

Literary Approaches to Water

Unsurprisingly, there is an extensive body of literature on water across disciplines. The attention has established it as a vital substance, an inspiration, a tool, a source of power, and as a resource (Shaw and Francis 2014; Strang 2004, 2005, 2013a), amongst other things. As a resource, discussions around water security, supply, storage and ownership abound. Thus, numerous authors explore the politics of water from the perspectives of control (Strang 2009, 2013b; Swyndedouw 2015; Thomas 2013; Tvedt and Coopey 2006), while others attend to seeking the technological and scientific solutions necessary to ensure a regular, enduring and secure supply (Gleick 2014a and b).

Much of the work published by the environmental, meteorological or geo-sciences in recent years explore how, and show that, water's behaviour has changed. As already explained, water and the climate are materially similar and therefore are very obviously causatively entwined, thus, any modification in the weather inevitably affects global waters and vice versa. Works that are predominantly concerned with the effects of climate change above other issues such as water pollution or contamination, exhibit a tendency to focus heavily on the political significances of water (in)security specifically and cite the increasing potential for conflict associated with countries that rely on shared riverine resources (Gleick 2014a) for their supply. In addition, apprehension is also offered about the consequences of altering watersheds, increasing frequency and intensity of storms and extra water vapour in the air producing dry land due to raised climate temperatures are centred on human use and foreground human needs above an inclusive, holistic perspective of water's activities. Consequently, any calls to reconsider how water systems are designed and assembled attend to ensuring that supplies to humans are secured above consideration of other ecological partners, as the construction methods of numerous dams across the world verify (Leslie 2005).

The redirection, obstruction and containment of water are not the only areas of unease these days. Other scholars are, of course, also concerned with water contamination and pollution. For example, Spiegel's chapter in Chen et al's *Thinking with Water* (2013) details a paradox of water contamination by explaining how it is both

transformational and disguised due to water's materiality. Using the tragedy of the Bhopal Gas Disaster in India in 1984 as an example of the lingering invisibility of groundwater contamination caused by continuing leakage of chemicals into the site of the disaster, Spiegel reminds us to be anxious about 'the unknown failures that gestate within [waters'] flows' (2013: 84).

Plastic is a highly visible contemporary disquiet (Hawkins et al 2015). Not a day goes past without some mention in the Press of the problematic durability of this substance. We are confronted on a regular basis with images of huge swirling gyres of plastic detritus in the oceans, with strangled, netted and imprisoned animals, stomachs bloated with ingested plastic bags and roads, forests or beaches that are littered with discarded single use plastic packaging in some form or another, more often than not as a result of our predilection for mobile hydration (Hawkins et al 2015). Increased plastics circulating in the water systems either obviously as bags or bottles, or invisibly as microscopic pieces coupled with rising sea temperatures mean that water is not quite what it used to be. Alterations in the way water performs its wateriness are a material concern – not just in the sense that human access to water could be affected, but also because all life forms, through being touched by these shifts, will inevitably be forced to respond. Water's failure to reach certain areas that it previously serviced, or its tremendous inundation of other zones whereby homes and property are flooded and washed away, inevitably impacts on more-than-human lives. Furthermore, detergents and other nitrogenous chemicals from the agro-businesses from around all areas of the world are held in, and circulated by, the fact that all waters are global. Therefore, water's behaviour is not simply an issue of sufficient water for human consumption, but is one that highlights a concern that the manner by which planetary materials are changing is not exclusively about contents, but also affects the way that they are able to act. In keeping with Morton's notion of hyperobjects (2010), the way water behaves now, therefore, is predictive of potential futures and also suggests that action needs to be taken to respond to these changes. How water behaves is beginning to have a bearing on both human perceptions of water, and how more-than-human lives (at all scales) can successfully engage with water. In addition, alteration to the chemical content and therefore, the materiality of water significantly alters the method by which water can move (as will be covered in detail later, see: Schewnk 2014). Water, now, full of new chemistry, is almost a novel substance entirely.

In connection with the modifying chemistry of water, Spiegel adopts an almost materialities perspective by characterising all types of bodies as 'fluid conduits' (Spiegel 2013: 89) affected and infected by the water available in this environment. In addition, because matters flows through bodies trans-corporeally and the world is not simply a material backdrop 'offering fodder for the production of goods (Spiegel 2013: 88), this example demonstrates the enormous implications of activities that fail to ensure that people are connected with the materials around them safely. Moreover, she asserts that 'in a globalised context... the question of *how* relationships between bodies and matter...form around the planet' (Spiegel 2013: 97) will need to be seriously reassessed, and that in association conceptions that continue to present water as simply a resource or as a substance that can be controlled by those who happen to be in charge need to be confronted.

The cultural significance of water is now also well represented. According to Carse (2010) prior to about 20 years ago water was not favoured as an anthropological topic and therefore rarely presented as anything more than an ethnographic incidental. This is countered by a recent article in *American Anthropologist* that maintains water has always been a lively area of interest in anthropological circles (Rasmussen and Orlove 2018). While the authors acknowledge water's current relevance and resurgence in interest, they are also keen to point out that water has figured highly as an anthropological topic. Their article provides an overview of the breadth of areas covered by the journal and sharply contrasts with Carse's conclusions in *Cultural Anthropology* (2010) 8 years early that claimed a paucity of information.

In my view, other than some notable exceptions such as Lansing's (1987) work in Bali that focused directly on the control of water in Balinese lives, water was rarely explicitly featured in the anthropological literature until Strang produced her book *The Meaning of Water* in 2004. Yes, of course, water was present in texts, as rivers full of spirits and anacondas in the Amazon, as the seas surrounding Kiriwina where the Kula took place and as the water holes that the Ju/hoansi circulated towards and shared with their more-than-human neighbours in the Dobe region of the Kalahari, but few texts made it their aim to demonstrate the cultural meaning and significance of water as Strang did. As water has become an increasingly important topic to discuss, Carse wonders

why this been the case. Carse speculates that possibly water was thought too 'banal' a topic for consideration (2010). Obviously, water played a part in the story of people's lives, but in keeping with ideas of the time that restricted respectable topics to social structures and organisation, water was not afforded much attention despite it clearly being vital.

However, *American Anthropologist's* recent review of anthropological representations of water (from 1893-2013) directly counters the point made above. The authors make the claim that, despite renewed interest, water 'is not new to ethnographic inquiry' (Rasmussen and Orlove 2018). Rasmussen and Orlove produce a comprehensive list of authors and series of topics to illustrate their point (2018). Starting with Boasian ethnologists they demonstrate works that record the cultural significance of riverine place- and river- names; ethnographies covering snow knowledge including games, building and other activities; rain ceremonies; mythologies of water-beings; irrigation technologies; marine navigation and more (Rasmussen and Orlove 2018). They explain how water has allowed anthropology to think about themes such as power, order, production, civilisation and environmental knowledge, to just list a few, but they go on to note that they perceive a shift in the way water is now placed in studies. Echoing my earlier point that water is always presented as playing a subsidiary role in supporting people to be able to live, they too note that water was typically placed as a conceptual backdrop in past works. They maintain that water has moved away from former representations to emerge as a complicated multifaceted force that generates power in multiple ways (Rasmussen and Orlove 2018).

Similarly, a recent special edition of *Society and Natural Resources* edited by Krause and Strang in 2016 shows how current scholarship is now very much occupied with new methods of representing and conceiving of water, which has given water a 'prominent place in academic research' (2016: 633). In their guest editorial, Krause and Strang, expound the virtues of refraining with divisions so as to allow the political, social and ecological to merge through realisation that 'social and hydrological relations [act] together (2016: 634).

Therefore, today, as interest in water develops, there is already a wealth (even a flood) of anthropological literature that shows the significance, and cultural shaping powers,

of the fluid (e.g. Bernard 2013, 2016; Carey 2010; Carse 2012; Chen et al 2013; Dillon et al 2012; Fishman 2011; Fontein 2008, 2015a and b; Helmreich 2009; Krause 2016; Krause and Strang 2016; Lansing 1987; O'Leary 2016; Singh 2006; Strang 2004, 2005, 2009, 2010, 2015; Wagner 2013). This work adds to this body of work but from a New Materialities perspective. Discussions that establish water as a material vital for survival without considering the many ways in which humans approach and engage with water ignore the cultural component of human-material and material-material relationships. Furthermore, discussions that sidestep the materiality of water and its predilections ignore the part the physical properties of water play in shaping humanity. Thus, the New Materialities focus adopted here places water and people on an interactive, co-creative continuum together in a way that is comparable to Krause and Strang's suggestions (2016).

Accounts of water as a resource or environmental substance are inescapable as any book catalogue can testify. However, increasingly, texts that make it their business to approach water using an interdisciplinary perspective with a view to reconfigure the conceptions held about humanity's dependency on water (e.g. Alexanderson 1990; Ball 2002; Consiglia 2008; Fishman 2011; Gleick 2014 a and b; Gooley 2016; Hawkins et al 2015; Lahiri-Datt 2014; Leslie 2005; Mathur and da Cunha 2014; Nichols 2014; Schmidt 2017; Swynegedouw 2015). Nevertheless, explicit demonstration of the material or agential abilities of water to provoke behaviour (as suggested by Krause and Strang (2016)) is only now, tentatively, being approached by scholarship (see *SI Society and Natural Resources* 29: 6). Drawing water into the foreground as I intend to do, contributes to this call. Recognising the human need for water, it extends this focus out from the person to establish that the material itself also acts to co-produce the form that relationships adopt. In this case, for example, the ability of static water to bring misfortune if not allowed to move is responsible for the way in which Giriama live with water. Thus, I intend to demonstrate that it is not just that water is, but how water behaves, that prompts action and the concomitant behaviours. Therefore, it is not just that people need water that creates practice, but rather how water behaves *with* people that determine how practice can be enacted. This political shift towards materials reminds us that it is not just that the need for water that shapes culture in multiple ways (as the literature amply demonstrates) but it is how water behaves in different ecological and environmental settings that is responsible for the ways in

which people can organise their sociality with it.

There are some remarkable texts that offer alternative approaches to water already available. For example, Chen et al's rich interdisciplinary text *Thinking with Water*, states that it aims to 'bring water forward for conscious and careful consideration' (2013:3). This rather inspirational edited collection blends the arts with philosophy and the social sciences to skillfully demonstrate the value of unifying approaches into one volume. Reading through the diverse chapters offers the reader a sense of both how water is variously conceived but also how, held together, these ideas create fertile ground for further creativity. Of significant interest is the work of Neimanis (one of the editors of *Thinking with Water* (Chen et al 2013)), who describes her approach to water (and the environment generally) as feminist and posthumanist. Neimanis uses water to encourage relational thinking and break away from separation and distinction as the mode of conceptualizing existence. Her latest book *Bodies of Water: Posthuman Feminist Phenomenology* (2017) begins by reminding the reader that people are 'made mostly of wet matter' (2017: 1) and that, in light of the current concerns about global water 'this meaningful mattering' (2017: 1) comes with a sense of urgency. While her primary focus is bodies, I still take much inspiration from Neimanis' boldness and poetic approach to materials.

Helmreich's *Alien Ocean* (2009) is another notable text that helped break the mould with regards representing water. Helmreich's book provides a picture of the oceans through the lens of human relationships with marine microbiology in different setting. He is not so much concerned with the water as with the life teeming within it. He demonstrates how microscopic life and people are changing the narratives constructed about 'drier' areas of life, such as politics and origins. His book contributes literature that exposes the strange in the ordinary and demonstrates the potency of relationships the water.

Moving away from the miniature world of microbes, Bear and Eden (2011), ask us to reimagine the way water fills our thinking. Depicted as a zone utterly alien to air breathers (following Helmreich (2009)), they demonstrate how anglers on the east coast of the UK attempt to think like the fish they are hoping to catch. Castaing-Taylor and Paravel (2012), continuing the theme of engaging with water through fishing, but

taking a 'wildly' more radical approach, have produced a disorientating, experimental sensory ethnographic film called *Leviathan*. Filmed through the use of a collection of tiny cameras positioned around the boat, the visuals are spliced together from multiple intensely intimate angles. This produces an almost material assault on the viewer as they experience the violent bloody shifting and sliding of water, boat, fish and people as they clash into each other, buffeted in their relational struggles.

Mathur and da Cunha's paradigm shifting approach to architecture and water needs to be noted for its exceptionality (2014). Mathur and da Cunha question perspectives on water, particularly rivers and the depiction of what they call the porous boundaries between land, sea, deltas, mud and rivers. Why, they ask, are rivers inscribed as lines running through land on our maps, when in practice they are temporal shifting almost breathing entities that seep into the earth on all sides? This false depiction places rivers only where they are obviously visible, and, they assert, forces our imaginations to erroneously conceive of rivers as channels filled with water running down from one place to the sea. 'Hasn't rain fallen everywhere?' they wonder (Mathur and da Cunha 2016). They suggest we make peace with water and redesign our shared worlds in such a way as to avoid confining and restricting how water behaves. Water's fluidity should not be seen as a fixed entity within the landscape, but should be approached 'sectionally' and as a complex multiplicity of relationships with rhythms. Concerned with the ever-increasing frequency of flooding, they call for intelligence and sensitivity in how water is approached, and maintain that the characterization of water as an uninvited stranger in the language of floods needs to be reconsidered (Mathur and da Cunha 2016). Water is everywhere and our designs must reflect that. Their edited collection compile from contributors at the SOAK conference in Mumbai thoroughly problematises conventional representations of water and calls for 'regenerative rethinking' (2014: viii) and a new design language that recognizes land and water are in relationship.

Lahiri-Dutt (2014), inspired by the call from Appadurai and Breckenridge (2009) for a wetter kind of theory that emerged from SOAK, maintains that a 'reconsideration of one of the foundational boundaries, that between land and water' (2014:1) needs to be dissolved in recognition of the hybridity of the landscape. Usually concerned with policies that created gendered access to water, this 2014 paper is a slight deviation

from Lahiri-Dutt's routine focus, but nevertheless stands as a powerful contribution to the accumulating voices that are calling for changes in how water is understood. Casting shadows that resemble the nature-culture debate as an inaccurate binary, quoting Domonoske (2012: 4), she says 'water-land is associated with nothing-something', and that realization of complexities, of soft lines in theory and of hybridity will help us to move forward in our environmental engagements.

Strang's rich and prolific contribution to this topic area has been instrumental in demonstrating how water troublingly flows between cultural and natural with the potential to cause both order and disorder effortlessly (2004; 2015). Her work has helped move discussions regarding planetary water forward in a materially and culturally sensitive way that accepts current global problems are not 'exclusively human problems' (Kohn 2015:311).

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