonic and structured approaches to fluvial geographies that have dominated landscape evolutionary theory.

Geohumanities: multidisciplinary approaches to watery worlds

Following the overarching themes of the thesis outlined thus far, there is perhaps a need for a certain amount of grounding to take place. Flow and fluidity and their associated characteristics can be quite disorientating as we get carried away toward open-endedness. As such it would serve this project well to have some kind setting amongst which it could settle and develop its coherence. So, how then can we grapple with the relational configurations that ensue around bodies of freshwater and the composite sites that emerge? Water, by its nature, connects all things and draws them together, and as such there is an inherent need for multidisciplinary if we are to begin to navigate the previously under-explored *affective ecologies* that take-form. It is therefore not only important to outline how such an approach can be configured, but it is also poignant, significant and well timed, that at time of writing the first issue of a new journal sponsored by the Association of American Geographers (AAG), *Geohumanities* has just been made available in print. The journal itself (edited by Cresswell, Dixon, Bol & Entrikin) emerged from a series of crossover seminars that circulated around history, performance, art and philosophy since 2007. From this growing field of research the journal seeks to engage particular skill sets and methodologies to explore the multi-faceted natures of body-site relations, and in so doing rework disciplinary structures:

Our vision for the journal is attentive to past endeavours over the course of the twentieth century – endeavours that saw cultural geography become both a mainstay of the discipline and an arena where dialogue with other disciplines was encouraged and facilitated...This mode of knowing the world has itself a deep lineage. It remains a creative reservoir for thinking not only about the world and our place within it, but the nature of human being itself...Our vision also responds to the manifold problematics, inquiries, and techniques that have proliferated over the past few years under the broad banner of what might be a geographically aware humanities and arts. (Cresswell *et al* 2015: 2)

The intention here is not only to break down the confines and restrictions of disciplinarity, but to give some coherence to the mixing of approaches by playing to the strengths of particular modes of inquiry and representation. As such this journal (and others, like *Cultural Geographies*) and its contributions are welcomed. *Geohumanities*, as an exploratory forum though feels as though it has been a long time coming. As a geographer whom has always sought to engage multidisciplinary and creative approaches, I (and others perhaps) have felt underrepresented and somewhat marginalised, our voices clammering for attention amongst the echoes of geographies seemingly inherent state of discipline anxiety, and ‘identity crisis’ (Agnew 2012: 514) that has never been, nor is likely to be completely resolved. All of this feels like a response to D.W. Meinig (1983), whom suggested that for geography to be seen more as a form of art, it requires more artists to do it, claiming that geography (at that time) had closed itself off from the possibilities of engaging description beyond rigorous analysis. His call for increasing openness was a clearing away of ‘pedantic barriers’ (327) which hinder, rather than help geographical exploration, and that we should tolerate creative geographies and travel along their avenues ‘wherever they may lead’ (*ibid*). He did say that we shouldn’t expect to move into new frontiers, but it does feel as though this may be happening with journals and scholars like this for support.

Two text books of great interest have also emerged from this field, *Geohumanities: Art, history, text at the edge of place* (Dear *et al* 2011) and *Envisioning Landscapes, Making Worlds* (Daniels *et al* 2011), which offer us much insight into how geography engages the humanities and creative arts (history, philosophy, creative GIS and digital mapping, art, writing, literary studies, film and photography) enabling us to grapple with an open-ended world of uncertainty because of our expanded set of tools. There can however not be one catch all approach, but what we do have here is a forum in which to express and represent a whole range of previously under-explored geographies that connect across a variety of disciplines and significantly contribute to an understanding of the world. It is however a concern of this author that such works, approaches, methodologies and practices are under-represented in terms of *teaching* geography. A level and undergraduate schemes are unlikely to fully engage with creative modes of exploration and expression as ways of *doing* geography, and it is felt that this could open more doors of geographical interest to broader audiences and reach more people. Here, we echo Meinig:

It will take courageous pioneers to move in upon the ground of the humanities and for the time being they will have serious handicaps for we do little to equip them with appropriate skills and tools. They will likely always be a very small portion of our profession but they could be among the most important. We shall not have a humanistic geography worthy of the claim until we have some of our most talented and sensitive scholars deeply engaged with the creation of the literature of the humanities. Geography will deserve to be called an art only when a substantial number of geographers become artists. (1983: 327)

This sentiment is still ringing true, we have made progress, but there is still much work to be done. From this work however, Richardson (2011) in an introductory piece in the book *Geohumanities* recognises that from such a *transdisciplinary* perspective proliferates a 'kaleidoscope of intellectual and artistic outputs'. However, this is not so much an *artistic turn*, but more of a *disciplinary churn*, where:

Geographical knowledge is a matter of description and depiction, its form often a mixed medium of image and text, designed for telling as well as showing, plotting time as well as space, including making and remaking the terrain of cultural memory. (Daniels *et al* 2011: xxvii)

This ethos at the heart of geohumanitarian approaches will be reflected in this thesis overall, which will be orientated by modes of engagement and representation that reflect the particular spatio-temporal characteristics of that which is being explored. What we are seeing here is a foregrounding of the role of the author in the configuration of understanding and knowledge (Cosgrove 2011: xxii), and a dissolution of disciplinary boundaries. And this thesis plays its interdisciplinary part as it roams across history, mythology, atomism, physical geography and landscape evolution, political ecology, more-than-human and animal geographies, memory/emotion/imagination, in turn highlighting the connectedness of all of these things as threaded and weaved together by the affordances of freshwater. What we are not going to raise here are the often trifling questions of *what is art?* And whether or not I am an artist or I'm an artist doing geography or a geographer engaging artistic practices, this discussion should be taken up elsewhere. Rather the thesis will reflect an ensemble of making and doing informed by disciplinary fields but not bound by them, and the works as descriptive representations will by and large speak for themselves. There is an emphasis on creative output, but this is designed to portray an experience, to invite the reader in. This is a work of geography, and the overarching philosophy is that the writing of the earth should also be written by the agencies of the nonhuman (see Serres' quote inside front cover), and that the human, the social, and the cultural elements of the world are co-constituted and configured by the animal and the natural, setting us amongst what Latour would refer to as a *multinatural* world (2004). As such, the term geography here implies the ensemble that configures the world, and will be expressed here through a sequence of site ontologies composed around freshwater, which engage the more-than-human:

The task of the geographer is to alert us to what is directly in front of us, while the task of the experimental geographer – an amalgam of scientist, artist, and explorer – is to do so in a manner that deploys aesthetics, ambiguity, poetry, and a dash of empiricism. (Scott 2011: 52)

I understand the role and importance of specialisation in geography; indeed, multidisciplinary approaches in many ways need to embrace specialisation as a way of compiling an appropriate box of tools. I also accept that not all geography can, and should be done in this way as we may be in danger of watering down the importance of specialisation within the discipline, but there is a place for it, particularly in exploring relational fields of forces that draw bodies together as these forces traverse multiple worlds and species. As Dear (2011) reminds us, the notion of place has also long played a significant part in the works of artists, but the creativity of place itself is largely under-theorised. This project seeks to address this in revealing the *rivering of the Severn* as one of many possibilities of river, from which its creative agencies are revealed in the configuration of particular sites, relations and landforms. We shall return to the approaches of the geohumanities a little later as we set the scene for the role of writing in the thesis as a means of creative representation. What I am also not attempting to do is play down the importance of generations of turns, returns and processual changes in the discipline of geography as this is how it works and grows as a body of knowledge, this thesis though is a matter of contributing to a growing need and nascent body of work that includes recognition of the:

Aim to rework a tradition of geography scholarship which connects academic knowledge to a wider world of geographical experience and imagination, an actual world of mental reverie as well as material reality, of conflict and uncertainty as well as creativity and possibility. (Daniels *et al* 2011: xxvii)

And, as John Wylie says as he reflects on his position as a *cultural geographer*, practicing a form of writing that is simultaneously creative and critical, artistic and

scholarly, this is 'evolution rather than revolution' (2010: 215). It is this mind-set and these nascent fields of scholarly and creative engagement and inquiry that have made this thesis possible and helped to open avenues for such works to pass through.

Performing sites – making moves

Walking is a form of streaming. Our bodies are made up of water, and we gravitate towards bodies of water. We think in liquid verbs. We absorb quiet, reflect upon yesterday, thoughts flow and our dreams dissolve. (Clarke 2010: 116)

We are watery bodies, and for Clarke our intimate bond with water emerges through us as a *liquid perception*. As Clarke points out this term emerged in urban discourse and refers to the ways in which we envisage movement as pathways, communication and traffic flows, which enables an understanding of the city. This thesis and its associated works more often than not found themselves (in topographical terms) to be quite far away from the city, nevertheless this type of visualisation opens ourselves up to how connections and movements are made along multiple trajectories, and the ensuing encounters, dreams, imaginings, events and experiences occur, not as discrete entities but as inherent parts of the riverscape. Clarke elucidated this example through describing *La Miroir de L'eau*, an interactive waterscape that draws upon the River Garonne in Bordeaux. Designed by the French landscape architect Michael Corajoud, *La Miroir* is a shallow film of warm water that flows over a slab of black granite, and in the hot summer months crowds amass and wander barefoot amongst it, observing how the reflective surface 'breaks up into a moving tableau of ripples' (*ibid.*: 115). This installation reveals to us the abstract qualities of water that must be encountered if we are to uphold our affectual, bodily relationships with water. The whole installation and movements through it of various bodies and materialities acknowledges the Bergsonian notion that it is change itself that is the state of things (Bergson 1998).

Water and the riverscape may thus reveal to us the natures, ecologies and movements of sites that may otherwise be overlooked. Flowing freshwater in particular offers up the opportunity to envisage a weaving together of sites, all connected by a rivering of relations. It is an aim of this project to reflect the character of particular sites and encounters in the related behaviours of the Severn and recognise that particular forms and flows of water mobilise how relations take form. This in turn (re)reveals to us landscape as a possibility, as a capacity for encounter, as a sequence of tensions and chances that allows for an unveiling of the self (Ingold 1993; Pearson 2011; Wylie 2005, 2006, 2007, 2009). It is around this touchstone that the project begins to orbit around practices of performance more implicitly and works-with the vectors of play-performance-participant in ways that recognise the role of the landscape in our biographical and auto-biographical accounts of our experiences. This renders the landscape not as a scenic backdrop, but elucidates its role in a constitutive, dynamic relationship. The riverscape here will not only serve as a counterpoint to the material, but will also be recognised as a direct influence on the experience of the walk undertaken, and of the bodily relations that gather around freshwater, in this thesis then, *performance* is framed as a:

Reading onto – a projection of narrative onto the seemingly featureless terrain – as a reading from – the drawing of attention to extant details animating that which is observable. There may indeed be a creative friction or tension between what is of the place and what is brought *to* the place. The presence of performance might even be inappropriate or anachronistic but in this also revealing: enabling the site to “speak for itself”. And in its ambivalence, in its refusal to re-enact all that might have happened here, resistant to closure of interpretation. In full acknowledgement of the interests of various communities, the various social and political constituencies, the various contradictory interests that might lay claim to a location and its past-performance might also challenge pervasive notions of landscape as simply an area of ground or as a purely visual construct. (Pearson 2011: 284-285 *emphasis and quotations in original*)

There is of course a long disciplinary tradition in geography of debating the importance and significance of seeing, visualising, viewing, gazing at the landscape and who is doing the looking and how this might be configured and constructed in particular socio-political-cultural relations (Cosgrove 1985; Cosgrove & Daniels 1988; Jackson 1989), and now with non-representational approaches that value the embodied, practice-based approaches that focus on a becoming-with landscape and the narrative forms that ensue, the debate has moved on significantly (Daniels & H. Lorimer 2012; H. Lorimer 2006; H. Lorimer 2010; M. Rose & Wylie 2006; Wylie 2005, 2006, 2009). Nevertheless there may still be some gaps in how geographical approaches account for and describe body-site relations, and it is the suggestion of this project, and of Mike Pearson (as outlined above) and some key thinkers in geography (Thrift & Dewsbury 2000) that some of these gaps provide the opportunity for explanation and description to emerge from performance inspired doings, makings and practices. Perhaps now would be a suitable time to return to Meinig's point, that for geography to be seen as an art, it requires more artists to do it (1983). We can also flip this around and suggest that for geography to really engage the creative and performance arts, we require more geographers to become performers, and be more experimental rather than simply setting themselves up in the stalls for positions as commentators and observers. I am not ignoring the considerable efforts of Hayden Lorimer, John Wylie and Derek McCormack to publish their work more broadly, and who have taken up the challenge as performative writers, makers and doers of works, but will suggest that we need more. Maybe it will remain so that, as Meinig suggests, such geographers may be amongst our most important in terms of grappling with body-site relations, but will always remain a small group. It may be that the relative disciplinary freedoms of performance research allow associated scholars to step into the waters of other disciplines (geography in particular) in order to understand sites and *places* - the geography-performance crossover seems to be more heavily trafficked from their direction - but perhaps it may be a suitable time to re-energise the

push for such collaborations that emerged in the early 21st century and do more paddling together, or even alone - as geoperformers - leaving our disciplinary anxieties, fetters and shackles on the shore.

As such, the arts, and performance more specifically here can help us to grapple with body-site relations through revealing, describing and portraying that which is meaningful, and often personal. In turn, bodies may, or may not relate, but it is the process that is important, we need to continually make efforts to reveal what it is that landscapes (including riverscapes) makes bodies do through ourselves as geoperformers in the hope that we make connections across people, and contribute to understanding how body-site relations are made manifest. The approaches of site-specific performers like Mike Pearson (2007, 2011) is of great importance here particularly in reference to demonstrating the 'intimate connection between personal biography and the biography of landscape' (2011: 283) and how social identities and senses of place emerge. For Wapke Feenstra:

Standing in a landscape involves a whole array of physical sensations. We stand there – literally – with our feet on the ground, we look around us and we engage with our surroundings. All of this is infused with memories that dwell in the bodies of those present. But memories can also dwell in neighbourhoods and the land itself.

As such it is the task that performance artists have set themselves to portray, elucidate and explicate the myriad sensations that occur and the multiple memories that are re-revealed through our bodies. Feenstra also highlighted the relevance of sites in bringing moments of memory together with history and geomorphological processes through ecological and soil sampling.

It is worth pointing out that artistic practices, this call, and this thesis is always-already informed by that which has gone before (a notion that later on brings our understandings of the 'source' of the Severn into question), just as is the discipline of geography as it continually turns twists and returns along trajectories of evolutionary

process. But as Thrift & Dewsbury (2000) suggest these efforts are aimed toward animating new human and non-human potentialities, as a way to *make space livelier*. They want to produce spaces which flirt and flout, gyre and gimble, twist and shout.' (2000: 412; see also Latham & Conradson 2003) This process has been - in no small way - made easier by the thinking that circulated around non-representational theories with their emphasis on the flow of practices in the everyday, telling stories of affected bodies and prepersonal forces related to non-human components that co-constitute our daily lives (Thrift 2003; Nash 2000; B. Anderson & Harrison 2010). Here the environment is seen as an extension of the body and mind which has allowed for explorations in human-animal relations (H. Lorimer 2006; J. Lorimer 2008), nonhuman agency (Jones & Cloke 2008), revealing the multivariant forces of potentiality and recognising bodies as continually in formation. So how can performance add to this still growing set of practices and approaches (tensions of the term non-representational itself notwithstanding)?

For Thrift & Dewsbury (2000), as a means of carrying out cultural practice, performance can enhance what it is we already think we know, and the arts of what bodies can do, can be revealed through expressive qualities. Furthermore, we expand a vocabulary for describing the tactics and skills required for negotiating everyday life, which in turn opens up new ways of writing and talking about cultural practices, artefacts and processes (Thrift 2003). To this I would add that performance offers up opportunities for geographical works to reach wider audiences in whatever form they manifest; in site-specific performances, performative writing, installations, gallery spaces, photography, film etc. What performance also opens up is a whole range of methodologies and techniques that can complement geographical approaches, not only in doing geography, but in teaching, presentation and communication. Through embodied techniques we open up a whole tool box of linguistic devices and means of expression that can communicate the intricate, intimate natures of body-site relations.

However, Steve Pile's (2010) question still remains, how do we represent the non-representational, that which evades and escapes the usual processes of textual discourse that privilege the written word, and divide thought on the one hand and practice on the other. This thesis seeks in some way to rectify this by re-revealing the liveliness of the written word through performative writings, and pushes for further experimentation with representing images and discourse as conveyors of the aesthetic (Nash 2000). This thesis moves to consider the pre-personal, pre-cognitive fields of forces that open up capacities to affect and be affected *in-between* things. There is something of an emphasis on doing and practice here, but this is not a wholly non-representational endeavour, rather it seeks to explore the connectedness and flows between discourse, materialities, bodies, text, meaning, signs and practices as a way of revealing the interacting, affective ecologies and sites of the riverscape. David Crouch (2003) also suggests that *gaps* are spaces of possibility where individuals come to be affected and feel differently about themselves and it is through performances, performativities (vernacular repetitive behaviours, see Butler 1990) and practices that we are able to comprehend how individuals are able to feel, think and rethink their lives, selves and surroundings. There is however still, and probably always will be, a suspicion of *artsy* approaches and as Thrift suggests, this largely comes from a concern:

With the means through which academics tend to earn their crust, which tends to downgrade many of the most important elements of performance: the tactile, the kinaesthetic, the auditory, and so on. But the creative and playful dimensions of performance seem to me to trump all these suspicions. In the kind of world I have depicted, performance provides a reservoir of knowledge which can be used to bridge moments in ways which do not simply echo the past and which provide the resources to make all manner of political interventions. (2003: 2022)

To add to this, such an approach offers a challenge to what were seen as entrenched modes of doing fieldwork:

To break these habits requires an ethos of experimentation and pluralism in how we think, research, and present our human geographies. Embracing a move towards practice and performance requires a radical openness in our methods, our ways of thinking, and our ways of writing. (Latham & Conradson 2003: 1904)

As mentioned previously, this situation has improved, especially with journals such as *Geohumanities* and *Cultural Geographies* acting as catalytic forums, but as Latham & Conradson also point out, this is all a huge effort and no doubt failures will occur, but failings can be instructive and are just as vital a part of multidisciplinary process and progression. Also following these calls in the early 21st century and a sporadic participation in performance related approaches, Daniels *et al* (2010) moved towards a more coherent relationship and framework for exploring the ecologies of senses of place and connections between geography and performance. This special issue of *Performance Research* (2010 vol.15) followed on from a 2005 AHRC funded project exploring landscape and the environment. Within this performance firmly established itself as significant as a means of practice, representation and inquiry and in so doing effective ways of exploring the relations between human and nonhuman worlds were mobilised. This sense of environmental theatre, theatre ecology, ecology of theatre assisted our geographical understandings of a decentralised human being, and move towards co-constitutive becomings of people, water, weather, animal, element, mineral and further emphasise the inherent relationality of things (Bottoms *et al* 2012).

This chapter of thematic flows will now turn more specifically to some examples of ecological performance and reveal how such works can help us to configure an understanding of the connectedness of the world, and offer up opportunities to work with the agencies and capacities of water-land-body relations. As a way of broadening our scope of ecological practices, performance artists Minty Donald and her partner Nick Millar took up a 3 month residency in Alberta, Canada. The aim was to explore

human-environment relations in particular geographical and cultural contexts, here a sequence of site-specific performances engaged human-water interrelations around the Bow River, which also remain connected to their previous and current works around their local river, the Clyde (see also Donald 2012). Their primary concern is to reveal the potential agencies of the more-than-human, becoming increasingly interested in the forces of streams and rivers. By *guddling about* (a Scottish term referring to acting without clearly defined purpose; feeling one's way through playful and tactile engagement) they undertook a series of experiments. *Water Carry* involved taking cupped hands full of water from the river and walking in as direct a line as was possible until all of the water had drained away, when they would stop. The idea was to make connections and form a bond with the river, as they carried some of its water carefully away. The aim of *Water Borrow* was to visit as many tributaries of the Bow as possible, ask each tributary for permission to borrow some water, fill a bucket, note the date, time, weather, topographical features, and water quality, and then thank the tributary. They then offered the local community the chance to *mix their own Bow*, label their bottles and return the mixed sample to the main body of river. This was intended to bring people into closer relation with the watershed of the Bow, something which for many people is usually abstract, or even discrete (2014).

Through exploring an embodied approach to a post-phenomenological account of riverscape, Paula Kramer (2012) found a position that neither glorified the human or nature nor valued one above the other, and as such found ways in which they could move towards each other. By moving with the landscape and its features, reacting to the *stillness* of stone, the movement of water, she suggests that movers and performers have the ability to express an opening up of a multiplicity of agents, being exposed to and informed by capacities of the human and the nonhuman. At this point it is worth issuing a word of caution regards the post-phenomenological, inasmuch as we have to be very careful about claiming *how we know* about what the nonhuman is

experiencing, feeling, doing in its modal being. But in following Graham Harman (2005, 2010), it is about recognising that the capacities of objects are not exhausted by or limited to humans, everything is at once both known and unknown to each other amongst the same ontological field of forces. Kramer's practice didn't seek to *know* nature, but rather to enter into a co-constitutive relationship that emerged through the agencies of the human and the nonhuman:

The body with its perceptual and corporeal capacities offers even further and wider possibilities to notice and actively work with the possibilities of autonomous objects, vital materiality and distributive agency. (Kramer 2012: 85)

This *dance in confederation* reveals spaces amongst which we can reveal and consider such vibrant materialisms:

Movement can then develop not from imagining a rock or a stream but from being in contact with specific textures, colours, smells or temperatures, all their perceivable richness and all their unknowable and uncontrollable aspects. It is under such conditions that I see specific potentials for the capacities of matter and the autonomy of objects to enter into the dance. (*ibid*: 86)

The ensuing, unstable position as a human mover was revealed as a reflection of encounters with the materialities of the riverscape and reacting to them. Kramer found herself touching and moving with stone, holding poses and positions that relate to their density, temperature and speed. She crawled through rivers on her hands and knees and padded around on tree stumps. The messages and inspirations of this paper would follow me throughout the course of this whole project, at times I too found myself lying on the bank, paddling barefoot in the water on cold, hard, slippery stones, intensively listening to and watching the water, mooching about in the mosses and snags of trees as ways of bringing myself and the riverscape into a closer confederation, through similar processes of knowing, not knowing and becoming:

When passing through or staying with a site or place, to perform, to make an action, to practice a skill, one can take along problems and questions that will open up the experience whether those questions or problems are resolved or not...They give a vector, a direction to experience. (Heim 2012: 120)

As a key thinker on issues around theatre ecology and ecologies of place, Wallace Heim asks the (admittedly) rhetorical question, *can a place learn?* She intended to theoretically explore how relations between bodies and the biosphere and associated materialities are made manifest:

I wanted to propose a concept that would necessitate thinking of place and the human in extreme relational terms, that would destabilise ideas of human capabilities and that would retain human experience as inherent in the constitution of a place, but slanted, off-centre. (Heim 2012: 121)

In these *extreme relational terms*, sites are not only products of practices, trajectories and interrelations (Marston *et al* 2005; Massey 2005; Wylie 2007) but particular human capacities (consciousness, representation and intentionality) emerge through and are constituted by the capacities of other nonhuman things and beings:

What is held in the expanded version of mind is not the seemingly stable entities but the processes, the passages of news of difference that traverse the performing body and that may, in conditions of environmental change, take survival away from the human. The concept lures attention: the experiment is to follow. (Heim 2012: 127)

And follow it did, the timing was largely coincidental, but poignant nonetheless. In 2012 Thomas contributed a chapter to Arons and May's edited collection, *Readings in Performance and Ecology* that moved us towards the site-specific work of Anna Halprin. Halprin's work has registered interest amongst geographers in the past (see Merriman 2010) as a way of configuring choreographed spaces of performance as relationships between moving bodies, landscape and architecture. Here the pioneering and inspirational works of dancer, Anna Halprin are of particular

significance as we continue along this post-phenomenological theme amongst the ecologies of body-landscape interconnectedness. In her later years Halprin's work focused more intently on dissolving the connections and boundaries between performance and nature, dancer and world. As an acknowledgement of a film made by Andy Abrahams Wilson entitled *Returning Home*, which showcases some of Halprin's performances with landscape, Thomas notes:

Performing in nature, with nature, Halprin's performance is a movement-in-stillness that taps into the slowing down of time caught, for example, in the pulsing waves of the ocean, or the decomposing bark of a thousand year old redwood tree. The dances reveal the reciprocal impressions that bodies make on each other in nature on the performing body, the dancing body on nature, and the intersubjectivities between the human body and the other-than-human. (2012: 119)

So as we see in Wilson's film, Halprin's ageing, naked, blue painted body, adorned with a crown of tangled roots, sitting curled up in a muddy hollow at the foot of a tree, she expresses:

The smell of the earth that I'm smelling right now, and seeing these roots as they fall down over my eyes, begins to create a transformation...What I hope is communicated is a sense of great reverence for this larger body of ours that will in some way be inspirational in itself, but also bring a raw kind of awareness to nature. (Halprin *date unknown*)

It is just this kind of reverence that is a key theme of the wider walk within this project. Hopefully something of the becoming-together of the Severn and various bodies as expressed through my performing body will be elucidated. There isn't always room for this kind of exploration in the conceptual chapters, rather these inspirations serve as over-arching themes, and as shall be explained shortly, it is the main purpose of the interconnective segues and pieces of performative writing that highlight this, and in so doing represent the connections between experience, encounter, practice, theory,

landscape, riverings, elements, performances, performativities, materialities, speeds, slownesses, human, nonhuman, the physical and the virtual. This thesis shall remain open-ended, and its beginnings are only a trace, an origin of an origin of an origin, the whole thing together is intended to portray a durational process, changes in qualities, not in kinds, where the divisions between things are unclear (Bergson 1998, 2001), but varying spatio-temporal elements are felt and expressed in association with particular site ontologies. This *journey based performance*, which is expressed as a work of geography - as a *geoperformance* - is intended to assist our understandings of how relational places are composed:

When performance takes place on the move, travelling between sites and engaging with people and places along its route, it becomes part of the processes that define and construct a new mobile world. (Overend 2013: 379)

And, as Derek McCormack (2008) suggests (also see Manning 2012), it is movement that give spaces their character. This thesis then seeks to elucidate the movements of the Severn as agential in terms of mobilising particular characteristics of the landscape, and practises, performativities and performances of other bodies, human and nonhuman. Something that will generate a moment of reflection later on is some questions raised by McCormack here:

It is one thing to think about an individual body as something that both moves and feels at the same time. What happens however when you add other bodies into the mix? How do you account for the affective complexity this generates? Furthermore, where might we locate the affective dimension of a room full of moving, dancing bodies? Is it in the bodies of individuals or between them? Or both? And what kind of vocabulary might we use to describe this affective quality? (2008: 1827)

I'm not sure at this stage whether we have the answers, to focus on such questions would require a prescribed methodology and means of representation predicated on a set of pre-established approaches and expectations. This is of course

at odds with approaches toward site ontologies, and a project that places an emphasis on encounter and emergence. As we saw in the earlier section, in order to grapple with sites, methods and expectations need to remain open. However, I feel that the ‘vocabulary’ required to describe such affective qualities that are mobilised by flesh-water encounters can be formed through textual experimentation and performance based practices. Although there is an emphasis on crafting the written word in this thesis, this need not necessarily be the only way, but it does seem that such multidisciplinaryities are, in whatever compositional form they take.

What we write about when we write about writing

As *geographers*, writing is a large part of our craft. Movements in nonrepresentational theory travelled beyond text as a primary means of representation, towards embodied and performed practices. Nevertheless it still remains as a key part of how we do what we do, and how what we do reaches fellow scholars, and becomes catalogued and stored for future generations. As geohumanists, as geoperformers, there is still a pressing need to write, however, there is also being a need to open up our methodological tool box, and as such there is a need to experiment with how we write, in order to complement our processual developments towards grappling with, describing, analysing, portraying an open-ended world. I use the term *experiment* quite loosely here, as there is a point of view that suggests the ongoing development of the discipline of geography and its associated contributions, being created by, and creative for new geographies is by definition experimental (Last 2012). However, the engagement of ‘nongeographers’ (artists, performers, movers, makers, mathematicians) have pushed experimentation further, whilst acknowledging that new approaches arise, traditions are also revisited and reworked. Within this we find ‘geographers’ pushed towards defining new conventions around what it is that geographers can do, and (after Spinoza), we will never know what the limits of this may be. In this need to experiment there is a movement away from the safe, orderly

and established and enter into a dialogue that emerges from new (or renewed) methodologies, practices and theoretical engagements that can reach not only other disciplines, but also wider audiences (*ibid*). As I have already eluded to, such interdisciplinarity isn't about suggesting that we all become catch all geographers as individuals, this is impossible, it is in many ways a practice of specialisation, of playing to the strengths of particular geographers/ies, but perhaps it is the relative weaknesses of some approaches that can be strengthened by cross-disciplinary engagement. This is also a call for more practitioners of geography to be more open-minded to the potentialities of experimentation, and the rewards of *doing* rather than *commentating*. As such:

This is not a disciplinary imperialism, a policing of boundaries, but rather suggests that disciplinarity can be a requisite for these moments of mutual respect and creative learning, where what emerges is greater, ideally, than the sum of its parts. It seems, that knowing from where it is that we speak and practice is both an important part of developing effective dialogues, but is also in part refined in the course of these engagements. (Hawkins 2011: 473)

All of this chimes with developments in the geohumanities where multidisciplinary requires an open conversation between strong disciplinarians, who are willing to expand their methodological and theoretical scope. In positioning this thesis in the geohumanities it offers up a performed walk, sequences of performative writing and connects these with particular site ontologies. Here we not only remember the affordances of writing the earth, but recognise that humans are not the only ones inscribing the story. It is hoped that my position – of being the one *telling* the story – does not come across as conceited or pretentious, but as connected and embedded in multinatural, ecological processes. Writing is of course a very human endeavour, which perhaps goes some way towards elucidating the affordances of being human, in an as-well-as-human world. This breed of *geopoetics* here will show that:

The connections between geography and creativity cut to the heart of the human imagination, of how we live on and live with the earth. (Magrane 2015: 87)

Where:

Creative geography and geopoetics become receptive to the philosophical-creative possibilities of collaborative processes with other-than-humans. (*ibid*: 94)

We come back again to our open-ended versions of *site*, and what constitutes a *site*. Here a piece of writing becomes a site in itself, and further elucidates the ideas of site ontologies by always being connected to the narrative of the thesis, no matter how derivative of the fieldwork, or disparate to the context it may appear to be in a particular moment. Openness and encounter are at the heart of this thesis, what we engage with here is immersion, immersion in the landscape and amongst the pages of a descriptive account which is attentive to materialities, bodies and elemental processes. As connecting threads and flows the moments of geopoetics are imminent to the site itself, designed to (re)enact, (re)perform, again and again, comment upon, critique and perhaps in future even (re)calibrate the site where they were written (often sat on the riverbank, in my cramped one man tunnel tent, sometimes at home in Wales, all of which emphasises the stretched out natures of *site* and their topological connections):

Sites exist both on and off the page. Geopoetics can help us to make meaning of the world, at the same time resisting explanatory models that themselves preconfigure what we see. A poem can be distilled language, it can be energy transfer, and it can perform. A poem can tend toward stillness or toward multiple understandings. A poem can be a collaborator or an act of resistance. We can look to our scholarship to help approach our poems. (*ibid*: 97)

As a practice, creative writing, and writing scholarly works more creatively has gained much currency in geography of late. Geographers now not only comment on literary works and use them to frame their approaches, but also have re-engaged with narrative as an important part of our expanding representational tool boxes. Of course,

all writing is in essence creative, but there is a growing recognition of and engagement with writing as a performed, embodied, reflexive and reflective experience as we attempt to describe geographies in refreshing (or refreshed) ways (DeLyser & Hawkins 2014).

Having recently 'decided to become a poet' (2014: 142), geographer Tim Cresswell no longer simply writes poems, but puts a lot of time and effort into developing his craft, and through processes of peer review now aims to get published where it is considered a serious achievement. It is not only being a cultural geographer that contributed to his development as a poet, Cresswell now finds that his approach to crafting poetry informs how he writes and works more generally. He may not agree with my approach here, as he suggests that creative writing involves endless reading, practice, and writing with discipline. I'm self-taught (if there is actually such a thing), and I've simply opened myself up to the possibilities of using words and textual phrasings beyond their conventions. I found (going back well before this PhD) an urge to convey and portray the patternings, rhythms and experiences of landscape in the flow and form of language. I simply choose not to accept the limitations of text in mobilising affect in the reader, or as I write. I hope this doesn't sound pompous; I'm simply trying to affirm that my geopoetics is organic, rather than disciplinary and that these moments of prose emerge with particular affordances and impressions of the landscape. I hope they show this.

Everybody writes differently, and moving towards the other end of Cresswell's *disciplined* spectrum, we have J-D Dewsbury whom admits that he needs time, and plenty of it, to work through creative processes and inhibitions of desire, preoccupation, patience and most importantly for him, the will to do it (2014). This thesis has largely emerged from moments of feeling ready to write, but not really knowing when that time will come, something which is slightly at odds with the practice of working to deadlines and is a tension I have to negotiate. I feel as though I'm somehow being more true to

the encounter I attempted to encapsulate if I just let it come to me and go-with it. In either case, with either approach (although I do not consider them distinct) it starts with a hook, a small moment of pattern, phrasing, and/or rhythm, and it is from here that connections get made. So where I see the connections between creative and scholarly process, particularly where writing is concerned, this way of *doing* geography just feels right to this author in terms of describing body-site relations. Others may disagree, and are probably right to do so, but other approaches are of course available.

There is a concern that works such as this raise questions over the strength of narrative as an expressive form, but:

This new narrative space across the humanities provides scope to address and question official or established stories of places, from nations to monuments, whether by subjecting their mythologies to materialist analysis, deploying history against heritage, or, from a pluralistic perspective in which all grand narratives are suspect, of opening a space for many kinds of story, personal and political, biographical and environmental. Narrative here is a question, or a generator of questions. (Daniels & Lorimer 2012: 5)

In recent times then we see a growing recognition of narrative as a valid means of description and analysis, as well as a growing number of publications that use narrative (either wholly or in part, for instance see Stewart 2007; Parr & Stevenson 2014) where it is not just a matter of writing a story, but a question of *audiencing it* (Parr & Stevenson 2014). This thesis takes some comfort where:

The sense of playfulness, as-if-ness, plurality, combined with a genuine curiosity about the ways in which social life is ordered and carried through, does not only encourage us to explore new realms of social action. That is to say, it not only encourages us to think about a wide range of social phenomena such as the body, emotions, nonhuman objects, the everyday, in ways that take us beyond an obsession with a politics of

representation. It also presents an opportunity to reinterpret and reappropriate established methodologies and ways of writing human geography that transcend the anxious culture of critique which has marked so much of the turn towards the cultural. (Latham 2003: 2012)

Make-a-walk-write-a-walk-make-a-walk

Following the previous thematic outlines, we shall now turn to how my walk was conceived, performed and is to be portrayed in the forthcoming passages. There is a tension here (although it doesn't necessarily have to be so) that was alluded to in reference to topological thinking. A process of exchange between topology and topography tends to emerge from what could be considered to be a rather human need to journey, a desire for destination and sense of achievement in *walking the Severn*. However, whilst senses of journeying are difficult to transcend, this walk is conceived more as a walking-with, rather than *of* the Severn which elucidates ideas of conative bodies on the move, always connected no matter how proximate or physically distant they may be. In some cases, a *stage* of the walk would be organised from point to point, and generally take place across 2 full days of walking, with an overnight stop. In other instances, I selected *areas to roam*, the choice of which came about from news events (a bottle nosed dolphin spotted in Gloucestershire), fluvial events (the Severn Bore), socio-cultural events (coracle regatta and historic Ironbridge), and sites of particular interest (puddles, the source, and a ships graveyard). Time spent in these areas ranged from 1 day to 3 days, and in some instances (the uplands and the source) they were revisited on several occasions. In some ways this reconciled the topological-topographical and structural-poststructural tension in my mind, between my works and the ethos of the project, and the inherently linearised, structured form of the river system and a fluid relationality. Inasmuch as, although my intention - in satisfying my human desire for journeying - was to walk the length of the Severn, this wasn't conducted from source to sea, nor vice versa, neither was the walk always *going with the flow*, or at least the prevailing flow, running the decline, nor was the whole walk

conducted as one continuous journey. This unravelled the conundrum in some ways, and also made the task of walking over 200 miles seem more achievable. It also allowed the walk, the text, the theory, riverscape, freshwater, the practice, life, to continually fold in and out of each, from which many of the geopoetics and ontologies of body-site relations emerged. As Wylie puts it, this *creative tension between self and world* (2007: 217) is implicit here, and unashamedly embraced:

Every object, item or individual can be understood as the assembled outcome of networked relations; indeed our sense of our individuality and agency is but a relational effect. Instead of being in-dividual, that is, in-divisible and whole, we are always already 'dividual' – we are woven together through and amidst a complex *mélange* of at once cultural and material, human and non-human relations. (*ibid.*: 201)

Here we remember that bodies of freshwater in particular, as modes of expression of their relational configuration are also, *dividual* and caught up in tensile processes as part of an entropic *mise en scène*.

Landscapes tell stories, rivers inscribe upon the earth and carry messages, we carry with us our selves, memories, imaginings, previous encounters, hopes/fears for the future and this project is attentive to this ensemble. Instead of condemning the personal biographies of the researcher, this thesis acknowledges the importance of life experience in our reveries associated with body-landscape relations. As I have mentioned in the prelude, the idea for this walk emerged from a personal story, and perhaps it is something *therapeutic* or cathartic that moves us toward walking amongst the landscape and a sense of being out there, away from it all, only to find that our pasts, memories and dreams haunt our reveries. No matter how elusive they may be when we long to reconnect with them, they can rarely be escaped, and are often mobilised by being amongst the physical processes of the world.

There are several key points of inspiration for the undertaking of this project that chime with the ethos outlined above. Firstly, this work (and others like it) may find

attaining purchase within the discipline more difficult, had it not been for the endeavours of John Wylie (principally 2002, 2005, 2007, 2009). In ascending Glastonbury Tor, Wylie (2002) recognised that this walking experience was less about practicing a masterful perspective and gaze upon the landscape, but more of a continual folding and unfolding through passages of visibility, which offers up multiple points of view. This weaves observer and observed together in an open-ended tapestry of experience and encounter. Like the Tor then, the Severn also (in this thesis) is never an object to gaze upon, rather it is a body to both see and be seen, simultaneously open and hidden as our bodies fold in and out of each other. Here I become a member of its confederation, from the inside-out. Whilst walking around Mullion Cove, Cornwall, Wylie mused over cycles of absence-presence as he found himself sitting amongst a host of spectralities in the form of memorial benches, all seeing and being seen together (2009). From this, and from a single day spent walking the South West Coast Path (2005) emerges many possibilities of writing landscapes creatively as an active subject and enabled an understanding of infolding and unfolding compositions of motion, materiality, light, mood, morphology, colour, from which the landscape becomes something-with which we see as we become tangled together.

Tim Edensor (2000) recognises that following generations of socio-cultural development walking in the British countryside evolved into a practice 'designed to achieve a reflexive awareness of the self, and particularly the body and the senses.' (82) Here, and in the everyday, walking is a form of space productive practice, it is a freedom that is nevertheless set amongst a raft of conventions around acceptable behaviour, particularly in the form of the countryside code (Merriman 2005; Parker 2006). In this thesis then, the Severn Way is significant as it offers up a particular code of practice, it is inherently politicised and prescribed, but the intention here is not to rail against this, but to work with it as part of the human experience amongst the

multinaturalism of the riverscape. Despite being largely conducted along this waymarked route, this project will highlight the contingent, conjectural, sensorial, affective and nonlinear forces at play, after all, as humans, our lives are simultaneously structured, and chaotic.

The walks were a solitary practice, I remained open (in terms of ethnographic study) to the chance of encounter with fellow humans and spontaneous walk-alongs or interviews. But the fact was, on much of the walks, I hardly saw anybody. Walking through field after field in Gloucestershire, the overgrown banks of summertime from Bridgnorth to Bewdley and in the uplands above Llanidloes became very introspective affairs. These times, weighed down by a heavy bag, I became ultra-aware of the bodily and rhythmic patterns of walking, and the pain:

Introspective walking, there can be a certain pleasurable condition of walking. A bodily rhythm is created that, in turn, creates a certain state of mind in the walker. There is a beat, a cadence and a measure to rhythmic walking. In a sense the rhythm of walking is a form of energetics, a steady exchange of physical and mental energy between body/mind and environment. For some, it is the powerful meditative 'heartbeat' of an emptied mind. (Phillips 2012: 98)

I don't know about emptied mind, I don't remember that happening particularly, what I do remember though, as Solnit suggests, is that the *unthought*, automatic, performativity of walking allows for a freedom of mind to emerge, which allowed me to think through the experience and configure ways in which it could be portrayed (2002). Every now and again, the searing pain in my shoulders and the back of neck, or in my feet, would intervene. I also remember reading Solnit's *Field Guide to Getting Lost* (2006) and was both comforted and inspired by her unashamedly biographical writings and how these narratives relate to her experiences with landscape. Following reading this work it appeared that much can be revealed about encounters with landscape through narratives and autobiographical accounts, particularly as our bodies orbit

around and are entwined with landscapes of melancholia, loss, grief, joy and colour, and instead of relegating these themes to the background, to use them as points of entry into exploring body-site relations. Also, in the processes of getting lost, Solnit suggests that we begin to find ourselves, and our surroundings are revealed in profound ways and increasing intensities. Solnit embraces being lost and urges us to leave the map at home, in many ways despite being able to depend upon a waymarked route and having maps with me, senses of being lost would occasionally range over me. At times I felt was far from home, the upland mists were disorientating, the humidity of pine forests would close in and pain and discomfort would unsettle me. All of these processes would increase my anxiety, urge me to check the map, and the sounds, smells and sights of my surroundings seemed more potent. In fact, it was more like something Dickens (2010) has referred to as *houselessness* as he walked the streets of London during the dark hours of the night, to return to bed for sunrise in the hope that it would cure a bout of insomnia. Dickens referred to himself as houselessness, and in so doing felt more open to the possibilities and affordances of encounter during his walk, and much like myself in joining the Severn Way Dickens' walks were preconceived and he felt obliged to uphold the personal contract he had made with himself. Walking-with the Severn, it was quite easy to relate to ideas of houselessness, in fact it was a necessary part of allowing my body-site relations to emerge.

In Carl Lavery's *Mourning Walk* (2009), he marks the anniversary of his Father's death by walking 18 miles from Market Harborough to Cottesmore, where his Father spent 10 weeks at an RAF training camp. As a piece that weaves together a (very) personal biography, geography, and solitary walking I found much alignment with, and comfort in his representation. For Lavery:

Walking is a technique of solitude, a way into reverie. The walker is not a sleepwalker, but a daydreamer. There's a crucial difference here that demands attention. The

sleepwalker is dead to the world; he has no engagement with it; he's immersed in the unconsciousness of sleep. The daydreamer by contrast is alive to the environment, and recreates it through his imagination. He's open to the shock of things. When I walk, I go back and forth in an infinite journey between memory and imagination. (*ibid*: 32)

Here there are echoes of other key thinkers that are significant to this project, Gaston Bachelard for instance reminds us that encounters with water and its multivariant characteristics are oneiric experiences, and that encounters with water aren't just melancholy but water is *the* melancholising element (1983). Carl Lavery is also a keen reader of Marcel Proust, and in this particular passage there is much alignment with a Proustian theme:

If I am walking, I almost physically feel the current of time slowing down in the gravitational field of oblivion. It seems to me then as if all the moments of our life occupy the same space, as if future events already existed and were only waiting for us to find our way to them at last, just as when we have accepted an invitation, we duly arrive in a certain house at a given time. (Lavery 2009: 30)

Proust informs this project throughout in more or less subtle ways, and it is worth noting that whilst several geographers have made reference to Proust (usually in terms of involuntary memory) he remains under-explored in terms of landscape writing. Perhaps if we were to engage his work beyond the usual, we would find some extremely profound writings on embodied engagements with landscape, that are infused with reveries, imaginations, memories and sensations that are mobilised by particular sites.

Marcel Proust was a hypochondriac and insomniac, who spent 14 years endlessly trying to perfect his work *In Search of Lost Time*, which was largely written in bed. The first volume was published in 1914, following much toing and froing between Proust and his publishers whose proofs would be returned to them again and again

with margins full of notes, notes with corrections attached, and extended sentences written between lines. Proust was never sure whether his work was a philosophical essay or a novel, and this question preoccupied him for all of his life and was never entirely reconciled (DeBotton 1997). Essentially, this complete work is a book about writing a book, but as well as that, it is about a search for the loss and elusiveness of time. Despite this (and why it should be of more interest to geographers) there are inherently spatial elements as many of the narratives within orbit around particular sites, for instance, the petals of hawthorn blossom, Place de la Concorde, his garden, the courtyard, the dining table and many more. For Deleuze (2000) memory here is framed as a *type* of search, rather than as a means of investigating, and it is actually where other materialities emerge that do not trigger sequences of memory that are of the utmost interest in Proust's work with landscape. Here, the far off church steeples, and the walks he undertook as a child with his family are not sources of memory, but the raw materials for understanding body-landscape relations. This work is not a lesson in remembering the past, but is an account of a life as it should have been lived, embroiled in an apprenticeship for the future. This apprenticeship is a matter of learning how to interpret signs which are found in everything, and all things have the capacity to teach and reveal something to us. Of particular interest here are the sensuous qualities and impressions that are found in all objects and how Proust elucidates them as relational qualities. To decipher such objects takes a continual effort, and in pursuing this, he is always interrupted by another sign, dream, imagining or memory.

As this thesis travels along a Proustian trajectory, signs in the landscape are sensuous impressions that have the capacity to reveal ourselves in more-or-less unexpected ways. We will never fully understand what our body or the body of river can do (echoes of Spinoza 2001), but reminders are everywhere, all the time inscribing upon encounters and events. Lavery went looking for it, Proust expected it - to find

meaning and truth, only to find they are always elusive - and I found myself somewhere between the 2, hoping and knowing the riverscape would reveal something, but never totally expectant of, or ever knowing what it might be, or how long an impression it would last, or come to settle within me:

The places we have known do not belong only to the world of space on which we map them for our own convenience. They were only a thin slice, held between the contiguous impressions that composed our life at that time; the memory of a particular image is but regret for a particular moment; and houses, roads, avenues are as fugitive, alas, as the years. (Proust 2005: (1) 513)

This thesis then will mix together travelogue, performative writing, geographical analysis and description, biography, performance, flows of memory-dream-imagination, characteristics and agencies of freshwater, nonhuman bodies and a walk as a performance to describe depict and portray relations that gather around freshwater. What follows is a route map for the project, a way of staging the works and to assist the reader in navigating through its more or less subtle themes.

Trajectories

The prelude and the prologue found a necessary place here in setting the scene for how the idea and inspirations for this project to evolve. The prelude in particular highlights the affective registers that are mobilised when many of us enter into body-site relations with the landscape, from where the context of the research emerges. The prologue acknowledges the inspiration of performance practitioners, and also begins to suggest that not only are all things connected, but there are flows of varying intensity, speed and slowness that are the passages between relations. These relations are between bodies, memories, materialities, elements, experiences, dreams, landforms and movements.

The following section, *Connectedness*, is one of several pieces (also see *Dolphin spotting*, *Reflecting with Bachelard*, *Dancing with Bergson*) written

performatively. These interludes will arrive largely unannounced, but will act as connective threads that help to string the flow of the project together. These open up avenues of textual experimentation as a means of representation and seek to compliment the more formerly written chapters (although prose will also feature in these site ontologies where applicable). In areas where you find little punctuation, the spacing of the text and its form on the page is to provide the reader with a sense of pacing that reflects the moment as it happened. These shorter pieces will also continue to maintain relations between the thesis and the walk more broadly, and will highlight how some of the key thinkers here – whom at times are subtly referred to – have inspired the project overall. Here we shall also see how theory and practice have mingled together. *Connectedness* was inspired by Heraclitus, and from paddling barefoot in the river a sequence of visualisations of relations emanates, all threaded together by watery bodies, which set the scene for the overarching ethos of the project.

Following this we move towards a particular body of freshwater that has been overlooked in watery geographies, puddles. A feature of any drainage basin in a temperate and/or tropical climate, they are revealed here as sites that make bodies do things, support lives, mobilise evolutionary changes, cause political problems and inspire humans. It may seem something of juxtaposition in relation to the project as it could easily sit at the end in order to suggest a point of departure from the river towards applying these approaches to research on other fresh water bodies. However, this chapter precedes the others as it is an opportunity to introduce the language I have used to help to understand nonhuman agency, and will continue to refer to throughout the thesis.

As this puddles chapter highlights the criss-crossing trajectories of human-nonhuman-weather-water relations, what follows is a performative passage that describes what happened on a day's walk where I attempted to spot a bottle nose dolphin that had swum up the Severn channel into Gloucestershire. This hints at

cycles of life and loss, of entropy, and of absence-presence. From here then, and remaining in Gloucestershire we mooch about in the ships graveyard, Purton, and it is here that we begin to implicitly introduce ideas of entropy and how this can enable human, more-than-human and physical geographies to move closer together.

We are near the estuary here, as such we move into a descriptive account of the event of the Severn Bore, a wave that pushes upstream on the high tide following the successive days of the full moon. This gives a chance to further elucidate the influence of Spinoza in talking of the conative tendencies of bodies to gather together in order to enhance their powers to act, and how bodies as modes of expression come to be defined in terms of motion and rest, speed and slowness, which emerge in relation to the velocities of other bodies/modes. In respect of further recognition of topological relations, being at the source, watching the wave push upstream, intensified my connections to the *source* and a sequence of events that unfolded between a sheep, the bog and myself.

This will segue into a proposition, that a landmarked source is a socio-cultural proposition and only exists in our geographical imaginations. The pointillistic (Doel 1999) notion of a fixed source is rendered here as absurd, and further building on ideas of entropy as laid out in a previous chapter, we begin to suggest that taking a relational approach to fluvial geographies helps to settle some of the tensions in the project between its inherently nonlinear and poststructural proposition, and the generally assumed hierarchical, structured lineage of a river system. The source, an origin, or any beginning becomes framed here as a gathering of forces that always suggest a preceding step. The source pool then is a moment of coherence that makes possible a rivering of the Severn, and the relations that follow in association with it.

What follows is a Proustian inspired account of a section of the walk from Bridgnorth to Bewdley, a photo essay that is configured as a dialogue with Gaston Bachelard focusing on the reveries of flowing freshwater. This then leads us towards

considering the spatialisation of duration, and a consideration of how movement emerges and *moves* people by focusing on the writings of Henri Bergson and his musings on *grace*. All of these thinkers, despite some differences, complement each other and this sequence of pieces aims to demonstrate that. What these pieces also hope to evoke is a sense of how the writings of these thinkers followed me and the memories of them gained intensity in relation to particular characteristics of the flow and form of the river. There won't be a sustained analysis of these theories here, rather they will drift in and out with varying intensity in regard to their relationship with the project, somewhat like the behaviour of passing waters.

Following on from our passing through notions of movement, we move towards a practice based chapter, which follows a narrative of what happened when I embarked on making a coracle (an ancient single person, bowl shaped boat), and paddling one for the first time. This exploration of *doing as method* seeks to tell the story of the coracle and to further highlight topological relations in the process of making. The notions of site ontology that have appeared more-or-less subtly throughout the project really settle here where the work of the site comes to be configured in a set of ensuing relations around the coracle.

Echoes is a poem that follows the inspirations of the Severn Valley around Ironbridge and was written by the riverside on a walk of the area, in relation to exploring the possibilities of chronicling the coracle.

Consider this a route map for the reader to assist navigation through the thematic flows of the thesis. Firstly there aren't any central research questions but there are particular points that the project will address in making its contribution to geographic thought. As such to give some coherence to the range of techniques, theories, empirics and practices that have been employed in this project's taking-form, I will now outline the connections between the core themes, and define its key objectives and contributions to geographic enquiry.

Primarily this work is situated in the field of more-than-human geographies with its emphasis on exploring human-nonhuman relations. There is a target audience in mind, and that is not only those whom are interested in embodied encounters with landscape, but also (and this stems from addressing a gap in watery geographies) those keen on extending this particular approach to freshwater worlds. The project promotes, supports and advocates a relational view of the world. In this frame there is nothing that is not relational, it is proposed here that all things become in relation to others, whether this is through affect, speed and slowness, motion and rest, symbiosis or any other force. Even death is relational, as a body changes pace it metamorphoses into a different regime of relationality and is enrolled into new processes of ordering and positioning, as such, its definition as a site will also shift as it becomes open to a change in relational forces and comes to mean something else to other bodies. In order to flesh out how relations have come to aggregate around particular characteristics of fresh water, and how coherent event-spaces have come to be configured as a result, the project will take an approach influenced by site-based ontology as described. Not only does this make clear the work's faithfulness to relationality, but also broadens our understanding of topological relations and how such thinking can benefit geographic enquiry. Here we also acknowledge that topography and topology are not necessarily distinct, and that relations form between them particularly through the human endeavours of the project. There is also a relational influence in how the project is composed. All aspects of this work (longer chapters, segues, poems, ways of writing, theory, empirics) and how they work in relation to each other is aimed at highlighting connectivity and the varying pace and intensity of topologies.

In order to apprehend something of the personal body-site relations involved in these works and frame the practice of walking-with and writing-with the river, the project turns toward connections made between geography and performance studies

and practices. This also moves the project into a post-phenomenological approach to otherness and becoming landscapes, which in turn will enhance our understandings of bodies as sites and bodies amongst sites.

The geohumanities therefore serve as a backdrop, an evolving area of the discipline to which this project responds, and many aspects of which could be positioned more firmly in. The main purpose of acknowledging this growing field is to give some coherence to the variety of themes incorporated, and the necessary interdisciplinarity that is employed. Being influenced by the geohumanities also allows for a certain audiencing of the project in terms of how it is written and configured. Overall there is an experiment here to reflect how water moves, with its varying speeds and slownesses in ways of writing, representing and ordering the project, and such an exploration of creative writing is advocated in this field.

With these broader themes and connections in mind the key contributions of this project to geographic enquiry follow several key themes that run throughout. As previously outlined the intention is to not only continue to contribute to an addressing of a gap in the geographical literatures of human geographies of water and the salty seas (following J. Anderson & Peters 2015; Steinberg & Peters 2015), but to add to these wet ontologies by rethinking human-nonhuman relations through encounters with *fresh* water. Furthermore, in so doing the project challenges how we think about and characterise rivers, river systems and system structures, and particularly in the chapter exploring the source of the Severn how notions of origin are configured in our geographical imaginations. This of course further highlights the connections between topographies and topologies that compose (mostly human) lives on Earth.

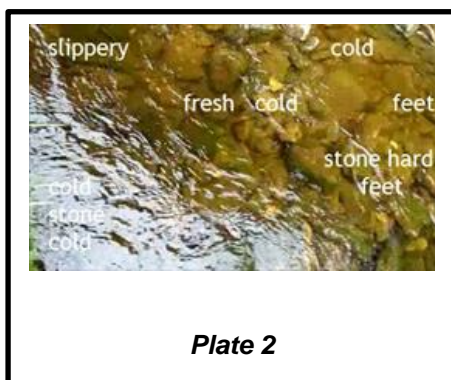
Whilst not being an apoloitical project, the deliberate intention to focus upon the rhetoric, and the idea of site-based ontologies rather than the political intentions of Woodward, Marston and others further insists upon the dynamism of places. This of course is not a new idea, but the deployment of this approach broadens our scope for

how the dynamism and fluidity of places can be understood and explained. We also find here how understanding entropic processes and their influence on body-site relations enables a softening of the boundaries between human and physical geographies, between nature and culture, the human and the nonhuman.

All of this is presented in such a way that fulfils a strong purpose of this project, which comes largely from a personal story as outlined in the prelude. And it is that landscapes (riverscapes) make us feel, think, act and do, and they also act out and inscribe upon the Earth. We are all part of the same multinatural histories, processes, presentness and futures, as such this project and how it is written and compiled seeks to evoke something of the sensations and experiences that were encountered in the reader. Perhaps in so doing will (re)reveal our surroundings in fresh ways, or rather allow our surroundings to reveal themselves.

Connectedness

An invitation from Heraclitus (2001) to step barefoot into the channel and step with, walk with the river over these cold, slippery stones, is this the same river? Even if it is, I continually change, so our encounter is never the same.



As I tread out carefully, tentatively, I was reminded of Simon Whitehead and Barnaby Oliver, remotely connected between Wales and Australia by simultaneously standing in their own local rivers, tethered by the same body, their bodies connected by body of water.



As I stepped out my cold feet slid as I struggled for grip, as I stepped out and slipped about on slimy cobbles I was reminded of Whitehead and Oliver.

I was reminded of the capacities for encounter across our watery earth, reminded of destinies, topologies, connections, relations, multiple natures, emerging-becoming ecologies.

As I stepped out and slipped about on slimy cobbles with my cold feet struggling for grip on slimy cobbles I wondered...what else is in this water?



I thought about corpses and funeral pyres on the Ganges.

Endangered river dolphins of the Amazon

The patient anglers of the world

Trawlermen

I thought about the coracle men of the Ironbridge Gorge



Plate 5

Polar Bears swimming from berg to berg, the great paddling

barometers of climate change

I thought about Keith, the grey seal wandering up the Severn

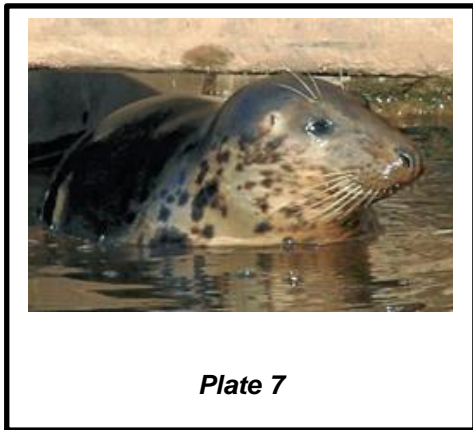


Plate 7



Plate 6

Channel

Legal aliens, I thought about Nelly the bottle nose dolphin, rolled over and rotting in Gloucestershire

I thought about people on cruise ships sipping a dry white and feasting on an endless all inclusive buffet

Submerged cars, toxins

Countless molecules and sediments, loads suspended...I felt that for a moment...suspended as I also was, adrift amongst a flow of bodies, lives, deaths,

of memories made and dreams melting away, always to remain fugitive

Beached whales

I thought of those who've drowned, been lost, taken by forces

Floods

Destruction

Soaked carpets and sandbags

Kayaks

I thought about water as giver and taker of life, maker and unmaker of land

As I made my way back to the grassy bank, stepping out and slipping about

on slimy cobbles I had grown accustomed to the discomfort, been refreshed by the cold running waters, and had felt connected to all manner of bodies that belong to the earth.



Plates:

Plate 1: Step On, Step With. By the author (2014), image of upland waters near Hafren (Severn) Forest, Mid Wales.

Plate 2: Cold Hard Stone. By the author (2014), Hafren Forest.

Plate 3: Tread Carefully Tread. By the author (2014), paddling in cold upland waters, Hafren Forest.

Plate 4: Memorial candles on the Ganges, www.pinterest.com/pin/437060338814566918, accessed on 2/2/2016.

Plate 5: Amazonian pink river dolphin, www.smallshipsafaris.com/pink-river-dolphin, accessed on 2/2/2016.

Plate 6: Tommy Rogers, www.coracleshed.org/the-rogers-family.html, accessed on 2/2/2016.

Plate 7: Keith the grey seal, image by Martin Rudd (2014), www.dailymail.co.uk/newsarticle-2264692/Anglers-demand-Keith-seal-shot-swam-Worcester-River-Severn.html, accessed on 10/12/2014.

Plate 8: Grassy Bank. By the author (2014), bankside after paddle, Hafren Forest.

Plate 9: Water Runs, Air Dries. By the author (2014), Hafren Forest.

CHAPTER 2: Endurance, Persistence and Endeavour: Exploring Nonhuman

Agency in a Puddle-Wonderful World.

Imagine a puddle waking up one morning and thinking,

“This is an interesting world I find myself in -

an interesting hole I find myself in – fits me rather neatly doesn’t it?

In fact it fits me staggeringly well, must have been made to have me in it.” (Douglas Adams 1998)

When the world is mud-luscious...

when the world is puddle-wonderful. (E.E. Cummings 1920)

They work, they fill up.

They reflect the most fragile branches, mirror the wispiest clouds.

Ugly kid sisters and understudies to the mighty rivers great poets praise,

They attract our unready shoes or our jeans as we tumble together,

Too keen on embracing the moment,

To notice the little worlds we’ve entered. (Tom. C. Hunley *date unknown*)

This chapter will start by following these sentiments and taking a moment to reflect upon such reveries of these humble gatherings of water, and consider them as a point of entry into a world that is *puddle-wonderful*. In 1998, Douglas Adams (author of *The Hitchhiker’s Guide to the Galaxy*) gave a lecture at the 2nd annual conference of cyberbiology in which he requested that we (re)imagine the world from the point of view of a puddle. His suggestion is that the hole in which the puddle finds itself is made just for it. Adams goes on to liken this position to that of the human, in particular

early tool-making human as manipulators of the environment. Who saw the world as something that facilitated their progression, their human *being* and that all things of use that they discovered, appeared to be there just for them. Given the ecologically detrimental effects of such a view, Adams proposes that 'this is something we need to be on the watch out for' (*ibid*). Far from imbuing puddles with a consciousness that allows them to reflect upon their position or even sense of place, this paper will however suggest that puddles have agency, as an actant that makes bodies do things. An actant can be either human or nonhuman and is something which makes events happen as it enters into or withdraws from particular relational compositions, sites or gatherings (Latour 2004; Bennett 2004, 2010). As the puddle finds itself in a depression in the hard-surface of the ground that *fits it rather well* we begin to enter into an awareness and intuitiveness towards the co-constitutive relationship between earth-ground-sky-surface-atmosphere-weather, all acting in combination, which mobilises the affordances of encountering the world as puddle-wonderful.

E.E. Cummings reminds us a little of the child in all of us. Using a form of combination language and adjectival phrasing that resonates with a childlike sensibility, he invites us to remember the playful natures of encounters with puddles and perhaps getting muddy and messy. However, as this chapter elucidates the multi-faceted and multidimensional characteristics of puddles we recognise that they are not just ludic spaces, but are also - somewhat paradoxically - a site of melancholy. We shall also see - through exploring wider resources - that they are nuisance spaces and mobilise the potential for causing mishap, and as such a particular political ecology infolds into, and unfolds from them.

This acknowledgement of mishap segues into Hunley's '*In Praise of Puddles*' where the suggestion is that compared to our grand rivers the puddle is overlooked, but we are wrapped up in the world together. They reflect the beauty of our surroundings, soak through our clothes, fill up, recede, however we are often too

caught up in our daily lives to realise the little worlds we step into - or as it is with the agency of puddles - step around or over. This awareness of puddles as overlooked and certainly under-theorised is at the heart of this paper. As the exploration unfolds we will find ourselves moving towards attentiveness to this somewhat vernacular occurrence in framing puddles as relations between weather and world made manifest through encountering them across the surface of the ground.

If we are to answer some recent calls in water related literatures to think more relationally about water, and answer a question posed by James Linton, *what is water?* (2010; Loftus 2011), we will inevitably encounter a body of geographical literature, which are of value in terms of contributing to knowledges of water in terms of sustainability and resource (Petts *et al* 1985; Cosgrove & Petts 1990; Petts & Amoros 1996), but whilst such works explore the cultural and the historical in relation to water management, they don't do much to describe affective, embodied watery encounters. This is not their purpose, but it does highlight a lack of such exploration and until recently (see Bear & Bull 2011; Anderson & Peters 2014; Steinberg & Peters 2015) there has been little attention given to the agencies of water and the ensuing embodied relations that take-form between humans and waterscapes, and the affordances that watery worlds provide. This is now also being extended to considerations of more-than-human relations (Bear 2011; Bear & Eden 2011; Eden & Bear 2011; Bear 2012; Peters 2012).

This chapter will argue that personal, affective engagements and encounters with water, despite being part of the fabric of our everyday lives are under-represented. And whilst recent explorations of watery geographies have acknowledged that the seas and oceans are excluded from the *geo* in human geography (Steinberg & Peters 2015) we don't necessarily have to look to the seductive seas; the lure of the lake; or the reveries of the river to explore fluid, dynamic and processual landscapes. I will suggest that puddles, even though they may appear as mundane are a vibrant and

dynamic relational nexus between humans, nonhumans, landscape and the weather-world, and that within the non-circular circulation of which they are a part have an actancy of their own, they make bodies do things. Here we shall enrol the nonhuman into having agential capacity, as that which does something, makes a difference, acts as an obstacle, alters situations, produces effects and makes things happen. This chapter will begin to introduce terms that help us move towards apprehending nonhuman agency, setting the scene for the chapters which follow.

For Bennett (2004, 2010) the nonhuman and the material have a *thing-power*, and she suggests that if we recognise the agential powers of natural and artificial things we shall be led towards a greater awareness and intuitiveness to the ways in which things are connected. This awareness will promote an acknowledgement, respect and perhaps fear of the materiality of the thing which will ultimately encourage greater ethical and ecological senses of responsibility. One of the things that puddles do is (re)invite the human into topographies of the ground beneath their feet, bringing them back in touch with the ground on which they tread. The 'humble' puddle then, is a transient or impermanent *moment of coherence* in what Manning (2010) may refer to as the hydrological cycle's tendency toward relation, this tendency emerges as they (re)appear, return, recede, fade, infiltrate, expand, erode, evaporate, soften and work (hard) through their own spatio-temporal, durational cycles. The puddle is framed here as having a particular spatio-temporal consistency and vulnerability that we don't normally associate with other *quasi*-stable bodies of freshwater. Considering they are slow moving, they are inherently dynamic, mutable spaces. The *life* or vitality of a puddle will be framed here in terms of their endurance, persistence, and endeavour to take-form and this is worthy of examination. Such apparently *quirky* geographies should be taken seriously, particularly where analysing the mundane and familiar can help us to reveal the importance of that which is often overlooked in our relational

world. As Bennett says, 'if we think we know what is out there, we will almost certainly miss most of it.' (2010: xv)

Big puddle

Small puddles

Puddles in the lane

Puddles on the footpath

Puddles near the drain

Shiny puddles

Muddy puddles

Puddles that grow

Winter puddles

Icy puddles

Puddles of snow

Spring puddles

Summer puddles

Puddles in the grass

Squashy puddles

Sploshy puddles

Puddles to...**SPLASH!** (*Puddles*, Brenda Williams *date unknown*)

Puddles without water

Things change because they endure (Bergson 2001), and if we take some inspiration from the *nomadic theories* of Rosi Braidotti (2011, 2013) and the vibrant materialisms of Bennett (2004, 2010) we can become more attuned to the self-

organisation, vitality and vibrancy of matter and thus begin to reveal the relational natures of the *stuff* that configures worldly experiences. For Braidotti, an awareness of nomadic connections realises relations as an *opening out* towards others, which sets in motion a project of ethics founded 'on affirmation and mutual specification, not on the dialectics of recognition or lack' (2011:3). The challenge within this is to grapple with processes rather than concepts, with the intention being to break free from the shackles of linear thinking and high-theory. The emphasis here is on distilling, explaining and describing the trajectories, movements and connections between this and that, rather than defining and conceptualising what this or that is.

It is now recognised in spatio-relational thinking that it is the connections and flows between things, and the trajectories they are positioned on, and where they cross over and the traffic that flows that characterises what become configured as sites, as moments of coherence (Massey 2005; Marston *et al* 2005; Woodward *et al* 2011). Sites that emerge as contexts and unfold into broader phenomena (Schatzki 2001, 2003, 2005) can be places, bodies, texts, cities, rivers, objects and so on. A *body without organs* (Deleuze & Guattari 2004) is a body that is open to the fields of forces that surround and surge through it resulting in an identity that is processual, and as such is never entirely realised or completed. Here, *posthuman* subjects are 'fully immersed in and immanent to a network of nonhuman (animal, vegetable, viral) relations' (Braidotti 2013:193) where bodies (body of text, body of flesh, body of water, body of matter...) are positioned on multiple lines of flight and have relational connections that are linked to multiple others. Within this, the agency of the nonhuman can be revealed; as can the recalcitrance of objects; the capacities to affect and be affected of materialities; the tensions between connections; and the unfolding and infolding positive or negative relations between different bodies, so there are pressing needs to find ways to frame, talk, and write about the vibrancy and vitality of the nonhuman and even the nonorganic bodies involved. How then, do we begin to think

of a *life*, a life that is configured around different parameters and spatio-temporal characteristics to those with which we consider to be so familiar?

Social constructs are widely understood as having a negative “life” of their own. The figure of a *life* pushes this point. First, a life is not only a negative recalcitrance but a positive, active virtuality: a quivering protoblob of creative élan. Second, a life draws attention not to a lifeworld of human designs or their accidental, accumulated effects, but to an interstitial field of nonpersonal, ahuman forces, flows, tendencies, and trajectories. (Bennett 2010:61, *emphasis and quotations in original*)

To begin to navigate through and explore a world where what *matters* is the activity of intensities between things and relative speeds and slownesses of movements, rather than the things themselves we need to configure the ideas of a *life* around terms that are understood, perhaps subtly shifting them into new modes of rhetoric. This is a real challenge, and even though - to some extent and in some circumstances - Bennett advocates a *little bit* of anthropomorphism being projected onto things in order to aid our understanding and promote empathy (2010), there is an attempt here to evoke a rhetoric that isn't entirely the preserve of the human and attempts will be made to work this language into an effective framework that describes the agency of matter and the nonhuman.

Firstly, we wander back toward the nomadic writings of Rosi Braidotti (2011, 2013) which values the transformation of negative passions into positive affirmations, implying a dynamic view of affects. For Braidotti negative passions are harmful to the capacity of the self to relate to others, hence the reference made here to Cummings' term *puddle-wonderful* as a way of encouraging an awareness of the relational connection between bodies. This affirmative process of transformation is founded in the Spinozist framing of *endurance*, where endurance is defined as a lack of restraint from expressing one's nature; this is active, not passive. It is the struggle to sustain being under the pressure of external forces that threaten to overpower the essence of

the thing (Spinoza 2001). For Braidotti endurance is both spatial and temporal. It is spatial inasmuch as it is to do with the spaces of bodies as fields of forces, and it is temporal because it is to do with duration in time. The principle threat to the puddle is time and spatial consistency, as it relies upon precipitation over loss for the perpetuation of its being, and whilst it sits on the ground it evaporates and infiltrates, and is exposed to external forces of wind and disturbance. This further highlights the particular spatio-temporal characteristics of what can be defined as a puddle.

For Spinoza, '*each thing...endeavours to persevere in its being*' (2001:105) and the effort by which each thing *endeavours* to persevere, is the very essence of it. Each thing has a conatus that is opposed to external forces. In human terms conatus would be translated as *will*, and we can also consider Bergson's *élan vital* or vital impetus, an inner force that drives evolution, adaptation and diversification (Bergson 1998). For Spinoza bodies are all affective and affecting, their conative natures drive them towards enhancing their power by forming alliances with other bodies. Death here occurs through victory of external forces over the conatus of a thing. Individual things then are modes of attributes through which nature expresses itself, in and of themselves bodies are opposed to that which could negate their existence. Endeavour then is the essence of the thing itself, the effort by which it does anything. The puddle for instance will always endeavour to gather and take-form on depressed surfaces, where its conatus is immediately subject to external forces which will either express themselves through gain, or loss.

Persistence is framed as a continually returning return, and it is persistence, along with endurance and endeavour that helps to forge the conditions that are required for a puddle to take-form as a body of water again and again. Through its erosive processes, endeavours, endurance and conatus the puddle settles and softens and dissolves the surface, further deepening the depression in the ground on which it gathers. In *puddles without water*, a trace of softened sediment or damp mud will

remain for some time, and in the UK it is likely that rainfall will return and the puddle will endeavour to manifest once again before the shallow is completely dry. On the other hand, some puddles in Africa and the tropics, may never dry out at all, here the conatus and persistence of the puddle wins out over external forces.

In a special issue of *Environment and Planning:A*, questioning what surfaces are, Forsyth *et al* (2013) suggest that surfaces are important as they make visible the form of earthly things and make possible apprehensions of the different qualities and textures of matter. These interfacial zones play a key role in how bodies encounter, touch, and are touched *by* the world. In this chapter, along such processual lines of inquiry we come to question the edginess of surfaces and divisions between materialities that appear to be side by side. Surfaces are posited here as relational modes where differential properties come together, mingle and mix. Surfaces allow for an enlivening and awareness of earthly and bodily processes acting upon and rubbing up against each other. Puddles are never entirely at one surface, they are at once in the air, evaporating into it, with the ground and infiltrating it. There is then a slight tension here in that the boundaries between elements and materialities is hard to define, and yet there have to be different bodily and surficial characteristics to make way for a relational coming-together and mobilising their taking-form in the first instance (Jones 2009, 2010). Puddles are perhaps best characterised here as having a particular kind of volatility, vulnerability and impermanence compared to other bodies of water. Their flow is of a different kind. The bodies that gather round them, come and go through them, step around and over them also contribute to the senses of flow and movement of traffic at this junction.

Puddles take-form amongst the admixture of earth-sky-surface-ground-weather and their endurance and persistence is not only configured by these relations, but also through cycles of absence-presence and various modes of encounter between themselves and bodies on the move. As they endeavour they reveal to us a kind of

power that is perhaps unique to them as bodies of water in the hydrological cycle. We have bridges and depth-gauged fords that allow us to cross rivers, we have boats for lakes and seas, we can pay the ferryman, and even a wild swim is a bodily engagement that is intentional. Puddles on the other hand are more frequently encountered as part of the fabric of the ground and as such need to be negotiated in a perhaps more intimate way that affects our paths and behaviours. Their *thing-power* (Bennett 2004, 2010) becomes apparent as they enter into various contextual relations (sites) with other bodies, objects and locations. They take-form amongst the landscape as a part of a human-nonhuman assemblage, and this is framed here following Deleuze & Guattari (2004) and Bennett (2010) as constituted by differential bodies entering into sets of relations that may, or may not be entirely cohesive. These relations are always in-the-making and emerge from gravitation towards particular bodies, events and happenings that are themselves in continuous states of invention.

This chapter is largely concerned with UK puddles, with their being a common feature of the Severn basin, and in particular the persistently returning pools that take-form upon the depressions in more or less hard surfaces of the earth, whether these surfaces are engineered or geomorphological. Puddles have a distinct spatio-temporal consistency and dynamism that responds to external forces. Their own endurance is a story of gain (precipitation), loss (evaporation) and exchange (infiltration) and how the relations and exchanges between these variables play out. The general assumption - and somewhat cautious categorisation - is that puddles (by and large) are vulnerable and impermanent, and that they are not fed by, or have an exit for, a definitive and discernible channel of flowing freshwater (stream, river, brook, drainage channel). They are like watery islands where co-constitutive relations between surfaces and processes of the weather can be elucidated. However, later on we shall briefly explore puddles in the tropics by way of elucidating some interesting puddle-wonderful worlds as significant for nonhuman species. For now, I wish to tune in to the

seemingly impermanent 'life' of the earth-bound puddle and wade through where they sit on the ground, positing these waters that may seem dead and still as inherently unstable, dynamic, vulnerable, necessary and essential parts, not only of water's cycle, but also cycles of life, as spaces of play, and sites of socio-cultural-political contestation and tension. And as well as this, provoke an awareness of puddles as site ontologies (Marston *et al* 2005; Woodward *et al* 2011) that are emergent from relations between bodies-weather-landscape-atmosphere that have an actancy that intensifies or is pacified in accordance with the compositional relationships in which a particular puddle in a particular locale manifests. That is to say, a puddle won't be a sploshy puddle, or a puddle to SPLASH without an encounter with bodies and ensuing relations that may occur between feet-weather-ground. If it has rained in our local area there may well be puddles awaiting encounter elsewhere, and yet still they surprise us in more or less subtle ways.

In the UK, during rare extended dry periods where our persistent puddles have evaporated and infiltrated away, leaving not even a darkened patch of damp tarmac or softened ground where they took form, what do we then make of *puddles without water*? This argument will follow a Bergsonian and Spinozist line of thinking, which suggests that puddles not only endure through the cycle of which they are necessarily a part but they also endure through entering into or receding away from their compositions with other bodies and things. Unless a pothole is filled in, or the ground completely levelled (even so, wouldn't stay filled in or completely level for long) then the depression in the hard surface will remain, and the precipitation will endeavour to reach it, to settle, to gather hence the puddle persistently returning. Hard surfacing can't stand up to the elemental forces of weather from above and the subversive actions of the earth beneath for long (Ingold 2010) without inevitably cracking and/or crumbling, and puddles themselves are a large part of this softening, erosive process.

Puddles without water then are potential for the persisting, endeavouring, enduring puddle to return and return again.

Absence-presence

M. Rose and Wylie (2006) describe the creative, co-productive, co-constitutive tensions of landscape, and the relationship between presence and its inseparable partner, absence. As we encounter landscape, humans aim to create and perceive presence (signposting, dwelling, construction) but these processes of presentness are tangled up with absence and it is these entanglements that mobilise many embodied human-environment relations. There has been a valuable body of work produced in relation to the absences of loved ones being inscribed onto landscapes (Wylie 2009), the memories of and within architectural and industrial ruins (Edensor 2005a, 2005b, 2008), through processes of decaying changeable things (DeSilvey 2006), which in turn has opened an avenue through which to explore spectro-geographies (Maddern & Adey 2008) and more or less mundane hauntings (Edensor 2008b). There is no doubt that such work is incredibly pertinent and valuable given our need to work through how we deal with absences/ presences and how they entwine and leave traces for us to follow. As Maddern and Adey suggest there is a need to challenge the preferred geographical engagements with the ordered and rational through a *tuning-in* to the spectral as a powerful tool in our box for broadening an understanding of social theories and spatial relationships (2008). The absence of a puddle may not be as potent or affective as a longstanding significant building now decaying, or the death of a mother, but they are a mode through which we encounter everyday landscapes amongst non-circular cycles of absence-presence.

Following Derrida, absence is a mode of presence that invades our consciousness and it is not possible to imagine absence without making reference to presence, and the *trace* is the play between absence-presence. In presence things appear to display certain meanings and their truth is masked, which inevitably points to

an absence, hence the unsettling and haunting nature of their entanglement and inseparability (Derrida 1978).

There is of course as Frers (2013) suggests, a temptation to explore intense absences that hurt, make us feel something, evoke memories and set senses and bodies to drift along unexpected paths. This chapter is not suggesting that we should mourn the absence of a puddle, or that we may *miss* a puddle like a deceased loved one, or particularly long for its return (unless we happen to be a child or a keen puddle jumper). But we can move towards an intuitiveness and awareness of the indexical traces in the landscape that will form a more grounded, cognisant mode through which to experience absence-presence. We can also become aware of the durational qualities of absence because of the ways in which particular puddles come-to-be and as such persist and endure in the world, and the pleasures and hassles they afford. Some puddles may reside in a kind of in-betweenness of experiences in relation to our indifference to them or a lack of encounter, but that should not discredit their potential as actants.

We return again to our puddles without water, and how we can view these as present absences. For a time after the main body of water has abated, we will see a trace of moisture in the surficial depression, there may be a layer of sediment where the puddle has softened the hard ground; desiccation cracks may form in muddy puddles following long dry periods, and it is these signifiers of absence that maintain perception of the ground's potential for the taking-form of a puddle. Puddles that hold water enable senses of remote presence, which become barometers of oscillating dryness-wetness elsewhere. Of course intensity of precipitation varies across the landscape and reaches a spatial extent, but the puddles we see tune us into the ground beyond our field of vision. Although puddles may seem humble or even mundane, taking notice of absences of ordinary things should not weaken the concept, but rather shows absence/s as having wide ranging and more or less powerful affects

(*ibid*). Absence then is not only important to the spooky, spectral and the traumatic but also to enacted and performed everyday experiences. For instance, in Frers paper he explains how a route down a familiar staircase becomes reconfigured through the absence of one step. This missing step confuses a normally performed, projected movement and leads to an instinctive remapping and reworking of the space of the staircase. In a similar way, persistent puddles establish themselves on courses and trajectories with which we are familiar. The size and depth of the puddle may force us to renegotiate our movement along familiar paths. Even the puddles that return to familiar sites still have the potential to surprise. In a puddle's absence we may find ourselves avoiding a pothole, or stepping over/around some particularly mucky sediment, which are persisting qualities of the puddles agency, with or without water. Puddles then become a part of our processual flow from place to place whether present or absent, and this is why Frers recognises:

This is precisely why absences are such powerful experiences. They draw their strength from the depth of their embeddedness into the corporeality of those who experience them. (*ibid*: 10)

And it is partly through the experiences of absence-presence amongst the flow of things where body and world become infused.

Weather-world

On returning to an earlier point made around the almost imperceptible (at times) topography of the ground that gives rise to the potential for puddles to occur, we can begin to reflect on Ingold's weather-world (2007; 2008; 2010). Here, the *ground beneath our feet* is undergoing continuous invention and regeneration, it is far from uniform and even where surfaces are laid it is an always varying composite that is susceptible to more or less dramatic processes. It is across these variegated grounds that we (and nonhumans) tread our paths, make our tracks, and make our marks. It is through the creation of paths and tracks and the impressions left by footprints that we

find ourselves woven into the forces of formation, and it is here that knowledge is apprehended. Treading the ground thus becomes a process of knowing and thinking (2010) and in the interests of this chapter I would suggest that puddles inevitably become a part of this particular knowledge building process. Walkers and wayfarers trek across grounds that are by and large a patchwork of puddles (or puddles without water), and the impression of footprints can add to the potential for them to take-form, persist, endure and endeavour to return. Puddles and bodies become with the processual mobilities and cycles of the weather-world, and like knowledge, puddles are formed on paths and trajectories.

It is also Ingold's suggestion (*ibid*) that our experience of weather is at the foundation of our moods and motivations, and it is through walking from here to there across the earth's external surface that we develop knowledges of what we do. This happens to bodies in the interfacial zone between earth and sky where the more or less solid substances of the earth mingle with the volatile medium of the air. As movers in and dwellers of this zone, inhabiting bodies are continually subjected to the dynamics of weather, and as puddles are manifest modes of relation between weather and ground, they cannot be ignored. They affect the ways in which bodies move, how they tread the ground, how they take routes, or take root.

Ingold also argues that this process of becoming knowledgeable occurs on the range of paths we take between places, rather than happening around local particularities. However, puddles can be such local, persisting, recurring particulars that not only alter the ground over which we move (by foot, paw, claw or indeed by car, bicycle, train, bus) but revisit to reside in our local areas. It is through connecting with them - whether as spaces of play or sites of nuisance - that our knowledge of and connection to the weather-world is enhanced, and we develop a more worldly and worlded relationship with our environment. I will now return to supporting Ingold's suggestion inasmuch as the weather is less what we perceive, but more what we

perceive amongst. And the more or less dramatic manifestations of its processes (floods, hurricanes, droughts, storm surges, puddles) serve to enhance perceptions and mobilise sensations making our experiences more immediate and cognisant, and perhaps encourage stronger senses of ecological connections between bodies, weather and places. Also, Ingold recognises that human encounters with weather are largely absent from anthropological study, which he finds remarkable as weatherly processes working upon bodies is part of the physicality of our world (2007, 2008, 2010).

Ingold (2008) also proposes that creatures live *in* the land, rather than *on* it, and that this zone of mingling is an admixture that is essential to the creation of life and relations:

Life is rather lived in a zone in which substance and medium are brought together in the constitution of beings which, in their activity, participate in weaving the textures of the land. (1804)

Here, relations are not that which exists between one thing and another, but is a trajectory along which life is becoming, neither beginning here or ending there. These paths are envisioned as lines of flight that are not necessarily connections, but are also where things pull away from each other and it is this weaving together and stretching out of threads that fabricates the textures of the land. For M. Rose and Wylie this land, both animated and animating is:

Something distant and intimate all at once, powerful image and patchy matter...the cogency of landscape lies exactly in the creative tensions it threads between such apparent irreconcilables. (2006:475)

Although overlooked, puddles occur along these tracks, traces, threads and trajectories and are emergent as modes of tension amongst body-landscape-weather encounters and as textural forms, properties and actants mingling with earth's surface.

Landscapes and the places with which they are reciprocally associated are dynamic, more or less fluid, open-ended, processual and are configured by movements amongst, through, between and around them (Ingold 2008; Massey 2005; Wylie 2007). Such movements hold places together, rather than remain fixed there. Like places then, puddles occur rather than exist. To say that puddles always return to the same place through some notion of fixity would be to overlook the dynamic processes of which they are a part, and as such we should recognise that we relate to puddles through our participation and performances carried out with them amongst the world of weather. The depression in which puddles may gather is *quasi-stable*, but not fixed. So, the puddle who finds itself in a hole that *fits it rather well*, also overlooks the always active processes that are the capacity for its taking-form, which include the amount and duration of rainfall (resulting from prior evaporation, transpiration and atmospheric processes), the topography of the ground, the ground's infiltration rate, the impression of foot or hoof, the resistances of manufactured hard surfaces, evaporation:precipitation ratios, how disturbed or splashed it gets as bodies and traffic pass through and so on. As Jones (2010, 2011) ponders UK tides that rise and fall with the breath of the moon, we can look towards puddles that expand and recede with the pulses of the weather-world.

By way of a summary to this section we can reflect upon the potential of puddles to enter into and intrude upon the fabric of our localised spatial awareness, which not only figure particularly prominently in our everyday journeys from here to there but also serve to enhance our knowledge through the particularities of their localisations. They (re)invite us to engage with the ground beneath our feet as we follow our paths and tracks and they oblige us to rub up against the attritious, obstructive natures of the surfaces on which we tread. Within the admixture of earth, sky and surface we find the puddle, endeavouring to endure and persist. The puddle harmonises with the environment, is ushered by breezes that radiate waves from one

side to another, at once settling on and softening the ground, quietly, gently eroding but always simultaneously infiltrating, evaporating and gathering. This is mingling of elements made manifest, and although all too often overlooked they are an apparent, visible happening of the water cycle, as real as any river, as seductive as any sea.

Puddled ecologies

In order to explore the types of bodily relations that fold in around puddles we can take some inspiration from the pioneer of ethology Jakob von Uexküll (1864-1944). Following his (2010) lines of inquiry we can potentially enable an apprehension of what it is that puddles *mean* to some species. Such an excursion will take us on a journey which includes UK puddles, but also stretches out to the tropics in order to elucidate examples of body-puddle relations and what it is that puddles can make bodies do. It is fair to say that while Uexküll's work is of interest to geographers, its use as a tool in applied more-than-human geographical explorations remains somewhat sporadic (for instances where his theories have been applied more explicitly see Shaw *et al* 2013; Brettell 2015).

Uexküll defines and describes *animals* as active, acting subjects, which endure their existences within worlds of meaning and significance that are constituted through their ongoing relations with their environment. In this respect we can apprehend what effects environmental changes (such as habitat loss, seasonal shifts, climatic changes etc.) may have as we can study how their impact is interpreted by the species in question, and how their worlds of perception thus become reconfigured. These perception worlds or *Umwelt* are not only distinct for each species but also carry the capacity for individual differences. These worlds take form around bodies through their relations with the environment and within them are *carriers of significance* that are essential to their survival and act upon their perception and sense organs, resulting in actions. For many species anything that is not part of their particular world of meaning is registered as insignificant and *meaningless*. When we see the world in this way it

becomes an environment made up of infinitely diverse *Umwelten*, and as such animals can be understood and interpreted through the worlds they inhabit. Such worlds are more or less connected, may overlap, but are also essentially *different*. For Uexküll, to understand *life* is to understand what it *means*, and no being can exist without relation (2010). His concern was mainly with – what he saw as – the *alien worlds* of smaller and microscopic species, where the amount of affects on their bodies are somewhat easier to *count*, such as the tick, spider and sea anemone (Deleuze & Guattari 2004; Buchanan 2008), nevertheless if we follow the same process of understanding we can reveal apprehensions of existence for all manner of beings and bodies in how they become *modes of expression* (Spinoza 2001) of their body-environment relations. What follows then is an outline of how puddles have become significant, meaningful things to particular species. In revealing what it is that puddles can make bodies do, we will also discover their agency in shaping the ethologies, ecologies and biologies of modal beings. We will also see how the puddle has come to be configured in human *Umwelten*, and what this means for the ensuing topological relations and political ecologies that take-form around them.

As has been previously outlined, perhaps the principle feature that characterises puddles in comparison to other freshwater bodies is their vulnerability, impermanence and their spatio-temporal variations. In this dynamic their durational qualities are expressed through their relations with a multitude of variables including evaporation:precipitation ratio, temperature, infiltration rate, disturbance, wind, surface, topography and so on, and thus are inherently unpredictable and always changing. However, McClachlan & Ladler (2001) found that despite their unpredictability, puddles that gather and form on rock surfaces in the tropical regions of Africa, exhibit a certain consistency. Where the rock surfaces are slow to soften and change, the same puddles will persist to form in the same place and probably have done for thousands or millions of years therefore exhibiting spatial consistency not often associated with

puddles. As such they provide a habitat for the larvae of 4 species of fly that are not found anywhere else. These island biogeographies³ (MacArthur & Wilson 1967; Farina 2000) revealed that any particular puddle may be occupied by one of the four, but it is always the same one season after season. Given the isolated nature of rainfall and the characteristics of the surfaces on which these puddles form, their filling and drying phases are somewhat out of sync with pools and puddles that form on the soil, and as such they can harbour quite different species. Periods of rainfall are heavy and so the pools are regularly flushed through meaning that there are less extreme variations in their chemical composition. Therefore insects that prefer more stagnant waters such as mosquitoes find it much harder to colonise such puddles and pools. The temperatures of the water will fluctuate more wildly which in turn limits biodiversity, but these changing temperatures seem to be more easily tolerated by these flies and the limits to diversity also explain the particularised nature of the distribution of these species. The puddles themselves are traps for food sources such as pollen and attract *viverrid* species such as the linsang and civet (small mammals which use trees as hunting grounds) as they use these pools as dunging sites which results in algal blooms, which is food for aquatic species. Frogs will lay spawn in these pools but they may begin to dry before tadpoles are fully formed and as such will become a food source.

What it is that ultimately determines which species will be present is difficult to determine, but they suggest these species may have become tuned in (like Uexküll's example of the spider-fly-web relation) to the durational qualities of puddles and are able to perceive their level of consistency and endurance. The choice of puddle made by ovipositing females may work on a series of environmental cues such as humidity,

³ The term 'island biogeography' was coined by MacArthur & Wilson (1967) and has developed into a commonly applied principle in landscape ecology. It suggests that as landscapes are fragmented and isolated, biodiversity (or species richness) tends toward a state of equilibrium. Island populations are more likely to suffer under environmental factors such as time, disturbance and weather – all of which heavily influence the spatio-temporal durations of a puddle.

surface, depth and water quality, which certainly chimes with Uexküll's notions of harmonious *Umwelten* processes. It could of course be a random selection, the outcomes of which are determined by chance, but they discovered that females consistently lay their eggs in certain pools and not in others. McClachlan & Ladler found that pool depth, size and the spatio-temporal consistency of the puddle appear as key factors in the life cycles of these flies and their adaptive strategies. *Chironomus* spp. for example have adjusted their life cycle to be able to complete their larval stages before the puddle dries, whereas other flies will migrate to find more enduring pools. The larvae of the *vanderplanki* spp. are able to absorb water and *thompsoni* will burrow through debris at the bottom of the pool and enclose themselves in hardened capsules. Some species therefore see these habitats as permanent given their abilities to survive dry periods; they can continue to dwell even in *puddles without water*. The spatial consistency and endurance of puddles here is perceived and *read* by the flies, and so we find a relationship between puddle and flies of a particular species being played out between bodies and changes in the environment.

In the population ecologies of the *monstrous* mosquito (Shaw *et al* 2013) we find puddles are not only vital forms of dry season refugia, but extremely important vectors for the transmission of malaria in the Kilombero valley, East Africa (for example). In this dry savannah, Charlwood & Billingsley (2000) found that the *funestus* spp. occurred in large numbers at the valley peripheries where large bodies of water with the spatio-temporal characteristics of the puddle remained. These larvae exhibited the highest number of the malaria parasite in their study (5.4%) and developed a close relationship with areas of housing and human population. This particular species increases in number greater than others during rainfall, and populations decline more slowly when the rains cease. They were found to be most abundant around small temporary pools of muddy water, large pools on the floodplain and puddles that form around excavation works carried out by people of the area.

Where water is moving and turbid there is far less likely to be a concentration of mosquito and larvae.

Something of the monstrosity of the blood-sucking mosquito is revealed in the surplus of environmental cues and receptors in the Umwelt of the mosquito and the human's ability (or lack of) to control them. They have a unique taxonomy and a whole series of chemicals in their Umwelt that work on a vast range of olfactory senses, acting upon electronic signals in their body. Their antennae, proboscis and hundreds of scent receptors are tuned in to receive signals from carbon dioxide and lactic acid - both of which are emitted readily by mammals - and from this they home in on specific molecules and find their blood source (Shaw *et al* 2013). Despite our difficulties in controlling them and preventing the spread of malaria, understanding how the Umwelt of a mosquito is configured helps us to prevent malaria from being quite so widespread. In terms of their tendency to gather around puddles, Sattler *et al* (2005) suggest that this can provide sites where populations that act as significant malaria vectors can be targeted. The mosquito's world then infolds around puddles, chemicals, seasonal changes and mammals, and unfolds into a relationship with the malaria parasite and control by humans to prevent the disease spreading. In this Umwelt the puddle reveals itself as a significant actor not only through its capacity to propagate the life of mosquito larvae, but to also give potential to the success of the malaria parasite.

There have also been numerous studies in the tropics (Beck *et al* 1999; Boggs & Dau 2004; Molleman *et al* 2005; Adler & Pearson 2009) that have researched and described what is known as puddling behaviour amongst butterfly species. They have found that male butterflies will move around various sources (puddles, muddy ditches, sweat, tears, rotting carcasses and dung) in order to seek out nitrogen, salts and amino acids in order to replenish their depleting budgets. Sodium budgets vary between male and female butterflies and in cabbage butterflies it is considerably higher

in the males, but also the young males have significantly more than the elder. Between the age groups of female butterflies, there is shown to be no difference. For replenishment, male butterflies tend to seek out muddy ditches and drying pools (Adler & Pearson 2009) whereas in the tropics, decaying matter is a significant environmental cue and works upon the olfactory senses of butterflies signalling nitrogen sources (Beck *et al* 1999). Dung and carrion offer richer sources of soluble sodium, which some butterflies prefer, but they will still puddle across sources (Boggs & Dau 2004). These nutrients carry particular significance as they can help to ensure reproductive success and as such they are gifted to the females through the mating process (Molleman *et al* 2005). Mud puddles are abundant resources of such supplies and the rhetoric of mud-puddling refers to the butterflies flying from one source to the next. The puddle-wonderful world of the butterfly is a patchwork of minerals, moisture and mating where the chemical composition of their bodies is tuned in to the need for replenishment where puddles are one of their key providers of essential nutrients. What is also of interest here is the verbal use of the term *puddling* to describe a pattern and rhythm of movement. The seasonal life of the butterfly gets played out within and co-constituted as an Umwelt that has a particular durational quality, where the endeavour of the butterfly is to seek out mineral and food sources that will allow for greater reproductive success, it is quite easy to imagine butterflies continually puddling, hopping and flying from site to site as resources of nutrients.

Perhaps the species most notably adapted to life in impermanent bodies of water and puddles is the killifish, which are native and widespread across the Americas and the tropics. Because of the life cycle adaptations that have been driven by the impetus and conatus to inhabit unstable waters, there are many sub-species, and new ones are continually being discovered by collectors and enthusiasts. You won't find these in a pet shop, as such collectors travel to muddy, tropical habitats where they are known to be found and fish them out of puddles to be taken to purpose-built fishrooms

for keeping and breeding. The morals of this practise may be questionable, however this process actually helps to insure the future of the killifish, should it ever become threatened. Killifish are most common in shallow pools, puddles, mudholes and ditches which have soft mud bottoms that are formed by the receding waters of intertidal zones. They are able to tolerate high levels of salinity (as much as 100%) as well as surviving freshwater, however it is noted that abrupt fluctuations in salinity aren't tolerable and substantial deaths can occur (Lucas-Sanchez *et al* 2014). Byrne (1978) explains that they often favour waters that are populated by smooth cordgrass as these patches of vegetation can provide a valuable refuge from predators and disturbance, and will normally dwell in oxygen deficient, brackish waters that are rarely deeper than half a metre and frequently only a few centimetres. Byrne also noted that 'fish were occasionally observed partially emerged, wriggling from one puddle to another through water less than 1cm in depth.' (214) Kneib & Weeks (1990; also see Kneib 1995) discovered an overlap between the distributions of xanthid crab as their predator and a species group of killifish (*fundulus*), in that the killifish would avoid the creek channels in favour of the isolated puddles of water in order to avoid predation, here the risks of desiccation and temperature stress are also significantly lower. Here they exhibit a spatial awareness of the dangers they face and the qualities of water they are in, and when they sense that their tolerance levels are under threat they will migrate to another puddle by wriggling or even jumping.

To achieve success in these spatio-temporally volatile habitats killifish reach sexual maturity quickly (in as little as 3 weeks), and their growth can be observed with daily increases and is continuous from hatching (Lucas-Sanchez *et al* 2014). Their average lifespan varies and previous studies found an average of 64 weeks with a maximum of 112 weeks for *guentheri* spp., yet recent studies of the same species revealed an average of 43 weeks and a maximum of 64. *Rachovii* killifish were found to have an average of 34 weeks until later research discovered an average of 58

weeks. It is suggested that these differences and fluctuations found within species groups is largely attributed to spatio-temporal variations in environmental conditions, in other words the agency and endurance of the puddle has a strong link to the life cycle of the fish.

There is also found to be a correlation between life expectancy and the precipitation:evaporation ratio. Where precipitation exceeds rates of evaporation life expectancy is seen to markedly increase, particularly for the *furzeri* whose life expectancy is generally little more than a couple of months. What we see emerging here then is a modal fish body that directly expresses its environmental conditions through its life cycle, adaptive strategies and population ecology. In this Umwelten harmony they have also evolved particular biological rest-activity rhythms. These circulation system rhythms are present in all living beings and they allow bodies to tune in to changes in the environment. Bodies receive signals from the environment which act upon their biological clocks, from which cyclical patterns and responses emerge. The most obvious of these rhythm patterns is the cycle of light and dark, to which bodies will respond with periods of rest or activity. There is very little known about these rhythms in fish but it is believed that their pineal glands receive daylight signals which in turn produces melatonin (a deficiency of which in humans can cause restless sleep patterns and insomnia). The central rhythm timekeeper of the killifish is then performed through this function, however the ability of the killifish to respond and tune into its environment decreases with age and as such their periods of activity will be reduced significantly (Lucas-Sanchez *et al* 2014). To reflect an earlier point regards the admixture and interfacial qualities of the puddle, the physiology of the killifish is one of upturned mouths and flattened heads, so that during rest and sleep they can consume as much of the oxygen rich layer of the pool as is possible where the surface mingles with the air (Byrne 1978).

The interest in killifish is widespread and there are enthusiasts around the world who construct fishrooms where puddle habitats are replicated using water, old wood (lowers the pH value), leaves from deciduous trees, fast growing nitrogen fixing surface plants and peat moss (simulates rotting vegetation) in order to collect, keep and breed them. The survival strategies of these fish offer up enough peculiarities and accessibility to encourage hobbyism among humans. It can be of little surprise then that an engagement with the world of the killifish has emerged as an artistic practise for Mateus Herczka.

Herczka's *puddle drive-through simulation* (2011) exhibition in Antwerp was inspired by a friend and killifish collector who had observed trucks driving through puddles in South America where the fish were surviving and living there with great success. They found (through an art/science collaborative process) that this is largely attributed to the fluid dynamics of water in response to disturbance from truck tyres. Here a bow wave is pushed aside and these small, lightweight fish are likely to go with it. They are also a hardy species and it is possible that they may also be able to withstand being pushed into the soft muddy puddle floor by passing vehicles. Or, it could be that their keen senses may enable them to avoid any contact at all, and again we also come back to their reproductive and rapid growth strategies ensure higher numbers increasing chances of survival.

It was also Herczka's intention to capture killifish moving from one puddle to another on camera as this was previously unobserved, and so he set up motion capture photography in his studio (Fig. 1). The fish would leap from their tanks and onto the studio floor, which he eventually flooded to prevent harm coming to them. A Canadian killifish collector found a leak in the recirculation system of his aquarium, and some of his fish had jumped from their tanks to dwell in the puddles formed on his fishroom floor, where they also reproduced. As long as the leak and puddles persisted, the killifish endured. Through these works Herczka attempted to enrol the

puddle and its inhabitants into the realm of culture and bring art and science closer together through an encounter with another species. The killifish is perhaps one of our most clear examples

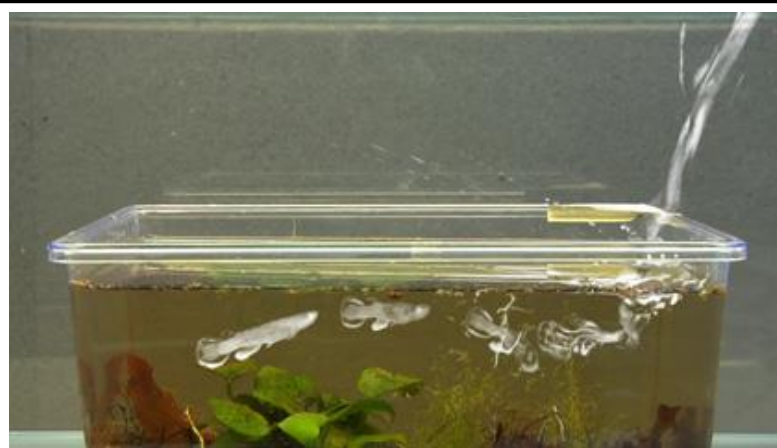


Figure 1: Motion capture of a killifish jumping from its simulated puddle environment. Herczka (2011): 21.

of an Umwelten harmony between bodies and puddles, and despite the receptors and olfactory senses of them not being greatly understood, what we do reveal is a physiology, strategies and an ecology that continually shifts and varies with the affordances and capacities of the puddles in which they find themselves. The variety of puddles also accounts for a massive range in their biodiversity, and as such many killifish species will remain undiscovered.

In 2010, Blackburn discovered a new species of puddle frog in Eastern Nigeria, where a significant contribution is not only made to discovering earthly species, but it is a contribution that happens through encounters with puddles. In the UK there is a great diversity of life amongst water bugs and spiders that have evolved strategies for dwelling in impermanent bodies of water. Brooke *et al* (2012) and Denton (2007) found that if a puddle is suitable enough, some water bugs and beetles may remain there for their whole life cycle. Denton also describes how the drone fly, which is an incredibly important pollinator and aphid predator, seeks out organically rich muddy puddles and ditches to deposit their larvae and acquire necessary nutrients.

For nonhumans then the agency of the puddle is largely configured by its particular spatio-temporal qualities - depth, location, nutrient content, salinity,

temperature, impermanence, consistency - and what is important is not only how these characteristics play a part in affecting the ethologies of particular species, but also directly influence their evolution and physiology. Taking an *Umwelten* approach towards nonhuman bodily relations with puddles elucidates these sites as carriers of significance that are essential components of their worlds. If we then consider how puddles can be perceived by humans, we may find that our encounters with them reveal something of our qualities and say some interesting things about how they are woven into the fabric of our socio-political world. Let us not forget that just like the butterfly, the mosquito and the killifish, humans too have particular characteristics. The aim here is not to privilege one over another or allow any modal being to take centre stage, but is rather to reveal how the affordances of puddly waters can reflect the particular qualities and desires of the bodies which encounter them. We can't escape the fact that a human is telling this story, and writing this chapter, but it is hoped that this exploration does something to reveal the various bodily relations that take-form around puddles.

I can jump puddles, can you?

The subtitle above is taken from a line in a popular folk song written and performed by Huw and Tony Williams, which took some inspiration from the autobiography of Alan Marshall, the Australian raconteur and activist. Marshall suffered Polio from 6 years of age, and so wrote '*I Can Jump Puddles*' (1955) to describe his childhood. Despite having his right leg amputated and having to use callipers and crutches he still learned to ride horses, live an active life and was awarded an OBE in 1972 for services to the handicapped. The message in Marshall's recollections and in Huw and Tony's song is that puddles reside in the playful, joyful spaces of our minds:

Through the window I see people

Running one by one

Racing from the showers

But then I smile when they come

Everywhere there are places

With empty hearts and faces

Maybe they don't have the joy

Of things that I can do

Now I can jump puddles, can you? (Huw & Tony Williams *date unknown*)

Through their moving description of someone struggling with disability we realise that puddles connect us with the ludic affordances of the weather-world we cohabit. However, puddles are multifaceted, multidimensional (Steinberg & Peters 2015) spaces that not only afford us playful sites, but also trouble us as sites of nuisance. Where play and nuisance meet there is of course the capacity for mischief and interventional acts that erupt into the everydayness of our lives. Birds bathe in them, dogs drink from them and a whole range of nonhuman life thrives in them, perhaps it is only humans who engage with them as playful things. It is also only through human thinking that attempts to control, manage and engineer them out of the landscape arise. From this mixing of relational trajectories a particular political ecology emerges. Puddles will persist and shall continue to flirt with the ludic sensibilities of humans, but there is also the problem of managing constructed surfaces in order to overpower their endeavours to take-form in places where they may be deemed inappropriate or troublesome; roads need to be drained, pavements need to be safe and engineered surfaces need to last and be efficient. Standing water and temporary pools are welcomed by nonhumans as sites of refuge, sources of nutrients and opportunities to feed, and it is the suggestion of this chapter that they enable people to reconnect with the weather-world through their manifestation amongst the surfaces over which they tread.

If we follow Jane Bennett (2004, 2010) and perhaps touch base with Latour's idea of the *multinatural* (2004; also see J. Lorimer 2012; Brettell 2015) we can move towards thinking of puddles as part of the same pluralised world amongst which bodies, materialities and actions are entangled and more or less connected. If we do this perhaps they become less of a nuisance and more enrolled into the swarm of activity and intensities that surround and surge through bodies and movement, therefore rendering body-environment dualisms obsolete;

The aim is to articulate the elusive idea of a materiality that is *itself* heterogenous, itself a differential of intensities, itself *a* life. In this strange *vital* materialism, there is no point of pure stillness, no indivisible atom that is not itself aquiver with vital force. (Bennett 2010:57 *emphasis in original*)

The *lifecycles* of puddles - framed here as their endurance, persistence and endeavour - bring bodies and environments closer together and afford opportunities for relations with positive or negative forces, and through fleshing out what it is they *mean* and *make bodies do* we not only reveal their capacities, but also elucidate their struggles, recognise their particular spatio-temporal qualities and reveal how they enable particular modes of relational expression.

Playful spaces, sites of nuisance

The desire to create, the desire to love and the desire to play interact with the need to eat and the need to find shelter, just as the will to live never ceases to play havoc with the necessity of surviving. (Vaneigem 2006:237)

From the meanderings of the *flâneur* (Baudelaire 2010; White 2001) to the art of urban drifting and the *dérive* (see Debord 1997a, 1997b, 2009; McDonough 2009; Wark 2011) there have long been attempts at playful excursions in the city. The Situationist International intended to make dreams become reality and set in motion the idea that subversive and intentionally playful acts would awaken us to more energised lives better lived through encounter and joy. For them play is about

invention and intervention, knowing the rules in order to enable their undermining and reworking. In terms of thinking through how events happen and trying to understand people-place relations as they move amongst the urban fabric, it is of little surprise that these ideas have influenced geographical thought in recent decades; however the concept of play as a matter of geographical concern could still be more readily engaged with (Woodyer 2012). There has however been some theorisation regards play and playfulness in geographical explorations and it is to these we now briefly turn as a way of framing the ludic affordances of puddles.

Primarily it is important to recognise that playfulness isn't only *child's play* and the assumption that play is the preserve of youth and the young is a barrier to our understandings of it as a process. As is the suggestion of relational and nomadic thought the boundaries are never clear, as such whilst some forms of play may be creative and spontaneous, others are more performed in normalised spaces such as playgrounds, paintball fields, skate parks etc. What is certain is that play has no fixed identity, therefore its context is spacetime specific and it is from its emergence around a particular event that it obtains its function and form. Play doesn't have to be opposed to work, or energetic or irrational but it is usually about experiencing vitality (Harker 2005; Woodyer 2012). Quite often being playful is a mode of acting out in a performed way and conforming to ways of being, after all, aren't children *supposed* to like jumping in puddles? I remember waiting for my 3 year old son outside his nursery, and there busying around, weaving in-between the legs of surrounding adults was a younger boy who was quite happily entertaining himself. He came across a large plastic planter, which it seemed as if the nursery had been using for creative play, no doubt something to do with the *mud kitchen*. The boy took hold of it and slid it out away from the wall and upturned it. Following this he dashed it to the side and saw that from inverting it he had poured out what little water there was, and as such a puddle of around 10cm², barely larger than his foot took form. What was the first thing he did? Jumped in it.

We all remember what this spirit and energy is like, and as adults we try to hold on to playful elements of our identities and the things that give our lives vibrancy. Our approaches to these things may be more calculated and approached with more caution than in our younger, more carefree years, but adults still feel the need to connect with vital forms of behaviour through which to energise their lives.

Play then is seen as a 'means of living life more intensely' (Woodyer 2012:322) and a means of not necessarily opposing power but escaping it (Thrift 1997), and through this we find people challenging standardised conceptions of acceptable behaviour (Ameel & Tani 2012). We can push this point further by observing all ages reworking ways to interact with their environments and participating in playful acts, which often become something to be legislated against. Acts of playing in public are recognised by Stevens (2007) as ways in which people expand their environments, whilst simultaneously testing their limits. Such exemplary behaviours can be encountered in many cities and town centres where the built landscape becomes exploratory terrain and a *playground* for (among others) trials riders (Spinney 2010), skateboarders (Woolley & Johns 2001) and freerunners (Saville 2008; Ameel & Tani 2012). In engaging with and doing parkour in the city, Saville suggests that play makes possible reworked and refreshed engagements with space and entangled in this are our emotions, and in the case of freerunning particularly is fear (2008). Like these practises that play out a reworking of body-environment relations through getting mixed up with terrain, puddles also afford vitality and a source of joy (joy taken here following Spinoza as *powers to act*).

I must become one with the puddle. (Daddy Pig date unknown)

I often find myself watching Peppa Pig with my 3 year old son as I drink my morning cup of tea, and on one occasion Daddy Pig was preparing to come out of retirement to enter a *puddle jumping competition*, having lost the title of champion puddle jumper which he won prolifically in his former years. And, wearing a suit that

resembled something from Evil Kinevil's wardrobe took a giant leap into a muddy puddle, not only winning the competition and regaining his title, but also setting a new record. Charles Wicksteed, recognised as the inventor of the contemporary swing and slide (you still see the name Wicksteed branded on many park and playground structures and safety features) is the inspiration for the World Puddle Jumping Championships held at Wicksteed park. The inaugural competition was held in the autumn of 2013, and whilst the adults may not take it quite as seriously as Daddy Pig they were certainly encouraged to join in. The whole event is designed to encourage playfulness as a means to benefit the health and emotional well-being of families. The organisers set about creating *championship standard* puddles, and participants were scored on height, enthusiasm and distance jumped, as well as the amount of mud that got stuck to them. Other activities included the ever popular welly-wanging, mud pits, kite flying and arts and crafts (www.aluxurytravelblog.com).

Puddles have also become the focus of various rainy day activities sessions and the *Growing a Jewelled Rose* group aim to encourage play and learning through combining *nature* with art and the sorts of haptic and sensory regimes that appeal to children, but of course, the adults and parents also tend to enjoy themselves. They added powdered tempera paint, glitter, leaves, and of course fairy dust and potions to some enduring, persisting puddles and made all kinds of fairy inspired puddle-wonderful worlds (www.growingajewelledrose.com).

We walked, and talked, the freewheel on Hammond's bicycle ticked along rhythmically as our conversation flowed through and orbited around the



**Figure 2: Covent Garden
Busker, from London in
Puddles.** Hammond
(2014)

connections and relations between performances, concepts, struggles, landscapes⁴. The sonorous hum of traffic and rubber rolling on tarmac was distanced and the white noise of London became something of a backdrop. We are on Euston Road, each of us crouching and contorting our bodies to create the angle to see the inverted reflection of the Wellcome Building. As our bodies twist, they go largely unnoticed as people slide by, we remain caught in a moment at an altogether different altitude, we are becoming ground level, becoming absorbed in the admixture of surface, weather, air and water. We have been pulled in towards a puddle. Several hours before I had been travelling in by train to our meeting praying for rains that didn't come, London was pretty dry, but in this serendipitous moment we found ourselves getting mixed up with just about the only puddle we had passed all day. Here, on this stretch of smooth paving a shallow puddle rests, holding us and the building in its own spacetime, we have all entered into a particular spatio-temporal consistency mobilised by the qualities of this puddle, and with the type of light we suddenly found ourselves in we are able to (at least) double the world for a moment. We needed to get low to see the building and in just the right spot we could see the grand roofline and the tops of its pillars.

Gavin Hammond is a musician, photographer, artist and his *London in Puddles* portfolio attempts to capture the character and qualities of London by the reflections and impressions in puddles. What is particularly interesting is that this project was realised by a series of particular moments and chance coincidences that are difficult to replicate, and central to this was a range of weather patterns and the ensuing qualities of puddles and light that took-form around London:

Hammond: The actual *event* kind of precipitated via 2 things, 1 was; the spring that I particularly took the *London in Puddles* series was exactly this time of year but it was a

⁴ This fieldwork was conducted as a *walk-along* interview with Gavin Hammond (April 2014), who kindly donated the images for use in this project (*London In Puddles* images courtesy of Gavin Hammond. All Rights Reserved. Any unauthorised copying, reproduction, hiring, lending, public performance and broadcasting is strictly prohibited. (c) 2014).

particular kind of light, and err *weather* pattern that made it possible. It was quite rare, it wasn't like a cloudy day with a few puddles left over from the rain shower, this was a very...light...showering on a regular basis that was followed by very bright sunlight which meant that you didn't get that kind of dull outline, you suddenly got, like a mirror, you got a very...every pavement was covered in water regularly throughout that month and it was visible...the light...followed by bright sunlight which it made it just feel like a mirror as well, and it was the whole of London. So it's been quite hard, well actually almost impossible to replicate that circumstance because we haven't had a spring since with light and the weather pattern, because normally it's like today, you look down and 'yeah that's quite a nice puddle' but because of the sky the actual reflection of the building is quite dull, and that makes for a not necessarily interesting photograph...I think something special happened just that year.

This pushes the point of puddles as a relational nexus, a gathering in of elemental processes where their agential capacities are revealed through their particular spatio-temporal qualities in a site-specific context. Here bodies pass by them, step around them, or crouch down to get a look in them and be absorbed in their reflection. What is also highlighted in how he approaches puddles and frames the shot (using a toy camera, which gets processed at *Snappy Snaps*) is what the puddle - or puddle-without-water - makes his body do, he explains:

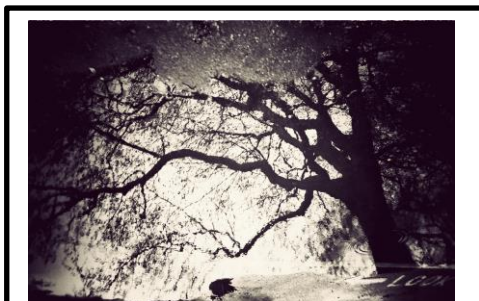
I don't crop and I don't photoshop, I'm composing upside down if you like. In my mind's eye the whole time I'll literally have one eye closed whenever I'm going somewhere just so I can see something, where the light might catch, thinking of the composition, trying to make something that really has an otherness to it but also is not so obscured that you don't know what you're looking at, so yeah, there's an awful lot of time spent just moving around to see what would work and what wouldn't. You know digital photographers, to use their words will '*shoot the fuck out of* a scene, go in and *shoot the fuck out of it, we'll work it out later and get something good*', I have 36 exposures, that's not going to happen. I mean I might take 3, 4 or 5 if I'm really going for it with a scene, but most of the time isn't spent taking pictures it's spent moving

myself around and just trying to see in a puddle from round the back; or maybe if I get off the bridge and go down and look at the reflection of a dead water fountain thingy that's just dried up...ok I can get the whole ridge captured if I just crouch down, or I might get there and go *oh that's just not going to work*, so I'll try the other side of the bridge another day and just try and find an angle that will work. Then I need to wait for the rain once I've found the angle then I can come back and take the picture that I've been eyeing off for a while. Obviously they're iconic places so there's no point taking a spontaneous image of it, so I won't be shooting I'll be thinking and planning and that's important, but again I'd like to emphasise that I like to exercise, I like to walk, I like to be alone so there's no hardship or anything. Some of the places like BT tower and Albert Hall, things like that I never got the optimum circumstance. I never really found the right puddle in the right place, on the right day, in the right light, they've both been bodged. They're not places people really think of as massively London, but that picture of Big Ben that's so iconic. Albert Hall is very hard to photograph because it's a big blob, there's no verticals, what defines the Albert hall? It's the dome roof, how the hell are you going to get the image of a dome roof in a puddle?! Go to another building, get on the roof of that building. Mind you for Big Ben I must have taken 10 attempts at getting something that represented what Big Ben was in another way. The light, and just being able to get myself in a position...overcrowdiness – too many people, its rubbish, so it must have *just rained* but be light enough to cast a good light, it's not an optimum circumstance for any...if I was a man of leisure then great, but I'm not I'd have to do it on the way back from a meeting or wherever, so yeah, the dancing around in the rain like a madman...

Hammond has something of an uneasy relationship with London, and certainly a particular way of seeing its spaces and landscape. He is aware of the competition for space and flow of money that surrounds and controls many aspects of the development of the city and yet he is able to connect with London through a kind of romanticism that revolves around not picturing London as it should be seen or viewed, but as it is:

I've taken puddles photos in other cities and they don't work, they don't have iconic architecture, so there's this funny duality for me that you know, these incredible icons of the peak of Britain's exploitative colonial powers basically, give people a *dream-like* sense of romance for London. Whereas if you go to Amsterdam – a far more egalitarian society perhaps – far more opportunities and all this kind of stuff, but there's nothing to photograph in a reflection, there's nothing to be seen. There's incredible nightlife and everything else but you'd probably have to find another way to reflect Amsterdam.

For Hammond, picturing London in this way moves the landscape back towards



**Figure 3: Trees in Hyde Park,
from *London in Puddles*.**

Hammond (2014)

reveries of the romantic era of its development and speaks of a generation of architects and planners who were tuned into *otherness* and were fascinated by fairies, dream gardens, follies etc. and so these images help us to engage with this. Another thing that really works here is that getting grimy on the ground with puddles creates the kind of romanticised images that mobilise people's geographical

imaginations:

People look at my pictures and dream of the stars, and what they really see is chewing gum on the sidewalk poking through a puddle, sometimes they think, 'It's spring, it's blossom.' It's not, it's chewing gum, I love the fact that you know, people think they're looking up at the stars.

There is an unashamed nod towards the melancholy in these images, and when you listen to Hammond speak of how London folds in and out of these moments of coherence, you really start to get a sense of how these puddles not only reflect the skyline but also something of his own melancholia, romanticism and relationship with London. What we see here is not just a reflection of landscape, but the telling of a

story of trying to get on in the world and the value of pausing for a moment and seeing the world differently.

Whilst many of these images, are aesthetically beautiful (I think particularly of the haunting silhouettes of reflected trees in Hyde Park: Fig. 3, and the long line of *Boris Bikes* on the Southbank: Fig. 4) there are also others (Covent Garden street performer: Fig. 2) that reveal the gritty and the attritious natures of London life. The images are popular and Hammond has effectively used social media and other streams to make his work accessible as he is somewhat critical of the monetisation of *art for art's sake*. The images are very film noir (this is no accident), but there is a certain warmth to them and they seem to bring people closer to their surroundings and certainly help them to see puddles differently. On asking Hammond whether he thought there was some



**Figure 4: Southbank, from
London in Puddles. Hammond
(2014)**

kind of an analogy between life and the puddle, he admitted that they serve as more of a metaphor and related this to my framing of the *life* of a puddle:

Endurance, persistence and endeavour? If they're the words then absolutely because I'm not massively talented I'm just enormously persistent, you know, about what I do...so there's 3 words I can definitely relate to. Whether I want to be seen as some...well maybe yeah, who knows, ask Nico who does my media and helps or manages me if you like, you know on this journey, when I'm dead, whether this work has been the greatest representation of my life. I think really, beauty out of gloom is kind of what I've done...all I'm really trying to do is go *everybody's life has stuff in it*, but we can still make things that feel pleasant, comforting or beautiful. Our time is not always about necessarily responding to struggle, coping with struggle or struggling to survive or something. They're the by-products of the harsh natural world or an increasingly dislocated society rather than necessarily being what life is entirely about.

The real stuff is the songs you write and beautiful artworks you leave behind that last forever. The substance that we create is what it's all about, they're just the unfortunate realities of human life on earth.

In a playful way, Hammond eludes and evades this struggle, and yet still acknowledges the importance of these tensions as a backdrop to the motivations behind his works, to create moments of beauty and pause, and in the case of this portfolio to reflect, in puddles.

Potholes and political pitfalls

As has already been suggested, as well as being playful spaces puddles are also sites of nuisance, and where the ludic and the irritating mingle together there is the capacity for mischief. Here we find governmental and political regimes attempting to control, regulate and eradicate puddles as well as mitigate any resulting consequences from the more negative sides of bodily and watery relations.

In the incredibly wet summer of 2012, a Newcastle man eyes his run-up. He plans to jump down a flight of steps and into an expansive puddle where floodwaters have gathered around poorly flowing drainage. A crowd have gathered to share in his ludic moment, he takes his run, takes flight, clears the steps and lands in the water, which it seems is not as deep as he thinks. As such he has landed heavily and snapped his ankle, the crowd's laughter gives way to slightly more horrified gasps as the man pulls himself out of the puddle holding his leg, from which his foot is dangling. The man attempted to make a claim against Newcastle City Council claiming he had tripped over a broken drain near his home; however his litigation was thwarted after a video capturing the event was discovered on YouTube (Telegraph 2015; YouTube 2012). Adults do still try and hold on to the playful elements of their identities, and puddles are one of many things that facilitate this and it seems some may never grow out of the joy jumping in puddles can bring.

Mischief and playfulness also prevail when some motorists and puddles meet and in local newspapers there are numerous accounts of drivers deliberately splashing pedestrians and schoolchildren. In Gloucestershire a local man who spoke to the Echo following a spate of these acts recalled his complaint to the council:

I request the council make strong representations to Gloucestershire Highways to attend to local road undulations and drains in order to prevent pedestrians being assaulted by motorists spraying them with rain water. Many do try to avoid it but there are some who will deliberately drive at them and I want to know who to send the dry cleaning bill to. (Gloucestershire Echo Jan 2012)

This kind of behaviour is covered under section 3 (1988) of the Road Traffic Act which specifically states that it is an offense to be 'driving through a puddle causing pedestrians to be splashed'. The penalties for this are the same as they are for driving without due care and attention, which is up to a level 5 fine, 3-9 penalty points or disqualification for a fixed period. Of course this is a mischievous act that is upsetting for those who get soaked, some may say it is cruel, but again we see something in the puddle that appeals to our ludic sensibilities, and it further highlights that when playing in public is acted out our parameters of acceptable behaviour become somewhat confused.

Sometimes though driving through a puddle is unavoidable given the width of the road, and following a redevelopment of the area around Aberystwyth railway station and bus terminus in 2014, a particularly persistent and enduring puddle made front page news. This area saw a multi-million pound redevelopment plan put into action, but concern was quickly raised over how the visually impaired may navigate their way around, given that the colours were seen as bland and changes in pavement level and kerbs were difficult to perceive. As well as this a major flooding problem occurred where people wait at the pedestrian crossing. The agency of the puddle revealed itself as people had to walk around it and often cross the road beyond the

confines of the crossing; as such this became a major safety issue not least for the visually impaired. Ceredigion County Council had to redesign large parts of the project and engineers carried out the installation of an enclosed drainage channel that would take surface water to the nearest gulley. Slightly ironic that a development aimed at improving mobility and safety found itself to be one particular site where a puddle would endeavour to settle and cause such problems.

On 'Fix My Street', an online forum, a concerned Bedfordshire resident anonymously expresses their frustration at a persistently forming puddle that once again makes navigation of the pedestrian crossing hazardous. The posted conversation flows thus:

Resident (March 10, 2009) A large puddle forms across the whole width of the drop kerb at the pedestrian crossing making it almost impossible to cross without getting wet feet, especially children on the way to/from school. The problem has been logged with the Highways Agency months ago (July 2008). Workmen 'painted' grey stuff on the road at the dropped kerb and the added thickness prevents the water draining into the grating at the end of the crossing.

(March 10, 2009) I am a local Borough Councillor, please alert me to future updates.

Resident (June 10, 2009) Alerted David Sawyer to the issue and have contacted the Highways Agency again.

Resident (July 9, 2009) A large puddle still forms across the whole dropped kerb.

Although this was some years ago, I did ask whether this issue had ever been resolved, and received no reply. From that we could surmise that either the problem was fixed, or the complainant conceded defeat. Whichever happened, it further highlights the puddles capacity to make bodies do things, not least in negotiating the crossing, but also as a conduit for political action. It is perhaps of little surprise that no action was taken by the Highways Agency or the local council for some time given that they normally have a prescribed program and budget for annual road maintenance, as

such it is difficult for them to act as an *emergency response* team in such cases, as the budget and time is rarely available. In the meantime therefore, the puddle will endure. For example, Wakefield Council outline how they prioritise concerns of water and drainage, at the top of the list is internal flooding to properties followed by flooding to outbuildings and *high speed* roads. Standing water on other roads, such as the type usually associated with suitable crossing points are quite far down the list, even coming behind flooding to gardens. Plymouth City Council will also prioritise water related problems on main routes in and out of the city, the intention being to allow key elements of infrastructure to keep moving into and through the city without disruption. The location of Plymouth and the nature of its connections by road to other places perhaps reflect the importance of this.

In planning and highways construction, drainage is of course a major issue. Perth and Kinross Council describe how surface water, normally drained by gullies (or *grips*) carry water by pipework to carrier drains, which then allow the water to disperse through a soak-away or an outfall. In rural areas, grips usually discharge water into drainage ditches or soft ground; however, they are keen to state:

We cannot guarantee to keep the road network free from puddles. The effects of age, settlement or traffic can cause depressions to form in the road surface, preventing the water from running off. Exceptional rainfall, runoff from adjacent land, and rising river levels can cause roads to flood even when the drainage is in good working order.
(Guidance on street care and cleaning *date unknown*)

Here there is an acknowledgement of the recalcitrance of water and the endurance, persistence and endeavours of the puddle, and the realisation that no matter how effective drainage is, the puddle still works on the world, settling on and softening the surface further deepening the depressions required for it to take-form.

A further problematic that causes major issues for local Councils - mobilised by the agencies of the puddle - is the manifestation of potholes. These nuisances that

take-form along the paths on which we move further highlight the surficial, co-constituted relational sites composed between water-ground-bodies-movement. From personal experience, Plymouth has a major problem with potholes and they issued a factsheet under the heading '*Keeping Our City Moving*' to outline what potholes are, and how they are dealt with. The process of a pothole forming is recognised initially as a softening, which results in the road surface becoming broken up under load from traffic. Water is then able to seep into the cracks, further softening the ground and initiating freeze-thaw processes during winter months. As the water freezes it expands swelling the tarmac, which leads to further cracking and voids will be created beneath the surface. As persistent puddles settle and soften the ground further, passing traffic will then cause a collapse into the void and the pothole will be formed. There is however some inconsistencies in deciding when it is that a pothole becomes a pothole. Plymouth council suggest that it needs to be at least 40mm deep, and at least 300mm diameter in any direction. Essex County Council recognises a pothole when it is at least 50mm deep, but only 75mm diameter. The councils do seem to agree though that most potholes are dealt with as part of a prescribed, annual maintenance program and the vast majority are handled as part of a routine of ongoing maintenance. If works do need to be prioritised or dealt with outside of this program, safety is the measure which largely includes the parameters of pothole size and speed of road. Plymouth has a team of dedicated inspectors who regularly patrol the road network and identify any issues or defects as they occur, which is in line with guidance from the Department for Transport. Potholes are often filled in with patchwork of a cold resistant material, or more extensively damaged sections will be more permanently repaired through the relaying of a rectangular section of road surface. There is something of the *Myth of Sisyphus* (Camus 2005) about this uphill struggle and within the detail they surrender that:

It would be impossible to eliminate potholes, as they appear randomly all the time.
(Plymouth City Council *date unknown*)

This is a further reminder of the conatus and endurance of the puddle. Also, besides from the expense of planning and maintaining the roads of a ward, there is also the problem of dealing with litigation and claims that are made following motorists encountering potholes and experiencing damage to their cars wheels, tyres and suspension. In 2011-2013, Plymouth City Council paid out approximately £43,000 in compensation to motorists and an overall spend on road maintenance largely attributed to the problems of potholes totalled around 1.4 million in 2 years.

The drainage of surface waters doesn't only occur through engineering and the Environment Agency are concerned that the increased tendencies to pave areas like front gardens and extend driveways means that drainage systems can't cope with the increased levels of runoff. With impermeable surfaces less water is able to soak into the ground which reduces natural aquifers, and pollutants are more likely to get washed into water courses, and of course puddles are allowed to persist and endure. Their suggestion is to use permeable materials for driveways such as gravel or planned areas of vegetation, soakaways or employ new technologies in the form of permeable block paving or porous asphalt (Environment Agency 2008).

Through companies like Interpave, *The Precast Concrete Paving and Kerb Association* issue guidance to planners, designers and engineers on the construction of permeable pavements and driveways or Sustainable Drainage Systems (SUDS). On impervious paving falling rain wets the surface and puddles take-form on surface depressions until they are levelled or filled in. From here surface water moves towards drainage points as surface runoff where it is then discharged into water courses. Water that remains as puddles will likely evaporate or shall be absorbed into the ground. The time taken for water to move from the furthest point of where rain hits the ground to entering a drainage system is known as the time of entry. On most

impermeable surfaces the time of entry is at least 20metres, whereas with permeable paving the time of entry is virtually zero as water only has to travel to the nearest joint or be almost instantly absorbed through porous material. Therefore puddles are virtually eliminated.

Whilst it may be somewhat ironic that for Gavin Hammond to get the best shots of reflections in London puddles they ideally need to take form on the heavily engineered and smooth paving surfaces aimed towards efficient drainage, perhaps there is something sad about our need to smooth surfaces and sterilise the ground on which we tread. Of course, we want to prevent flooding and if paving over gardens and developing on brownfield sites increases, so too will this risk and so something needs to be done. But if Local Authorities try and eradicate puddles we'll be missing one of our links with the weather-world and the playful, mischievous, frustrating trajectories along which these relations take flight. Of course they can be a nuisance, but whilst they're annoying they also engage us with the world:

No friction, no energy. No energy, no life. No enemy, no friction. No enemy, no life.
(Burroughs 2000:113)

Friction after all is energy, energy is vitality and rubbing up against materialities, getting mixed up in elemental processes, spatio-temporalities and bodies is all part of moving through a turbulent world and turbulence is the stuff of relation (Serres 2000).

Moments of melancholy

Given the puddle's usual attachment (particularly in the UK) to murky, gloomy weather that effects and curtails plans and mobilities, and following the work of Gavin Hammond, I wonder about their capacity for melancholy. From here we can enter into Bachelard's material imagination (1983 [1942]), which through Poe's writings recognises that there are specifically 2 waters, the joyful and the melancholy. He

asserts that water is the most saddening of all the elements and has the capacity to bring us closer to death:

Heavy water never becomes light; murky water never clears. It is always the opposite.
(47)

This sadness comes from water's attachment to death, fateful destiny and suicide, moreover this melancholy is reflected back where water acts as *the* melancholising element. An important part of this reverie in terms of this paper is the notion of dissolution. For Bachelard, each element has its own type of dissolution, earth into dust, fire into smoke, water into mud. It is water's dissolution that confuses form, forces things to lose their outline where only the darkest colours can mark a horizon:

The first to be dissolved is a landscape in the rain: lines and forms melt away. But little by little the world is brought together again in its water. A single matter has taken over everything. Everything is dissolved. (91-92)

This passage also begins to hint at another journey through an imagination of water, in that as well as dissolving and softening, water is binding. Puddles, as manifestations of landscapes in the rain are at once part of this simultaneous dissolution and binding. We have already discussed how puddles not only bind ground to atmosphere, and how they become a relational nexus between bodies and weather. As this happens though, the puddles and the wet grounds will be altering the grounds form, blurring edges and softening the ground beneath. For Bachelard, this dissolution and binding would be a process amongst Ingold's admixture, which Bachelard would call *la pâte*, a union of water and earth and a fundamental scheme of the composition of different materialities. Within this, the problem of form and shape become secondary to the experience of matter where earth and water work together. It is through water's dissolved element, mud, that water assures the earth and calmly strengthens their union.

Another contemplation highlighted in Bachelard's text is that of water's ability to absorb darkness and the night. Water being the substance that best mixes, and night being insinuated as a pervading substance penetrates the water as nocturnal matter. Ponds, lakes, perhaps even murky puddles still manage to retain some of this nocturnal matter in daylight. Where water is clear (and the light is right) its reflections 'double the world' (48), which moves us back towards the works of Gavin Hammond where there is more than an echo of Bachelard's reverie:

When certain poems and tales are read, the reflection seems more real than reality because it is purer. As life is a dream within a dream, so the universe is a reflection within a reflection. (47)

And furthermore:

By immobilising the image of the sky, the lake [the puddle] creates a sky in her bosom. The water in its youthful limpidity is a reversed sky, where the stars take on new life...Thus water, by means of its reflections, doubles the world, doubles things...In so pure a mirror, the world is my vision. Little by little, I feel myself the author of all I see while alone. (47-49) [added by author]

Hammond hadn't read Bachelard, but we shared it, and in our meeting, the stories told here, and the descriptions of the relations that fold around puddles have hopefully enabled a (re)connecting with the ground beneath our feet, and an awareness of the weather-world we cohabit with all manner of *other* bodies.

An apprehension

Puddles as actants then reveal their endurance, persistence, endeavours and particular spatio-temporal consistencies as a conatus that mobilises human and nonhuman bodily encounters with the weather-world, they alter behaviours and topological sets of relations ensue from them, evolution becomes-with them, ethologies adapt to them, and a particular politics infolds and unfolds from them. Whether a flooded or impassable local road, flooded field, water logged football pitch, an

obstructed pedestrian crossing, pools in parking spaces, playful sites or nuisances they emerge as vibrant materialities with the capacity to make bodies do things and make things happen. Where they gather is never entirely on the surface, they simultaneously infiltrate the ground and absorb the air, they evaporate, get splashed about, unzipped by tyres, and gently add to the weight of the world.

Dolphin Spotting

30th July, 2014, I'm following reports of a bottle-nose dolphin

migrated up river from the tides of
the estuary

now seen in the Severn, Gloucestershire, Stonebench to Elmore
Lane. Parked vehicle

hitched up and trod for the Severn Way, a now familiar path into unfamiliar
territories, grounds where human and animal could meet, both answering a call...

I follow hedgelines and threads across patchwork fields upstream
Dolphin follow sonar, muds, ridges, contours and banks

I'm anxious to maintain a clear view of Severn channel,
eager to exchange a look

The eyes of an animal when they consider a man are attentive and wary. the same animal may well look at other species in the same way. He does not reserve a special look for man. But by no other species except man will the animal's look be recognised as familiar. Other animals are held by the look. Man becomes aware of himself returning the look...the animal scrutinises him over a narrow abyss of non-comprehension...the man too is looking across a similar, but not identical, abyss of non-comprehension. And this is so wherever he looks. He is always looking across ignorance and fear⁵.

People, concerned for dolphin's welfare, express
concerns over whether it can see, it may get lost, get stuck, cannot see...except its
vision is sonic as well as sightful, it knows, it hears and feels where it is, it clicks its way
around.

*When he is **being seen** by the animal, he is being seen as his surroundings are seen by him. his recognition of this is what makes the look of the animal familiar...and yet the animal is distinct...the animal has secrets...which...unlike the secrets of caves, mountains, seas, are specifically addressed to man.*

⁵ The italicised sections are quotations taken from John Berger's essay, Why Look at Animals? In, Berger. J (2009) Why look at Animals? Penguin Books. London: 12-37 (**bold** was emphasised by the original author). I feel traditional referencing may have interrupted the flow and form of the piece, where the pacing for the reader is emergent from the spacing of the text.

Pressed on, searching for a spot to sit, wait, watch, listen...I entered a
field of a hundred cows all huddled by the stile found my
spot on a steep but clear section of bank

sat, waited watched, listened
overcrowded banks dressed top to toe in willow

rattle of boat engine echoes around upstream
chunks of wood
rocking, tapping, gently slapping, the water below hits a hollow

the surface rolls on
cows and flies swarm together behind me, not the exchange I was hoping for
I've clicked through half a
dozen fields, always rotating to keep watch on the channel

Now sitting, waiting,
watching, listening, a large splosh I heard, duck or dolphin? Probably duck, not
dolphin

When one sits, and listens, hard, and watches, hard, it is hard, and requires a tuning
out as much as in, too intense to be meditative

I scan up and down seeking shadow or fin

Looking for changes perceptible, to illustrate the dance that we're in

So far, a few plastic bottles

But no bottle-nose dolphin

2 darter dragonflies hooked up and mating

Cabbage white flits by, dancing

The flies perceive my salt, passed by and around me they're zimming

Chunks of tree, maybe even ship, drifting,

Messages from upstream and stories of tidal surge
they're carrying

I could count how many gallons of water passed me by

But I wouldn't know where to begin

So far, a few plastic bottles

But no bottle-nose dolphin
enough, to sit, wait
listen?

How long is long

watch

*The animals of the mind cannot be so easily dispersed. Sayings, dreams, games, stories, superstitions, the language itself, recall them. The animals of the mind, instead of being dispersed, have been co-opted into other categories so that the category **animal** has lost its central importance. Mostly they have been co-opted into the **family** and the **spectacle***

I longed for that gaze rarely encountered, across the abyss, across the bank and water and into the eyes of the dolphin, an exchange between a human and an animal not yet *immunised by encounter* and still full of surprises, I had searched for that which I did not see, and perhaps could never see...

6th August 2014, Nelly, was found dead, semi-submerged, semi-rolled, near Elmore. Not seen for over a week they said, it was unusual they said, a dolphin would normally swim back with the lowering tide they said, in good health they said...the CSIP (Cetacean Strandings Investigation Programme) wouldn't be able to establish a cause of death, too busy in England's South West they said.⁶

⁶ This piece was largely written sitting bankside of the Severn as I awaited a possible sighting. This fieldwork was initiated as a single day walk around Stonebench, Gloucestershire (30th July, 2014), where Nelly was frequently spotted in response to a news report (BBC News, 27th July, 2014).

CHAPTER 3: Diving Into Nonlinear History: Working-With Entropy at the Purton Ships Graveyard, Gloucestershire.⁷

Things are heavy: they fall, seeking their peaceful rest. Fluid, they flow. Hot, they cool. Fall, death, dispersal; breaks, dichotomies, atoms. (Serres 2000: 125)

Visiting a museum is a matter of going from void to void. (Smithson 1967a [1996: 41])

As with all of Purton's vessels, the future remains bleak with only the ravages of time to accompany them to their final demise. (Barnett 2009: 26)

I wasn't sure how easy it would be to find, whether it would be a site that is open to both people passing through and the elements acting upon it, or something more organised, managed, protected and configured. I'd only seen images online and caught the end of a short feature on *Countryfile*, but it was my aim on walking through this area of the Severn to find it, so knowing approximately where it was I took a riparian footpath, which branched off from the Severn Way. As I rounded a bend I saw a huge slab of concrete, its angle, its position, the succeeding vegetation, the rust on the exposed metals spoke to me of a *shipwreck*. It seems I had found it. I scanned further along the bank and could see all manner of bits of wood, frames, ribs, concrete and metals erupting from the grasses and giving an angular form to the landscape and horizon.

I'm on the southern banks of the Severn in Gloucestershire, the estuary and the Severn Bridge dissolve into the mist in the distance and the Gloucester and Sharpness canal is behind me. Later on I would find that the entrance to the site nearest to the canal is clearly signposted and interpreted, but this did little to dampen my senses of adventure. On the canal behind me boats of many kinds, many regularly used, some in various stages of repair and states of condition are moored up. On the parallel river

⁷ All images in this chapter are taken by the author. This fieldwork emerged from a 2 day walk of the area from Slimbridge, Gloucestershire, towards Severn estuary (9th-11th September, 2014). This chapter aims to blend scholarly with creative writing (with one not seeming derivative of the other) in order to convey something of the whole experience of this site visit.

bank there have been 81 boats and ships deliberately beached, with the intention being to encourage deposition of silt in order to protect the canal from Severn swell. Their forms are more or less submerged by the newly gathered earth and opportunistic vegetation. They are in various poses, pointing in all directions and these crab like hulks are creeping through entropy. Simultaneously they accumulate, gather and generate new grounds, whilst all the time gently, slightly, steadily, decomposing and decaying. The entropic processes at play seem to blend seamlessly with the irreversibility and persistence of the river as it moves on.

I feel as if I've hitched a ride on the arrow of time, except there is something inherently nonlinear about time's form here; it is multidirectional, with multiple variances in speed and slowness, cycles within cycles. In this open system time is thermodynamic; it has directionalities that are configured relationally by the organisation of molecules, atoms and bodies. As time moves on here, entropy rises and falls, and rises again. Down at the estuary the tide is going out and sucking the Severn out of the channel, in the centre of the riverbed lays another ship, a concrete ghost ship in a state of semi-collapse. The drainage, the running of waters, the gurgle of energy, this *rivering of things* brings about an awareness of the durational motions of the processual. All of a sudden I feel vulnerable, positioned as I am amongst this flow and fall atoms, I've realised that nothing ever completely ceases no matter how slow it appears to be. Here, I am reminded of certainty and inevitability '*rust never sleeps*' as Neil Young said. The fullness of the banks here is simultaneously added to, and eroded away...Everything here no matter how decayed, is alive and kicking, this landscape is teeming with life of all kinds. From the rust on the steel to the peregrine making air miles seem insignificant overhead; mine and other bodies wandering, wondering; the body of the Severn, always giving and taking away, always acting.

This chapter will take a walk amongst the Ships Graveyard at Purton, as a way of elucidating connections between otherness, spectrality and materialities in this project's explorations of the *riverscape*, and the affordances such encounters with entropic heritage can mobilise. This work shall compliment hydrologic theory and debates around wet ontologies (Steinberg & Peters 2015) as it attends to a sequence of events that folded in and out with the processes of this area of the Severn, composing this particular site-based ontology. There shall also be the recognition that fluidity, persistence and flow aren't explicitly watery themes, they also apply to more or less subtle movements of bodies, and material and physical processes. The site itself offers opportunities to think-with entropy, and how this can help to develop senses of positioning amongst fluid landscapes, and shall assist our apprehensions of encounters with materialities and the changes they undergo when subjected to the elements. Through this we can bring cultural geographies and *wonder-full* geomorphologies (Dixon *et al* 2013) closer together as disciplines which will help to broaden our understandings of our environments, and provide us with more means of doing so. This will begin to configure a *post-phenomenology* of landscape that is mobilised by encounters with physical processes and an awareness of our connections to them. The suggestion being that a *becoming-with* landscape is largely configured by being subjected to and positioned amongst the geomorphological, where spacetime works quite differently to that which we are mostly accustomed in our daily lives.

John Wylie (2009) revealed otherness and



absences in non-urban settings by *looking-with* a host of memorial benches around the South West Coastal Path, and so it is that this site is also where the spectral gathers revealing to us absent shipmates, tradespeople, shipbuilders and decomposing hulks. The Ships Graveyard will therefore be highlighted as a particular mode of entropic heritage, where through a non-interventionist (or limited intervention) type of approach the disorderly is allowed to mix and mingle with the ordered in more or less unsettling ways, which characterises the experience of being there. This adds to nascent debates and explorations that are fuelled by a *ruinenlust* (DeSilvey & Edensor 2013) and a fascination with decay, which although attracting more attention in human geography, there are still some untrodden grounds. There always will be new decaying grounds to explore, given the rates at which things change in terms of land use, ownership, habitation etc.

This site offers up enough particularities, cultural interest, otherness, strangeness and more-than-human activity to be considered worthy of exploration and adding to the growing portfolio of spectralities encountered in the non-urban landscape. Just as puddles have revealed ways in which we can configure our ideas of, and write about nonhuman agency which have helped to set the scene here, this chapter will introduce themes of entropy and landscape evolution theory that will also emerge later on in the project.

This chapter aims to describe and reveal the multi-sensual experiences of this site, of being a body on the move amongst all these other bodies on the move and how narratives of memory emerge. The ships graveyard shall be positioned as an exemplary site of the ambiguities within Pierre Nora's (1989) *lieux de mémoire* (places of memory) and recognise that despite the signposts and gestures towards maritime history and heritage, there are emergent and personal narratives of memory and imaginings that take-form as a result of becoming-with-and-amongst this multi-sensual riverscape. I will also acknowledge the processes of absence-presence and the trace

(Derrida 1997), and their role in mobilising a personal experience of this site-based ontology. Firstly the chapter will outline the genealogy of the Ships Graveyard and then describe how this comes to be threaded through a nonlinear history (De Landa 1997). We will then work through an encounter with ruins of engineering in the landscape (Edensor 2005a, 2005b, 2008; Hoskins 2015) and a rural spectrality (Davis 2008; DeSilvey 2006, 2012, 2014; DeSilvey & Edensor 2013) in order to apprehend the particular geographies and spacetime composed herein. There is more work to be done in settings such as this, therefore the suggestion is that interests in entropy and ruination don't have to revolve around the often prioritised sites of urban decay and architectural collapse, but actually are also suited to engaging with the geomorphic and material processes of the world. Following the work of land artist Robert Smithson (1938-1973), Ilya Prigogine (Nobel Prize winner) and Isabelle Stengers (1984), Leopold and Langbein (1962) the chapter will present notions of entropy in more vernacular terms, thus enabling an understanding of the geomorphic formation and evolution of the site and how ensuing relations between elements, materialities, bodies, time, molecules, water and earth characterise and configure encounters with the ships graveyard. What is important here, as it is for Dixon *et al* (2013):

Is a shared interest in the sensuous encounters via which landscapes are made sense of, perceptually and cognitively, and a harnessing of the emotive dimensions of such encounters in the production and communication of geomorphological knowledge.
(228)

Also we will see how the management of the site and its purpose *works-with* entropic processes to configure its multifaceted functionality. There is a sense here that our structured understandings of the physical sciences and geomorphological processes could clash with ideas of nonlinearity and pluritemporality, however it is the intention of this chapter to explore and describe how they mix up together, and allow an apprehension of one to aid understandings of the other (Massey 1999). The

overarching implication of this work will be that in thinking about entropy we can become more aware of our position as humans amongst the inevitability of worldly processes, this may make us fearful, but it could be equally liberating and stimulating because amongst all of this, we need to recognise that disorder is a function of our environments:

After all, wreckage is often more interesting than structure. (Smithson 1971 [1996]: 257)

Entropy, as the antithesis of structure, actually comes into play here as the key process that configures and 'builds' the site. Wreckage then, can also be constructive both in terms of how this site came to be developed, and in the cultural significance and value of ruined and decaying places.

There's an amalgam of lines; distortions, twists, mangles, curves, spikes, geometries, leanings. You can still make out the complete outline of some of the hulks where their ribs remain unsubmerged by the earth and are yet to be rendered hidden



by the grasses. Twists of steel and stretches of oak struggle are a fitting testament to the skills of the tradespeople who worked these hardy materials as they hold on to their integrity. Lichens

blossom on bows and along the path bits of ship poke up at you through the soil ready to trip you up. The ships tilt, leaning towards their histories. This site willingly gestures towards the spectral and embraces the entropic, you can wander around here freely,

as can your imagination as you become affected by the wreckage. This site allows you to develop your own stories and narratives, but at the same time keeps you tethered to histories by way of interpretation boards and commemorative plaques that tell you something of the ship's story, its name, where it was built, whose hands crafted it, when it was beached...These materialities have personalities. My mooching about amongst these ruins and obituaries of industry has interested a photographer who has been positioned along the hedge line; he tells me that he's waiting to capture a train on the Northern bank as it passes through, he also tells me that he used to play here as a child – pirates being the favored game – particularly around a vessel called Mary, which at the time was perhaps one of the most complete. However, it has now been ravaged by pilferers and arsonists, a common problem for the ships graveyard.

Nonlinear histories

The Severn is Great Britain's fastest flowing river and has the 3rd highest tidal range in the world, of around 15 metres. The capacity and power of this range is further enhanced by the funnel-shape of the estuary, therefore erosion is a constant concern in terms of maintenance of the banks. The area around Purton is near to the mouth and as such is highly susceptible to dynamic fluvial processes, and this is a



particular threat to the Gloucester and Sharpness canal which runs parallel to the river from here, to where it rejoins with the Severn upstream at Gloucester. This section of the canal is short, but it is a vital trade route and linkage for it allows vessels to avoid the hazards of the Severn, such as sandbanks and the force of the tides. In December 1909, a 60 metre stretch of foreshore slumped into the channel and so the canal's chief engineer requested that local, redundant vessels should be run aground and beached in this area, which would then promote deposition from the river, thus protecting navigation links. It is estimated that the Severn carries 20,000 tonnes of sediment per day through this area; therefore with these boats acting as wingdykes more stable grounds will begin to reform and maintain the bank. Further beachings were carried out through the mid 20th century and this activity became a convenient and sustainable way for ship-owners to dispose of their retired vessels. The Ships Graveyard then can be seen as a barometer of the area's maritime economies as periods of boom and bust are reflected in the times when some vessels were beached (Barnett 2009; Dickson *et al* 2010).

As a local boy, Paul Barnett and other children would run and play amongst the vessels, and fascinated as he was with their histories he realised in his later years that no thought had been given to the heritage of the ships, of which many were of local



construction. As well as this an archaeological survey, initiated by a group led by Dr. Tony Parker of Bristol University, showed that some of these craft are also the last remaining of their type, and so the site and its ships became recognised as under threat, and of high significance in terms of the maritime heritage preserved therein. Barnett then began researching and cataloguing the vessels deposited here and initiated a community based archaeological project known as the '*Friends of Purton*', an initiative supported by the Heritage Lottery Fund, which went ahead for 2 years under the banner '*Diving into History*'. The project was of great local significance, not only in terms of revealing previously unknown or overlooked local histories, but also in increasing community and public awareness in the hope that people would act more responsibly towards the site, and assist in its management and preservation.

In ways similar to Orford Ness, a former site of *secret science* abandoned by the MOD in 1971 and now left open to entropic processes (Davis 2008), the site managers have taken a largely non-interventionist approach, allowing the structures and landforms to become 'strange hybrids' (DeSilvey 2014: 79). There is a concern that caring too much and curating the site more carefully would mean that such sites may cease to be recognised as ruin and would lose much of their interest and appeal. Orford Ness however is run by the National Trust, and paying visitors reach the Ness by boat, and so there is some level of organisation and guidance that takes place. At the Ships Graveyard there are interpretation boards and other information however you are free to roam at any time of day, any time of year, and you don't have to pay. People pass through, come and go, pause for a rest, have a quick look, some stay for longer and explore the area more thoroughly, and this flow of people and range of visiting habits seems to add something to an experience of the fluidities of time that help to configure the site. There is a sense of continual movement and constant change set amongst a variety of speeds and slownesses.

In configuring the Ships Graveyard there has been a re-revealing of history, a sequence of events-already-happened has been given further impetus by groups of concerned people to allow histories of trades, industry and mobility to re-emerge into consciousness and awareness. So to gain a sense of how it is that an exchange of energy can once again allow things to emerge into the sequences of historical processes, we turn to De Landa's idea of nonlinear history (1997). De Landa suggests that we need both a realist and materialist perspective when looking to the past, where humans are best viewed 'not as the architects of their destinies, but rather as one material expression of a natural world that spontaneously generates new forms and trajectories' (LeCain 2014: 66). What humans see as their own creations are actually the product of nonlinear assemblages of which humans are only one part, and not always the most important. This awareness invites in the nonhuman and recognises considering their importance as actors within the same pluralised world.

The dynamics of systems are not only in *nonequilibrium*, their procession is nonlinear as the components within go through processes of exchange and feedback, and are also open to exchange and feedback with and from elements outside. The Ships Graveyard is a pertinent example, there is a sense of processes always moving forward, the rust, succession of vegetation, the river, but within this are a whole range of speeds and cycles and energy is exchanged and fed back from one property to another continuously. The banks for instance are simultaneously being eroded, and generated by deposition, and visitors arrive from outside trampling the growing grasses and cutting a path. The *arrow of time* is an irreversible, historical process, but can only remain unidirectional within a closed system (such as the universe) that has no significant inputs from the outside. If time was linear, and things were maintained in equilibrium, De Landa argues that history would no longer count for anything. If however we recognise that all around us are infinitely varying complex forms and

compositions of relations, in systems open to flows of energy in and out, history can reveal itself as having a far greater variety of outcomes.

The history of the Ships Graveyard then appears as inherently nonlinear, it is open to the ravages of time, fluvial and geomorphological processes, inputs from outside, it is interrupted, acted upon, acting out, ground is generated, vegetation takes hold, erosion continues, the ships decay and yet are to an extent preserved within the silt in which they are buried. Time here, whilst not entirely reversible or unidirectional, fluctuates, and is composed of always varying speeds and slownesses, and emerges from relations between bodies, elements and materialities, it is *experienced* as durational (Bergson 2001), and inherently reliant upon exchanges of energy and heat between properties that are enmeshed together. As such it becomes impossible to quantify and measure, and as a visitor it made for a slightly dizzying, disorientating encounter. As De Landa says, it is less the bodies and species that emerge that matters, more the flows of biomass between them.

To take an understanding of the multivariant and nonlinear processual characteristics of the Ships Graveyard further, we will now explore some of the key elements that configure the characteristics of the site and how they operate and are thus encountered, experienced and could be understood. Thinking the site through in such ways can broaden our understandings of our connections to the nonhuman and make us more aware of our relationships with the physical environment, and the nature of its changes.

Entropic processes

In a very real sense, reality is a *single matter-energy* undergoing phase transitions of various kinds, with each new layer of accumulated “stuff” simply enriching the reservoir of nonlinear dynamics and nonlinear combinatorics available for the generation of novel structures and processes. Rocks and winds, germs and words, are all different manifestations of this dynamic material reality, or, in other words, they all represent the

different ways in which this single matter-energy *expresses itself*. (De Landa 1997: 21, *emphasis and quotations in original*)

Following this, we can relate to the basic principles of the first and second laws of thermodynamics and begin to conceive how *matter* and *energy* are revealed as the emergent and dynamic properties that form the characteristics of the Ships Graveyard, and mobilised such a need for the beaching of hulks in the first instance. The first law states that in an isolated system (such as the universe) total energy is constant, and where it can change from one state to another, it cannot be created or destroyed. Within such a system, a linear arrow of time carries things irreversibly towards the most probable outcome, that of least work, or their lowest energy states. The second law introduces the idea of *entropy* as a measure of randomness on the spectrum of order and disorder, and is defined as the most probable distribution of outcomes and acts as a function of a system's total available energy. For example, bodies grow old, objects lose heat, without work and effort put into the maintenance of things they get disorganised. In an isolated system levels of entropy will tend to either stay the same (stability) or increase, as such the universe (as a closed system) is gradually moving towards disorder, and entropy is increasing.

In an open system however, with energy and work inputs, heat transfer and distribution of energy can be effected by external forces and feedback loops within, entropy can therefore be slowed and perhaps even made negative. However, working to keep things organised requires heat and nothing is totally efficient, as such heat is always lost. Entropy then is only ever really being chased away, or displaced elsewhere as any decrease in entropy will cause an increase in entropy somewhere else (Bridgman 1943; Fiorentino & Claps 1993; Leopold & Langbein 1962; Prigogine & Stengers 1984). Following De Landa then, this *single matter-energy* of the world emerges in infinitely complex and dynamic realities that are worthy of exploration in this context of a site-based ontology, because as heat is transferred and entropy

fluctuates, relations are formed, transformed, reformed and nonlinear histories begin to reveal themselves.

If we then take the example of the Ships Graveyard to illustrate these points, we can begin to see how; not only modes of irreversibility and feedback are at play, but also entropy - as the most probable outcomes of the open system of the River Severn - is worked-with to form the site and ensure its efficacy, and how entropic processes of energy exchange, decay, erosion and deposition configure the site's characteristics. Entropic thinking then reveals itself here as a way to flesh out a complex range of configured relations at this site.

Global hydrology is a closed system in that no water ever leaves the earth, nor are there inputs from beyond the atmosphere. A river system, or drainage basin, is an open system as water and energy are lost to other systems, and gained as inputs from elsewhere. The hydrological, or rather *hydrosocial* (Linton 2010) cycle then, is a '*global vortex of local vortices*' (Serres 2000: 125), or rather a closed system comprised of open systems, and amongst these vortices on earth, localised particularities emerge as sites of interest that appear as moments of coherence, but are more like eddies amongst the worldly flow of things.

As water flows down the channels of a river system potential energy is converted to kinetic energy and through processes of flow becomes dissipated as heat loss at its margins such as where waters meet with geology, surfaces and topographies. The river is ultimately pertaining towards a state of least work, and endeavors to reach base level. The sea is the absolute base level, where the river shall be at its lowest energy, other base levels occur within the system (lakes, reservoirs, pools, bars of deposits etc.) but these are imperfect and temporary. When the river has reached base level, that is to say it has reached its most probable outcome, it will be said to be at maximum entropy where there is no loss or gain of energy (Leopold & Langbein 1962).

We also know that as a river runs its course erosion occurs as it cuts its banks, as too does the deposition of sediment load. In 1909 (Barnett 2009), through entropic and thermodynamic processes of heat exchange, the foreshore at Purton lost its integrity under the work being performed by the Severn. This section of bank therefore underwent an increase of entropy as it moved towards *its* lowest energy state by collapsing. Following this, heat energy was expended by importing and beaching the hulks of vessels in an attempt to slow and even reverse this entropic process in the future. The river however continues to do its irreversible thing by flowing to base level and transporting sediment, sediments which in turn come to rest in their lowest energy state. The most probable outcome therefore (for now) is that silt and sediments will gradually come to rest amongst the obstructions and new grounds will accumulate.

The site itself then is moving towards a *quasi-stable*, low energy state and it seems as though the decrease in entropy attained by the work put into beaching the vessels, could now be balanced by increases in entropy as the river (in terms of deposition) and the hulks (in terms of decay) do their most likely things. However, despite being slowed erosion is still occurring and always will as an irreversible process, as such a time may come when the balance of heat transfer once again works in favor of erosional processes and the foreshore again finds itself under threat. It does seem though that enough ground has accumulated for at least this section of the Gloucester and Sharpness canal to remain protected for some time yet.

This site chimes with the work of influential land artist Robert Smithson – whom in his later years became interested in the changing landscape of New Jersey – and his interpretations of the simultaneous decay and regeneration, which is also exemplary here at the Ships Graveyard. Smithson's desire was to encapsulate and portray the far reaching extremities of time, and the irreversibilities of eternity. Take for example his in-residence piece *Partially Buried Woodshed* (1970) in the grounds of Kent State University which was a *non-monument* formed by dumping earth onto the

roof of an old woodshed. The central ridge beam collapsed under the weight and the roof fractured. Here he worked-with the most probable outcomes to comment on how processes of decay enable things to acquire histories. His intention was that the site should be preserved until entropic processes had appeared to run their course. Even though there is an element of Smithson attempting to freeze frame the processual here as a situated artwork, it is apparent in this piece that Smithson used architecture as his material, and worked-with entropy to produce the desired result (Bois & Krauss 1996; Smithson 1973 [1996]; Yusoff & Gabrys 2006). Smithson was also interested in, and was quite critical of museums and heritage sites, and felt that histories are represented and encountered in far more meaningful ways by observing and engaging with change:

History is representational, while time is abstract; both of these artifices may be found in museums, where they span everybody's own vacancy. The museum undermines one's confidence in sense-data and erodes the impression of textures upon which our sensations exist. Memories of "excitement" seem to promise something, but nothing is always the result. Those with exhausted memories will know the astonishment. (Smithson 1967a [1996]: 41 *quotations in original*)

We can also return to our quote from Smithson at the start of this chapter, where he insinuates that visiting museums is a movement from void to void. This is significant here, as shall be described in more detail shortly voids appear to open up at the Ships Graveyard *in-between* the 'artefacts', but because of their mutability, transience and presence and position in the landscape, these voids become meaningful as opportunities for emergence. Whilst the rhetoric around museums certainly offers itself up for critique as a mode of cultural representation (see Rice 2008) voids, or rather *in-betweenings* (Braidotti 2013) are revealed at the Ships Graveyard in an intriguing fashion. The cataloguing and interpretation of the site moves its definition - perhaps somewhat awkwardly - into a heritage site, this means that there is an interplay between fixity and fluidity and given the dynamic, entropic natures of the landscape from which this site emerges as a heritage site it remains contingent and transient.

Perhaps there is a clear intention to leave the site open to interpretation to some extent and for the *Friends of Purton* and the National Lottery Heritage Fund to watch from a distance, allowing visitors to explore relatively freely, for it wouldn't seem fitting to have an enforced waymarked route to guide you through. The definition of the path emerges from that which has been most trodden, and is formed by eroding footsteps that have made their way through the grasses. Furthermore, you are allowed (with caution) to take broader excursions amongst the hulks. It seems far more applicable to be able to explore the ruins fairly autonomously and have the plaques and interpretation signs serve as useful anchoring points that help to weave a particular narrative, rather than acting as something that can bind or fix the site and its artefacts. The plaques give these materialities a personality and they are significant and valuable as they acknowledge the importance of the ship's histories, and they do this without intruding too much upon the experience of being there. Therefore this site isn't entirely non-interventionist, it is just that the order that is impressed upon it still allows enough voids, in-betweenings or gaps from which the spectral, absences, narratives and affect can emerge.

The Ships Graveyard has in-betweenings, milieus and gaps between interpretation, representation, materialities and experiences that act as emergent spaces, and as such practices of sense-making here are more open-ended and fluid. The affects of being-in and becoming-with a multi-sensual riverscape are also mobilised. This allows visitors to develop their own narratives and construct their own knowledges, imaginings and stories about; the ships and their journeys, the changing natures of the landscape, the importance of industry and therefore fill in some of the gaps. '*The action of sites prompt and start narratives*' (Crang & Travlou 2001:172), and visitors and their imaginings are all more or less tethered to the ever-shifting materialities of this entropic *mise en scène*, and the subtle signpostings of the commemorative plaques gesture towards parameters of time with which humans are

perhaps more familiar, ushering people towards very real maritime histories and their rich and valuable heritage. These result in a continual movement between order and disorder and configure the multiple spatio-temporalities experienced here. Many museums or heritage sites and the management and curation of them is aimed at keeping entropy at bay - or slowing it significantly - involving acts of preserving, conserving, protecting, rebuilding, concealing, revealing, sealing or presenting a story in a very managed way (DeSilvey 2006), but here the Ships Graveyard is left open to the elements and some of the earth's irreversible processes. This is what makes this heritage site particularly interesting, not only for its collection of rare vessels, but also for its working-with entropy and ever-changing material states. There is a willingness to embrace changes that are mobilised by the nonhuman which then act as the ongoing makers and curators of the site, perhaps allowing us to become more attuned to our connections with otherness.

At the Ships Graveyard the ordered mixes and mingles with the disorderly, the beached hulks appear dropped in no particularly organised way; here we give way to the procession of entropy and a claiming of the material by worldly elements and forces; the ground is accumulating; vegetation is succeeding; rotting and flaking flanks of semi-supported oak becomes home for insects; grasses and plants protrude, intervene, cover and conceal; kids run and play here amongst ghost ships that fulfil ludic fantasies and dreams; encounters with absence mobilise makings of memory and hauntings that continually form body-landscape relations; contingency is draped over fixity, the signs and plaques are almost swallowed up by it; decay and decomposition meets somewhat awkwardly with the generation and accumulation of ground, and yet they all blend together with the persistence and endurance of the riverscape; I feel as if I'm walking on unsteady, uneasy ground and my body is becoming subject to a field of highly mobile forces, it is almost dizzying, certainly disorientating.

The commemorative plaques punctuate the scene with anchoring points, moorings within a nonlinear history and play a significant role in how people form their narratives and make-sense of the mutable things they have encountered. These further mobilise senses of absence, of shipmates, tradespeople and industry, and we should bear in mind that many of the shipyards mentioned became redundant some time ago. These

signposts appear to hang on to the coattails of contingency as the experience of wandering amongst the vessels sets me adrift, like the waters of the Severn beyond. Every now and again,



another plaque, another name, another story reels you back in towards reality and a sense of groundedness, only to find another ghost ship carries you away again in its rotting carcass across undulating waters of conjecture. Flow courses through here in multifarious ways, with infinitely variant speeds, rust creeps, bodies mooch, water runs, wood rots, surfaces fizz with atoms...this place, replete with absences, is teeming with life.

Mutable things, changing states, vibrant materialities and the affordances that ensue from them have been of great academic interest in recent years (Bennett 2004, 2010; Whatmore 2006; Anderson & Wylie 2009; Ingold 2010; Edensor 2013; Tolia-Kelly 2013) and it is this field of study that awakens an awareness of the aliveness of things and our connections to them. Elsewhere in this project we have discussed the difficulty in how we actually talk about the *life* of the nonorganic and have made some suggestions towards the type of language we can use to describe it (endeavour,

endurance, persistence). We therefore arrive at the Ships Graveyard with a certain apprehension of *what life is like* amongst these diverse materialities, all of which are subject to the same conditions, all of which react differently. There is metal, concrete, oak, soil, water, vegetation all acting out and being acted upon.

If, as DeSilvey (2006) suggests, we take an interpretative approach towards entropy and its associated processes of decay and decomposition we may find that where one chronicle of memory may be destroyed, another is mobilised into recovery. In the narrative that takes form between these fluctuations and reverberations of memories lost and found, faded and regained amongst these decomposing materialities we find nonhuman agencies enrolled into a process of telling stories. DeSilvey rummaged through items caught up in various transformative states in an attempt to find items suitable for curation in representing the histories of a Montana homestead. This revealed that entropic processes metamorphose a familiar material world as things shift states of form and texture and this confuses and muddles our senses of what is alive, and what constitutes a thing. This unsettles the orderly and disorderly into a regime of sense-making that calls upon an awareness of the sensational and the ambiguous in order to relate. At the Ships Graveyard, as in the Montana homestead, cultural matter has shifted into an ecological function and in this milieu of decay-erosion-accumulation-regeneration there is an amount of uncertainty which requires a kind of *double-vision* in order to be attuned and connected to what it is that is happening. The things in the Ships Graveyard are not just emergent regenerations and endeavours of the thing-in-itself toward its most probable state, but also reveal themselves as active agents in their capacity to affect and be affected, and to build and bind the earth.

Entropy is the antithesis of structure and architecture, yet processes of ruin and decomposition are as related to construction and re-ordering as they are to destruction (Mostafavi & Leatherbarrow 1993). Entropy can tell us a lot about structure as such

we need to listen carefully to the quiet crumbling of matter (Dale & Burrell 2011). DeSilvey and Edensor (2013) suggest that with popular recent interest in such *matters* we find ourselves experiencing a kind of *ruinenlust* that requires more analysis in geography. It is also a suggestion of this chapter that whilst the allure of wandering about amongst derelict and industrial buildings reveals much to us of the importance of past and absence in our present experiences of spacetime (Edensor 2005a; Edensor 2005b; Edensor 2008), encounters with ruins in urban environments have been slightly privileged (although we are now turning more towards rural spectralities, see DeSilvey 2006, 2012, 2014; Davis 2008; Wylie 2009; Hoskins 2015). Shipwrecks are representations of materials that have been crafted, worked and used and thus carry and reveal multiple stories, absences and temporalities, and despite becoming beached they metamorphose into a site co-constituted by histories, trades, journeys, bodies, materialities and processes (Crang 2010). So whilst these esteemed vessels of local trade and history find themselves here, semi-submerged in earth we are reminded of their non-representational capacities for memory making and their capacity for mobilising sensations, and of the significance of present-absences in spacetimes of ruin (DeSilvey & Edensor 2013).

Here, entropic processes and thermodynamic, durational time become prevalent senses of ambiguity and an awareness of multivariant temporalities are revealed, which DeSilvey and Edensor suggest should be celebrated in order to tune in to the potency and significance of such spaces. Where time runs unevenly, as it does at the Ships Graveyard visitors are given the opportunities to narrate their own versions of the past and construct their own stories about where the ship travelled, the hands that crafted it, men who died on it...stories no doubt influenced by the riverscape and the vast sky that appears to open out toward the Bristol Channel.

From here we move toward the importance of absence-presence in developing an experience of the site, and its role in enabling people to construct their narratives:

In some cases absence is so profoundly evident that emptiness is apt to become crowded with remembered and imagined impressions of that which used to fill the absence. (Edensor 2008: 325)

In some ways, this returns us to Smithson's idea of the void spaces in museums, and perhaps he would have approved of this site as he was:

Interested in the most part in what's not happening, that area between events which could be called the gap. This gap exists in the blank and void regions or settings that we never look at. A museum devoted to different kinds of emptiness could be developed. (Smithson 1967b [1996]: 44)

We may perhaps be a little uncomfortable with Smithson's choice of words as with current relational thinking it is difficult to think of blank, or vacuous, void non-spaces, but if we frame his notion of emptiness as the absences associated with shipmates, tradespeople and industry, and carry that into Derrida's suggestion that absence helps us to define presence (1997) we can begin to see how absence reveals itself at the Ships Graveyard and plays an important part in experiences of the site. It is a concern of Edensor (2008) that if we categorise and classify spaces (as has to some extent been done with the commemorative plaques and interpretation boards) then we begin to exorcise ghostly hauntings, and as such dilute the potency of absences. However, there is enough of the *trace* play in-between absence-presence (Derrida 1997) and enough sensations and affects mobilised here to allow the spectral to continually reemerge, interject, punctuate and erupt into our experience of this particular spacetime. There is just enough ambiguity here to allow dreams, memories, stories and ghosts to dance around and haunt our senses of presence.

Memory-theatre

Lieux de mémoire are simple and ambiguous, natural and artificial, at once immediately available in concrete sensual experience and susceptible to the most abstract

elaboration. Indeed, they are *lieux* in three senses of the word, material, symbolic and functional. (Nora 1989: 18)

For Pierre Nora, *lieux de mémoire*, or sites of memory, emerge as configured and contested spaces where fragmented histories, memories both personal and collective, narratives both real and constructed meet and mingle. Such sites are given their character by a continual play between mobile memories and moored histories resulting in hybrid, mixed and mutant spaces which are wound up in both life, and death. For Crang and Travlou (2001) they are *pluritemporal* landscapes where the past and the present are revealed as differential relations, and as such are always bound up with each other. This realisation should move us away from thinking of such sites as simulations, representations or copies and towards approaching them as infolding and unfolding processual event spaces, punctuating the fabric of spatio-temporalities with which we are normally more familiar. In such spaces the present includes the past, presence includes absence and our consciousness is subjected to dynamic duration that moves us toward the future, and it is the flows between actions, experiences, thoughts and memories that reveal us as one of a host of actors in theatres of memory.

Like memories, such spaces can never be fully known or actualised. They are fugitive, transient and not so much stores of memory as opportunities where the actual mixes with the virtual. Memories and memory making processes are also set in motion here by the nonhuman and are 'afforded also by the things themselves' (Olsen & Pétursdóttir 2014: 9). Theatres of memory are at once coherent and fragmented, and replete with interjections that interrupt the form of their fabric, and in so doing they offer up more instability than stability, more questions than answers. All of which is mobilised at the Ships Graveyard in its buoyancy, it seems as if this place is held in suspension, sort of floating around in its own pluritemporality and yet as a moment of coherence it is troubled by contingency and cognitive processes that are subject to a

multiplicity of trajectories and diverse fields of forces. It is very much *here-and-now*, it is also becoming, open-ended and continually invites the past and its absences into senses of presentness and movements towards inevitability and the future, and it is the always-unfinished natures of the sight that seem to add to its spectrality. Is this place contradictory, or multidimensional? Perhaps it is as De Certeau (1988, 1998) suggests, a practiced space that occurs where vectors and velocities intersect and compose an ensemble of elements, which are then written on by bodily spatial practices such as walking, wandering, wondering.

Summary

We have wandered around the Ships Graveyard and dived into history, a nonlinear history found to be continually made and remade. Amongst this Ships Graveyard we have tuned into a multi-sensual, thermodynamic landscape, and the processual exchanges between history, absence, presence, sensation has revealed a pluritemporal entropic riverscape that has abundant capacities to affect and be affected. In looking toward entropy and principles of thermodynamics, perhaps we have found a means not only of effectively exploring relations that



characterise and compose such sites of significance, but have also created further opportunities for human geography to engage the geomorphological. Perhaps through entropic thinking we have found a way of grappling with complexity and have thus developed a sense of positioning amongst dynamic, transient, mutable, mobile and flowing landscapes.

We find here an extraordinary mix of stability and instability, of decay and regeneration, of erosion and accumulation, of death and life, of vibrancy and

opaqueness. We have seen that a certain fixing of the ship's histories by way of commemorative plaques have served to punctuate the ambiguous, fluid and mobile natures of the experience of the site, and yet they are important elements of this hybridised theatre of memory. Rather than being a source of tension they are useful moments of return to more grounded realities. The plaques help to guide us through our tour around *otherness* (Introna 2014) and as I mooch about amongst absence-presence and make memories of my own, it is worth considering that:

Humans tend to believe that memories of the past dwell somewhere in the tangle of neurons and synapses in their skulls, or perhaps simply in a ghostly spirit that resides there and yet is somehow distinct. But this too may be, in part, an illusion, an evolutionarily useful means of creating the sense of an "I" that wishes to endure, to survive, to reproduce. It is also a form of chronocentrism, the human belief that the present moment is entirely new and unhinged from the past. In reality, the past is persistent, not just in memory or written histories, but also in the materiality of things literally *present*. (LeCain 2014: 71 *emphasis in original*)

This site therefore has been revealed as significant not only in terms of revealing the vitality of materialities but has also exposed 'the ongoing negotiation between transience and permanence' (DeSilvey & Edensor 2013: 473), and between past-present-future, history and the here-and-now, memories and narratives, reality and the virtual, contingency and structure. This is a complex site to interpret, both in terms of the guidance, signs and plaques produced by the *Friends of Purton*, and also as a visitor where sense-making processes become subject to surges of affect, memory, emotion and encounters with otherness, spectrality and the strange. It may be that such sites need to have enough *entropic chic* (Webmoor 2014) to become fully configured and noted as sites worth visiting, and it could be that:

The potential for a fully non-interventionist 'entropic heritage' practice, acknowledging processes of ruination without seeking to manipulate or mediate them, has yet to be realised. (DeSilvey & Edensor 2013: 473 *quotations in original*)

Such sites would leave visitors free to mooch about and rummage amongst transitional, mutable, entropic materialities and build up memories, narratives and experiences that are informed by nonlinear histories, and enhanced by the ghostly, spectral absences that already haunt our world. Perhaps this is *yet to be realised*, maybe it can when you consider our fascination with decay, although I fear it is almost certain that some form of intervention or organisation is never far away (for health and safety reasons if nothing else), but maybe sites like the Ships Graveyard and Orford Ness (Davis 2008; DeSilvey 2014) are starting to get close, or as close as we can reasonably get?

Surfing-with-Spinoza: Moon and Mud⁸

I was waiting for the Bore. I had made my way to Epney in Southern Gloucestershire by car. I was in the area, roaming, using the Severn Way although the path was not defining my entire route. I had timed my stay here to coincide with the 2 days following a full moon (9th-11th September, 2014), which is when the Bore wave is significant. It is at its peak on the 3rd day after a full moon, but logistics had dictated that I would be here on the 2nd day, unfortunate, but I was still hopeful of a spectacle given the strength of autumn tides. On the days following a full moon the incoming tide of the Severn (the 3rd highest range in the world) is squeezed and lifted as it heads up the tightening channel, this forces a wave to form which travels upstream through Gloucestershire.

Epney, the wave was due to pass through here at 9.15, I had arrived at 8.15 to guarantee a good vista, which I found near The Anchor Inn where the road runs parallel with the Severn. There was one ghostly figure of a surfer paddling around,



almost dissolved in the gloom, the weather wasn't particularly bright and the waters appeared to absorb its murkiness. This wasn't Hossegor, or Hawaii, or Bondi, or even Fistral Beach in Cornwall, this felt grimy, muddy, edgy, like surfers on the periphery, an alternative way to form body-wave relations that is convergent

(J. Anderson 2012) around a particular sequence of events. A full moon, the strength and rise of the tide, the form of the channel, the energy of the wave, the persistence, patience and skill of the surfers. This was Spinoza's conatus at work, modes of expression of all kinds were getting drawn together, hanging together in order to enhance their powers and capacities for action, and to affect and be affected. All of these bodies here were endeavouring to persevere in their being. All motion and rest here is relationally defined and all movement is practiced and emergent through

⁸ All images taken by the author. This following of the Severn Bore was conducted on the 2nd day of the full moon, 10th September, 2014.

particular modes of expression, all of which work together to mobilise the capacities of this spacetime, and the affordances of this riverscape.



Minute by minute more modes gather and surfers flex into their wetsuits. Most of them have longboards, the ideal board for this type of long, low wave. They are all timing their arrival perfectly, they have all come to hang together at this site and form this context, where coherence will emerge from the chaos.

I can sense anticipation building and I look downstream expectantly as more vans and hatchbacks arrive, all dotted with stickers and dents, boards strapped on and stuffed in. There is only one chance to catch the wave, only one chance to surf before going to work. Many of these surfers gather here as regularly as the Bore, Severn sediment has become engrained in the wax that coats their boards for grip. After accumulating in the pub's beer garden, one by one they clamber down the wall and tiptoe out over the riparian stones and into the water. They paddle downstream to a wider section near where the lone surfer has been paddling. There are now around 15 surfers in the water, and a boat, at the time I assumed the boat was there for support, but as it turns out, once the wave has been caught and ridden, surfers will peel away, and then take a ride on the boat to get ahead of the wave



in order to catch it again. It was now getting very near to 9am, standing there it was strange to think that downstream, out of view the tide had pushed in and the wave was on its way. Flow can vary, and is multidirectional but I have never seen a discernible wave travel upstream before, I had seen photographs, but to be honest, this does not prepare for the event.

9.10am, in the distance now it can be seen, a white line is strung across the entire width of the channel and the surfers form a line, giving each other space, they're turned back towards it and watch it approaching. You can see its energy gathering as the channel continues to get narrower, continues to push and heave the water up. Cameras click, people expect, surfers are ready, the Bore pushes on. Surfers and

wave meet, they spring up and ride, some of them pump their boards up and down to help gather momentum and keep moving with the wave, its energy seems low, but it is only the 2nd day after.

Some surfers have already peeled away behind it and headed for the bank or the boat, others persist, as does the wave, and they glide past us together, pulled into relation by conatus, endeavour and endurance. To see a wave running upstream is still something I find hard to apprehend, but I am sure that I have been reminded of



what happens when energies and modes of different kinds gather together, and are held together as an unfolding site. The words of Alice Oswald (2009) describe the scene particularly well:

And sometimes at the very moment of her passing,
Which is like a riverquake, like the weight of the sea,
Like the interstellar cold coming suddenly into the world,
A man nips into the loo and misses the whole thing,
And when he comes out, there's everyone clapping and hooting
And the *river rushing backwards trying to retrieve itself*,
It's as if he'd waited two thousand years for a comet
Which came when his back was turned, it's incredible

It's incredible when she chooses to push
The river right over without caring,
And there's the earth dangling in emptiness
With its feet kicking in the air, it's incredible
When she floats along in her havoc not breathless at all. (33 *emphasis added*)

The river, trying to retrieve itself, had now pressed on, and now, quicker than they had entered the water, they were out and into their vans and hatchbacks, cold wetsuits on car seats, and they were off. I also decided to head upstream to see it again, and after a look at the map I picked a spot around 5 miles away, where a lane went through a farm right up to the river. On the far side of this bank the presence of a crowd of spectators informed me that it had not yet passed. A few minutes later, the Bore announced its arrival with a great *slap* on the outside of the bend, just out of site, as the small crowd *whooped*. Here the channel was tight, as such the wave was high and here it was unbroken, a wall of water pushed passed me, and the waters that followed pushed up rapidly toward full bank and so I found myself stepping back, just in case. There were no surfers, but in the distance I could hear an outboard motor, louder, louder which then breezed passed on still rising waters with a surfer hanging off the front like an excitable dog with its head out of a car window. They chased the wave, I felt it had passed, but the moment persisted. What I found as incredible as the event itself were the energies that followed, minutes later and the banks were still full, and the level continued to rise, water was still pushing upstream, taking with it timber, logs, bags, bottles, sediment and anything else it had accumulated on its lunatic journey. I stood there watching the river rise, and rise, and still rise, later on these waters again would return, with the river, and out to sea.



And here, not too far from the estuary, watching these waters push up, I'm reminded of my topological connections to the uplands, Plynlimon, and the landmarked source.

source-sheep-mud-me⁹

The plan on this day was to walk from the source of the Severn (Tarddiad Hafren) to the market town of Llanidloes. To do this, one must walk up from Hafren Forest for around 2 hours to the top of Plynlimon (Welsh is Pumlumon: the highest peak in the Cambrian Mountains), to then walk back down. As I left the Forest Enterprise commissioned Hafren Forest car park behind and pressed on towards the source I joined the Severn Way and looked ahead to see a boardwalk skimming the top of boggy riparian ground, which then rose up a clearly waymarked, more technical slope into denser woodland. The white noise of the river was at times overpowering, I didn't realise how loud each riffle was until I'd either pass slower moving waters, or the path would veer away from the channel slightly. I remember musing over (and not for the first time on this walk) the more carefully planned and gingerly placed footsteps of George Borrow (19th century) and Brian Waters (early to mid 20th century) as they attempted to reach the source, and navigate - with the river - a path over ground which without the Severn Way would have been difficult to negotiate. As Waters remarked, following the river from Llanidloes is the only sure way of accomplishment, as long as you use an Ordnance Survey map and do not get distracted by its many tributaries. It may be worth noting that by walking alone, Waters had already twice failed to reach it having been defeated by the weather. At the time he described thus:

No path leads to the source of Britain's longest river. No stone marks the place, and you are unlikely to meet a shepherd to show you the way, or to tell you that this is indeed the Hafren (border), as the Severn is known on the mountain of its birth. (1949: 9) (*Translation added*)

These recollections serve to remind me that I am in the Welsh mountains, which are at times an unforgiving and unsympathetic landscape, and despite the relative comfort of

⁹ All images taken by the author. This fieldwork describes a true story that unfolded from one visit to the area in the form of a single day walking from Hafren Forest, to source, and back downstream to Llanidloes, Mid Wales (20th March 2013).

the way-marked path beneath my feet things can still take unexpected turns, as indeed they would.

As I press on my body rises and falls with the slopes, the river relentlessly cuts on. The effort I'm going through walking upstream brings about a certain sense of empathy with what the river has achieved over millennia as it persistently drains away from me, shaping the ground on which I tread. I also remember Waters suggesting that the character of the Welsh mountains and their bleakness would be sadly lost through afforestation which he was observing as beginning at the time. These would be the pine forests I skirt by and flirt with as I follow the path today. He suggested that the lack of floral life was that which gave the upper reaches of the Severn its beauty and distinctiveness, suggesting that all of the majesty of this garden came from the movement of the water and treacherous ground. Even the Severn Way couldn't fully dilute the potency of this topography, on some rises and kickers I was almost on all fours as I attempted to get to the top fairly swiftly. Walking upstream is a funny thing, you're going against the flow (or the majority of it) but because of the attritious natures of the slopes and surfaces I was more aware of the elemental mobilities around me, and that I was rubbing up against, and how they had acted upon the landscape over the course of millenia.

When I left the car the weather was good, clear, fresh but not cold. This was the kind of day where you're glad to be out and leaving some of the daily grind behind. Ironically one of the issues I was leaving behind was a leak in our bathroom, reminders that the stubbornness, endurance and recalcitrance of water was everywhere today, in fact they always are, but all too often we just don't notice its pervasiveness in our daily lives, or we take it for granted. As I and the ground rose my chest and lungs began to respond to the increasing moisture levels and dropping temperatures of the air with a kind of tightness, as a chilled breath would enter me. The sky, even though it was expanding ahead of me, drew around me with a certain presence, with heaviness and

mugginess, and all of a sudden things weren't so clear anymore. By the time I'd arched around the next kicker I was in fog. I'd only seen one other human on this walk so far, a dog walker, literally minutes after I left the car park and I'd now been walking for an hour or more, but I hadn't been aware of my solitude so much until now, until the mist *dissolved the landscape* (Bachelard (1983 [1942]) and closed in around me. My body was now more connected to the elements and ecologies at play here, the air, the mist, the water, the gradient, the sounds but all the time I felt more alone, more disorientated, my human natures were perturbed, disturbed and unsettled. Now more tuned into the difficulties of the task I pushed on as the fog got thicker.

I became thankful of my woolly watchmen, small groups of sheep would gather, observe, and then scarper, 2 or 3 at a time, witnesses to my journey and my only tangible company. I started to feel a sense of relief as the ground began to level out more consistently and I could see no more kickers ahead of me, just a sinuous path melting into the mist. It seemed I had begun to walk across Plynlimon's boggy plateau...I was getting close. Something stirs the human spirit as we begin to sense achievement, and this desire for a journey, a destination and all the lessons it can bring – although possibly not explicitly human – is something fairly common to many of us, some more than others, some less so. But in some form, it is within us all to be awakened. My steps became lighter, I walked more upright, my breathing slowed. It was really foggy, visibility was poor, but as I set foot on a flagstone laid path with black boggy pockets on both sides I caught a glimpse of a sheep who had been watching me. A little spooked he turned and ran ahead, he took to the path ahead of me and in a panic felt they couldn't escape and kept running. Having been distracted by the sheep I then looked up to see that in the mist I could just make out the wooden stake that marks the spot, Tarddiad Afon Hafren (the Source of the River Severn). As I walked towards the stake I could hear splashing, slopping, squelching. It seems the sheep that had run ahead moments ago had taken a leap of faith into the pool

recognised as Severn source, got stuck, and was trying to heave itself free from the bog.

There it was, still determined to escape. We think we see typically human emotions and affections in animals, and it's perhaps comforting to anthropomorphise them as this process brings us together to meet on familiar grounds and helps us to



empathise, but this time it was clear, this sheep was worried. It was just on the edge of the pool, where water mingled with mud, and was submerged up to its shoulders and the

top of its back. This was a mature sheep in full fleece and it just couldn't get a firm enough hold for long enough to heave itself free. As the sheep scrambled for some purchase on less sloppy ground its head bobbed up and down. The black peaty-mud-water was in stark contrast to the sheep, which now just had a strip of whiteish fleece visible along the top of its back. I

tried to rationalise what was happening, and whether to risk my own safety to make attempts to save it. The flagstone path ended at this nearside of the pool, so it would have meant stepping



out across the bog and potentially partly into the pool. Looking at how the sheep was sinking, stuck and struggling this was something I had to consider carefully, but quickly. Thousands of sheep have lived and died on these mountains over centuries,

and even though farmers are now responsible for removing carcasses from their land quickly to prevent the spread of diseases, there are many carrion feeders like kites and buzzards who may welcome such an opportunity for food. Of course, I had to do *something*. I had no idea where the farmhouse was, so finding the farmer was out of the question but I wasn't able to turn my back on this struggle and walk away.

It was drizzling, the mist was saturating everything, clinging, dissolving. I put my kit down on the wet flagstones and propped it up against the stake, tucked my trousers into my socks and attempted to get across the bog and pull out this fleecy, woolly plug from the Hafren. Each step was tested, I eased my body weight onto more or less springy lumps of sphagnum. Water was forced out like squeezing a sponge, but I found these squelchy hillocks gave me just enough support to step on, at worse the boggy water was just sole deep. Part way round the pool was a heavily saturated strip, one of many fluid passages that fed the pool where the peat couldn't hold any



more moisture. The firmer ground on the other side was too far to reach and test, so I just had to take a best guess and step out over the water, hoping the ground would be firm enough when I got there.

At no point did I really consider whether I was on ground or in water, it was all the same miasmatic mess, definition was lost, it was all just more or less wet, more or less firm. Having bridged the wetter strip I stepped out very carefully and edged closer to the sheep, who was still trying to heave itself out. Its efforts had visibly decreased, its movements had slowed, this animal was tired but still it tried. As I got closer I could tell it was using its final reserves to get away from me, its instincts to scarpers were not

fading, it just couldn't give in. I was able to get myself into a position where I could just stretch out to get a hand partway up its back. The only way was to rock it back and forth and release the vacuum and suction from the mud binding to its body. It was heavy, the bog was stubborn, hands full of fleece were getting ripped off and discarded over my shoulder, and just like I'd tested the ground by foot, I had to test the fleece by hand to see if the grip was firm enough to allow me to rock and heave. I had no idea what time it was or for how long I tried, but I was getting nowhere. I knew if I could stand in the pool it would be much easier, but looking at the depth gauge of the sheep, this would have been foolhardy. As the sheep had moved round a little I felt an alternative was to get around the pool to a slightly elevated bank, reach down to its front shoulders and maybe even legs to give it some support in its direction of travel. After struggling to get over there I found I couldn't even reach the animal, let alone do anything to help. I

retraced my steps back to where I was and tried again, by now I was now determined to free it from the bog. After 20 or so rocks and pulls I felt the mud loosen its



grip on the back legs and some air got released, I increased my effort and managed to pull its rear end up out of the bog and lay the sheep on its side. It lay there slightly startled, as I gathered my breath, the sheep gathered some energy, gave into its instincts, got up and ran...straight back into the bog. I didn't even consider not trying again; all I had just experienced was a moment's relief in a continuing struggle. Fortunately this time it was a little closer and easier to get two hands on its back with a firm grip. Again after a sequence of rocks and heaves it started to come free, this sheep was now completely drained, as such it lay still for long enough for me to drag it

away from the pool and point its head upslope and away. The sheep composed itself, struggled to its feet and walked away, clambering steadily up a slight rise. The muddy, blackened and tangled figure paused and looked back at me, before turning and dissolving into the mist.

Through this unexpected intervention the pool, the mud, the moss, the mist revealed their agencies. All mixed up in this miasmic mess were bodies doing things, struggling, enduring, changing, becoming, and transferring energy from one state to another. So what then did *the source* become? It was no longer the *source of the Severn* but a dangerous, volatile, unstable, dynamic mixture of materialities. Its fixity had been unsettled; its meaning had shifted and metamorphosed from a landmark, from a goal to be reached into an infolding and unfolding ontological event-space, a site of struggle, a maker of memories, a gathering of bodies, as such the wooden stake had been rendered futile. It was becoming clear that - and not just from an elemental or geomorphological point of view, but also from an embodied point of view - that this isn't a beginning, it is a contextual site, a nexus of mobile and processual becomings and relations. We had all arrived here and collected together where this struggle took-form, and would be dispersed from it. Just as the water gathers here, from within the air, drawn up from the subterranean, soaked and leached through the bog, it too is then dispersed. This landmark then is not an origin, but a moment in a sequence of processes and their tendencies toward relation, in turn making manifest what can be recognised physically as the body of the Severn, or indeed, Hafren. So, if to landmark something as a *source* appears at odds with a fluid, mobile, processual view of the world and its earthliness, how can we think of it, in fact, how do we think through origins at all? It could perhaps be more than a metaphor that to walk from the source to Llanidloes, you first need to walk *to it*, to arrive there from elsewhere...so if the source is not the beginning, what is it? The following chapter seeks to address this

and propose alternative knowledges that could be employed for not only (re)considering a *source*, but also the structurality of fluvial geographies.

CHAPTER 4: Ontologising the Source: Relational Approaches to Fluvial Geographies

From, in, at, such a sedentary fixation never gets us any closer to recognising the essential element – that place is an event: it is verbal rather than nounal, a becoming rather than a being. (Doel 1999: 7)

We do have a penchant for fixing things, and water is no exception. (Linton 2010: 4)

The pleasures of the bog. (Taussig 2003: 11)

As in the previously described encounter between bodies and matter there is a pertinent need to consider the salient points outlined in the quotes above, inasmuch as in the light of recent and contemporary geographical debates - in no small way inspired by processual and poststructuralist thinking - the notion of fixing something *in place* makes many of us feel somewhat restless, uneasy and uncomfortable. As suggested by Doel (1999) there is something reassuring about having things fixed and situated in place, because to truly consider the relations that have been folded in which make something happen, is to begin to navigate across complex grounds. What this chapter aims to do is to bring attention to the ontological capacities, qualities and affordances of something which appears static, fixed and landmarked like the source of a river (in this case the Hafren). Also this exploration will reveal that the notion of an origin is something which is at odds with the mobile, fluid, processual landscapes that nascent geographical approaches attempt to describe, so how then can we make-sense of a landmark that appears as permanent and fixed? Processual thinking will allow us to not only - as Linton (2010) suggests - take a more relational approach to water, but also to river systems, their sources and geomorphologies associated with fluvial processes. As we will later discover there are linear relationships and general rules that are and can be applied to river systems, but perhaps there is a way of getting beyond that to ontologise a multidirectional, multidimensional and pluritemporal spatiality and envisage a *rivering of things* as continually emergent accumulations and

configurations of relations, in turn dismantling some of the structural thinking that goes on within the production and representation of physical geographical knowledge. We can then think of the source as a particular configuration or collective (Latour 2004), not as a fixed point, but as a gathering-in (Manning 2009), a field of forces (Deleuze & Guattari 2004), a becoming-water-body, but as Jamie Linton is at pains to point out:

I do not mean to question the reality of the water process but, rather, wish to point out the mistake of confusing the representation for reality. (2010: 106)

An ethos with which I concur, my intention here is not to rail against the laws of physics or discredit generations of landscape evolution theory and practise, but it is to consider how an ontological and relational approach to freshwater can help us to configure what it *means*, and flesh out relations that infold and unfold around it, which are in turn partly configured by water's multifarious characteristics and the agencies and affordances it reveals. This shall elucidate a more nonlinear, multidirectional, multidimensional approach to the structure of a river system, and bring fleshly and watery bodies closer to becoming-together through a rethinking of the linearised and hierarchical representations of it with which we have become familiar. These include notions of *river maturity* as it flows through its various phases, stream order and rank as a means of defining a river's character quantitatively, the idea of a *source* as a beginning. It was a walk to *the source* and an ensuing set of relations that were infolded into an encounter there that made me begin to question and consider its meanings, its becoming, and how it is woven in to the fabric of the world and configured in our geographical imaginations. To follow through the relational threads of this thesis, these themes will emerge again here to enable further understandings of our positionings amongst fluid and dynamic processes. This chapter then will consider what it is that the source means to the human imagination, as well as introducing the role of narratives, history and rhetoric in the emergence of its meaning, as well as of the Severn more generally. We will find that looking through the lens of physical

geography, entropy and landscape evolution theory will broaden our understandings of the processes taking place there, and in turn will mobilise a more relational approach to fluvial geomorphology. We shall see that some of the inherent ambiguities within the physical 'harder' sciences (Massey 1999) actually begin to open us up towards relational thinking. Here it is hoped that this piece will achieve its aims in allowing human geographers to be more *at home* in terms of dealing with environmental processes, and perhaps encourage physical geographers to further engage the complexities of multinatural (Latour 2004; Lorimer 2012; Brettell 2015) relations. All in all we will critique a sedentary view (Doel 1999) of the world (a fixing *in-place*, landmarking, signposting etc) which will take us towards a need to further ontologise freshwater worlds and open up their volume into more multiple dimensions (Braun 2000; Elden 2013; Steinberg & Peters 2015). In turn we shall realise that a focus on embodied and affectual engagements with freshwater are still largely overlooked in geographical literature, and that the nonhuman agencies and *matters* concerning water are of great importance in revealing how encounters around water happen.

When all of this is taken into account, we then need to ask ourselves, how can we make sense of the source? How do we express the connectedness between bodies amongst the river system when it is considered to be inherently structural? How can multidimensionality play a part in this approach? What does this mean for how we engage-and-become-with freshwater? What language and rhetoric can be employed to elucidate the processual characteristics of the source and its associated watery bodies? The answers to some of these questions will come from a critique of pointillistic tendencies (Doel 1999), the spectralities of Derrida's *trace* and centreless-centres (1978, 1997), further exploration of the usefulness of entropic thinking, and an acknowledgement of the benefits of having a more multidimensional view of the world with height, depth and volume added to the 2 dimensional planes of consistency, all of which will hopefully emerge through a developing rhetoric which can be employed to

better describe the relational characteristics and processes of something so apparently bounded, structured and located.

This chapter walks a fine line here, like myself stepping out across the sphagnum bog to help a sheep I find these watery grounds uncertain. Steps are being taken across grounds that can potentially bring the disciplines of physical and human geography closer together through relational thinking. Later on the chapter will acknowledge the inherent ambiguities and uncertainties within geomorphological research and apprehend the relationships that take place around channel head initiation, and then from here we will engage once again the processual modes of entropic thinking as outlined previously in our exploration of the Ships Graveyard. Careful steps will be taken here, as it was Massey (1999) whom noted that whilst the dividing up of the world and scientific disciplines has become increasingly unsustainable, and that such slicing up is no longer helpful, we need to be very aware (from a geographer's point of view) of *looking up* to the harder sciences (physics in particular) as some kind of source of truth that can add impenetrable authenticity to our debates. She rightly points out that physics in itself is contested by the academics and researchers within its body, and they themselves are quick to acknowledge the unknown, the ambiguous and the uncertain. This type of envy or claim for a more relevant scientific status by any discipline therefore is flawed, instead we should perhaps all be recognised as *complex sciences about complex systems* (266) with our own strengths and weaknesses, nevertheless we have more in common than we probably realise. Physics especially – she suggests – and some aspects of geomorphology are moving closer towards the kinds of complex discussions that open up around more compositional approaches such as openness, feedback, reversibility and nonequilibrium. However, within this there are some fundamental rules of thumb that can be engaged when exploring the world, one of which being entropy.

The second law of thermodynamics states that things gradually move towards disorder where expenditure of energy is required to maintain order. Through this process things aim to expend their energy as they pertain to a state of least work (Bridgman 1943; Leopold & Langbein 1962; Prigogine & Stengers 1984). It is my position that an entropic approach towards riverscapes helps to develop the relationships between physical and human geography, as in the Ships Graveyard chapter where we drew upon this to understand how different bodily and material relations are bound up with motion and rest, move at very different speeds and necessarily involve moments of equilibrium, nonequilibrium, coherence and rupture, and multifarious spaces for emergence in-between. Through our very existences, experiences, encounters and expressions we understand inevitability, endeavour, struggle, energy loss/exchange; things die, decay, rot and rust, we understand that things have work to do, that motion and rest requires effort to maintain, things rub up against each other, bodies get old and tired, relations increase in intensity and then fade away, and that modes of existence are expressed through these passages and exchanges. If we therefore think about landscape evolution in this way, as being made up of bodies and modes of expression experiencing the same struggles and undulations between motion and rest, it becomes easier to grapple with.

The next section however will write something human (perhaps not explicitly) into this more-than-human ontology. We should remember that things are ordered in relations by acknowledging and being aware of correspondences of difference (Deleuze & Guattari 2004), and different relational configurations are constituted through differences between bodies and their speeds and slownesses. What is important here is how humankind has come to not only name a river and configure its character, and to represent it scientifically, but also consider what this *rivering of things* and the marking of a 'source' does for our geographical imaginations.

The stuff with which dreams are made

In 'Water and Dreams' (1983 [1942]), Gaston Bachelard takes us on a journey through the human imagination and elucidates how it is wrapped up with, awakened by, and enlivened through relations with watery bodies of various speeds and slownesses, clarity, depths and dynamisms. Largely through the writings of Edgar Allen Poe, Bachelard mobilises a flowing through of reveries and melancholies, joys and sadnesses, births and deaths with the multivariant characteristics of water serving as something that is somehow more-than-metaphor. Here, Bachelard not only describes the natures of water, but also uses the natures of water to describe and explain how people and their emotions engage with the world:

It is the blood of the earth. It is the life of the earth. Water draws the entire countryside along towards its own destiny. As goes the water, so goes the valley. (*ibid*: 61)

A powerful sentiment and one that reawakens our realisations of the importance of water in only a few words, but also we begin to realise water's agency, something Serres (2008) may refer to as an inscription, the essence of geography, the writing of the world. That it is really the procession of elements and processes that carves up and writes *on* the world as we come to know and interact with it. However, Bachelard's statement to some extent excludes the reciprocal relationships between water and the earth and the atmosphere as it somewhat prioritises the power of water. As we shall see later on watery landscapes become-with interactions between geology, atmosphere, hillslope, soil, there are resistences, crumbings, softening, temporalities which all act out as much as the flow of water. It is the interactions between all of these earthly bodies and properties that give watery worlds their character. Of course, water pervades, endures, persists and endeavours towards entropy and the base level, but how fast and to what extent? The course that a river takes is bound up with relations between its body and the world and is expressed as such. Bachelard is well aware of the endeavours of water though, the fall or

declination as Serres may say (2000), and relates this to his notion of the river and its source:

Despite its thousand faces, the river takes on a single destiny; its source takes both the responsibility and the credit for the river's entire course. The strength comes from the source. The imagination barely takes tributaries into consideration. It wants geography to be the history of a King. (Bachelard 1983 [1942]: 151)

There are no real geomorphological epistemologies and knowledges within this statement, and that is not Bachelard's intention, what he is trying to do is to describe the role of the source and its power is largely derived from our imagination. He infers that we dream of the source in terms of a legendary origin, a far-off place, a making real of the forces of nature that plays upon the complex sensualisms of our material imaginations. Within this the *need* to feel it, touch it, taste it surpasses the pleasure of actually seeing it. So in terms of a human urge to discover, journey, conquer and climb, the source holds rare and special qualities that hold more potency in the imagination than actually being there. From my encounter with the sheep at the top of Plynlimon my imaginings of this place as an eternal spring of freshwater were soon surpassed by the *pleasures of the bog* (Taussig 2003) and its misty, miasmic and messy reality, nevertheless, I still felt the power of the call to it as I journeyed, and also experienced a sense of achievement when I arrived.

'In Search of Lost Time', Marcel Proust (2005) also engages the human imagination, spirit, memories and dreams as he continually attempts to reach the always-elusive truth of things. Proust writes beautifully about landscape, an element of this seminal work which is overlooked in geographical ontologies and philosophies as it tends to be superseded by his writings on voluntary and involuntary memory. For Deleuze (2000), what emerges from Proust's work isn't necessarily a remembrance of things past, nor thoughts and reminiscences of a life and how it should have been

lived, but lessons for the future, all of which orbit around socio-cultural-environmental triggers and signs.

Water features heavily in Proust's texts, not least for the ways in which they are written as their flow continuously varies in speed; each passage is always connected; there is a streaming, a rivering of experience, thoughts and imaginings, but also, he describes his fondness of walking by - and being next to - the River Vivonne near his parent's house. For Proust the landscape and its essences (e.g. the scent of hawthorns, the colours of blossom, distant steeples and the garden) act as keys which unlock streams of thought and memories, positioning the body as always-amongst and becoming-with its environment. Here, anything that appears fixed is immediately fugitive, unreachable, and to search for its centre inevitably leads elsewhere. In relation to Bachelard's reveries, for Proust also the source holds mystical, mythical qualities:

Never, in the course of our walks along the Guermantes Way, were we able to penetrate as far as the source of the Vivonne, of which I had often thought in my mind so abstract, so ideal an existence that I had been as surprised when someone told me that it was actually to be found in the same department, at a given number of miles from Combray, as I had been when I learned that there was another fixed point somewhere on the earth's surface, where, according to the ancients, opened the jaws of hell. (2005, vol. 1: 205)

Here the reality that a far-off place in the imagination could be so near, and actually exist is difficult for him to comprehend and so it becomes suspended in a mystical world. The reality of even the most apparently permanent and immobile of landmarks still cannot penetrate the imagined geographies of the human and the elegiac capacities of the riverscape.

Proust also maintains that every forest, every mountain and every stream has its deity and if we were to ever meet a person who shares such a name, the magic and

mystique of the element of the environment would become lost, clouded and confused. In the case of the Severn, I hope I never meet anyone called *Sabrina* - the Goddess of the Severn - the name given to the river in Celtic (Brythonic) mythology around the time of the Iron Age. The legend goes that Sabrina was one of three daughters of Neptune (God of the sea) whom as water nymphs attempted to find their way to see their father from the top of Plynlimon. One took the most direct route, headed west and became the River Ystwyth, another headed south through rolling hills following her love of the countryside and became the Wye, whilst Sabrina took a path that would take in as much of the Island as possible and so became the longest river in the United Kingdom at 220 miles. There are numerous statues, gardens and footpaths along the route of the Severn that pay homage to her legend (Llanidloes, Shrewsbury and Worcester for example). However the name of the Severn is slightly contested, Hafren as it is known in Welsh means border and as such denotes the extent to which the Romans had control over the Ancient Britons, and Severn, as it has come to be more commonly known is a derivation of Sabrina, which appeared following the dissolution of the Roman Empire. But also, as well as in myth, Sabrina existed in reality as the secret love child of an Ancient British king, Lochrine, whom was drowned in the river by his jealous wife (whom incidentally he was forced to marry). His wife, Gwendelen, named the river after her to serve as a constant reminder of her husband's infidelity and dishonesty. The tale of which is described in John Milton's, *Comus* (1634 [2000]):

To the ocean I now fly,
And those happy chimes that lie,
Where day never shuts his eye,
Up in the broad fields of the sky.

To name a river objectifies it, and can perhaps be viewed as an attempt to fix its location in spacetime, to define and finalise its character. But as we can see here a

river's name shouldn't be seen as a fixed thing as they are never complete, and always-becoming albeit in a quasi-stable state. It is difficult and confusing to trace the origins of the name but within this name, whether it is Hafren, Sabrina or Severn we find an expression of the relations that have served to configure its character. Within a river's name there is a rivering of encounters, a becoming-riverscape embroiled in human, nonhuman, material, elemental, actual and virtual lives. This gathering in and dispersal of bodies of flesh amongst this freshwater-scape is a theme central to this project more broadly, but is always encapsulated in its name. So the name here should not be seen as completeness, but rather one mode in a chain of systems, differences, context and relations (Derrida 1978, 1997), not a centre therefore, but an opening-out.

To pinpoint *the source* may well appeal to the human imagination and establish a comforting landmark, a cosy geography in which things can be *placed*, but what the source actually implies is a mode of expression, a becoming, and although to us appears slow, is always in motion (Spinoza 2001). As Gilroy would infer, it is not the *roots* which should be taken as givens, but the *routes* along which relational processes emerge that should be of interest (1995). *The source* is a cultural thing, and only really exists in language, rhetoric and a cartographic, structured view of the world. Such pointillistic (Doel 1999) tendencies are something we need to get beyond if we are to begin to ontologise and topologise something that is inherently topographic.

River system structure

So how is the river structured? How do its complex and fluid forms come to be understood in ways that can be translated to people exploring geography and encountering the world? What does this system of understanding do for our knowledge of river systems? How can we reconfigure these knowledges to afford and mobilise a more relational view of fresh water? Let us begin by reflecting back on our early days as geographers, to our days of sitting in a classroom and working through a

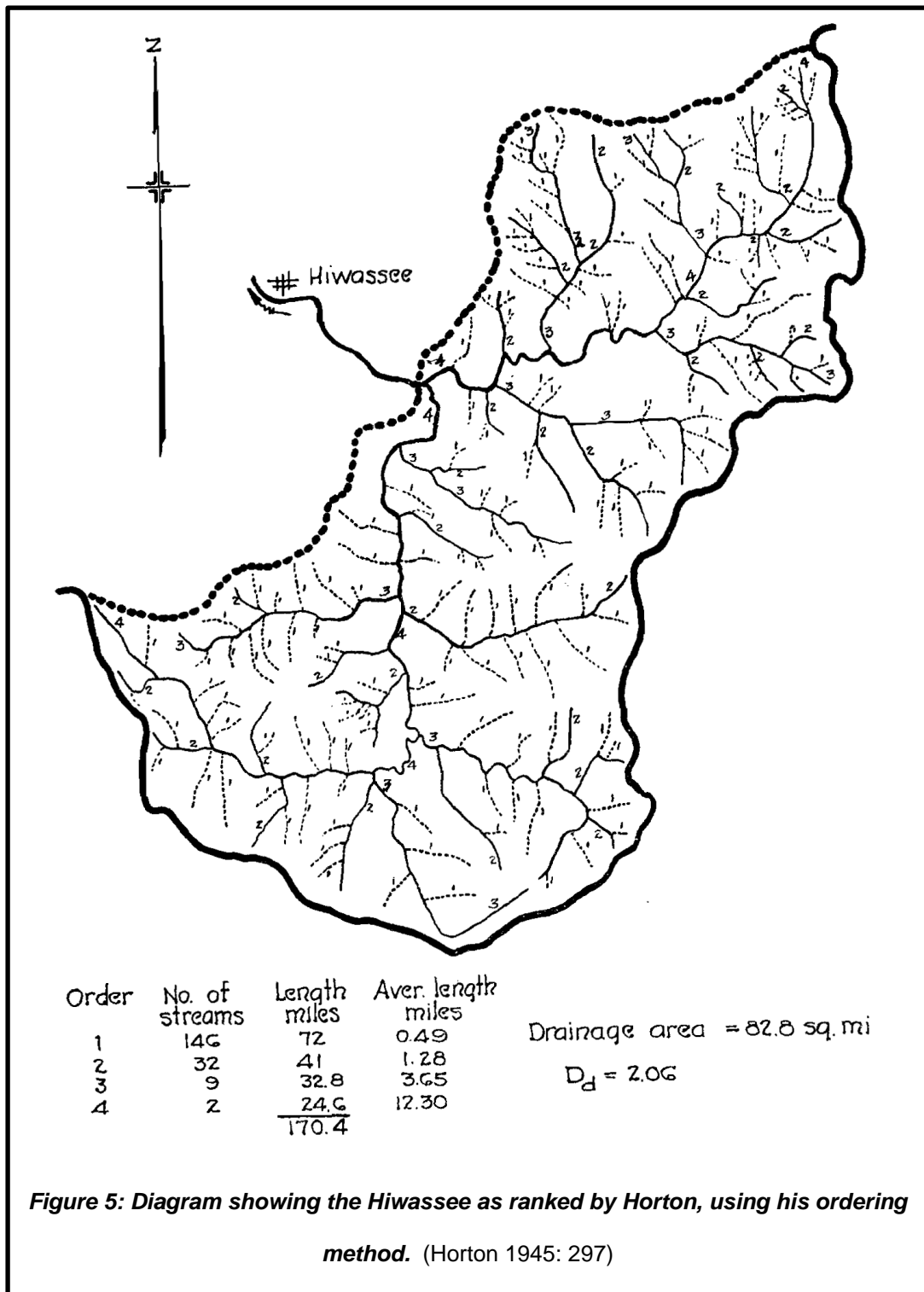
key text book. I remember being taught, and apprehending that a river system is divided up by stages relating to an ageing process - youthful, mature and old age - within which the river was only doing, or being one thing. For instance the youthful stage is characterised by steep sided, V shaped valleys, steep gradient, lack of floodplain etc., the mature stage has a more U shaped valley, medium velocity, narrow floodplain etc., and the old age section is slow moving, with a broad floodplain, shifting masses of silty sediments in suspension. Here we begin to see some of the general rules associated with river systems beginning to emerge, and of course, such representations afford an understanding of the different characteristics and elements of different stages of the river. There is then a hierarchical and linear understanding of a river represented through teaching, a story of birth and ageing, of growth and development, but these tripartite divisions of young, mature and old sit somewhat uneasily amongst the multi-faceted riverscape. Valley form does change as we move downstream, and the things the river does change also, but there are flows within flows, moments of varying velocity, deposition does occur in the youthful stages despite erosion being an overarching process. The parts of the system, make up the whole, so if we divide the river up in this way, we begin to lose sight of the inherent dynamisms of the river and can't fully engage with the micro-topographies of the channel and how these affect moving waters and contribute to the overall system. To categorise the river in terms of age also seems too simplistic and somewhat contradictory, given that the *youthful* stage is actually the oldest in geomorphological terms as it is the river's earliest taking-form. Also, to reach *old age* at the estuary where the river mingles with the sea shouldn't be considered the end or death of the river, but an opening out, a more apparent connecting with the broader global hydrological cycle.

Moving further on through our education to undergraduate level, we begin to encounter fluvial geographies as more complex, and we also begin to have revealed to

us through research papers the ambiguities and uncertainties inherent in studies of landscape evolution. Rather than ageing and structuring the river, we begin to learn more about what the river does, how it behaves and what its capacities are in much more detail. We begin to talk more about collection, transport, dispersal and the associated characteristics of sediment load and erosion, thinking more about how channels behave in relation to flow, velocity and gradient. The literature begins to acknowledge some shortfalls in our understanding of drainage basins and rivers. For instance, it is impossible to imagine every tributary, the tributaries of tributaries and every drainage channel that contributes to the overall body of water of a particular river system. Beyond that, most of the earth's surface is a system of drainage, and every basin, every river, every channel is different, but river knowledge is also based on general rules. These generalisations are based upon linear relationships that we come to understand as applicable to most river systems, despite their varying characteristics. We know for example that the number of tributaries decreases downstream, that the length of tributaries increases downstream, we know that channel gradients decrease downstream and that channels get wider and deeper, we can also observe how the size of valleys is proportional to the stream, and this too, increases downstream (Hamblin & Christiansen 2001; Summerfield 1991). But the approach of this chapter seeks to get beyond this and realise a more flattened ontology (Deleuze & Guattari 2004; Marston *et al* 2005) and envisage a river as mode of expression of the emergent accumulations of its relations.

To further understand such linear relationships we can refer to an idea initiated by Horton (1945), later developed by Strahler (1957) which classifies and ranks the order of streams (Fig. 5). Each perennial headwater stream is ascribed an order of 1, at the confluence of two first order streams a rank of 2 is reached, where second order streams converge the system reaches an order of 3 and so on, until you are left with the main channel with no more notable confluences. If the last rank was 6 for

example, the system is then referred to as a 6th order stream, which thus gives an idea and representation of the overall scale of the network. According to Horton, we also



know that stream length increases the higher up the order (Leopold & Langbein 1962). Definite mathematical relationships such as this also characterise the relationship between gradient, tributary size and the valley, but what they don't do is tell us much

about the place based characteristics and processual relations that may take-form around these watery bodies and the riverscape. For example, I think about where the Clywedog meets with the Severn in Llanidloes, what number it would be in the rank I don't know, but what I do know, is that under the shadow of a statue of Sabrina who has had dried flowers and gifts offered to her feet, you can sit amongst dozens of mallard waddling and paddling around beneath the Long Bridge and observe 2 different colours where the waters converge. The much darker shade of the Clywedog gradually dissipates and dissolves into the lighter shades of the Severn. Of course, we could analyse and measure the sediment type and load content of the channels and compare them, and we could probably explain the variation by considering different geologies further upstream, and how the Clywedog passes through a dammed reservoir, and consider the different capacities of the channels etc. But that doesn't express much to me about the experience of being here, sat next to Sabrina.

We can quantify and compare river systems, but this tends to block pathways towards a more nuanced understanding of their relationships, processes and characteristics. This also makes me wonder about the types of baggage we carry around as geographers. In doing this project and walking the riverscape I have often found myself consciously undermining any knowledges that I have about landscape processes and landforms in order to subject myself to the affective intensities that are replete in the landscape. What I have found though is that these knowledges actually inform and shape the affectual experience, and in instances like the Ships Graveyard and the 'source' have actually helped to give substance to the experiential narrative that has ensued. What I am opening up to is a phenomenology of physical processes, a range of sensations, experiences and encounters mobilised by a positioning amongst dynamic and fluid landscapes, an awareness of a growing connection to the mobilities of the world, its surfaces and textures.

The Froude number enables us to distinguish different flow rates, and the Reynolds number allows us to measure flow rate as a ratio between molecular viscosity and fluid density (Summerfield 1991). It is all well and good measuring rivers and attempting to quantify the chaotic, and ascribe a pattern to that which exists in a free state as this enhances our understanding (though never completed) of channel-water relationships. But what does this tell us about the significance and the meaning of the river to bodies which perceive and encounter it? Such measures and ranks externalise the river as object, therefore the suggestion here is that the river is an active subject, acting out and being acted upon, always becoming and responding to its environment and the infolding and unfolding relations between water, bodies, matter and climate. Although water is recalcitrant, stubborn and persistent (Linton 2010) it too is subjected to fields of forces and relations that span geologies, environments, politics and communities. Water becomes what it is through forming relationships and carries meaning and significance to those who encounter it. Whether stood by the river watching it relentlessly flow, or at the top of Plynlimon feeling the weight of the drainage basin, or paddling barefoot in the cold stony stream, these are experiential, embodied moments that tell us far more about the river's character than measures and rank, and brings us and the river closer together as bodies on the move, all subjected to the same earthly processes, and made of the same essential stuff (Spinoza 2001; Lucretius 2007).

As I alluded to earlier, considering entropy and the inevitability of things is one of the ways in which cultural, more-than-human and fluvial geographies can meet and begin to apprehend each other. At the Ships Graveyard we found that thinking in terms of entropy and probability enabled a way of understanding landscape evolution not just in terms of non-linear relationships, but was framed in nonhuman agential capacities such as endurance, persistence and endeavour - as were our puddles. We also find ways to consider the movement of the landscape as experienced by

multifarious bodies, rather than through being measured and quantified. Following Leopold & Langbein (1962), Bridgman (1943), Prigogine & Stengers (1984) and the work of Robert Smithson we can begin to make sense of the chaos by not only acknowledging some of the generalised patterns of the world, but also recognising that states change. And within open systems such as a drainage basin, reversibility and non-linearity does occur, heat is lost and energy is transferred in ways which confuse any hierarchical structuration ascribed to things, and brings us closer to understanding things from the inside-out. Geomorphologists acknowledge that not one part of a river acts as a separate entity, but the system functions as a unified whole where a change of state in one part affects another. For Leopold & Langbein (1962) the river is *hydraulically indeterminate* as it continually adjusts its depth, width and velocity to a slope as necessary to form its profile on the basis of probability. With these changing states in mind, rivers continually adjust to reach a state of maximum entropy, of least work, where neither deposition nor erosion occurs. Here in this steady(ish) state of dynamic equilibrium the rate of increase of entropy is zero, and despite some reversible actions taking place and some temporary *moments of coherence* at base level existing (lakes, reservoirs, pools) they have no effect on this continuity, on this persistence of the river. So indeed, the river will always endeavour to reach base level, but within this the moments of reversibility, of sudden heat loss and energy transfer (such as flooding, bursting banks, collapsing of earth) and unpredictability mobilise the river's character and identity.

Rivers endure, endeavour and persist to do the same thing, to reach base level, but the Severn is not the Wye and the Thames is not the Humber and the relations that infold and unfold around them as they pertain towards their most probable state make it quite difficult to talk about the stages of the river in terms of rank, value and importance. The types of collectives that take-form along this stretched out assemblage will vary in terms of what types of bodies of water and what speeds or

slownesses they connect with or where in the riverscape they gather, as such it is differences that are of interest, rather than any notions of value related to structural idealisms.

In light of this relational approach to freshwater following our outline of the river's linear relationships, it is now pertinent to explore how the geomorphological disciplines engage with ambiguities. This may be the key in moving away from a framework of linearity, general rules and structure. Of particular interest here is how geomorphology considers what is referred to (culturally and rhetorically) as the source, and how this begins to reveal the differences between geographical epistemologies and cultural understandings, in so doing begins to reveal what the source means, and how we may be able to think about it differently. How then can we incorporate uncertainty, nonlinearity, relationality, processuality, multidirectionality, multidimensionality to the inherently structured and progressive regimes where the epistemologies set in place speak of order, rank and lineage? Perhaps measuring and quantifying offers up a certain comfort, cosiness and idea that despite the recalcitrant, unpredictable, dynamics of water-earth relations we can somehow make sense of it, and feel as if we're moving towards an always-elusive goal of predicting it completely, this may be the grail hydrologists seek, but it is a process of abstraction that removes them from a subjective position and thus from any notion of becoming-with water (as bodies do), and towards an objective position.

Channel head

In the disciplines of landscape evolution and studies of geomorphological and fluvial processes, you will rarely see the word *source* in terms of reference to where and how a river begins. Here their terminology begins to chime with this relational ontology and we find descriptions and analyses of *source areas* (Montgomery & Dietrich 1989), where the *channel head* is framed as its furthest reach. However the channel head is susceptible to change and migration through processes of headward

erosion, so there is therefore an acknowledgement of a lack of finality regards locating where a river begins, and of an always unfolding, open-ended relationship between water and land. There is also an awareness of the inherent difficulties in predicting where channels will be initiated, however attempts to do this continue to contribute towards an understanding of the relationship between water, hillslope processes and the properties of the drainage basin (Montgomery & Dietrich 1988). Channel head locations have come to be recognised as being controlled by the relationships between water and hillslope processes, rather than simply the extent of their headward erosion (Montgomery & Dietrich 1989). Streams will always attempt to cut into the land, and the initiation of a channel could be defined as a transitional phase where processes of incision begin to exceed an erosional threshold, thus allowing a channel to *take-shape*. This is where incision occurs should the flow of water become concentrated enough (Summerfield 1991). Here the hydrologic responses of a basin are inextricably linked to geomorphology, and are expressed as a function of geology and climate (Istanbulluoglu *et al* 2002; Willgoose *et al* 1991), and in turn channel initiation and erosion is a key factor in the evolution of mountainous landscapes (Imaizumi *et al* 2010).

A river's time of origin therefore could be the earliest date at which a continuous stream began to drain a particular region; however, different parts of a river evolve at different times and at different rates. It is improbable enough to consider locating the beginnings of channel initiation in time and space, leave alone making any claims to when an entire system began to continually drain a catchment area. There may even have been a drainage system (or many) preceding what comes to be known as the body of water now draining an area, and we must consider that the river which is now there could not have evolved without any relation to the preceding system (Hamblin & Christiansen 2001), origins and sources are therefore fugitive. There is an inherent problem with a quest for origin, in that there is always a preceding step (Derrida 1997;

Foucault 1984), and a river develops in context, and there is no context without relation (Derrida 1978, 1997), '*a river's history is a history of landscape*' (Hamblin & Christiansen 2001). Or rather in the context of this chapter, *a river is a mode of expression of the changing and shifting spatio-temporal relations of water, ground, atmosphere, materialities and bodies.*

Following initiation and incision channels may become maintained and enlarged where a critical depth has been reached and erosional stresses of water exceed the resistance of the surface. However it is widely noted that predictability and certainty are incredibly difficult (the latter being impossible) to work with, and that:

The system of hillslopes and channels that form a drainage basin and shape its morphology and dynamics is the result of a complex interaction between climate and soil through erosion and sediment transport. (Roth & La Barbera 1997: 329)

As we have seen, despite the rules of thumb previously outlined regarding what a river becomes as it moves towards base level, and the quantitative underpinnings of physical geographical concerns, we have actually opened up a discussion on relationality (hillslope, climate, soil, flow, land use, endeavour, entropy), the ambiguities of *the source*, and have moved towards a *multinatural relationscape*. But the question remains, how far does that extend from the geomorphologists point of view? For more-than-human geographers there is a pertinent need to consider the mobile relations and configurations of bodies, matter, energies and elements, and perhaps entropic thinking and encountering the speeds and slownesses of freshwater helps us to do that, but how could this inform landscape evolutionary theorists and practitioners? I do not think I'm able to provide an answer to that question, but it is hoped that in reading this chapter they may begin to consider more the relational and compositional forces of things and the affectual experiences they bring to us and the river as active subjects, rather than framing the river (for example) simply as objects of study for quantification and comparison.

What's the point?

As we have considered the ambiguity and difficulty in locating and predicting the channel head within landscape evolutionary theory, and navigated relational approaches toward this ontology of a *rivering of things*, we could be forgiven for wondering why the source has to be pinpointed and located at all. On top of Plynlimon and across the plateau, I walked the flagstone path across the bog. Water in some form was everywhere, it was misty, the ground and mosses were saturated, moisture clung to every rocky surface, sweat was on my back and brow, the path was slippery and at times semi-submerged and heavily puddled, channels of water that seemed incidental were everywhere and persisting to make their way across the squelchy surface. And there, piercing the mist is a purposefully placed timber stake, cut, shaped and embossed with words proclaiming the 'Source of the Severn' with Welsh on the other side 'Tarddiad Afon Hafren'. Of course I walked here with some of the ontologies of the project in mind, with my unzipped body open to the elements where I would become riverscape. However, as I approached the stake there was something I could not escape, and that was a sense of achievement, a small surge of adrenalin pushed me on as the sign came into view, the sheep ran on ahead (and we know what happened to that) and I felt a little emotional, this was arrival, accomplishment, I had *made it*. Admittedly, my journey wasn't as difficult as it was for Brian Waters (1949), nor was it the near impossible task that required a local guide as it did for George Borrow (1919). My path was laid out, waymarked, and I also had a recent Ordnance Survey Landranger map for added security, but I still could not escape this sense of achievement through arriving at the source. The energy up there is palpable, both in the form of what you have expended to get there, and in the pressure of the basin at this altitude, you can feel the gravity and brevity of this watery space.

And at this juncture this is what I would like to point out, that in all of our efforts to understand landscape evolution and to explore the multivariant relations of more-

than-human geographies, we at times forget about what it is that makes us human. One of the things that could be considered to be human (perhaps not explicitly) is our desire for a quest, the pleasures of journeying, of simply going from *a to b* for no other reason but to enjoy moving across spaces and experiencing the encounters that ensue. This leads us to a need to landmark, pinpoint, signpost in order to make reference to our human connections with landscapes and spaces, our journeys and our conquests. From placing a flag on the top of K2 to naming positions on the North face of the Eiger after the struggles and deaths which took place there, to passing a 3 miles to go sign and looking across to the horizon, to a destination that must be reached before nightfall and so it goes on. This sign for the source then, this landmark is unashamedly cultural and on writing this now I'm not even sure if there's anything wrong with that. The sign tells a story of what happens when people and water journey together, there are of course fluid meanings and narratives wrapped up with that. The sign itself perhaps isn't static, and is only secondary (Derrida 1997) and as it too undergoes mutable modes of expression and interpretation, it is the intentionality of the proclamation of a *landmark* that is brought into question. There are undoubtedly tensions within a proclamation of source and origin, and to get around this perhaps brings our fleshy bodies and watery bodies closer together. There is something about landmarking the source that still smacks of imperialism, modernity and conquering the land, a subtle continuum of the nature-culture binary, and a marking of boundaries and it is this that we need to get beyond here.

Perhaps *the source* is something we are never supposed to find, and it is better off swirling around in a Proustian imagination as an always elusive, mystical, far off place to be imagined as Bachelard might. The notion of a source taps into our *wanderlust* (Solnit 2000) and the types of geographical imaginings that set us off on our journeys of discovery and encounter as we crave contact with the world and its earthly themes. There is also our pressing need to make sense of the world around us

and in many of us a *quest for origins* helps us to do that, helps us to apprehend where we are and how we got here through understanding our connections with the past, up to a point in our minds where it all started (despite the falsehood of it). Many have followed this desire to explain processes of discovery and settlement (Howe 2003), cosmology and the origins of life (Guth 1998; Hazen 2005), religion and culture (Bryant & Bryant 2001; Eliade 1964, 2013) and what they are essentially doing is looking for answers. It is the suggestion here though that these are answers to rhetorical questions because the true, absolute origins of something can never be reached and there is always a preceding step. But this type of relational metaphysics sits uneasy with many of us, and so it is that we fall back into a more cosy geography where landmarks and reference points remain fixed and immobile and act as anchorings that allow us to connect together our knowledges of the world. However, as we shall now see such a sedentary and topographic view of the world leads us towards pointillistic expressions of spacetime (Doel 1999), which are inherently flawed. As Braun (2000) suggests, nature is entered into history through cultural understandings (like landmarking the source), but these understandings aren't so easy to comprehend when looked at more closely. This will then allow us to move towards our reontologisation of the *source* and propose how it is that we can perhaps better think through its 'position' in a world of flux, velocity, turbulence and process:

Place is nothing if it is not *in process*. (Doel 1999: 7)

For Marcus Doel the problem at the heart of geography is not so much thinking of everything *in its place*, but rather the fixation of everything *in place*. Such a pointillistic view of the world overlooks, bypasses and ignores the relationalities through which things (places, identities, bodies, materialities, diseases) are constituted. What actually *takes-place* he suggests is '*neither situated nor contained, but is instead splayed out across a myriad of vectors*' (1999: 7). Referring to an earlier discussion in this chapter we once again reflect on *places* as moments of coherence positioned

along trajectories and lines of flight, where certain relations between bodies at motion or at rest has composed and constituted congregations that are in themselves always open-ended and process, being made, unmade or remade. Doel suggests that to grapple with this we have to work with the realisation that '*geography is expressive (it is either becoming or unbecoming) rather than expressed (by a being, milieu, substance etc.)*' (*ibid.*: 117). It is therefore impossible to conceive a position that is not already a relation, and as such pointillisms that abruptly and impolitely punctuate a *smooth space* give way to an origami of infoldings and unfoldings (Doel 2000; Doel & Hubbard 2002). The map with which we have comfortably represented the world has been crumpled and scrunched up, folded in on itself and thus relations which were once thought to be distanced are pulled together, others are fractured, displaced and ruptured. Whatever happens to or becomes of relations, these foldings and crumplings are always opened out to infinity. Our 2 dimensional representations thus become multi-dimensional and textured and *the source* in itself is such an origami, a folding in and scrunching together of environmental, elemental, geomorphological, historical, watery and bodily relations which opens out to the persistence, endurance and endeavours of the *rivering of the Severn*. As we shall see later on in the chapter, ontologising wetness as multidimensional also helps us to get beyond the pointillistic articulations of *the source*.

As we have seen origins are always–already enmeshed in language, rhetoric, cultural ideals and geographical imaginings, however texts and inscriptions are an open field of forces where every sign leads to another (Deutscher 2005). This need for orientation and the resulting pointillisms are intended to ensure senses of balance, stability and centredness. For Derrida, the *centre* serves to limit the potentialities of play within the structure (something deep rooted in Western philosophy) so by giving something a *centre, point* or *an origin* the structurality of a structure is neutralised and transformation ceases to be possible. The centre then is the defining structure, but

here's the rub, the centre itself escapes structurality. Structure *is* centred and has a centre, but the centre is not structure, it is both internal and external and is where infinite sequences of signs and substitutions come into play (Derrida 1978), it is mobile. The river system then, as a structure, has a centreless centre, or rather an infinite series of centreless centres which take infinite varieties of forms and take on infinite representations and meanings. In this decentring being and truth give way to play and interpretation, a continual shift between absence and presence shaped and constituted by relationality, context and difference. Here origins become traces but the origin did not disappear, it never actually existed (Derrida 1997). There are only ever traces, an origin of an origin of an origin and so on. Origins never completely take-form, they simply articulate possibilities, just as *the source* will never completely take-form, but instead will continually articulate possibilities for the *rivering of the Severn*:

The water hole is at the frontier of passion and need, culture and the earth. The purity of the water reflects the fires of love; it is 'the pure crystal of the fountains'; but water is not only the transparency of the heart, it is also its freshness: the body - the body of nature, of the herds and their barbaric shepherd - *needs* it in its dryness: People are less able to do without water than fire. (*ibid*: 267 *quotations in original*)

We now begin to move towards how we can more coherently articulate descriptions of the source and ontologise its pointillism. Through his readings of Nietzsche, Foucault also recognised that what we find at the beginning of things is not their origin, but the conflictual relations of other things from which difference emerges. Rather than a 'quest for origins' he prefers a process of genealogy, which whilst it is not opposed to history, it is opposed to the concept of an absolute origin. This acknowledges the multidirectionality of things; how things lose and change meaning and allows us to explore sites of struggle. This in turn opens up the possibility of processual relations making manifest particular events with no final conclusion, where

there is a preceding step. Along such lines of inquiry, to name a source is to block a pathway to understanding:

The origin lies at a place of inevitable loss, the point where the truth of things corresponded to a truthful discourse, the site of a fleeting articulation that discourse has obscured and finally lost. (1986: 79)

A genealogy then is not the immovable foundations on which things are built, but unsettles that which was previously considered fixed and immobile. Within this there are possibilities of eruption and stages of forces from which things can *emerge*. '*Emergence, the moment of arising*' (*ibid* 83) however implies a certain *boundedness* (Malpas 2012) as there has to be boundedness for there to be an openness into which things can emerge into, so for Malpas 'places' are at once bounded, and also open and dynamic. Relationality in turn then implies boundaries as the possibility of relations depends upon them, but that it is not to say that we should foreclose the potentiality of relations by limiting a field, such as a river system or the moment of coherence from which it emerges in relation to its environment (the source). Within relationality and difference we have to consider the extent of a body, the surficial qualities of things that allow for an interfacial zone of friction, exchange, conflict, feedback and process. So despite *setting a scene* or fixing a landmark, there are already-always- infinite possibilities of unfolding relations, and there are always preceding sequences through which events took place to make manifest the possibility of relations in the here-and-now. Genealogy as a process, and emergence as a moving towards, are terms I am more comfortable with than claims for origin. The *Emergence of the Severn* (rather than the Source...), or of any river already has within it notions of a *moving towards*, rather than a fixing in place. However I'm not sure they'd be able to fit that amount of letters on the wooden stake on top of Plynnlimon. For Massumi (2002) and Harrison (2000) emergence allows for contingency, fluidity and openness to be expressed, and means that things are no longer located in terms of *this* or *that* but are always-ongoing

processual becomings. For Harrison 'it is from the active, productive, and continual weaving of the multiplicity of bits and pieces that we emerge,' (*ibid*: 502) as does the river, or any other body for that matter.

Take your plane into another dimension

We have already touched upon the importance of considering multidirectionality, not only in terms of the flows of water and elements, but especially in envisioning the trajectories along which moments of coherence become relationally constituted. This chapter will now extend this idea further and begin to consider multidimensionality as a way of getting beyond our conceptualisations of water as we know it, and the pointillism of the source. In proposing a *wet ontology*, Steinberg & Peters (2015) not only intend to advocate an understanding of the world as composed by and with flows, connections, liquidities and becomings but also suggest how we can (re)imagine a world on the move through the distinctiveness of water's materialities. They are writing about the *turbulent materialities* and depths of the sea, nevertheless their approach chimes with this chapter. Their proposition and challenge is to consider ocean multidimensionally as a shapely pattern with volume, depth, matter and emergence. This need to multiply territory and to add volume to what have been largely terra-centric and 2 dimensional geographies will begin to take into account moments of reach, instability, force, resistance amongst the voluminous, spherical qualities of space. The recognition here is that water is simultaneously depth and surface, a space which is difficult to grapple with as it is constantly on the move and reproduced by mobile molecules.

Adding verticality to watery dimensions amplifies the potentialities of relation (Bridge 2013), but within this multidimensional approach Bear & Bull (2011) suggest that there is a pertinent need to remember water in all its forms (condensation, moisture in soil, atmospheric molecules etc.). It has already been pointed out that the bog from which the Severn emerges is a diffuse space (Taussig 2003) of mud, land

and water, and whilst the pool at the top of Plynlimon may be exceptionally slow moving, it is still mutable and fizzing with molecules. Not only that, but bubbles which rise and burst at the surface hint towards its subterranean depths, the extent of which may never be known. The soggy bog stretches out in each direction as I stand getting gently saturated by a mist which thickens the air and dissolves the horizon. I'm looking at my blackened hands and muddy boots, remnants of my relational struggle with the sheep and the pool and I'm wondering about this space and its multiple dimensions and the trajectories that cross here. If we consider the multidirectionality and multidimensionality of *the source*, suddenly, instead of standing by the stake focused on the pool we look into its murky depths, out across the bog and up into the sky. Suddenly we no longer have a *source*, but *sources* of the Severn where multiple speeds, slownesses, materialities, bodies and processes are all taking flight along ecological, geomorphological and elemental vectors and flows, coagulating here in a moment of coherence. Perhaps it is this tuning into other dimensions that gets us beyond this pointillism.

The sources of the Severn and this rivering of things are all at once in the air, of surface and underground, simultaneously local and global, slow and dynamic, all connected, everywhere and everywhen, but coherent here, where the body of the Severn is made manifest through this relational co-constitution of earthly, bodily and fluvial processes. This watery body is an emergent accumulation of congregating elements and properties, substances, matter, atoms, gravity, entropy, wellings up and sinkings down, constant and continual passings through.

This is a terminus, an energising (Manning 2012) where the Severn emerges not through an already constituted position, but through the possibilities of rivering articulated by the relations between hydrology, hillslope and the water cycle, and like the Severn, now I have passed through here, I must walk on to Llanidloes...



I am quite purposefully not writing a conclusion or a summary as I feel it befitting of the insinuation of this chapter as passing through a moment of coherence, and being folded into a relation with the source to leave it open-ended. It is hoped that here I haven't just written about water, but have done it in a watery way, with variances in speed and slowness, motion and rest, equilibrium and non-

equilibrium, but always flowing, and returning occasionally to the coherence of this muddy pool on top of Plynlimon. I will however turn away from the pool with this quote in mind:

All materiality is fluid in the end, even if some materials flow at slow speeds and run through rhythms that beat over millennia rather than years, days or seconds. And all flows are complex in that they intersect with other flows and create multiple speeds, durations and rhythms within relational processes. (Jones 2011: 2297)

'Now, where did I put my bag, oh, it's wet...'

Walking-With-Proust: Bridgnorth to Bewdley – Day 1, to Hampton Loade¹⁰

I worked my way down from High Town, hurried by the hill and pushed on by the weight of my rucksack. I was keen to get moving given the uncertainty of the time it would take to reach the overnight camping stop at Hampton Loade in good time to pitch the tent, eat and get refreshed. I was also keen to arrive there before the Hampton Loade ferry ends its services for the day. I'm already fairly familiar with Bridgnorth and its importance as a port in the Severn's history and its contested ownership from the 11th century onwards. Much of which is apparent in the remnants of the castle, which was a site of battles and high tension between the Parliamentarians and the Royalists who were in residence around the 17th Century, under the governance of Sir Robert Howard. Howard would eventually surrender the castle to the Roundheads following their attempt to take the town and tunnel under the castle (the entrance cave can still be seen today) to set off a large mine near the Royalist's ammunition store. The sound of picking and digging put too much pressure on Howard who feared for the extensive loss of his townsfolk. This subterranean assault is perhaps the reason why the remaining North tower of the castle leans at an angle greater than the towers of Pisa and Caerphilly castle (Gwilt 1998). It looks very ominous and imposing as it now stands in the grounds of Pleasant Park, a well maintained garden and gazebo which overlays some violent scenes of war and arson, through which many were injured, killed or lost their home within the castles grounds.

Bridgnorth, now somewhat more peaceful, is comprised of Low Town and High Town which are separated by the Severn and its bridge, which is said to have been there since the 12th century (this too was also a contested site and endured periods of destruction and reconstruction as attempts were made to control the movements of opposing forces). There is a mixture of period and contemporary architecture and

¹⁰ All images by the author. These fieldworks emerged from a three day excursion, walking from Bridgnorth, Shropshire to Bewdley, Worcestershire, with two overnight stops (one camping stop: Unicorn Inn, Hampton Loade and The Woodcolliers, Bewdley), 10th-13th August 2013.

many walls and buildings are adorned with signs and liveries that harken to a more industrialised past. In transition from High to Low Town the buildings cling to a steep



hillside and are woven together by steep cobbled streets, and for the last century the lower and upper sections of Bridgnorth have been connected by the oldest

and steepest electric funicular railway to be seen inland in the UK.

The bag already feels too heavy and I remember readying myself under the shadow of the bridge promising myself that I would travel lighter next time. On the Western side of the Severn I headed down the Severn Way, with the flow of water. The Severn and Shropshire were offering me something, a chance to traverse spacetimes, to reconnect with familiar terrains. To not walk here, or to not allow myself enough time to become furnished with such a welcoming familiarity, the kind you get when returning home (as fragile and precarious as it may be) would have been absurd and a fissure across the contract I had made with myself. I turned away from Bridgnorth knowing that not only would I return in a few days, but that I would also return again, for it never feels as though places with which we are familiar ever become completely extinct from our lives, and that furthermore, because of the bonds and connections made with the area, they would follow, and stretch out with me across topological space.

The river was my company, occasionally I would lose sight of the channel, either because of the direction of the path or the overcrowding shrubs, trees and Giant Hogweed that would line the banks and crowd the field boundaries in certain areas (quite often it was all of these things). The grassy sections I passed through played

host to dancing butterflies and darting damselflies, and my head seemed to be target practise for busying crowds of flicks of things. I had entered into a relationship with the path, both of us bound together by the course of the river. My body needed the body of the path and the body of water for security. Every now and again the path became vague and disguised by vegetation and so I would find myself craving a waymarking post, but the river was telling me not to panic for it continually assured me of the correct direction. Nevertheless to have the waymark signs turn you away from the river is at times somewhat disconcerting. Perhaps it was the Severn that was offering itself to me as a more trusted companion. Signs after all get defaced and from my previous experience of following bridleways in the open countryside of the UK, I am always slightly doubtful of the rate of upkeep and path maintenance that goes on. The Severn Way however, as a national path, should be, and does appear to be well looked after in terms of navigation.

Part of the aim of walking this section of the Severn is to pass through an area with which I am somewhat familiar. I spent a fair amount of time in Bridgnorth as a child and a young adult, mainly because it is the favoured bolt hole for people in the West Midlands on a bank holiday being only 12 miles away, a pleasant drive and set amongst an extensive rural area. It's also funny how things overlap, I actually carried out an A level geography project and its associated fieldwork in the area exploring the relative attraction and services of Bridgnorth and Wolverhampton for the village populations in between. Now here I am, initiating fieldwork for a geography PhD. Names like Quatt, Highley, Alvely, Hampton Loade and many others that appeared on the map were already familiar in terms of residual memory and I would be passing through them - or near to them at the very least - on this journey. Given these residual and perhaps fugitive memories that reside within me, I thought it may be interesting to see how these can be woven into a different journey, a sequence of new memories-in-the-making and how this process may encourage existing memories to emerge, and

inform the whole process. It may even be that some things which are rerevealed to me, are that which perhaps I had considered forgotten.

This walk then was to be done across 2 days, with an overnight camp stop in Hampton Loade at the Unicorn Inn (a public house with camping grounds immediately adjacent to the Severn), and the following day I shall arrive in Bewdley and will rest overnight at The Woodcolliers Arms before returning home. On this 1st day I felt busied, I had the urge to get moving, and as such I was so focused on heading along the right path; how time was unfolding; photo opportunities; the pace of my walking; the logistics of campsite arrival, so much so that I wasn't particularly aware of making new memories as they happened. It occurred to me that the act of walking itself may have a part to play in affecting this process, I was aware that existing and residual memories were not yet coming to the fore, probably because of the focus required when heading out on a long journey with a destination in mind. For this reason, I decided to allow my body to enter into this composition of relations with path, water and other bodies at an emergent, durational pace, rather than have a sequence of scores or performance inspired practises and routines. However, such scores may encourage the relationship to take-form and bring our bodies closer together through points of engagement, on the other hand, they may serve to be interventional interruptions that may confuse the process or guide it down a particular path. What I decided to do then was to leave the 1st day open to write, record, draw, photograph etc. as I felt the need, or when particular points of interest and associated affects would emerge and range over the experience. Then, on the 2nd day, I would set out a sequence of scores that I would perform throughout the walk and that would enable me to compare and contrast the different approaches and find which mode allows for a more coherent exploration and description of this body-riverscape engagement. On the 2nd day I would set an alarm to ring out every hour, at which point I would sit, wherever I may be and write, draw,

photograph, reflect and allow the documenting of this journey to unfold with the composition of particular sites.

Day1: South of Quatford

I pass over a short footbridge across a drainage ditch, which to all intents and purposes looks like an established tributary. The murky water reddened and tanned creeps towards the pouring Severn. The river body is quite wide and shallow here, moving quickly in comparison it skims over shallow riffles, bubbling and gurgling, the constant noise is almost deafening and I find myself drawn toward this nexus. Just upstream the waters are deflected around a bar of deposits; the flow twists and contorts as the velocities are deflected by the gravels and logs. Hurlled towards the bank the water rolls back as it arcs round towards the centre of the channel again. At this point where the water reels away and heads downstream from me, it meets the creeping water of the ditch. Some Severn water is pulled in to relation with it, the comparative stillness of the tributary becomes an obstacle, a pulling in of more vibrant waters, the Severn coils, goes back on itself just here, the opposing flows are visible, the main body presses on, but here where waters merge they push upstream, finding their way in.

A kingfisher propels from the bankside skimming over the confused flows beneath, its pearlescent blue flashes through the sunlight and it goes out of sight beyond great fingertips of willow tree playing with the water-air interface. Quatt isn't far from here, as is its infamous Cider House. I only visited there on a few occasions; if you're not a big cider drinker then it's just an overcrowded pub with a small choice of ales. But there is an association etched into my mind, Quatt, Cider House, Cider House at Quatt where, inseparable in my mind as they are, and after not having been for a number of years I was informed one bright, oppressively hot summer day (it was one of those hosepipe ban years) that a friend of mine's lifelong family friend, had been hit by a car in the lane that passes there and died on his way to hospital. It's one of

those shocking incidents that are forever set within a surreal tone, I knew him, but not well, and I wasn't there. I was there however to see the glazed look that came to settle in on my friend's face. His recovery wasn't helped in any way by the fact that he'd also lost his brother shortly before this, to suicide. So that's how I remember Quatt, hosepipe bans, A level geography and the look of irrecoverable loss on someone's face. Later on in life I would come to know how that feels, but would learn that it isn't any less surreal, perhaps it becomes more so. I can hear voices resonating up the valley from downstream and getting closer. I've made my way down to an area of shore, something anglers may call a 'peg', which allows them to sit and settle in a clearing from which to cast their lines into the water. They vary in size, and need only be wide enough for a fishing chair. This one however would be a prime spot and I'm padding around on it in bare feet, alone, taking a short break and absorbing the atmosphere. There's no mistaking the ceaselessness and relentlessness of the river here. The voices are above me and starting to cross the footbridge where I was paused a moment ago:

Any good mate?

Oh, I'm not fishing.

Not fishing? Oh right.

Just walking.

Nice day for it.

There seems to be an official form of introduction between anglers (or even those assumed to be anglers, like myself), where the concern is not how they are, nor do they seem to particularly mind who they are, rather they just want to know how the fishing is, what was caught, how many, how big, how was the fight... As some kind of barometer of their own potential success, or what they can hope for, yet I didn't at any

point see anybody catch anything across the 2 days walk as I headed through what is known as 'Bream Alley.'

I clamber back up the bank in a kind of scurry/controlled fall, my hefty bag threatens to topple me as it pulls about my centre of gravity. Next to the footbridge is a depth gauge, a measure of flood and force and a sobering reminder of the potential of this river, and how different standing here could actually be.

I begin to feel a sense of relief as I approach Hampton Loade, where the campsite adjoined to the Unicorn Inn is to be my rest point for the night. The Severn Way cuts straight into its grounds and exits from the bottom of the camp field, and as I make my way towards the pub to check in I eye up a suitable spot for the tunnel tent. The campsite is fairly busy, and the amount of rods propped up against guide ropes and chairs tells a story. While checking in I'm approached by a woman who has spotted that I'm a walker, and have indeed been walking. She tells me about her old dog and how its ongoing struggle with the heat has curtailed her plans to walk to Wales. Something tells me it didn't take much for the dog to talk her out of it, and a knowing glance from a man perched on a bar stool suggests that it isn't the first time she has told her story. I had arrived in good time to pitch the tent and allow myself some time to reflect on the day's walk. This also gave me an opportunity to seek out the Hampton Loade ferry and take a crossing or two.

The crossing point is on your left almost immediately after exiting the campsite, and here, off a small jetty, a chain reaches out to the other side, dipped in the Severn and ready to be used to pull the punt across. Unfortunately, the gate is locked and the *ferryman* is nowhere to be seen. A makeshift sign on a nearby post informs me that the ferry is closed due to illness, and sincerely apologises for the inconvenience. The Severn here is running low, as it



has been for much of the day and objects and materialities of all kinds are becoming exposed by water level. As I sit on the bank I notice the shell of a freshwater mussel, which I assume to be an indicator of good water quality. It turns out to be an



interesting juxtaposition to the car tyre which has been exposed further downstream. The water bubbles, gurgles, sashes and babbles as it rushes over the stony bed and the

sounds seem to strike the ear with regularity, a certain amount of harmony, until you listen closely, then the continual, relentless noise whitens, and takes on an altogether more deafening volume. There is however something comforting about this aural barrage and it is reassuring to know that when I walk away, out of range, the river and its associated properties will continue to ring out and persist in their endeavour.

I found myself reflecting on the natures of walking during the evening, and how it is seen as something liberating, an embodiment of freedom, a gift of *wander*. The



only limitations when walking appear to me as schedule, physical obstacles, private land, distance, daylight. Therefore a tension begins to emerge between flâneuristic and peripatetic desires and the need to

follow the Severn Way, and arrive at destinations by certain times. This paradox had

infiltrated my senses of freedom more than I had anticipated. But what is important here is the act of walking itself, a motoring of the brain, a mobilising of sensibilities, an unzipping of the body, an opening up to the, multifaceted affects of the environments we pass through. We find ourselves (re)invited to a more embodied process of becoming-with-the-world, and an altogether more proximate, intimate encounter with the ground beneath our feet. The ground is attritious, navigation can be confusing, mapping out of timespace emerges from happenstance between bodies, terrain and worlds. The normally quantifiable, geographical measures are surpassed by something altogether more sensational in this relational cycle of efforts-motions-grounds-elements.

Day 2: Hampton Loade to Bewdley

I crawled out of the tent following what can best be described as a poor night's sleep. Thankfully this campsite has subtle ways of getting you moving; limited hot water, a toilet light that goes off, an unpleasant odour that drifts downstream from the nearby sewerage works...but of course alongside that, is once again my need to press on. As previously outlined, today I would follow a set routine and sequence of scores. The purpose of these scores is to ground the experience, set as it is amongst a durational flow. These scores force me to pause, reflect and not be totally carried away with the process of walking with the river. To do this I set an alarm to ring out every hour following departure, when this happened, wherever I was I would stop and write. What follows now then are the representations that emerged from this process.

First alarm: 9.30

Pain. Within minutes of departure I realised how sore my shoulders are, and the weight of the bag is sending a discomfort rising up my neck to the back of my head with an intensity I've never experienced before. I had minor whiplash once, this is a similar sensation, only a thousand times more painful. It was nearly impossible to free

my mind from measuring the pain. After pausing earlier for a comfort break I put the bag back on, and felt a little better.

As the alarm chimed I was passing a peg, and so I unpeeled the bag and sat by the river for a moment. Earlier on it was as if the river was metaphoric of my mood, slow, sombre, barely holding a reflection under poor light, the waters were laboured and even seemed to struggle to carry bubbles, leaves and pigeon feathers. But now, here, like myself, the waters have gathered momentum, taken on a renewed vibrancy and the qualities of light are much improved. I've just passed through Highley and the Severn Valley Country Park, which due to the pain I didn't really absorb. Gnats and flies dance above the water, occasionally fish and ducks break the surface, I keep hoping it will happen as I watch, but it never seems to.

Second alarm: 10.30 (near Upper Arley)

I find myself sat in a field, surrounded by inquisitive sheep; they move closer, I turn, they flinch. I have no shade, which would serve as a welcome break from the heat as the sun presses down on me. My t-shirt is clinging to my back and I'm beginning to take a serious dislike to my rucksack. I watch over the channel, where an angler practices his rivercraft (Bear & Eden 2011). I write, and draw (see overleaf).

Branches contort, twist, turn, reach

Trunks erupt from the banks

The Severn, acts up and acts out, responds and co-ordinates

Orchestrates and choreographs this unfolding

It has scripted and inscribed this island, upon which an angler stands at its tip

His dog sits forlorn, but faithful, their bond unspeakable, unconditional

Severn quickens and ripples over cold hard stones, wraps around the angler's wellied legs

Severn winds away, twisting down the channel

The angler impresses hope upon this unfolding

His dog sits forlorn, I suspect he has seen all this before, still the dog happily shares in a quiet

moment of disappointment, faithful, unspeakable, unconditional



South of Highley
 Nr. Upper Aley
 2nd Aley 10.30

Alarm 3: 11.30

My luck with the alarms has continued as I'm presently sat outside a tea shop in Upper Arley taking a welcome break from the bag. This small village clings to the hillside on the Severn's eastern banks, looking across to the west, steam floats



above one of the Severn Valley stations as the train takes on more passengers. A troop of schoolchildren in yellow high visibility vests follow their teacher across the bridge towards the village. They remind me of the family of mallard ducks in the river below, faithfully following their mother and father. Two geography field trips appear to have come together here, one primary school, and one PhD. On the bridge they pause, I can just about hear the teacher:

This is the River Severn, and the water here has come from high up in the Welsh mountains.

As have I, unfortunately I couldn't hear the rest.

A moment ago the cashier in the Post Office advised that my bag needs to be around a foot higher on my back, *if I didn't mind him saying so*. I didn't mind, but I don't think he knows how heavy it is, and that it was a foot higher 10 minutes ago, and 10 minutes before that, and before that and so on:

Good intentions, eh?

Indeed.

All the time new memories are being made, but I can't possibly know yet how they will later emerge, when they will, if they will, nor how they will settle and reside within me, or what their *triggers* may be. The main thing I remember from yesterday is

my 2 year old son telling me about his new slippers on the phone, pitching my tent, and the lady's poor dog who was suffering in the heat...and my poor night's sleep.

Alarm 4: 12.30

I've been quite glad of the alarms so far, but this one felt like an interruption having seen a sign for Bewdley at 2.25 miles away. Again I hear the choot of the railway, I've been desperate to get a photo for my son but whenever it passes by it is out of clear view. A while ago I passed underneath the Elan Valley aqua-duct bringing water into Trimpley reservoir for Birmingham's water supply. Perhaps as I passed underneath, water which fell in a rain shower above my house also made its way here, and in some way our paths have crossed.

It's been strange walking on the eastern side. I've been so used to having the river on my left. Despite the pain in my shoulders it has been a good walk. It's funny how now I know I'm near the end I have begun to reflect and perhaps there is something particularly human about that. There is a reassurance on this journey from the presence of the river, its accompanying noises, its navigation, and also as a point of recognition and a revitalisation of an ecological awareness of what we are and where we are as bodies in the world. We're all just bodies on the move, just all at different rates, speeds and slownesses, velocities that are borne from affective, intersubjective perceptions and durational



experiences through encounters with other bodies and materialities in our endeavours to enhance our powers to act.

Alarm 5: 13.30

The Severn Way has departed from the river and now runs with the railway, I'm pretty sure I missed a footpath sign to follow it back to the Severn and into Bewdley. Now looking for any footpath to the right before I miss Bewdley completely, must be close, close enough to warrant not turning back...need to press on.

Alarm 6: 14.30

I'm at Bewdley station checking train times, for tomorrow I will rewind my journey by rail back to Bridgnorth. I feel fatigued now. Walking through Bewdley town



centre a moment ago I found the busyness and noise was almost overwhelming in comparison to what I'd experienced over the last 2 days. A voice behind me called out,

Are you backpacking?

Not sure what gave it away, anyway, he took the opportunity to reel off a compilation of his greatest hits of extended walks, Pennine Way, Wales Coast Path, South West Coast Path...it was quite an extensive list. I would loiter in Bewdley until I could check in and get some needed rest; I was eagerly anticipating my journey by steam locomotion tomorrow.

Rewind

I should have liked to take, the very next day, the fine, generous 1.22 train, whose hour of departure I could never read without a palpitating heart on the railway company's bills or in advertisements for circular tours: it seemed to me to cut, at a precise point in every afternoon, a delectable groove, a mysterious mark, from which the diverted hours still led, of course towards evening, towards tomorrow morning, but an evening and morning which one would behold, not in Paris, but in one of those towns through which the train passed and among which it allowed one to choose; for it stopped at Bayeux, at Coutances, at Vitré, at Questambert, at Pontorson, at Balbec, at Lannion, at Lamballe, at Benodet, at Pont-Aven, at Quimperlé, and progressed magnificently overloaded with proffered names among which I did not know the one to choose, so impossible was it to sacrifice any. (Proust 2005(1): 464)

Quoting Proust is never easy, to extract a nugget from the endless flows and unfolds of a streaming durational text feels unfaithful, like being asked to choose a favourite family member. Inevitably you end up creating a fault line in relations; as such Proust is something you carry with you, as a way of apprehending the intricate complexities and signs of the world. But this passage feels particularly poignant on this occasion. As my journey rewinds by Severn Valley Railway, by steam locomotion I am eager to pass through the villages and towns through which I travelled through by foot the day before. Like dreams, memories, imaginings, hopes, longings, passages from Proust reside within the reader and come to emerge - largely involuntarily - when we encounter triggers in the landscape. As I stood waiting for the train, I remembered this passage and thought about how the relations on my journey by foot had folded in around sites that came to be when my alarm had sounded, and on the day before how memories had re-emerged, how the riverscape had played upon my affective registers, and how this travelogue had been written-with the river. I couldn't possibly rank the importance or value of one site over another, rather it became a matter of relating to

the relative intensities of each site, and now I would cut back through, like the river retrieving itself with the Bore wave, I would retrieve my journey.

I took my seat, another school field trip had imposed upon the journey, and children's voices clamoring for attention reverberated down through the carriage in front. The décor in the train mobilised an association, I imagined them all in grey blazers and shorts, with leather satchels, and then the ticket inspector appeared and perpetuated my journey into time travel. The seats were musty but reassuringly worn, the red velvetine paisley pattern reminded me of my grandmother's sofa, I imagined people waving off loved ones on the station platform as they travelled off to war, or crying joy as they returned home. The train gently rocked from side to side, the rain persisted, but as the haze of the morning began to clear we entered into more open countryside and the railway ran closer to the river. I could see the Severn Way, the very path my feet had trod. Once again we passed Trimpley Reservoir, rain further adding to its load. We arrived at Upper Arley station, where we had to pause for a while to allow the oncoming train to pass through. I looked out across the channel to the Tea Shop outside which I had sat, and the Post Office where the gentleman had offered his bag related advice.

We moved on, and the path and my footsteps revealed themselves to me in an unexpected way. I felt as though I had been projected up onto a wall and was looking down at my body cutting its path on the Severn Way, I felt separated yet somehow still occupying the same space. As I visualised my body on the path below the train I remembered the pain caused by my heavy bag, and for a moment I wasn't on the train at all, it had receded into the distance. We passed the spot where I had sat and written a poem at the site of alarm number 2, neither the angler or his dog were there, but we flashed passed many pegs with many more anglers concealed as they were under hats and umbrellas.

We arrived at Bridgnorth, my familiarity with the place meant that I had no real desire to delay my journey home further, I knew what was here, I knew where to go, I had been here before, and I would return.

So it is that we change because we endure, and that which we approached, that which we think we know, is always-already changing...and gone? So even though there is a chance, despite being infinitesimally small - as Serres suggests - that we could step into the same river twice given the natures of fall, circulation and duration, it actually cannot be, because not even we are the same, my body is not the same, river's body is not the same...velocities, temperatures, sediment load, clarity...it is strange how there is something reassuring about this certainty, this fateful destiny. We see in Heraclitus that human's and flowing water share in this same certainty, something of our substances falls away, dies every minute, and yet from this also springs youthfulness, playfulness?



Dreaming by the river, I dedicated my imagination to water, to clear, green water, the water that makes the meadows green. I cannot sit beside a stream without falling into a profound reverie, without picturing my youthful happiness...it does not have to be the stream at home, water from home. The nameless waters know all of my secrets. The same memory flows from all fountains.

It is all unbroken, fugitive at times, out of reach, impossible to grasp, but never completely severed, and like waters and flows within flows our dreams, memories, imaginations are turbid and drifting, and we live like the cycles of water:

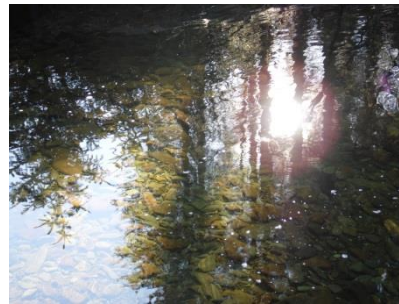
By remaining for some time near the iridescent surface, we shall understand the value of depth.



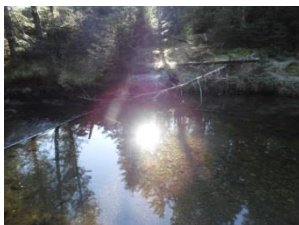
Because we fail to de-objectify objects and deform forms – a process which allows us to see the matter beneath the object – the world is strewn with unrelated things, immobile and inert solids, objects foreign to our nature.

But following recent developments in thought – Deleuze, Serres, Bennett, Harman, Latour - and practice we find that considering all bodies and objects and materialities as part of the same quivering mass, and being attuned to how the characteristics of things develop in relation to each other, makes us more attentive to the liveliness and connectedness of conative bodies, bodies being anything; texts, matter, performance, tools, clowns, song...

By grouping images and dissolving water helps the imagination in its objectifying and assimilating. It contributes a type of syntax, a linking up and gentle movement of frees a reverie bound to objects.



substances, task of de-also continual images that



So if we think, and write, not just about water, but more water-like, we can not only portray a processual, durational, rivering of things but we can also become further attuned to the connectedness, speeds,



slownesses, relationalities of things.

Dancing-With-Bergson: How Movement *Moves*¹²

From where does movement emerge? How do things get moving? How does movement move us?

We experience movement by relation; velocities, speeds and slownesses come to be defined in relation to other bodies and their modes of expression (Manning 2012; Spinoza 2001).

How do we account for stillness, for the unmoving?

These are intervals, potential movements, the inbetweening of speed, *'it exists in the between of movement. It accompanies my movement, yet is never passive. It activates the next incipient movement. The interval is the metastable quality through which movement is felt.'* (Manning 2012: 17)

So it is in the interval that the possibilities for movement are mobilised?

And movement is a durational quality of spacetime, a succession of changes that dissolve into one another, indivisible, and always changing state (Manning 2012, after Bergson).

But Bergson claims that if we spatialize duration, then we misunderstand it, but for me,



standing here now beside these upland waters, relentlessly rushing passed, I feel that duration helps me to comprehend the multivariant characteristics of flow within this mode of expression, body of Severn. And of course, movement is spatial, and

¹² All images by the author, taken on the upland stretch above Hafren Forest, near Llanidloes, 2nd February.

temporal and the river is durational because we cannot carve up the river, or mark out the points where velocities change, where one form of flow becomes another, and all of the speeds and slownesses here happen in relation:

Movement is the qualitative multiplicity that folds, bends, extends the body-becoming toward a potential future that will always remain not-yet. This body-becoming (connecting, always) becomes-toward, always with. I move not you but the interval out of which our movement emerges. We move time relationally as we create space: we move space as we create time. (*ibid*: 17)

The river continually reminds me of future, of destiny, but in the river's expression it is more certain. My future is vulnerable, fugitive, as is my past, but through its endeavours and persistence the river will reach base level and there is a certain amount of reassurance in that for me. I feel closer to the river and yet I've never felt further apart. The certainty of



my future saddens me and yet the turbulence, the noise, the mixture of speeds comforts me. I find that even though being absorbed here is becoming disorientating I can find my way through by being-with, by becoming exposed to the elemental physical processes and possibilities of river. I have become aware of my part in this



rivering, the durational qualities of changing states that all melt together but find coherence here in these rushing waters.

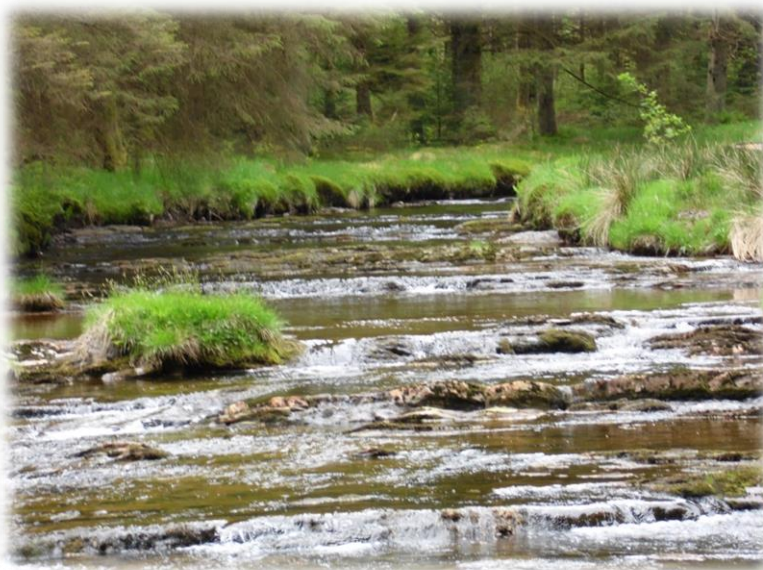
This rushing has been defined in relation to the speeds of my body, and of the body of ground over which it travels, a rivering is a flowing through action, a gathering of

relations, a taking of things with you, a rushing toward or a running away, but always forming and negotiating, it is expressive. Why do I find myself to be almost hypnotised by these waters, what is it that I am looking for?

These are aesthetic feelings, you have entered into a relationship with *grace*. First of all, you register movements of a certain ease, and it is these easy movements that appear to make way for successive easy movements, that is they suggest the next movement. Spasms are jerky movements because they are not suggested, they are surprises in the graceful flow:

'if curves are more graceful than broken lines, the reason is that, while a curved line changes its direction at every moment, every new direction is indicated by the preceding one. Thus the perception of ease in motion passes over into the pleasure of mastering the flow of time and of holding future in the present'. (Bergson 2001: 12)

And as I stand watching the form of flow, as I sit watching a dancer, in reality I know not what comes next, but because it happens along curved lines I get a sense of suggestion, I feel I know what is coming next and I become *moved* as I find myself drawn into a particular quality of space time. Even though I feel disorientated, I feel some kind of control.



This is when movement happens with sound, when dances emerge with music, we feel that we can foresee how the successive movements will follow those that precede, to the extent

that we feel that we can predict, or even control how movement moves because the

dancer and their movements, their bodies appear to obey us, but this is only ever a qualitative feeling (*ibid*).

I see turbulence, eddies, incipient pools that gather potential and I see movement emerge from them, I can sense their paths and lines, I can see how movement is taking form, I hear changes, I see the effects of surface and depth, I can sense it all...but if I try and follow, I cannot, I have to move-with and submit to the affective, durational qualities of water's behaviour, I have to be sympathetic to the river's mode of expression and resist the belief that I can predict where the movement is going, if I am to feel *how movement moves*.

CHAPTER 5: ‘Con yer swim?’ Chronicling the Coracle and the Topologies of Making

The Severn is a river of many hazards and dangers, and not least of them are the perils of unwariness and incompetence in a coracle. (Waters 1949: 83)

An experience is not there for the taking, but is provisional, open to potential, coming into being through us, through our enactment in and of the world. Thus, it is necessary for us to do it, to experience it for ourselves. (Woodyer 2008: 354)

Here (the Severn) is much us'd by the fishermen a small thing called a Coracle, in which one man being seated, will row himself with incredible swiftness with one hand, whilst with the other he manages his net, angle, or other fishing tackle. (Camden 1586, cited in Hornell 1936: 269 [sic])

A setback, but a setback that would nevertheless lead to my explorations related to writing this chapter in a way that may be entirely more applicable to the topological, ontological ethos of the overall thesis. I wanted to build a coracle, a small rudimentary river going craft (typically paddled by a single person) as a way of approaching an embodied engagement with the Severn and its histories around Ironbridge through a making by hand, and an accumulation of knowledges, practices and materials. As such I had booked a 2 day course in the summer of 2014 at the Green Wood Centre, Coalbrookdale, Ironbridge to do just that. Materials, tools, tuition and accommodation would be provided and the course would run up to the annual Ironbridge Coracle Regatta, August bank holiday weekend. ‘Ideal’, or so I thought, not only would I receive expert guidance and come away from there with my own coracle and paddle, I would be in the right place at the right time to enter the regatta. Don’t get me wrong, I was slightly nervous about this as I’ve never paddled, or even sat in a coracle before, but this was all to be part of this process of haptic learning and embodied engagement with the river and its currents.

Then the setback came. In July 2014 - just short of 2 months before the course - I received an email explaining that, *with regret, due to insufficient numbers, it is not viable to run the coracle building course at Green Wood Centre in August*. Was that to be it? I was incredibly disappointed, even though I completely understood their position I had been thinking about the course, the process, the making, the regatta as it had been approaching and getting rather excited, and with plans scuppered, what was I to do now? How could I get round this problem and come out with something worth writing about, or perhaps, would I need to configure a different case study and abandon this plan altogether? Of course they refunded the fee, which by then I had paid in full, so, I decided something, I would take my refunded fee, use it to buy what I needed, connect with local knowledges, practices and materials around Ironbridge, and *make it myself*. This was to be an elucidation of the topological, connective processes of making which is in keeping with the themes of interconnectedness with the thesis. Not only that, it would be an exploratory, auto-ethnographical account of teaching myself, with advice and instructions, how to do it, thus opening avenues of approach toward *doing* as a methodology. I'm not a particularly skilled craftsman, I have little knowledge of working with wood as a maker (although I do have forestry experience), and as said, I've never sat in a coracle before. Nevertheless, I would do it myself, and this is what happened.

Fishing, ferrying, poaching, paddling

Water is intimately bound up with our social relations, not just as a necessity for sustaining biological life, but because the ways we come to interact with, use, and 'know' water are structured by and productive of these relations. (Ellis 2014: 269 *quotations in original*)

The coracle (Fig. 6) is perhaps an exemplary expression of such modes of relationality that configure around freshwater and its particular characteristics. In the coracle we see messages of a socio-cultural history that stretches back well into prehistory, it is remarked in the records of Julius Caesar in 55 B.C. that he observed small wicker boats on waterways, manned by the ancient Britons (Blakemore 2009). As an ideal hunting craft (small, light, portable, manoeuvrable) it is impossible to say just how old they are, although in some form I wouldn't think it unreasonable to



Figure 6: Ironbridge coracles at the regatta. By the author, 2015 regatta, 30th August.

expect that their use could be traced back by thousands of years (when willow rods and animal hide would have been the favoured materials for construction). It is also the suggestion of Irving Finkle, curator at the British Museum and specialist in Mesopotamian history that following the deciphering of a cuneiform tablet from around 2,500 B.C that *The Ark* of the story of Genesis, was actually a large coracle designed to float safely upon the impending flood waters. Here also, connections to the reed coracles (or quppu) of Iraq take this genealogy even further back, and as Finkle suggests, there is no reason to think that this type of woven and lined craft has not been in use since near the early key evolutionary steps of humankind (2014).

At Barns Farm for example, in Dalgety, an early Bronze Age cemetery was excavated and it was revealed that in one of the 3 graves the role of coffin was played by an elongated shape of organic material, with a bowl like form, a coracle. In which a person was laid on their side, along with bones and a food carrying vessel, and stones had been placed around the bottom to steady the bowl shape (Watkins 1980). This type of burial, on a site adopted from the Neolithic by Bronze Age settlers suggests

that this person buried in the coracle was respected as a provider of food, and that central to this, was the use of their coracle.

There are also links beyond the British Isles to the Boyne coracles of Ireland (particular coracles are typically named in association with the rivers on which they are predominantly paddled, and made near). In Ireland the coracle is more commonly known as a curragh, a term now adopted to refer more specifically to a larger, and more boat like vessel - still made with the techniques required for a coracle - which is capable of being paddled at sea. The Boyne coracle here is hide covered and will carry 2 people, one would kneel at the front and propel, whilst the other would sit behind and facing the rear to work the fishing nets (McClintock 1928). The defining feature of the coracle, no matter where you are in the world, is that it is a skin covered, wooden frame which has been woven to form the structure and provide strength, and is intended for unchallenging waters such as rivers. Although usually associated with the British Isles, there are many examples globally including India, Middle East, America and China (Tilson 1993). In Wales they were/are a particularly common sight on the River Teifi, where the landscape and characteristics of the river lend themselves to the appropriate use of a coracle. Here, fishing with coracle composed a *closed community* whereby only fisherman from 4 villages at the river side were allowed to fish, Cilgerran, Aber-cuch, Llechryd and Cenarth (Jenkins 1972).

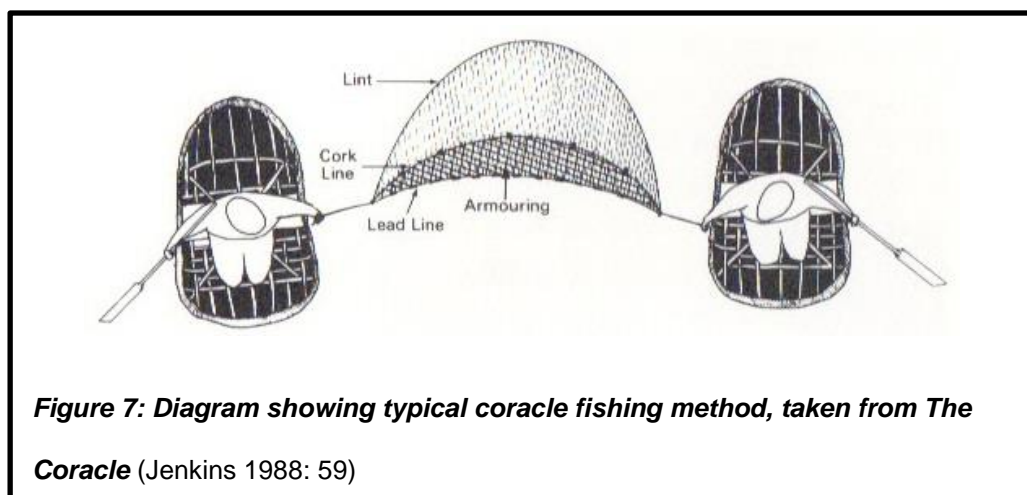


Figure 7: Diagram showing typical coracle fishing method, taken from *The Coracle* (Jenkins 1988: 59)

As well as being exceptional tools for fishing (Fig. 7), the qualities of coracles also lend themselves to being used as ferries, particularly where river crossing points are lacking. The suggestion is that in skilled hands a coracle can cut straight across currents from the side, which would force other boats to cross the river at an angle (Sherwin & Haddon 1933), I suppose I would find that out for myself soon enough.

Academically speaking, in the geographical discipline the coracle is underexplored and has emerged here as an often overlooked part of the history of the Severn, particularly around Ironbridge where the emphasis is often placed on the industrial revolution and histories of engineering achievements. Interestingly, it is these very achievements that served to mobilise the socio-cultural importance of the coracle in the area, as we shall see shortly. This chapter though isn't just an excursion into history; it is also a reflection on a practice of making and paddling, of engaging with water through an embodied exercise. This too, appears to be overlooked; however Jon Anderson – as a key scholar in the growing body of work around watery geographies – has engaged with practices of sea kayaking (2014) and there are some similarities here, despite the differences in characteristics of fresh and sea waters. For instance he suggests that kayaking at sea isn't merely an extreme sport, but it is a performance that's played out between bodies, movement and water and offers up new ways to apprehend relations with the world, from an altered perspective. When paddling about, you see the world differently and develop a relationship with the water - which he describes as a bond - and in so doing identities and bodies come to be expressed differently than they normally do in terrestrial lives. He reminds us that as geographical beings, we also become in relation to water worlds (see also J. Anderson & Peters 2014) as we connect through emotions that emerge from our proximity to water, and our being immersed in it. In this world paddlers share a spirit of camaraderie and are spatialized beings, seeking to both '*move and to be moved*' (J. Anderson 2014: 115).



Figure 8: Coracle shed. By the author, 31st August, 2014.

As I drove toward Ironbridge for the 2014 Coracle Regatta I couldn't hide my disappointment in that I didn't have a coracle with me. Nevertheless, my intention was to attend the annual general meeting of The Coracle Society (of which I had recently become a member), make some contacts, get some advice and get a feel for the event, which all being well I would

participate in the following year. I'd walked the area before, under the shadow of those great cooling towers belching out steam, draping the gorge in mist, dissolving shape and form; I had stood under the Ironbridge. The only way to apprehend the level of engineering that went into it as the first of its kind in the world is to stand under it, and look up. The bolts, the curves, the evenness, the detail, the symmetry, and its strength is palpable. I'd gone there looking for the now abandoned 'coracle shed' (Fig. 8) of Eustace Rogers, the last of a generation of traditional coracle makers who lived at Severn Side for 250 years who died in 2002 (Blakemore 2009). There had been a report in a local paper that The Coracle Society were looking to secure funding to buy the property, and to then use it as an interpretative tool for this aspect of the history and heritage of Ironbridge, something overlooked by the local network of museums and guided walks. I wanted to find it for myself; I saw this shed as something of a way in to exploring the cycles of absence-presence at play here that orbit around coracle use and local characters.

Ironbridge high street is an assemblage of boutiques, eateries and souvenir shops. Severn Side is a narrow walkway that departs and heads downslope to the river side, 'this is it, it's down here somewhere', as I emerged from the end of the path, there in front of me stood a rather dilapidated, worn out looking building, not much bigger than a garage you may find attached to a suburban house. All doors were

padlocked, and warnings of unstable ground adorned the outside. The door on the long side of the building was slightly damaged; it was too dark to see in so I offered up my camera to the gap, hoping the flash would illuminate whatever was left inside. It was a doorway into a world of present absences. It looked as



Figure 9: Doorway into absence. By the author, 31st August 2014.

though the tools were cleared out, and probably had been a long time ago, but there on the back of the door, were what looked like Eustace's overalls (Fig. 9). I walked on, haunted and humbled by those kinds of introspective moments that wash over you like some sort of irrepressible, resurgent tide when confronted by absence.

Through this briefly overwhelming force we are reminded of the transient natures of life, of entropy, of certainty, of destiny, of dust and bones, we become more aware of the precariousness of our beings and our becomings and we relate the loss of others, those whom we don't know and yet feel that we do as despite our never meeting them we have nevertheless connected in some way. In the world's loss of them we see our personal grief and histories, in that moment we apprehend and sense again the potency of loss. In that moment I saw his overalls, I saw his hands weaving the wood, attentive eyes that were tuned in to the vibrancy of the material, I felt Severn Side's loss as the river below this bank persisted and endured. Just like at the Ship's Graveyard, the endeavours of the river here blended seamlessly with the certainty and fragility of our futures, bound up as we are in an always-unfolding entropic *mise en scène*.

The meeting involved talk of forthcoming events, the annual budget and expenditure, level of membership, retirements and recruitments, and offered up the opportunity to meet some coracle makers. This included Peter Faulkner, a maker of traditional hide covered coracles, and probably the closest thing you can get to an extreme paddler, having paddled the length of the Teifi, and taken his coracle down sections of rapids. Having seen him in the water following the meeting - and other paddlers - they have the kind of coracle manoeuvring skills that at his stage I could only dream of, and probably be

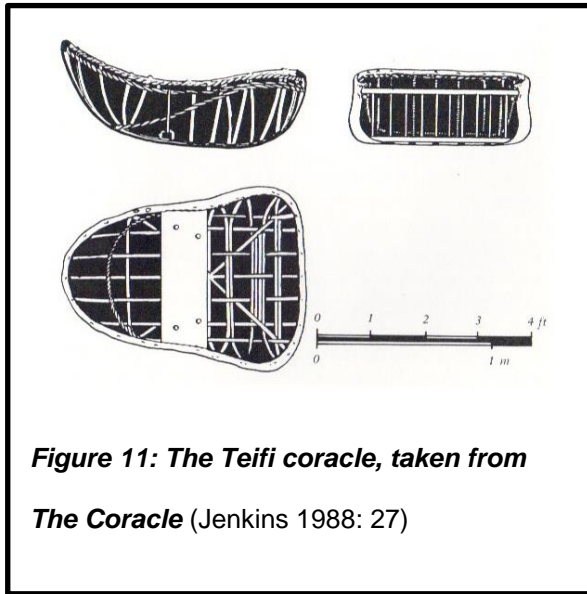
unlikely to achieve at all. It was a wet day, nevertheless I stayed to see some of the races and events and made contact with Terry Kenny, who teaches at the Green Wood Centre. We got to talking about my impending first attempt to make one, and I offered him such basic questions



Figure 10: Instructions. Image by the author, instructions donated by Terry Kenny (date unknown).

as, 'do you know where I could get my wood from?', 'do you have any useful tips?', and he was very helpful. Terry gave me his email address and suggested that I make contact, and he'll send me some instructions (Fig. 10) on how to make an Ironbridge coracle. My plan was coming together. I also intended to keep a close eye on the developments regarding the procurement of Eustace's shed and any opportunities for exploration that may arise, although from the kinds of timescale they were discussing in the meeting, it seemed unlikely that anything would happen before completion of the thesis.

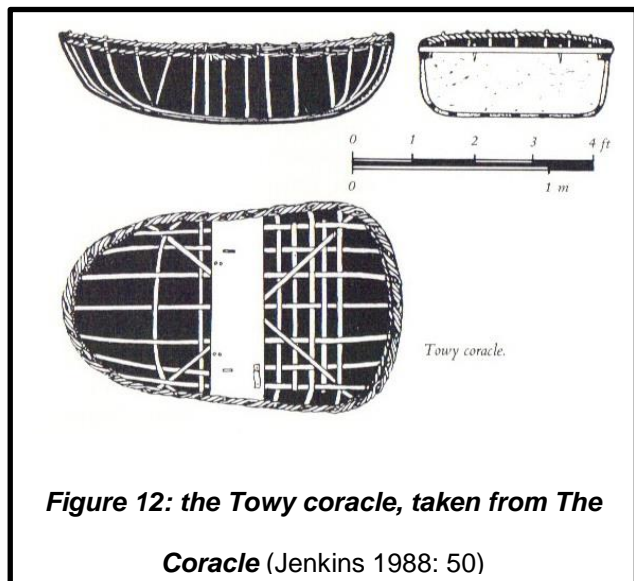
As has been previously mentioned, there are interesting and pertinent regional



differences in coracle construction, and it is how the Ironbridge coracle is emerged as a site in and of itself that is of importance to the undertaking of this project, and the thesis more broadly. Alongside the Severn, the Teifi is perhaps the most popular location for coracle related activities and has a rich history of this rivercraft pursuit. The Teifi (Fig. 11) coracle

itself is probably the most different to the Ironbridge coracle of all the variants. It is only 54-58" long, and so is relatively short with a square front. It also appears as slightly awkward looking, with a gunwale that is pinched in at the seat on both sides and an irregular profile. The pattern of woven laths also varies as does the insertion of the diagonal lengths that aid strength and stability.

Another Welsh coracle, the Towy (Fig. 12), is a lot like the Teifi except it is neater and more rounded. Still with a square front, but it begins to move towards the Shropshire coracle for being made with ash or willow laths, rather than rods. It is a large one, at around 67" long and has a leather strap for



carrying which goes around the paddler's chest, enabling them to carry it like a rucksack. The Tâf coracle is around 57" long and more of a distinctive teardrop shape,

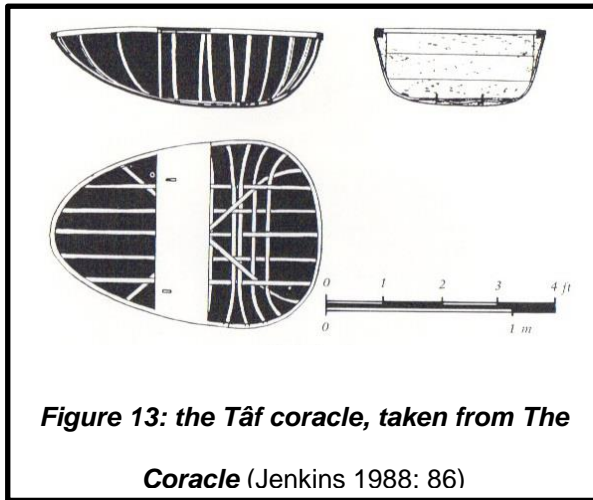


Figure 13: the Tâf coracle, taken from *The Coracle* (Jenkins 1988: 86)

and you can see in Figure 13 that the patterning of the woven laths is quite different, with very few to the rear.

There is not only a difference in the Severn coracle, but the Severn coracle itself also has 3 variants; Welshpool, Shrewsbury and Ironbridge (Fig. 14). The Shrewsbury exhibits

similarities to the Welsh coracles, with their slightly broad bows and pointed sterns but the Welshpool coracle is quite a square affair. The Ironbridge coracle is the most circular and is typically bowl shaped, and at 57" has a level gunwale with short diagonal lengths at the corners for added strength. It has 7 stringers (lengthways laths) and 8 ribs of ash. With its bowl shape and slightly wider seat, people feel the Ironbridge coracle can carry more weight, and perhaps this has evolved given its use as a ferry as crossing points over the Severn in this area were few and far between, when the Ironbridge was built, it cost halfpenny to cross it by toll and so the coracle and its paddler offered a way for poor families to bypass payment of the fee (Waters 1949; Jenkins 1988).



Figure 14: Severn coracles (from left to right), Welshpool, Shrewsbury, Ironbridge, taken from *The Coracle* (Jenkins 1988: 122-125)

As such, it is with these regional differences that I moved towards conceptualising the coracle as a site, as an arena, a broad set of phenomena as emergent through fields of forces and relations in particular contexts (Schatzki 2001,

2003, 2005). Such self-organising coagulations and congregations are mapped by their amount of connectivity, intensities of relations, and the speeds and slownesses of trajectories and flight paths that pass through and carry traffic, as they continually assemble and reassemble (Marston *et al* 2005; Dixon & Jones 2015). Highlighted here are the nonhuman agencies, pre-personal forces and vibrant materialisms (Bennett 2004, 2010) that orientate human practices (Schatzki 2001). The coracle and its making herein becomes a space of possibility, allowing conative inhabitants to *hang together* in a moment of coherence (Woodward *et al* 2012). We take Marston *et al*'s suggestion that as a self-organising (2005) site there is not one thing that is entirely responsible for the composition of the coracle. As a site the coracle organises itself as it pulls in and gathers together what is necessary for the emergence of its coherence; knowledges, materials, agencies, histories, spectralities, tools, leisure, hobbyism, camaraderie, freshwater, skills etc. The coracle then is positioned as a relational nexus through which not only site emerges, but also the topological relations that ensue around the process of making and the practice of using.

It was important to this project to recognise the connectedness of things and configure distances not as topographical measurements, but by differences in intensity and level of traffic flow. The fidelity of this exercise – in maintaining connections with Ironbridge despite being stretched apart - was to be a vital part of the process, and through this the work would reveal the accumulation of knowledges, practices and materials of the Ironbridge valley gathered here in this coracle as a moment of coherence, despite it being made at my home in Wales. It was shaping up to be just that, the instructions to build an Ironbridge coracle had come from Terry Kenny, local to the area and he had given me the contact details of Larry Jones - a woodsman of the Ironbridge valley - suggesting that was where I could source my ash laths. As such connections were being made, stretched, compressed and maintained regardless of physical distance, much like the waters of the world.

For a moment I would just like to revisit the Severn Side coracle shed, just to reaffirm the importance of a history, and an absence-presence that haunts this aspect of the project and floats around Ironbridge like the mists rolling out of the top of the cooling towers. Eustace Rogers (1914-2002) was the last of a line of traditional Ironbridge coracle makers stretching back 250 years. Eustace is the son

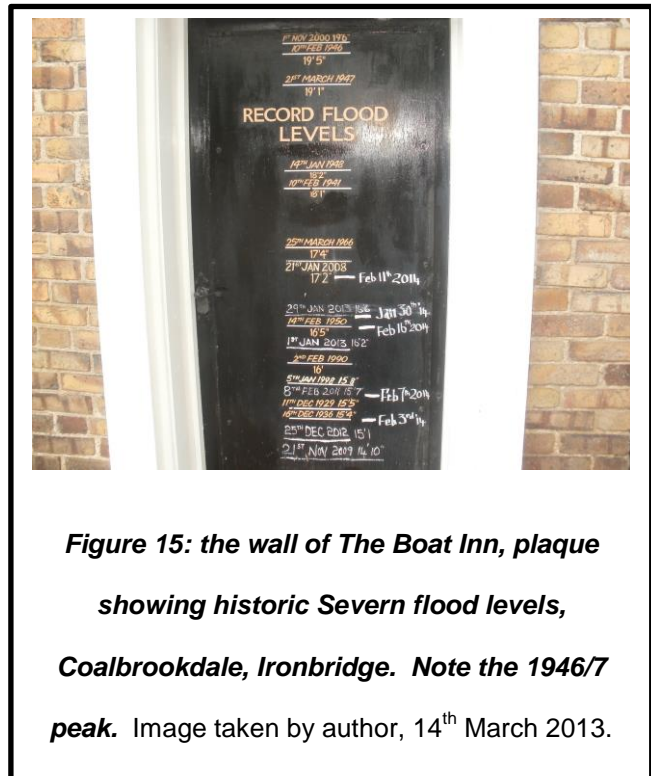


Figure 15: the wall of The Boat Inn, plaque showing historic Severn flood levels, Coalbrookdale, Ironbridge. Note the 1946/7 peak. Image taken by author, 14th March 2013.

of Harry Rogers (1887-1967), and his brother Jimmy were the sons of Tommy Rogers (1843 - 1924) and this genealogy continues back to Thomas Rogers (1778-1827). The Rogers family and other *coracle men* (as it was a predominantly male pursuit) were highly respected in the area as fishermen and poachers who put meals on the tables of poor families in times of war and heavy industry; as ferrymen, enabling people to avoid paying bridging tolls; and as life savers, for in times of flood they would head out by coracle and assist stranded people by taking provisions to them. In one particular recounting of the record breaking floods of 1946 and 1947 (Fig. 15) coracle users were out on the water pulling people out of bedroom windows into their craft and paddling them away to safety (Waters 1949; Blakemore 2009).

Following the loss of his parents Eustace continued to live on Severn Side and work out of the shed making coracles to use and to sell. It is the Rogers' family tradition through which the Ironbridge coracle emerged as a bowl shape, weaved with laths of ash, covered in calico which was then waterproofed with bitumen. On occasion Eustace also made coracles lined with animal hide, which with the fur on the

inside required no such waterproofing. Whenever a prospective buyer visited Eustace with the prospect of making a coracle for them, he would stress that the mastering of a coracle is far from easy and would recommend that they first practice on a canal as, '*you cannot come to much harm on a canal!*' (E. Rogers cited in Blakemore 2009: 40), this advice of course followed a vital qualifying question that should be asked of anyone attempting to take a coracle to water, '*con yer swim?*'

Homo faber

It had arrived, I must have appeared slightly bewildered and daunted as I looked upon the bundle of 35 ash laths (1.5"x5mmx8' each) and the other wood that I would need. Larry Jones had just delivered my materials on his way through from his Ironbridge valley wood to New Quay, not far from here. While he was here I attempted to draw as much advice from him as I could, he pointed out that knots in the laths are a guaranteed point where the wood will split when bent, hence it being a good idea to order more laths than you need, he advised soaking the wood in water for 24 hours before use and keep it bundled, for which he uses a canoe. He also suggested that as the wood ages and reacts to oxygen it may develop mould and this can be scrubbed off with sandpaper. Something else I really appreciated is that to whomever orders wood from him for this purpose, he provides them with a length of ash from the tree that provided the laths from which you can make your seat and/or paddle. As such everything I saw before me (apart from a blade for the paddle, should I not be able to furnish one from the length of ash) was from the same tree. This tree, embedded as it is in the Ironbridge valley has breathed in the Severn, it has absorbed precipitation from the same catchment and evaporated it back into the globally connected system; its roots have clung on to sediments that form the slopes of the valley sides. Now, here it was in Ceredigion, Mid Wales, where (hopefully) a coracle would metamorphose from it that ultimately would be returned to the Severn to be paddled in its waters amongst the spectral mists of Ironbridge.

I don't have a canoe; as such I set the laths to soak by spraying them with a hose to keep them wet. I soaked them, attended to them, for the full day before I was planning to begin. As they soaked I read the instructions thoroughly and organised my tools:

Intelligence, considered in what seems to be its original feature, is the faculty of manufacturing artificial objects, especially tools to make tools, and of indefinitely varying the manufacture. (Bergson 1998: 138)

Remarks Henri Bergson, for whom *Homo faber* (man the maker) begins to be set apart from the nonhuman by their instinctiveness, adaptability and drive which pushes them towards processes of manufacture and the use of tools. He acknowledges that nonhumans also use tools, and that their evolution is driven by the same *elân vital* (or vital impetus), but humankind takes these practices further in that many of our social worlds gravitate around manufacture and the use of instruments. He also suggests that it '*takes us longer to change ourselves than to change our tools*' (*ibid*: 138), such is the instinctive nature of our relationship with instruments that facilitate our lives. Quite often, the shock of the invention and the power of its reach are only recognised sometime after its emergence and that we will rarely completely understand the social implications of the production and use of particular instruments. At this point it is also worth remarking that following Heidegger's notion of the *ready to hand*, Harman proposes that humans can not exhaust the capacity of the tool; as such *tool-beings* endure beyond their relations with the human (2005, 2010). My relationship with the coracle therefore will never be finished, and its capacity will always remain an open, emergent field.

Gaston Bachelard offers us a critique of the Bergsonian *Homo faber* as he is disenchanted by the geometric assumptions and applied knowledges of the practices of such tool making animals. Bachelard suggests that in this way, the role of dreams

and reveries of making are overlooked and neglected as the geometric hand appears to find form by eliminating the formless, in this process:

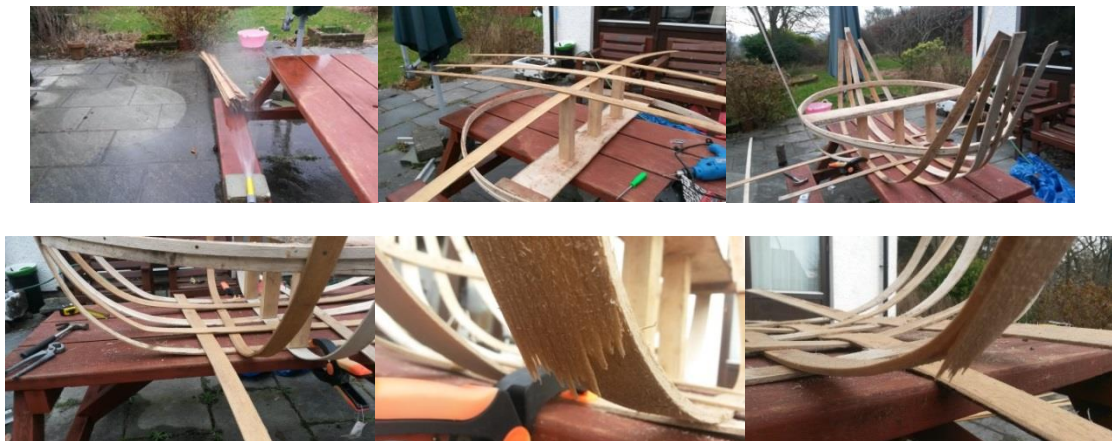
Trades that trim and cut do not tell us enough about the inner nature of matter.
(Bachelard 1983: 108)

Bachelard's *Homo faber* is a worker of clay, a modeller, a moulder, who moves nearer to dreams by *working-with* soft substances, rather than by working *on* harder substances through applied geometric practices. For Bachelard, a substance will never seem sufficiently worked and a piece will never be finished, because the *moulder* will never stop dreaming of it, as such it will never be entirely completed.

I find myself drifting around in this milieu of the tool maker. *Homo faber* is configured as working-with the importance of geometry, but also becomes with the agency of materials, continually making adjustments whilst being respectful to the specifications and measurements. As I read the instructions, checked my laths for quality, visualised a seat and paddle in the ash piece, I get a sense of the durational qualities of this particular journey and the amount of traffic that will flow through this site and settle within it. My instructions are quite specific, and accuracy appears to be an important part although there is room for adjustments and necessary reactions to the agency of the material, for instance, step 3 refers to fixing the gunwale to the seat in order to form the top of the craft, and reads thus:

With 1.5" nails, fix 2 laths side by side to the centre of the front of the seat. Bend them round to the other end as shown in figure 2. *When the curve is right*, nail the laths together with 1" nails, clenching the ends over, then nail to the other end of the seat and saw off the surplus halfway across the seat. Repeat for back of the coracle, *leaving out the nail that might split the 2x1 at its narrowest point*. Cut a lath in half lengthways and nail it to the outside top of the gunwale all round, also joining in the centre of the seat. This is a packing piece *which helps the ribs lie more easily on the gunwale*. (Building an Ironbridge Coracle, *author and date unknown, emphasis added*)

Here we see a relationship developing between the agencies of the materials and the accuracies, geometries and measurements required to make it successfully. As such, my own becoming of *Homo faber* has rendered me faithful to the required measurements and accuracies, but also it is essential to be tuned into the forces of matter. Also the spectral worlds of absence-presence I have entered into as being inspired by, and connected to the histories of the Ironbridge valley *coracle men*, and the affective, pre-personal forces that orbit around my workbench contribute strongly to a mobilisation of reverie. I also already begin to develop a sense that this coracle, and my relationship with it, will never be resolved or completed and shall be always becoming, and remain open-ended. Measure twice, cut once, so the saying goes. I was taking my first tentative steps toward the making of the coracle. The laths had a good soaking in freshwater, and so I lay the large piece of ash down on my workbench (as it turns out, picnic benches make an almost ideal workspace) in order to measure up the seat.



The build commences with the seat, and from there 2 lengths of ash join the centre of the seat to make half hoops, forming the circumference of the gunwale, which largely defines the whole form of the coracle from then on. As I explored the ash it became apparent that I would not be able to make both a one-piece paddle and bench seat from it, so I decided I would rather have the seat. This was because in order to be closest to the required measurements, and to have as straight an edge as possible to

the seat, I had to take out what was basically the middle section. Having done this I clamped the seat to the top of the bench and selected 2 good laths for the gunwale. It is important that the gunwale and seat are level together, and this was done by eye, and using an area of the bench that would allow me to level out each half hoop individually. I lined up the first lath with my centre markings on the seat and I tacked it in place, having ensured it was roughly level. The first time I bent a lath I fully expected it to snap, it is a matter of steadily bending it to its fully arced position and allowing the integrity of the wood to settle into its new form. This is when I really felt the strength and vitality of the material with which I was working. Another pair of hands would have been useful as I nailed the lath to the other end of the seat, and as I did so, there it was, my first split. I quickly learned that the ash laths did not welcome being tacked too close to their ends, particularly after being sawn, from here on I would tack first and then saw (where possible).

Having prepared the seat and gunwale it was no time to fix 3 seatposts to the bottom, which would determine the coracle's depth. One rib then goes across the posts, and 3 stringers are fixed lengthways and this is where you really begin to see the coracle taking shape, particularly when you turn it over and bend them up to be fixed (temporarily, as this may require later adjustment) to the gunwale. The form of the bowl is achieved by eye, by visualising one lath in relation to its neighbour you eventually have a distinctive bowl shape beginning to take form. This rib and these stringers now provide the pieces with which I was to begin weaving through the other laths. Friction was high, and every time one lath goes in, the next becomes more difficult because the pressures exerted upon the wood mean the opposing gaps through which I had to weave became even more restrictive. Eventually this would mean that in order to compensate for this, I had to compromise the pattern of the weave slightly as the last few stringers at either end of the coracle were just too tight, as such my coracle's weave isn't entirely alternating, nevertheless it seemed to be

developing high levels of structural integrity and despite this being slightly frustrating, aesthetically speaking it looked fine. High levels of emotional labour were beginning to be expended upon this making practice, and it was extremely annoying to go through the struggle of weaving a lath through only to find that it would split when tacking it to the gunwale. The point was to try and keep calm and remember that this is a matter of working-with material, and that when the wood pushes back or can no longer hold on, to simply try again, and weave together a process of learning, reacting, pre-empting and understanding as we orbit around this site together. On occasion I would mutter, *'what would Eustace do?'*

Makers and doers, movers and shakers

The ontologies of this undertaking as a movement through a process of forming body-site relations were also inspired by the projects and performances of *Lone Twin*. Gregg Whelan and Gary Winters have been collaborating as Lone Twin since 1997, and many of their performances are playful negotiations between water, bodies, journeys and encounters that come to be crafted in particular locations. They see art as an always developing conversation, as a social practice that emerges through a continual exchange and sharing of stories, and for them the strongest images are those which represent people *doing things together*. As it happens, their *Boat Project* (a commission for the 2012 London Olympiad) emerged from an idea that they would each build a coracle, walk to the Thames with it on their backs, paddle across the river, and then continue to walk away from the other side. For one reason or another (mainly in that they admit they knew nothing about coracles) it didn't happen. They did however attempt to make it to a coracle race, but were late and missed the start, however a participant gave them his paddle, which he had broken in his efforts to come first. As such they began to think about boats, about boat building as a way to bring people together, and so for the Boat Project they invited people to donate a piece of wood to the building of a seaworthy vessel, and they requested that each piece of

wood have a story and a certain level of provenance that would then be detailed, catalogued and used somewhere on the ship. In the end, the 1221 donations given to the making of this *public boat* were found to involve some profoundly moving stories and personal value not only became accumulated within the ship, but became an experience of sharing:

The boat provides a new home for the fragments of almost 50 houses, with 20 beds and cots, 30 tables and desks, 18 chairs and stools, three egg cups, three lace-making bobbins, two darning eggs, and a jam spoon from Lapland. It contains wood from 17 churches, three theatres, two piers, two ballet schools, two chicken houses, two lidos and a whaling station. There are pieces from 148 other boats and ships, more than 60 toys and games, 40 sports, 26 musical instruments, 13 walking sticks, seven carved masks, five vehicles, 36 signs and name plates, and more than 40 boxes and cases. (Whelan & Winters 2012: 47)

And, within that of course, a broken coracle paddle. Their attempts here were to bring our watery selves closer into relations with other bodies, and in similar ways my coracle also represents a mapping of knowledge, materials, histories, tools, bodies, craftsmanship, elements, textiles and textures that are in tune with the ecological and elemental processes of the earth.

Some may say that the commitment to the traditional Ironbridge coracle of this undertaking and my engagement with craft is something of a romantic notion (Campbell 2005), but this is framed here as something of an exercise in consistency, a continuation of a tradition that maintains and supports an often overlooked socio-cultural history of the Severn in this area. And, being faithful to the Ironbridge coracle is a way of highlighting the topologies of making where relations pass through and settle in this taking form of a coracle as site ontology. Hui (2012) may refer to my framing of this practice as a multi-sited performance, but in Hui's vision of mobile practice networks such portable and mobile things only achieve 'stability' when in use,

on the move. My work here is something of a countenance to this, we have already discussed that sites are not stable, despite settling into coherent moments as discernible contexts, as such the coherence of the coracle remains whether it is sat on my workbench or being paddled in the river. In whatever context the coracle is physically positioned, it simply finds itself being more-or-less open to particular relational intensities and traffic flows. This work does agree with Hui in the sense that practice networks highlight the interconnections of multiple objects, and that movement tends to emerge in relation to the speeds and slownesses, motion and rest of other bodies (Deleuze & Guattari 2004; Spinoza 2005), the 'resting' coracle therefore is what Erin Manning (2012) may refer to as incipient action, an interval between movement where the coherence of the coracle as site nevertheless persists.

In some ways it is also important here to differentiate the practice of craft, and the doing of making. Of course, this project upholds the notion that '*local craft is a reflection of the relationship between humans and their environment within their historical, cultural, and social contexts*' (Tung 2012: 71), and that like craft, making involves a bringing together of skill, judgement and passion. However, craft perhaps differs slightly in that consumable craftworks are often made and designed by the same person, and involve a stronger desire for self-expression (Campbell 2005). And, perhaps as less of an expressive pursuit, '*making is fundamental to our being – as humans we make bodies, homes, identities and memories every day*' and, '*making produces the physical world around us*' (Carr & Gibson 2015: 1). Carr & Gibson also suggest that in world of uncertain ecological and environmental futures the abilities to work with materials, to make, remake, repair and/or repurpose are vital skills to obtain and practice. They claim that making is an ontological, always-becoming process that defies precise definition, although they do offer as a starting point the generative processes of new or revised objects from the composition and/or manipulation of materials. Here, if we focus on the making, we also reveal the maker and more of how

they have used their skills to redeploy existing or work-with new objects and materials, as such we can emphasise the association between the vibrancy and agency of materials and the skills of the maker, and how they have negotiated with the liveliness of the material, which often pertains toward snapping, decaying, breaking under force and/or wearing down. In all of this, the maker becomes a mediating force between the material and the end product, always open to the necessity of compromise and negotiation. The site of making becomes a congregation of new and old materials, methods and techniques and will be continually revisited for processes of repair, re-making and to be *made good* again.

For Gauntlett (2011), making is a key means through which people connect with each other and the world. This idea is not particularly new or revolutionary, but it does chime with this practice of making an Ironbridge coracle in Wales. However this project further elucidates a topological way of thinking and a way of utilising notions of site ontology to reveal ways in which we can approach geographies of making. This project is exemplary of a stretching, twisting, compressing, topological practice, my workbench as site, the instructions as site, coracle as site, Ironbridge, the regatta, all as sites, all linked, just more-or-less heavily trafficked. Gauntlett also suggests that there is much work focusing on the consumption of craft and the relations that form around practices of Do It Yourself, but this coracle is more of a tool for mobility than a consumable product, and the making of which is more closely related to Vannini & Taggart's suggestion that building up your own regenerative life skills is more of a Do It With (2014).

The making of this coracle and the emergence of its site ontology comes to be through the composition and manipulation of materials, and a gathering of accumulative knowledge, and a dedication to working-with, and continuing to learn how materials respond and the site continues to infold and unfold. This embodied,

personal, assembled and reflexive process of making and doing is an important element of the geographical discipline where:

Researching the processes of gathering the knowledge required to accomplish practices is a suitable task. Through a practice framing, this would imply a shift from only questioning which skills and knowledge we need, for instance, for shopping, driving, cooking or calculating prices, to also clarify how this gets taught, how it is learned, how it travels between moments of performance, how it changes and is made anew (Shove *et al*, in press). In short, it would imply in the long run to drop the category of knowledge with its built in stability claim and to elaborate the more procedural notion of 'understandings' as site- and practice-specific ways of grasping what is going on, what makes sense to do and how to do it. (Everts *et al* 2011: 332 *quotations in original*)

It is of course, no easy task to begin to attempt to grapple with the ephemeral and the fleeting, and to convey what happens through practice to the researchers body in meaningful and accurate ways (Davies & Dwyer 2007; Woodyer 2008), but auto-ethnographies and the opening up of one's own body to processes of ongoing learning and doing through accumulations of knowledge and engagements with lively materialities certainly add something to our apprehensions of body-site relations, and contextual yet contingent emergences of moments of coherence, however brief or fleeting they may be. For David Paton, who works-with quarried stone as an apprentice sawman:

It is about bodies operating in places as creative forces of knowledge...yet the detail comes in the form of the tools and materials that are central to any notion of making, and to any accumulating knowledges of materiality and place-making. (2013: 1078)

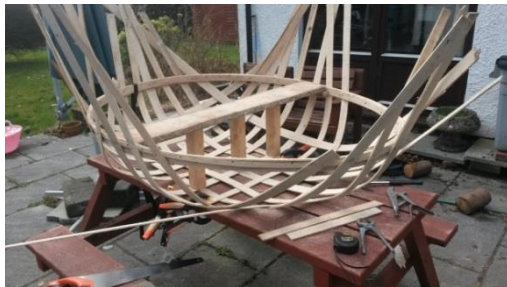
This requires further attention, and whilst there is broadening scope for art-geography collaborations, we need more geographers *doing* the art, or *becoming* the maker. There is much to be learned through exploring embodiment auto-ethnographically as a reflexive process. Despite not yet being fully equipped with the necessary expressive

tools to represent processes of accumulating haptic knowledge, through personal endeavours and attempts to Do It With, we may find that the required means of expression and representation come toward us.

Returning to the regatta

There was around two weeks to go to the regatta, and with all ribs and stringers woven (as best I could) and tacked to the gunwale I had sawn off the excess. What I had was a definitive coracle frame, unmistakably so, and I was by and large pleased with my efforts. However, with all of the splits and knots I had only a few 'good' lengths left, and I needed two for the outer and inner gunwale after the frame had been covered in calico (a hardwearing canvas type material). The calico, I almost wince when I think about it, it's the only part of the project that let me down as I had to source it from a well-known internet auction site. Nevertheless, I had it, and was ready to cover the frame. At this point I was tempted to hit YouTube for some hints and tips as the amount of gathering of the calico that was required where the curve of the frame tightens (in order to avoid too many wrinkles) was a difficult thing to manage, but I pressed on, with the fidelity of the project largely maintained. In the end the wrinkling wasn't too bad, and the advice of the instructions was to staple the calico to the inside, which made gathering a lot easier. Four coats of bitumen paint were then worked into the calico so as to fill all of the tiny holes, the old adage *better to be safe than sorry* was definitely the order of the day here given that this is what governs how watertight the vessel will be. In trying to finish the gunwale and suffering more splits (I don't think I had soaked them enough and through the process of making they had sat drying out for too long), I ran out of full lengths. The front and rear of the gunwale developed bad splits after settling into position, as such I reinforced the rear by fitting a short length as a bumper, and I had to remove a section from the front as it was too bad. I then replaced that by fitting a section over the gap, and securing to a good section of gunwale.

My paddle was made by sawing a slot into the bottom of a hand hewn branch from the ash tree, and inserting a piece of plywood, also from Larry Jones, and nailing into place. This spade like paddle is also entirely typical of an Ironbridge coracle, and appears very rudimentary; I just hoped it would be effective. And there it was, my coracle, after what was probably a total of around three days of work I had what appeared to be a fairly sound and sturdy looking river-going craft. However, in moving it to bring it in for the night I noticed a split in the calico of around two inches, as such I had my first lesson in repair. The instructions suggested carpet tape, which I didn't have, although I did have some pond repair patches with waterproof glue and they appeared to do the necessary.



What I didn't want to do was to arrive at the regatta having never paddled a coracle before, or even testing whether or not it floats! Coincidentally, another popular river for coracle paddlers, the Teifi flows by around a ten minute drive away from my home. Two days before the regatta I took the coracle down there for a test paddle, and to work on my technique:

Many who try a coracle for the first time find that they are unable to make any progress. Some get their coracle into a spin, others merely upset themselves, usually by

shovelling water under the vessel. A coracle is paddled from the front by an **S** or figure-of-eight motion in the water, and the art of paddling is in the wrist rather than in the arm. (Waters 1949: 82)

It was windy and the coracle on my back (seat across my shoulders) was like a



parachute, and the Teifi at this point had a current that looked worryingly rapid. Having been to the regatta before and seeing people get in and out of their coracles (reportedly

one of the hardest things to master), I knew to 'reverse' up to it, step in and sit in the centre of the seat in one swift motion. My partner steadied the craft, I was in. Fortunately I was rested in some long rushes and a deep pool of steady water as such I had time to centre myself before pushing off. I remembered not to paddle in the traditional sense (Fig. 16), and attempted the figure-of-eight as insinuated by Waters above, and I had observed at the regatta, but rather than spinning round I found myself going backwards. I felt vulnerable in the water, but soon I mastered the art of using the wrist to turn the paddle in relation to the arc in order to pass water under the coracle and thus propel forwards. I was soon out in the middle of the channel, even managing to travel against the current, and I found the coracle to be incredibly buoyant and surprisingly manoeuvrable, no wonder they had been so popular and proved to be such a useful tool for riparian dwellers.

I had entered into a new mode of the kinaesthetic where time-space became a movement-space (Merriman 2012b), orchestrated in tune with the currents of the river

and the forces and directions of the paddle, motion, and my balance in the coracle. Just as I was beginning to get comfortable and my senses of vulnerability had eased as my confidence grew, the weather turned and the rains came, time to leave. The next time my coracle entered water would be in Ironbridge, and we would be a part of the rivering of the Severn and the topological relations that ensued around the making of it would be stretched to it, and congeal again in another moment of coherence:

Can I enter the novice race, see how I get on, and then enter the intermediate race if I go alright? I enquired at the sign-up desk.

Have you paddled a coracle before?

I felt obliged to answer yes, despite this only being ten minutes on the Teifi. In the excitement of having to hurry to the start, and the need to find a life jacket, I turned away from the desk assuming that my request had been fulfilled and entered the water ready for the start of the novice race. As I steadied and readied the coracle with my back to the rowing club jetty awaiting the start, Peter Faulkner leaned over and said, *'head off pointing slightly upstream, and lean forward'*. The M.C called the start and I got momentum quickly, I found that having around half of the paddle blade in the water offered the ideal push through the water, any deeper and there is too much resistance. I found my rhythm and took an early lead over my 4 competitors; the idea was to get to the bank on the other side, turn and race back to the jetty, I made the turn pretty effectively and got moving again. I found myself sliding on the seat as I tried to go faster so I just held my rhythm, the M.C kept remarking on my hand hewn paddle, insinuating that it was somehow giving me the edge. I slowed a little towards the jetty as I found myself going against a stronger cross current, but still came in for the win (Fig. 17)! I was however, promptly disqualified, apparently for being too fast and too good for that class despite only winning by the length of my paddle in the end. I lined up again for the intermediate race, same course, but didn't fare so well, I managed to get caught up in low branches on the far bank when making the turn, my lack of

steering ability here suggested that this wasn't the correct class of race for my skills either. Other events followed including the 360° where we had to spin round as many times as possible in 30 seconds, I managed 9, slightly disappointing but I didn't come



Figure 17: Coming in for the win: joy before sorrow. Image donated by Clayre Carr

last by any means. Then it was coracle fishing where teams of 3 had to head out and hook wooden fish thrown out by marshals in canoes. My coracle had been spotted by several

participants who showed interest in it, particularly in my bench seat of ash. They all seemed impressed for my first attempt at a build, and were all touched by the idea that all of the wood was from the same tree, which had been locally sourced. The expert race was the last of the sprint events which headed out on a longer course around two buoys upstream, and returned on a long straight downstream. Here we really saw some fine paddling techniques, including what is known as the J stroke, where the paddle is drawn in to the side of the coracle and flicked outwards to straighten the coracle just before it over-rotates. The speed that this stroke generated was impressive and apparently effortless.

The Severn here is steadily flowing and fairly wide, and this section lends itself particularly well to coracle paddling and it is easy to see why this particular craft has proved so popular and useful here throughout history. The legacy of the Rogers family has many reminders in the area, not least their shed, for which the Coracle Society have received a grant from the Heritage Lottery Fund for its interpretation as a heritage

site. At present they are in developmental discussions regard the best approaches for the representation of the site. At time of writing they are predominantly concerned with making the site safe and accessible.

The coracle has been revealed here as a site of infolding and unfolding relations, stretched across spacetime and compressed here through compositions of materials, knowledges, histories, tools, human endeavour, agencies, absence-presence, which all gather in to settle in this moment of coherence. Presented here as an auto-ethnography this chapter has elucidated the value and contribution to the discipline of geography in engaging and attempting to express embodied practices as ways of understanding processes of making from the point of view of doing. But this shouldn't stop here, there is still much more to be done but geography as a discipline will benefit from more auto-ethnographic creative works, the wave of non-representational approaches and forums such as *Geohumanities* and *Cultural Geographies* certainly look set to help this cause, but it is difficult.

Many artistic endeavours require years of dedication in order for makers and doers to become furnished with the necessary skills with which to express themselves through whatever medium it may be in an effective way. Nevertheless I would urge more geographers to have a go at becoming the maker, to unlock the disciplinary fetters from time to time, pick up a camera, a pencil, a paintbrush, a chisel, make a walk, get to doing and encountering processes of embodiment as well as thinking or writing about it, every now and again, choose to experience and express rather than observe and analyse, and not to be anxious about it (Crang 2003). I'm not trained or well practiced afts-person, but what I have done is accumulated knowledge, advice and materials and made a coracle as a way of broadening our geographical scope and means of description. This is not finished, the experimentation has begun. My coracle is not finished, and or is my relationship with it, I've had to repair a slit in the calico again since the Regatta and 4 ribs are developing splits, as such it is still being made

and remade, repaired and reworked. I intend to do more with it, I intend to improve my skills as a paddler and I may even make another as a continual process of learning from one's mistakes and working-with materials accordingly and allow another site to accumulate. At this stage I would like to reiterate a quote from the beginning of this chapter:

An experience is not there for the taking, but is provisional, open to potential, coming into being through us, through our enactment in and of the world. Thus, it is necessary for us to do it, to experience it for ourselves. (Woodyer 2008: 354)

This project is just getting started, as the thesis comes toward the end...

Echoes

To go it alone and gather the pieces together,
I find it hard to remember that time, not far from here, when I danced in merry weather,
Echoes of distant basslines and acid painted tents,
I didn't then, but I know now what it meant,
I walk again this sinuous line in the footsteps of ferrymen and poachers,
Leaving behind the sonorous hum of wattage, gauges, lines and motors,
Passed a workshop where hands of leather worked laths of ash,
Raindrops on the page, raindrops on the Severn,
Raincoats on the tourists, listening for the guides,
I pass by, rising with the swell on a spectral tide,
Historiated scars have been cut into the banks, and churches rest on lofty perches,
Severn offers its warmth, overshadowed by cottages for agents,
Where Nick Tart makes a killing, in the land of the living,
But these waters have something missing, but there is an echoing, of coracle men paddling.

By the author, in the rain, Coalbrookdale, Ironbridge 14th March 2013.

Estuary

It seems more fitting perhaps to consider summarising this project as an estuarine moment, as an opening out, as a mode of expression that becomes through the relations that have preceded it. This is not a conclusion, but a suggestion, a gesture toward a way of considering freshwater geographies in a way that has previously been under-explored in terms of employing site ontology as an applied methodological framing, a way of conceiving and apprehending embodied relations with particular moments of coherence amongst the physical landscape. It is hoped that this thesis not only contributes to an always becoming and growing body of watery geographies literatures, but also attunes our focus back to the affordances that ensue when encountering fresh water.

Works such as this could be taken further to consider how sites composed around other bodies of freshwater such as lakes, ponds, reservoirs, canals and their towpaths. And whilst recognising the importance of managing flood defence, sustainability and management of water resources, to actually move away from that in order to describe the human-nonhuman bodily relations that gather around particular watery characteristics. I would have liked to have taken the elements of performance and performative writing further, however navigating and negotiating the requirements of an assessed piece of work and where to place it became challenging. However, I hope that I have found some kind of balance between the artistic and the scholarly that has allowed for a mode of description that traverses travelogue, prose, debate, physical sciences, auto-biography/ethnography, embodiment and has given a voice to the agencies of the nonhuman and the elemental.

We have seen here how particular relations and contextual sites gather around particular modes of expression of freshwater, the affordances they bring and how affect has come to be mobilised. This project hoped to push a point, namely that site ontology can be used as a methodological framing and as a means of expression and

description that can truly enable an understanding of the world and its processes. A site can indeed be a puddle, a *source*, a coracle, a workbench, a ships graveyard, a footpath, and what is important is to recognise how relations come to remain in contact whilst being stretched out across topographical space (Dixon & J.P. Jones 2015).

I would just like to take a moment to reflect back on the main points raised from the key chapters in order to consolidate what it is they contribute to knowledge. Puddles for instance were elucidated as active sites that make bodies do things and have an agency of their own. Their actancy is reflected in all manner of human and nonhuman bodies, and in many instances the spatio-temporal characteristics of the puddle have a direct effect on physiology, evolution, adaptations, behaviour and life cycles of species. In human worlds they were revealed as both spaces of play and sites of nuisance (particularly where local authorities are concerned), from which a particular political ecology unfolds from these watery bodies that opens up debates on pavement construction, pothole management, public liability and mischievous motorists. Whilst simultaneously they provide spaces of play for young and old, and are also connected to stories of overcoming disability, and connecting with geographical imaginations of freedoms involved in skipping and jumping. They are also sites that inspire artistic endeavour, and with the particular example of Gavin Hammond, reflections in puddles can reveal some intriguing narratives about how people connect with their multinatural landscape. These puddles then (re)invite us to connect with the weather-world (Ingold 2010) as we tread our familiar paths, and urge us not to forget about the little worlds we have stepped into, or over, or around. Not only then have we engaged an empirical novelty, but also navigated through how human and nonhuman worlds connect through these bodies of water, and found ways to write about more-than-human agency in a suitable rhetoric. We also found that Uexküll's (2010) notion of the Umwelt as a perception world that closes in around species and harbors marks of significance that act upon their receptors, from which a

harmony forms between them and their changing environments. This was exemplary in the life cycles of the killifish in particular, and the suggestion here is that approaching the worlds of the nonhuman (even the human) with an *Umwelten* framing can broaden our understandings of body-site relations, and how species respond to environmental changes.

The Ships Graveyard was found to be a site where movement of all kinds and speeds takes form, from creeping rusts and crumbling timbers to the relentlessness and pace of the river, and humans and nonhumans passing through. Here we approached entropy as a way of understanding not only how this heritage site has come to be worked-with (as a type of distanced management), but also as a means for human geographers to move closer toward apprehending the processes of the physical landscape. We found here that fixity (in the form of commemorative plaques) was set amongst fluidity and contingency and this mix of processes conspired to form an emergent experience of the spectral, historical, actual, virtual and the geographical. The suggestion here is that this site is a step closer to a *non-interventionist entropic heritage site* (DeSilvey & Edensor 2013), where processes of ruin that appeal to humans are permitted to run on without manipulation. As this site simultaneously accumulates and erodes it offers up many interesting particularities through which to explore how heritage sites could be managed, and how people encounter entropic landscapes.

Atop Pumlumon (Plymlimon) we found the source to be not the beginning of a river, but a gathering site. A site of bodies struggling, elements, hillslope processes, materialities, geologies, bog-life and weather that hang together as relations in a moment of coherence that mobilises possibilities for a *rivering of the Severn*. The bilingual stake proclaiming the source has an aliveness (Bennett 2004, 2010) of its own, but as a topographic, pointillistic (Doel 1999) mark in the landscape speaks to us about human desires to journey, arrive, depart, conquer, seek and achieve. Thinking

multidimensionally (Elden 2013; Steinberg & Peters 2015) of the space around the *source* - above, below, across, down – revealed multiple *sources*, and in recognising the gathering in and dispersing out of relations we are afforded opportunities to think more relationally about fluvial geographies, and find ways to write the human into a phenomenology of the physical landscape. This recognises the importance of the geomorphological disciplines, but does not allow us to forget about our affectual experiences.

In building a coracle we revealed how a site came to be configured through a folding in of knowledges, materials, practices, tools, processes, agencies and reiterated the topological point that despite differences, changes and physical distances relations are maintained and can be ‘measured’ by intensity and their amount of connectivity (Allen 2011; Marston *et al* 2005; Martin & Secor 2014). This chapter also suggested that by way of a setback, I was invited into a doing-it-myself, which became a *doing-it-with* (Vannini & Taggart 2014) and upheld the suggestion that whilst some crafts take years to acquire the necessary skills, as geographers we can learn a lot about agency and relationality from having a go. The coracle as a site then comes to represent an ensemble of traditions, histories, materials and practices that always upholds its significance, whether it is being paddled in the river or not.

As a largely descriptive piece of work this research has contributed to an already expanding disciplinary tool box with regard to ways of doing and writing geography. It is hoped that the deployment of geopoetics and narrative form has been timely and well placed, and furthermore that it could help geographers be less anxious about employing such techniques as a means of exploring and elucidating particular geographies. This is where I feel this thesis moved towards a practice of performance, largely through spontaneous, semi-automatic writings that were produced largely in the field. I would have liked to have engaged more performance theory and worked with practices of staging to set up the walk as a more explicit performance, but I feel this

could have unsettled the project's position, which I see as being within more-than-human geographies by and large. We also found a language for framing nonhuman agency (endurance, persistence and endeavour) that ran as a current through the whole thesis, which hopefully gets around some of the inherent difficulties in writing the other-than-human into such works.

By employing site ontology as a way of methodologically and conceptually approaching particular case studies, we can further understand exactly what it is that makes places dynamic and how it is that relations come to be configured and manage to hang together, for just long enough to be coherent. I always envisaged the topological framing for this project (which of course includes the necessity of the topographical) as emphasising connectedness and intensities of relations between things, despite distance and differences.

It is however at this point that I would like to reflect for a moment on the deployment of the term 'description' in this work. Description has of course historically been a regular feature of how practices of geography are defined, and as part of what it is that geographers do. It is after all hard to envisage a writing of the Earth that does not involve acts of description. Description, as framed within this project, was intended to gesture toward the narrative intentions of the works, particularly when encounters with the Severn were mobilised by personal, and at times quite emotional experiences. The aim was to portray a particular scene in an attempt to reify the pre-personal, affective forces at play, which invite the reader into a certain here-and-nowness, and encourage an understanding of a particular site or event-space. Much of this work was intended to be evocative, and in so doing would prompt a re-thinking of body-site and human-nonhuman relations through freshwater, description therefore was seen as a gateway into this sense-making process.

On reflection though there is timidity and politeness in the term, it may appear as tentative and trepidatious, it certainly now seems too narrow and limiting as

a practice amongst the overall schema of this work. Decades ago, in thinking through what geographical explorations involve, Schaefer (1953) argued that *mere description* is inadequate in terms of explaining how phenomena are distributed across time and space. He expressed that geographers should be less concerned with isolated, individual facts and favour observing and explaining patterns of distribution. The very act of explaining how things are distributed implies some form of description, but the act of description should only ever be a starting point at most. The real work of the geographer, he suggested, is to find, identify, explore and explain relationships.

To narrow things down into *merely descriptive* accounts then rubs up against this project's advocacy of relational thought, and shifts attention away from thinking through how things remain more or less connected despite their physical distances. Some of the connective passages and poetic segues in the project are unashamedly descriptive, but the intention is that they act as connections between sites and events, as well as characterise the work's flow and form. So here they are more-than-descriptive and are a means of weaving a personal account into the relational flows of this watery world. If there should ever be an emphasis on description then there should be an exploration of what this description means, what it leads to. The word has after all been implicit in some definitions of geography, but we need to move beyond mere description in order to explore and explain what event-spaces mean; how they have come to be aggregated or dispersed; what it is that mobile and dynamic event-spaces tell us about connectivity. In recent trends in cultural geography, the geohumanities and works that move across disciplines there is often a need in some form to work with acts of describing in elucidating evocative sites and event-spaces. Within this there are attempts to reify the emotive, pre-personal, affective forces at play but the word of caution here is clear, to engage description wholeheartedly is to narrow a focus too much onto a particular phenomena, and of course there can often be a problem of translation between the page and the reader in any case, even between the

author and the written word. Thinking of a page, or an act of describing as a site in and of itself - as is the insinuation of this project - we need to consider what relational forces and trajectories have come together to make possible the very thing that we are attempting to describe.

In this project I wanted the river and the fluidity and pace of particular event-spaces to inscribe themselves onto the work, just as they inscribe upon the Earth, 'who is writing?' (Serres 2008: 275), *who is describing?* In this largely post-phenomenological, evocative account of body-water relations perhaps it is not up to me to describe, but rather to flesh out particular sets of relations, explain their connectivity and variations in intensity, speed and slowness and mobilise affect and sense-making processes in the reader. Description alone would not do this, describing particular phenomena would not necessarily allow an event-space to move towards the reader in ways that are intended here; it is largely through understanding and revealing connectivity, relationality, entropy, topology and movement that this has been achieved. Description has been a part of this, but on reflection, perhaps a smaller part than I thought. The principle aim of this work was to remember the affordances that fresh water spaces offer to us, and get beyond our understandings of water as a resource to be managed, or as a recalcitrant thing to be controlled. This project goes some way towards filling the gap that has formed where affective engagements with fresh water are under-explored. From here this author intends to take this approach to other fresh water bodies and continue to contribute to ways in which we can write water into the *geo* of our *geography* and continue to broaden our understanding of more-than-human worlds.

I am hopeful of the future, not only do journals such as *Geohumanities*, *Performance Research* and *Cultural Geographies* offer a forum for experimental geographers, but more geographers are willing to experiment and be open to practices of artistic endeavour and performance. Also, it seems more artists are engaging

geographical theory and debates, I'm not sure Meinig (1983) gets his wish just yet, but there is little doubt we are moving in the right direction, and it is hoped that this project has ushered further work along this trajectory.

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