"A Glorious Time?": Some reflections on flooding in the Somerset Levels

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Abstract

Severe floods on the Somerset Levels in winter 2014, and a series of other recent extreme floods across the UK, pose questions about the research needed to unravel the complex nature of flood risk and its implications for society. While much emphasis is placed on research in the natural and engineering sciences to better predict flood risk and develop solutions, this paper discusses what social science, and arts and humanities approaches can contribute to this challenging issue, alongside, and, importantly, integrated with, the natural sciences. Drawing upon a series of interconnected social science, and arts and humanities research projects, in this paper we explore how different knowledges might contribute in dialogue around flood risk; water, senses of place and community in resilience building; the power dynamics in narratives about water; and the value of conceptualising flood heritage 'from below' in bringing community voices to the table. We argue that social science, and arts and humanities approaches are needed to explore creative solutions to changing or challenging flood risk. In interdisciplinary configurations in particular, they can generate much needed, creative, transformative narratives which can play key roles in the interplay and negotiation between science, policy and public understanding.

Keywords: flood, narratives, heritage, knowledge, resilience

Introduction

The floods on the Somerset Levels (Figures 1 and 2) in the winter of 2013-14, generated by 'an exceptional run of severe winter storms' (Meteorological Office 2014, 3), were the latest in a "flood-rich" period of very severe events in the early years of the 21st century that have affected various areas and communities in the UK[1]. These inundations of the Somerset Levels became routine headline news, with dramatic shots of wide vistas of drowned landscapes, with media coverage of emotive stories of entire low-lying villages cut off for weeks on end (see BBC '*Aerial view of the Somerset Levels'*, 27th January 2014; Guardian newspaper '*Floods on the Somerset Levels - in pictures*'[2], 30th January 2014). These stories mobilised national interest, sympathy and, in some cases, help (e.g. young Yorkshire

[1] For example, in July 2007 (Gloucestershire, Hull and Sheffield); in November 2009 (north Wales, Cumbria and the Scottish Borders) and in November 2012 (north-east and south-west England and north Wales.

[2] http://www.theguardian.com/environment/gallery/2014/jan/30/floods-on-the-somerset-levels-in-pictures

volunteers helping locals in their flood defence[3]). The events took on national political significance with the Prince of Wales, the prime minister, the deputy prime minister and other ministers visiting the affected areas in order to "listen and learn", lend support and make calls for, or promises of action. At the heart of the story, the Environment Agency (EA), the UK environmental regulator and its head, former Labour MP Chris Smith, were charged by the affected communities, their political representatives, and others, with various alleged failings. A particularly central and contentious focus fell upon how the EA were managing this famously wet landscape, and its many natural and man-made water courses. They were vociferously accused of reducing the level of dredging on the main rivers (the Parrett and Tone) that drain the area into the Bristol Channel. The EA faced questions, criticisms, calls for immediate action and policy reform in local meetings, local and national broadcast and print media, and on social media, which together caused a 'media storm' (Figure 3; see Monbiot 2014). The very existence of the Agency was called into question.

Figure 1 Panorama over the Somerset Levels during the January 2014 floods taken on 2 February 2014 at 15.26
Source: photograph permission: Antony Lyons

The political and media furore surrounding these floods arguably matched or even exceeded that of the 2007 floods in Gloucestershire, Hull and Sheffield; floods which were deemed to be 'the country's largest peacetime emergency since World War II' (Cabinet Office 2008 pvii), not least because basic infrastructures – water, transport, power teetered on the brink of prolonged breakdown over a large area. In actuality significantly fewer properties were affected by the period of excessively wet weather in January 2014 (while 150 properties were affected, *ca.* 40 properties actually flooded), partly due to the precise geographical outplaying of the floods, but also due to extensive flood prevention measures taken after 2007 by the EA and related agencies (see DEFRA 2008). This, in part, brings out the importance of the local - the specific configurations of topography and catchment; of development and land use and social dynamics, *and* local histories and cultures.

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http://www.thetelegraphandargus.co.uk/news/11016923.Bradford_Muslims_help_in_flooded_community/

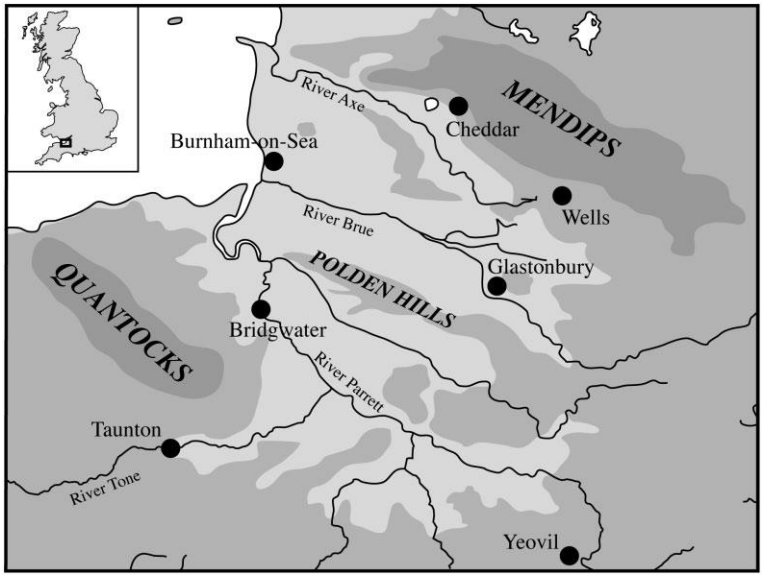

Figure 2 Geography of the Somerset Levels
Source: redrawn from http://commons.wikimedia.org/wiki/File:Map_of_Somerset_Levels.png

Figure 3 Materialisation of conflicts between communities and the agencies for flood risk management on the Levels as the 2014 floods played out taken on 2 February 2014 at 15.49
Source: photograph permission: Antony Lyons

Inevitably in the face of such events, and in the wider context of current/anticipated climate change and associated forms of "extreme weather", there is a political, policy and media-orientated focus on the expert (natural) sciences - climate and weather science, hydro-engineering catchment planning, watercourse management to predict, prevent, and protect - to "manage flood risk". This encompasses "technological" approaches that involve engineered responses such as flood "defence" structures, and management and planning processes, such as dredging, and land use adjustments (Thorne 2014). Such strategies both drive and respond to political and policy priorities which centred on flood prediction, prevention and protection, and a series of challenging policy trade-offs - between ecological conservation, economic sustainability and flood prevention. But the political-policy landscape is also a mobile one. Since the 1990s, there has been a major shift in approach by UK government agencies from "central management" to more devolved multi-method flood *risk* management (Tunstall *et al*. 2004; Johnson *et al*. 2005; Cabinet Office 2008), as articulated in the UK *Flood and Water Management Act* (2010). As these and other earlier extreme floods have played out, such government positioning can abut against communities'

perceptions of risk and who is responsible for mitigation, and the perceived dominance of technocratic solutions, especially amongst environmental commentators (cf. Krieger 2012).

Alongside this understandable reliance and expectation on the natural sciences for "answers" to flood risk, other recent research efforts which might provide valuable insights into flooding and their impacts on communities have been undertaken by the authors and by others under the auspices of the social sciences, and the arts and humanities. This paper discusses what these (inter)disciplinary approaches can contribute alongside, and importantly, integrated with, the natural sciences. The potential insights and contributions of the social sciences are perhaps not too difficult to imagine. When there is media and political talk about flood impacts on individuals, families, communities, businesses, transport networks and local economics, it is not hard to see that the social sciences might have important insights into how people perceive and manage changing risk, how individuals and communities become more resilient (or otherwise), and how people cope with the undoubted trauma and emotion of flooding (e.g. Whittle 2012; Morrice 2013). This is both in terms of the event itself, and in people's recovery and longer-term rehabilitation from flood impacts. But what is the role and contribution of the arts and humanities? Their value in terms of "impact on society" is, in many people's minds clear (e.g. Bate 2011). But there has been recent withdrawal of Government core funding from much of arts and humanities teaching at graduate and post graduate levels, and the cutting of arts funding in the austerity era - Somerset County Council controversially cut its *entire* arts development funding in 2011. This indicates that these subjects are often seen as esoteric, arcane – a luxury – rather than generators of potentially essential and transformative knowledge.

Different flood knowledges: conflict or integration?

We now draw upon material from a series of overlapping Economic and Social Research Council (ESRC), Arts and Humanities Research Council (AHRC), and other projects which have investigated flooding and its impacts from social sciences, and arts and humanities perspectives. These in some cases have responded to calls from the UK research councils for work addressing environmental change, for example, the AHRC *Landscape and Environment* and *Care for the Future* Programmes and the *Living with Environmental Change* partnership[4]. Collectively these works have conducted social science, largely ethnographic, research in UK flood affected areas, and surveyed a range of scholarly historical and arts based accounts of flooding internationally (see, for example, Hurricane Digital Memory Bank produced in the aftermath of Hurricanes Katrina and Rita; Coaplen 2012). A series of different workshops and conferences have brought academics from a range of disciplines, practicing artists, governance agency and community members/ leaders together (AHRC *Living Flood Histories* network[5], *Learning to Live: Floods and Futures* conference in 2010-11; ESRC *Flood Memories* conference, October 2013). In some

[4] A major interdisciplinary research and policy partnership involving all seven research council and government departments.

[5] This network was led by McEwen (flood risk management), with Robertson (historical geographer), Wilson (storytelling and digital media) and Jones (cultural geographer).

instances[6], these have focused directly on the Somerset Levels (hereafter the Levels), drawing upon a range of documentary and historical accounts of floods both past and present such as Sutherland and Nicolson's (1987) book *Wetlands: Life in the Somerset Levels*.

While historically, the social sciences have focused on topics like the psychology of flood risk, and the socio-economic factors affecting individual flood response (e.g. Parker *et al.* 2009), more recently research has taken a series of related turns which focus on changing cultures and technologies of flood recording and mapping, how memory is a key way in which we live with flooding and with place more widely (Jones and Garde-Hansen 2012). One substantial key interdisciplinary project, the ESRC *Sustainable Flood Memories project* (2011-2013)[7] – with hazard and cultural geographers working with experts in media and memory, oral history and social anthropology, has explored the concept of "sustainable flood memory". This is conceived as an approach to memory work that is community-focused and archival; integrating individual/personal and collective community experiences, involving inter-(vertical) and intra-generational (horizontal) communication, and concern for the future of flood memory (McEwen *et al*. 2012a) as a form of local knowledge. Secondly the project developed more conceptually rich ways of understanding, and working with the whole idea of 'community', a concept very much at the core of governance but in ways which ask many questions about what communities are and how they function spatially and socially. Thirdly different forms of knowledge and expertise have come into question, exploring how local/lay knowledge develops in flood risk settings, how it meets "expert knowledge" (Whatmore 2009; McEwen and Jones 2012), and how it changes who might be considered expert by communities, and indeed by other agents in flood risk management like journalists and politicians. The challenges and potentials of facing up to the dynamic material, culture, scientific and political complexities of flood risk in these kinds of ways are strikingly explored in the work of Whatmore *et al* (e.g. Donaldson *et al* 2013). Lastly, attention has focused on how new technologies and social media cut right through these themes of memory, recording flooding events, community dynamics, and forms of expertise.

The ESRC *Sustainable Flood Memories* project explored the role of recent memory of extreme floods (in the project's case the July 2007 floods in Gloucestershire, UK) in the development of lay/local knowledge for community resilience. Within this framing, are issues of how extreme floods are remembered and materialised in the landscape and in society. This can be through new generations of "flood marks" such as plaques, inscriptions carved into stone, or simply painted lines on walls with dates (Figure 4); in the home or public settings (like public houses) through collections of photographs and press cuttings (which sometimes are "on display" or otherwise stored away in drawers and albums); and increasingly online through a range of social media. For example, alternative flood maps have been created by compiling geo-tagged tweets which record flooding during the

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[6] During the AHRC Living Flood Histories network, the Somerset Levels, emerged as a persistent case-study setting that exemplified a long and routine history of 'living with water' - in exchanges both within the workshops and at the end of project conference. In the latter, James Crowden read some of his poetry from '*In Time of Flood: The Somerset Levels*' alongside George Wright's atmospheric images of the Levels.

[7] This project focused on flood memory and lay knowledge in the aftermath of the 2007 floods on the lower Severn in Gloucestershire. It is proposed here that some of the framing around watery sense of place might be applied to other routinely flooded 'communities' like those of the Somerset Levels.

November 2012 floods in the UK, creating a spatial 'snapshot' not only of the distribution of flood events by the distribution but also interconnectivies of those 'talking' about flooding[8]. These sit alongside maps created for insurance purposes, and ever updated flood risk maps from the Environment Agency and others.

Figure 4 Local marking of the July 2007 floods: Red Lion Inn, Wainlode Hill, by River Severn, UK
Source: photograph: Lindsey McEwen

This project studied how flood memories are assimilated, drawn on and shared within social groups and networks, and how flood memory and associated lay knowledge might be cultivated by communities themselves and agencies working in local flood risk management. These agencies are very anxious to ensure that at-risk "communities" are informed as to the nature of their flood risk, the warning signs of imminent danger, and how to respond as individuals, families, and neighbourhoods to flood events and their aftermath. Memory can be a very powerful form of "portable knowledge" for individuals and communities who have been flooded in the past, even if that memory is passed through generations between extreme flood events, with long inter-arrival times. But there are many challenges to keeping collective memories of flooding alive in the 21st century - not least in how "communities" are formed and practiced, the increased mobility of social life, the rapidly changing nature of many settlements, and a series of very contentious issues around house values, insurance and well-being that might seek to "forget" rather than "remember" flood histories in the local area. Such forgetting therefore occurs for a whole gamut of reasons – coping with trauma and emotion; denial of risk; deferral of responsibility; total confidence in engineering protection (see Krause *et al.* 2012). On the other hand, memory can be organised and mobilised in newly formed "associations" campaigning for local mitigation and dredging from agencies and government. This was seen with the *Flooding on the Levels Action Group* (FLAG) during the 2014 floods. Memory can thus be the "grit" for on-going petitioning for agency action but also the stimulus for community-agency partnership working and funding of flood management schemes (McEwen *et al*. 2012a).

[8] See http://www.theguardian.com/news/datablog/2012/nov/28/data-shadows-twitter-uk-floods-mapped

The social sciences (working with environmental sciences, and more recently the arts) also now play a key bridging role in the public understanding of science – in researching how the public understands risk (residual; changing) in context of climate change (McEwen 2011). This includes exploring how the public engages with complex concepts like probability and uncertainty in flood risk mapping and modelling. It also poses questions about how expert science is communicated (including troublesome and threshold concepts like uncertainty), and brokered between professional scientists, and the public, as well as the role of flood risk agencies in these processes (Stokes *et al*. 2013). How does the culture of "information transfer" and information marketing within some agencies move to a culture of exchange and dialogue with the public in community settings? The debate around whether or not to dredge major water courses in the Somerset Levels highlights the issues and conflicts in public (and politicians') engagement with evidence from scientific monitoring on the effectiveness of dredging as a flood management solution (see Environment Agency 2011).

Finally – it is important to note that these projects and similar on flooding (and other forms of environmental challenge) are not simply communicating science and/or bridging between differing constituencies. They are generating new insights, questions and challenges about what social resilience in place might look like. They also play the important role of helping to engage with how global themes and challenges such as climate change and its consequences play out locally on the ground in everyday places and everyday lives (see '*Making Science Public*' Leverhulme funded project).

"Watery Senses of Place"

Notions such as landscape, sense of place, place making, topophilia, home (both past and present) have long been key foci in human/ cultural geography. These have, amongst other things, focused on how people live with nature and risk, and changing places. These kinds of approaches have always had close links to the arts and humanities, for example by studying place through literature and poetry (e.g. Alexander and Cooper 2013; Brace 2003). Recent treatments of the interface between the arts and geography have focused particularly on emotion, affect, memory, identity and their weaving of and through place, material cultures and so on (see Wylie 2009; Tolia-Kelly 2007). Now these approaches are linking towards more policy orientated frameworks such as cultural ecosystem services (Daniel *et al.* 2012).

Searches in historical archives (e.g. the British Hydrological Society's *Chronology of British Hydrologic Events*), local literature, and oral history sources (e.g. Anderson and Willoughby 2006; *Somerset Voices Oral History Archive*) reaffirm that the Somerset Levels have a long history of flooding, with evidence captured and stored in county archives, newspapers, photographs etc. Alongside these, the physical archives of peat and sediment in the local landscape allow reconstructions of longer-term flood histories and environmental change. The Somerset Levels, underlain by marine clay, are - or were - a low lying area of marsh and raised bog deeply penetrated by the salt waters of the high tides of the adjoining Bristol Channel and flows of fresh water from surrounding high ground (i.e. the Mendip Hills which form the north east edge of the area and the Quantock Hills which mirror the Mendips in the south west[9]). These flows

[9] See English Nature publication on *Somerset Levels and Moors/Mid Somerset Hills* (Character area 142/3) http://www.naturalengland.org.uk/Images/jca142%2B143_tcm6-5566.pdf

run through four rivers and their tributaries (rivers Axe and Brue in the north, and the Tone and Parrett to the south (Figure 2), and through a labyrinth of man-made drainage channels. It is – fundamentally – a wetland. Prior to any kind of drainage and sea defences, it was occupied by ancient communities as the famous archaeological find, the "Sweet Track"[10] shows. But it was also considered a wild and desolate place as depicted in old English poems such as Beowulf.

The Levels are prone to fluvial (fresh water river) floods in winter as meteorological observations and eye-witness accounts affirm:

> 'As a traveller passing through Somerton in 1780 noted: in wet winters, people have been known to come from the Parrett in boats to the very doors.' (Poole 2014 p15 citing Sullivan 1780 p43)

> 'In December 1876, a rainfall observer at Isle Brewers (Walrond Park), Somerset, noted "... a fall of 8.92 in. (227 mm), nearly three times the average, flooding tens of thousands of acres in the basin of Somerset deeper and for a longer continuous period than old people have noticed before."' [On the river Isle, a tributary of Parrett] (*British Rainfall* 1876 p127)

In addition, occasional sea inundations have occurred, the worst of which in recorded history was the 1607 floods in the Bristol Channel[11], likely caused by a storm surge coincident with a very high tide. Other inundations occurred in '1798, 1903, 1936, and in December 1981 when flooding occurred some 3-4 km inland' (English Nature 2009).

Since perhaps the Roman era efforts have been made to drain the level and this began to make a transformative impact on the landscape as more developed practices of drainage developed in the 1600 and 1700, including techniques imported by Dutch engineers and farmers. Historical geographer, Michael Williams (1963; 2009) provides a detailed reconstruction of the historical evidence as to 'Medieval reclamation' and 'Draining activity c.1400-1770', along with its implications on 'countryside and agriculture'. Such significant contributions by historians in reconstructing past managed water landscapes, show flooding used as a productive management tool – here on the levels but also in other settings (see Cook and Williamson's 1999, 2007 work on wetlands and water meadows). Clout (2014 p3) reflects on the significance of William's seminal work:

> 'Michael Williams demonstrated that attempts at water control extended over many centuries, with phases of successful drainage alternating with periods of failure. He showed that construction of farms and settlements on low-lying sites carried risks even in apparently successful times. His analysis of records revealed that there were precedents for the recent magnitude of inundation, and

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[10] The Sweet Track is the oldest prehistoric causeway found in Britain, constructed nearly 6000 years ago by early farmers in Somerset (see British Museum http://www.britishmuseum.org/explore/highlights/highlight_objects/pe_prb/s/section_of_the_sweet_track.aspx)

[11] Recorded in a Pamphlet entitled: Gods warning to his people of *England,* British Library manuscript number 1103.e.62. (http://website.lineone.net/~mike.kohnstamm/flood/jonespamphlet/godswarning.html)

> that heavy rainfall is only one factor leading to extreme flooding, along with poor maintenance of channels, insufficient investment in flood management, and fragmented administration. Williams maintained that even with modern pumps and machinery, winter flooding of very low stretches of pasture remains uncontrollable without massive investment in drainage maintenance.'

So this landscape has long stood in tension between being a wetland – through fundamental and unalterable circumstances – and a drained/ managed landscape suitable for agriculture and settlement. Consequently communities on the Levels (notwithstanding the caveats mentioned above) have long histories of living with watery landscapes in complex ways, with repeating patterns of flood and response. Poole (2014) has reconstructed some of this history and the conflicts in management strategies in his recent article '*The West Country flooding – the long view*', while Anderson and Willoughby (2006) draw on oral history accounts of the continual 'low technology', 'common wisdom' management of rivers and drains on the Levels in the 19th century. These accounts capture local knowledge of farmers, for example, on how to keep the water back in summer using wooden structures called 'bays', and the role of silt removal:

> 'Sometimes the banks did slip out into the river. Well, then they had to go down, and dig off all the outside and throw that up and bank it back up again. But what the draglines do now, or thic blower, well they used to have to dig all that, throw so much over, throw much out of the river, all with little shovels. All the year round all the way up through, right down to Bridgewater and right up so far as the locks here on the Tone and up so far as the locks up to Wick…… That was constant work.' (Anderson and Willoughby 2006 p158)

One of the striking things about watching the news reports and interviews on the recent flooding of the Levels were glimpses of how the villages affected have changed in recent years, even since Sutherland and Nicholson's (1987) book was published. It is from this book that the quote in our title comes from – 'a glorious time' - and this in turn was from one of the oral history passages, recounting the words of one Harold Hembrow remembering the 1929 floods (21). So that 'landmark' book is not only a record of how people have lived with water and flooding – beautifully recounted in prose (including the oral history extracts), and black and white photographs, but also, strikingly, - *a celebration of flooding and living in a 'wetland'.*

It is so because it records the very distinctive, landscape and life styles that gave the Somerset Levels such an individual and powerful sense of place. It is from here that the idea of a "watery sense of place", developed within the AHRC *Living Flood Histories* network (2010-2011), sprung - with affinity to contributions by geographers and others on 'liquid landscapes' (cf. Oliver 2013). In the book, there are rich accounts of flooding as history, local drama, which are key to both individual and community identities. Also there is plenty of evidence of people (and properties) being practically prepared to cope with extreme and prolonged flood events, as evidenced in an interview extract of a local resident remembering the floods of 1929:

> 'Every house in Athelney, Stathe and Curload had water in it.... Harold Hembrow, who was sixteen at the time, and eleven other members of his family, stayed upstairs at Rook's Orchard in Burrow Bridge while the floodwater swilled about below. 'The flood was lovely. You get on up there and no matter which way you looked it was just like it was years ago. Just water, just like the sea, lovely. Some of the gates you could see in the middle of nowhere, some were right under. It was rough, lovely, like the sea.'

> ‘Nobody had no money. There was no work with the flood and it lasted till the spring. Nobody couldn't buy nothing. Nobody had the money to buy it. If you had a shilling in your pocket, you went to the pub. If you didn't you couldn't’.
>
> ‘But, do you know, you could go in a boat from Burrow to Stoke, two miles over dry land? And we fetched a hogshead of cider from Lyng in a boat, fifty-six gallons at sixpence a gallon, and had it upstairs here. Nearly every house had a fireplace upstairs for cooking in the winter floods. Only a little tiny snotty-arsed little grate. You couldn't roast nothing. It all had to be boiled. Boiled meat, fried meat. It was a *glorious* time. We had a hard time, but it was a good time. Like if you go into the King Alfred here: you take the sweet with the bitter.’ (Sutherland and Nicholson 1987 p 20-21, emphasis as original)

Other photographic and literary works and very notable locally based artists have also treated the watery, floody nature of this landscape as a thing of challenging beauty. Key instances of this include the photographic essay ‘*Open Skies’*, by Don McCullin (1989) and the poems of James Crowden (see Crowden and Wright, 1996**).**

But as hinted at above, the communities on the Levels, and the nature of “modern life” in terms of settlements, houses, material possessions, infrastructure needs, have changed markedly since Sutherland and Nicholson’s (1987) book was written. Indeed the very nature of communities more generally has changed. For example, Anderson and Willoughby (2006 p1) capture the voices of local people with particular practices and professions linked to the Levels – ‘farmers, fishermen, peat diggers, withy-growers, basket makers and cider makers’ - talking about their memories of ‘a now-threatened way of life’; and Heeley *et al*. (2010 p1) draw together oral history accounts[12] of life in the Levels ‘of smaller towns, of self-sufficient villages, from which many never ventured far’.

As a consequence, communities are less connected to (working) the land – and with more vulnerable and less resilient houses, and with increased reliance, for example, on insurance for reinstatement. Beyond that, society has become remote from, and or in conflict with, nature and natural processes. Building houses in flood risk areas is a very obvious example of that disjuncture. And of course over all this looms the prospect of climate change where increased rainfall events and sea level rise pose a particularly challenging possible future for this low lying area surrounded by higher ground, and a sea with some of the highest tides in the world.

“Living flood histories”

Arguably it changes the whole notion of the idea of individual and community resilience to flooding if local populations see flooding as part of their history, landscape and even identity; expressive of “a watery sense of place”, with knowledge about “how to live with water” passed between and within generations. Historically this is quite easy to identify in the Levels (e.g. Crowden and Wright 1996).

[12] Drawn from the collection of over six hundred oral recordings of Somerset people made since 1973 and held at the Somerset Rural Life Museum, Glastonbury.

The AHRC *Living Flood Histories* network workshops explored such interwoven themes: “conceptual frameworks for watery landscapes and living with floods”; “flood heritage - exploring flood archives for understanding the known pathways to resilience”; and “flood stories: exploring informal narratives of resilience past and present” – all set within the context of “learning to live with floods”. As these workshops revealed, evidence of such watery senses of place can be found elsewhere, both in the UK (e.g. Graham Swift’s 1983 novel - *Waterland,* set in the East Anglian Fens) and beyond. For example, the charming memoir on the Nobel author José Saramago, *Small Memories,* tells of life in his childhood village of Azinhaga, Central Portugal, where living with the two local rivers (Almonda and Tejo) were a feature of local character:

> ‘The land around there is flat, as smooth as the palm of your hand, with no orographic irregularities to speak of, and any dykes that were built served not so much to contain the powerful rush of the river when it floods as to guide it along a course that would cause least damage. From those distant days onwards, the people [ ] learned how to deal with the two rivers that shaped its character [ ] and for good reasons and bad, both rivers are omnipresent in the memories and conversations of every family’ (Saramago 2009 p2).

Soon after this passage, Saramago describes how many of the older houses in the village were built on stone plinths set at a height to keep them above the seasonal floods.

And on closer inspection, history, literature, and philosophy are replete with observations and lessons on how other communities have lived with flooding and other environmental challenges (e.g. drought, wild fires, heatwaves, severe cold). These themes were explored within the AHRC *Living Flood Histories* network – how arts and humanities approaches might bring new understandings to the table about how to live with environmental changes (McEwen *et al*. 2012c).

Such changes might include more frequent occurrence of episodic extreme floods; how learnings from routinely flooded landscapes might be brought to landscapes now newly experiencing flooding; and how lives have been lived in flood risk areas in a range of cultural and economic settings. Climate change scenarios for the Somerset Levels bring increased risk of sea level rise and extreme rainfall events; it is combinations of these and “tidal lock” which really threaten the Levels. Some people, in deliberating about how we move into the very uncertain future in relation to such climate change, think that such lessons from the historic past should become key parts of how society responds. Geography is important both in the specificity of the physical and social characteristics of place and how they combine and change over time.

Really, we would argue, the challenge for today’s communities of the Somerset Levels (and those charged with their care) is try to find ways of embracing the watery history of their landscape which has made it such a unique and rich place in both natural and cultural heritage*, while at the same time* making their homes, villages and businesses flood resilient in the face of the inevitably of future floods, and climate change scenarios. We feel the humanities – subjects like cultural geography, history, and heritage studies - can make significant contributions to this challenge. The AHRC *Living Flood Histories* network explored how floods are remembered and materialised in landscapes that are habitually wet in a whole range of locations. Flood narratives could equally be of stories of catastrophic floods in the UK or internationally, whether the 2014 floods on the Levels; the Hull and Gloucestershire floods of 2007; the Mississippi floods of 1927, New Orleans after Hurricane Katrina in 2005, or flood

stories from Jakarta (see AHRC *Living Flood Histories* website). In many of these settings, the power of narrative is critical; those captured within formal and informal archives but also captured in oral histories of communities who have lived with flooding over centuries or more recently.

The AHRC *Living Flood Histories* network explored a number of different types of narrative. Most particularly those narratives were "situated" (in both space and time) around experiences of wet landscapes and flooding, and represented though a rich diversity of methods, these narratives embraced museum archives, oral histories, social networking sites, creative writing, poetry and music (see McEwen *et al.* 2012b). A second set of narratives was identified as "therapeutic". For example, Sims *et al*. (2009) explored the role and power of narrative in reflective flood diaries in the recovery process in urban communities after the 2007 floods in Hull, while Coaplen (2012) reflected on the potential of creative writing in recreating sense of "home" during the recovery processes in New Orleans after Hurricane Katrina. A third theme explored was that of "unsettling flood narratives" - unsettling the dominant narrative around landscape to embrace landscapes that might be "unstable, un-homely, even disastrous" (Jones *et al* 2012). Landscapes undergoing environmental change can engender both a sense of belonging, and a sense of distance and estrangement. Flood narratives can be unsettled in other ways, for example, by disturbing the conception of floods, particularly modern floods like those in 2014, as simply problems that need to be managed. And re-settled through Staddon's process of "'therapeutic deconstruction", as something more positive, this can reinforce a "watery sense of place", so engendering a sense of community and shared experience. This can reconnect communities to the rhythms of nature. One such rhythm, as histories constantly recall, is the fact that floods bring sustainable fertility to the land.

All these narrative frames have potential for further exploration in context of the recent floods on the Levels, and in terms of "flood heritage". Found captured within the narratives contained in *Wetland: Life on the Levels* (Sutherland and Nicolson, 1987) is a strong sense of history that is expressed from below, within and for localised communities (cf. Robertson 2012). More often than not, the past, as heritage and as a form of cultural capital, has been deployed in the assisting in the making and maintain of *elite* narratives of place and identity. Flood stories and elsewhere – especially the sense that "the flood was lovely" – write narratives of the past in the present which function as cultural resources for expressions which run counter to the dominant. In this view, landscape – and 'watery' landscapes no less than dry – is always in the making; always practiced. As "heritage from below", memories of everyday coping with "the wet" places, the emphasis is on domestic spaces, routine material culture and the mundane as prime sites of everyday memory work. As Atkinson (2008) suggests, ghosts of past memories and past "wateryscapes" will well-up: un-looked for and un-celebrated.

Perhaps, then, the aim should be to "think like a wetland" (Wetlands Collective 2012), a notion derived from the pioneering work of ecological consciousness by Aldo Leopold (1949), which calls on us to work with, rather than against the complex inter-meshing of natural and social rhythms through which places are continuously and multi-variously practised and performed. Emerging from the AHRC *Living Flood Histories* project, one particular piece of participatory research by the *Walking the Land* arts collective sought to explore the boundaries between the resilience of wateryscapes, creativity and subjectivity, drawing in part on recent attempts to use art practice as a building-block of community resilience (Hopkins 2011).

This may well mean moving away from an authored representation in an attempt to replace "framed nature" (Berleant 1995) with a direct and engaged appreciation involving the abandonment of the deployment of the static, framing gaze. This shift, moreover, mirrors the fluid and temporary nature of the wet 'scape the artists sought to respond to, understand and

perform. Thus the authorial collective took one of *Walking the Land's* "First Friday Walks" in the wet, with the resultant assemblage (Keating *et al*. 2012) – presented as a form of performative and transversal trialogue, and available to view at *Walking the Land's* web site[13]. This was an attempt to chart the walk and the talk; to respond to, in short, important questions concerning the connections and disconnections between each other's ideas of wateryscapes. In this, walking is conceptualised as both performance and means to artistic production, with the rhythms of the day captured through a triple-interwoven narrative punctuated by a number of "encounters". Those involved in making this work wanted to understand (and still want to understand) if the resultant thoughts could be made into a form and expression that could be understood as 'heritage from below', and perhaps thereby aid in affective communal resilience in coping with the wet.

To think with a watery sense of place, and through and with a wateryscape, whether it is found in the historical geography of Michael Williams, the poetry of James Crowden, the photography of George Wright or in Simon Read's '*Imagining Change*', can surely play a part in the development of resilience. Indeed if more radical critiques of resilience are to be considered, such as that of Evans and Reid (2014) – who see it as a "neo-liberal deceit" which disempowers communities, then rethinking how we 'live with water' in these ways takes on far reaching political and "managerial" implications. Simon Read's work '*Imagining Change*' engaged coastal communities with changing risk and erosion (Jones *et al*. 2012) while Lyons' Arts Council funded work *Submerged (Drowned Lands)*, involves working with communities around scenarios of rising coastal water in the Severn estuary and linking these to other narratives of communities at risk in other times and places (see Lyons 2013). This engagement with the arts and humanities has the potential both to reinforce and develop a "watery sense of place", and increase opportunities for social learning around how to deal with floods in a climate change context. Such narratives may help "communities" deal with flooding by connecting communities to their past experience of living with water flooding, and the future, and to work with agencies including the much scorned Environmental Agency. Such knowledge may play a part in empowering communities and increasing their flood resilience, *despite* increases in insurance premiums, and local resentment and conspiracy that continues to linger about how and where was "sacrificed" on the Levels.

But given the very differing material and financial arrangements of the "modern" home (including insurance needs), any future configurations of resilient communities in high risk flood areas (where risk might be increasing significantly) are likely to be combinations of new material arrangements: settlements, homes, flood defences, drainages, financial implements; *and* new senses of place and community in landscape which will include histories and memories. So arts and humanities approaches are already playing a role, and have the potential to play a greater role, in representing flood narratives to a wider public and policy audiences.

Conclusions

In response to recent flood events in the UK, the architecture and urban planning think tank '*Building Futures'* have suggested that:

> 'we need to do more to curb our compulsive, single-minded efforts to control

[13] See http://www.walkingtheland.org.uk/wordpress/publications/

> water through elaborate structural interventions, move away from bricks and mortar-based solutions. The challenges we face now and in the coming years may drive us *back towards embracing the previously dynamic relation between land, water and communities'* (*Building Futures* 2007, p5 emphasis added).

Social science and arts and humanities approaches, such as geography, history, literature studies, can play key roles in re-imagining how communities live with water and flooding in an era of climate change. For example, human/cultural geography can ground such re-imaginings in the specificities of places, while history and literature studies can reveal other narratives from other places and other times. The value of such approaches is indicated by the fact that the various projects briefly discussed above have attracted the on-going attention and *participation* of governance agencies seeking to reimagine how communities live with flood risk (see McEwen and Jones 2010 on aspects of lay knowledge and flood risk).

Recently the Science Europe Scientific Committee for the Humanities (2014) have published a report charting the progressing of the social sciences and humanities (SSH) in major European Union funding programmes. Thus far, they feel the approach to SSH's role in addressing major societal challenges has been 'simplistic', and that these approaches need to be 'integrated into all stages of the research process' (2). They conclude that without full SSH integration, the '[H2020] Work Programme will not attract research projects that will create 'deep change': the fundamental changes in our behaviour – and, if appropriate, in our deep-seated convictions and motivations that underlie this behaviour – that are needed to address the Societal Challenges'(9).

Here we argue that with the policy paradigm shift to flood risk management, and the increased focus on "community" in risk management, interdisciplinary approaches to understanding flooding and its impacts, and in exploring sustainable solutions in partnership with communities are all the more important. While many research approaches have involved natural scientists working with social scientists on complex issues, we feel current challenges require more novel interdisciplinary weaving to understand flood contexts and contribute to integrated and sustainable solutions that are co-produced and co-owned by communities themselves and other agents in flood risk management. The *integration* of arts and humanities with the natural and social sciences is critical - to merge technological developments *and* sense of place into new futures. Involving arts and humanities in interdisciplinary and inter-professional working opens up possibilities of new ways in which a range of methods can negotiate between communities at the local level, and their landscapes, their past, present and future in order to heighten notions of resilience. In such contexts, art and humanities can thus function as an important stimulus for dialogue and exchange of narratives between science, policy and public understanding, so complementing the existing work in the social sciences and human geography on flood risk and preparedness.

Acknowledgements

The research reported draws on research funded by the Economic and Social Research and Council and the Arts and Humanities Research Council. The contributions of the rest of the team in ESRC Flood Memories project (Dr Joanne Garde-Hansen, Dr Franz Krause and Dr Andrew Holmes) are acknowledged, as are discussions within the wider AHRC *Living Flood Histories* network. We are indebted to: an anonymous referee for a set of very insightful comments; Antony Lyons for permission to reproduce Figures 2 and 3. The editor is also thanked for his support and insights.

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