

**The beginnings of a creative water ethics***Liz Roberts and Katherine Phillips*

In our introduction, we meandered through intersecting literatures, providing routes to current thinking about human–water relations, from deep ecology and ecofeminism, to anthropological and urban geographical accounts of modern water systems, from philosophical accounts of the more-than-human and bioethical, to accounts that seek to bring spiritual, poetic, sensory and aesthetic dimensions creatively to life. These influences are found across this collection. With a specific focus on creative approaches and arts practices, the authors draw out the potential of creativity to inform these different literatures. As greater than the sum of its parts, we wish to elaborate on the central contributions of the collection as a whole, thinking about how it speaks back to current water research and to point towards future avenues of research and collaboration. Specifically, we hope that this work contributes towards the development of a creative water ethics.

We begin by articulating how the the collection responds to a call for starting from a fundamentally different analytical (and even, subject) position in order to do research on human–water relations. The contributors forward alternate ways of knowing through changing the subject/object relationship of knowledge-making, incorporating ‘others’ into it via creative processes and by using arts and creativity to make visible alternate relations with water. Second, we consider how the volume represents an attempt to bring other ‘voices’ to the fore that would not ordinarily be a part of water resources policy or management, through adopting a number of creative ‘tactics’ and relations with watery others. We then illustrate how ‘agency’ has been central to many of the chapters and how creative approaches can expand the meanings of agency in productive ways. Finally, we rehearse some potential pitfalls of creative approaches and share learnings from practitioners and academics in this collection, also thinking about where these experimental ‘tributaries’ might meander next.

**Process, plurality and making visible alternative spaces**

The first thing that is clear is that projects with creative and participatory elements are helping to foster different human–water relationships through incorporating lay/local/plural knowledge(s) into water governance, and through cultivating an ‘ethic of care’ by paying special attention to watery places, practices and habitats. They draw attention to encounters with water outside of the hydrosocial contract which creates identities of ‘water providers’ and ‘water consumers’ and outside modern water’s instrumental language of ‘resources’, ‘systems’ and ‘services’. Exchanges happen in these different types of encounters with water that help to reinforce new sensibilities, and a ‘trace’ of such encounters filters into everyday practice as a latent form of knowledge that can be drawn on. Creative practices can enable encounters that can be effective in reflection and learning processes, having the capacity to ‘spur ideational change and those who have the capability to invoke that change’ as suggested by Farnum et al. in Chapter 8. Creative methods can also consolidate new ideas or sensibilities, born out of social exchange, and communicate them to a wider sphere, drawing creativity out of others and ‘giving voice’ to them, as illustrated for example by Leeson in relation to the Geezers on the Thames (Chapter 1), and Bakewell et al.

in relation to collaborative water governance (Chapter 4). Critically, the chapters respond to calls for alternate spaces, models and narratives for human–water relationships.

In looking at the collection we are able to draw out connections between the chapters that together contribute to a wider narrative. Farnum et al.'s call for studies to be conducted with people who view water in fundamentally different ways (Chapter 8), resonating with Rudestam's argument that equitable and cooperative water governance is failing because of a lack of recognition of 'the multiple and incommensurate meanings that people make of water and the values assigned to those meanings' (Chapter 14). The chapters, as a collection, suggest that formal/informal binaries of water and of water governance, as Big/modern water versus experiences outside of that, are not so straightforward, and perhaps these sit alongside each other in how people actually experience water in their everyday lives. Creative methods can make visible alternative practices and encourage reflection over alternative spaces of encounter and how these interact with techno-managerial spaces. For example, *La Rasgioni* performance – a type of theatrical community meeting to make local decisions originating from Sardinia – provides a more informal and communal way of discussing environmental issues (Bakewell et al., Chapter 4). Likewise, a community art project explores how the power of the river Thames can be used to support local communities by seeking to 'create alternative models and demonstrate their effect' (Leeson, Chapter 1). The emotional spaces of water are also shown as a suitable alternative site of inquiry, illustrating the political force of feelings that reinforce particular water-place narratives as central to understanding how and why water policies are adopted (Rudestam, Chapter 14). In different ways, these are all engaging with the political, whether this be through community water conflict resolution, political acts of 'making visible', or through examining intangible aspects of 'rational' water policy discourse. Such approaches help us see how world-making happens through the 'speculative, imaginative and engaging forms of politics propagated by creative practices' (Kangieser 2013, p ?). Meisch (Chapter 10) warns that arts and humanities scholars should be sceptical about different forms of knowledge being subsumed within techno-scientific rationales that seek to abstract and generalise, yet such approaches do help to re-frame techno-scientific policy positions as a problem, rather than the position from which to be offering solutions.

One reason for pitting such positions/disciplinary perspectives as the problem is their tendency to be reductive, simplistic and homogenising, as argued by Hoolahan and Browne (Chapter 12), and Meisch (Chapter 10), in this volume (see also Strang 2016). The collection reinforces the plurality and significance of personal and cultural meanings, and values associated with water that are far from simple, seeking to examine their complexity and not necessarily try to resolve it. Linked to this celebration of pluralism, is a commitment to recognition of the open-endedness of human–water relationships, in terms of creative processes, knowledge creation and decision-making. A processual or open-ended understanding of meaning, knowledge and being means that the creation of lifeworlds becomes a type of ethical relation with an other(s).

Part of shifting emphasis away from creator and creation (an end product) to something more process-focused and open-ended is an acknowledgement of the multiple actors and 'actants' that help to shape meaning. In many of our chapters,

agency is given over to audiences (readers, listeners) and co-producers (communities, organisms, rivers) as a distributed creativity. For example, Gorrell Barnes (Chapter 2) describes her decision to leave her writings and map-making as an assemblage of her experience, choosing not to write over her art-practice with a cohering narrative that fixes things. Instead she allows her struggles to make sense of her collected memories and materials to be visible, all the while acknowledging that the reader(s) will take these forward and shift the meaning, bringing to bear their own experience through their interpretations. Likewise, Lyons (Chapter 3) claims that '[t]here is no single thread nor argument in the streams of watery activations and flights of fancy described here' to describe his deep mapping as an assemblage approach, while Meisch (Chapter 10) argues that it is reductive to say what a creative form like historical hymns offer policy frameworks as different readers and audiences from different historical and cultural contexts will take different things from it. For Hartley (Chapter 7), more attention needs to be given to the context of production (of knowledge, of cultural forms) 'given the distributed, multi-scale nature of change in the Anthropocene', and St John (Chapter 9) calls for researchers to 'pay attention to the way life is brought into perceptual being'. Their process-focussed approach suggests that knowledge about human–water relations is never complete, and to universalise and fix it through scientific or instrumentalist language disallows other connections and relations to be made or other voices and forms of agency to be elevated. Through our broad conceptualisation of creativity we also wish to detach discussions of 'meaning' from fixed representations and outputs or official forms of knowledge. Through the chapters' explorations of artistic processes and embodied practices, meanings are relational, emergent and changing, captured fleetingly in ways we might not expect, such as through the playing back of an audio tape loop degraded in river water (St John, Chapter 9) or the expression of a surfed wave experienced sensorily and lost immediately (Anderson and Stoodley, Chapter 6).

### **De-privileging anthropocentric and dominant accounts**

The ethos behind many of the chapters chimes with broader debates around human–environmental relations, especially how they are theorised within the academy. Current water policies and management strategies continue to face critique as being underpinned by conceptual assumptions about nature and culture as separate domains. Strang (2016) argues that the idea of nature as 'other' permeates every form of engagement with the non-human, including water policy. A drive to change this view can be seen from diverse literatures, and is reflected in a focus on indigenous knowledge and practices as well 'multi-species' enquiry, which seeks to give less anthropocentric accounts of human–environmental relations by highlighting that the ways that human, non-humans and even technologies interact is the result of dynamic processes (Strang 2016). Much of this work is inspired, as noted in our introduction, by Haraway and colleagues' development of 'interspecies ethnography' (Haraway 2008; Kirksey and Helmreich 2010), which put the non-human in the position of the subaltern and seek to give them voice by adopting a non-human standpoint (Strang 2016). There is a growing body of work that seeks to 'give voice' to the non-human through experimentation and creative approaches such as those in our chapters have much to offer.

In an effort to de-privilege anthropocentric accounts and meaning regimes that support the power relationships inherent in modern water infrastructures, particular 'tactics' or practices are promoted by our contributors. This involves an ethical or creative

'attunement' to the often invisible co-producers of human–water relations (including animals, organisms, habitats). In our chapters, this is variously referred to as 'conscious reading' (Meisch, Chapter 10), an 'ecological sensibility' (Hoolahan and Browne, Chapter 12), 'attentive listening' (St John, Chapter 9), an 'unconscious optics' or 'psycho-poetic intuition' (Lyons, Chapter 3) and 'story-listening' (Bakewell et al., Chapter 4). These are efforts to bring about an 'intensifying of our perceptive abilities' (Meisch, Chapter 10), to be able to compare different perspectives, to cultivate empathy through the creation of life-worlds (Bakewell et al., Chapter 4; Foley, Chapter 5; Meisch, Chapter 10), and heighten the role of emotions and feelings in generating new worlds (Anderson and Stoodley, Chapter 6; Rudestam, Chapter 14). Narratives and storytelling are shown to be an important aspect in these creative practices. They help to reconnect water habitats and potable water supply after the 'experiential distancing' that happens in Modern water systems (Lyons, Chapter 3); sometimes this is understood by artists as their ecological role or imperative (Gablik 1991). Our chapters seek to privilege other (human) voices previously excluded from water governance (e.g. Gorrell Barnes, Chapter 2; Birkinshaw, Chapter 11) and other species and forms of agency (e.g. St John, Chapter 9; Rudestam, Chapter 14). St John points out that creative practices are foregrounded in multi-species enquiry as a means of troubling human/non-human boundaries. Indeed, creative processes can help us feel the 'liveliness' hidden in things and 'reveal threads connecting their fate to ours' (St John, Chapter 9). Lyons identifies creativity as taking on a new role in public discourse due to anthropogenic change and shifting social-ecological relationships. The chapters illustrate that there is a creative ethic that can inspire more equal human–water relations.

### **Articulations of 'agency'**

A third contribution of the collection is can be seen as an exploration of the notion of 'agency'. Many of the chapters seek to elevate the agency of water in various ways as something that has the capacity to act on (humans) and to contribute to meanings associated with it (e.g. Hartley, Chapter 7; St. John, Chapter 9). Some of the authors explicitly draw on literatures on materiality and Actor-Network Theory (see Bennett 2009; Latour 2009), while others arrive at the idea of the agency of water in other ways. Agency is distributed, found in relations between things, rather than purely a characteristic of humans. The material affordances of water, watery things and species co-constitute their meaning as they come into relation, alongside cultural and symbolic contextual affordances. While staying attentive to the often destructive power imbalance that humans, for the most part, uphold over nature, our authors explore this type of material agency, in varying attempts to rework the relationship between humankind and 'the other'. They adopt a (micro-) political positioning or ethical imperative that puts 'non-human agency at the fore' to challenge forms of water resource exploitation (Alberti 2014, 160; Strang 2014). It is this type of ethical imperative that we take as the basis of creative interventions presented in the chapters, with many contributors responding directly to these or parallel human–environment debates.

Yet to view the forms of agency that the authors suggest within human–water relationships in strictly these terms would impose a limitation, and would not grant the opportunity to explore more of the distinct contributions that creative approaches give to this topic. The chapters draw on the concept of agency: to simply challenge dominating power relationships; to refer to something akin to having a respect or

respectful relationship with water and its shared spaces and inhabitants; to variously mean the capacity of water, of people, and of organisms, habitats and materials to act upon something, as a sense of potentiality or an affordance; to describe an elemental or affective force that holds water in a creative or embodied 'pull'; to a disruptive force or 'encounter' that forces us to think; and finally, in terms of connectivity. As a central motif, we'll take a moment to expand on these.

Water can have materially disruptive agency when it effects people's lives through appearing in quantities that are more or less than the usual, expected amount. In Birkinshaw's chapter (Chapter 11) it is the material qualities of water that disrupted the political economy of water supply on the edge of Delhi and created precarious new constellations of power. But water can also disrupt through the meanings that get attached to it, such as the way that the Klamath region's 'farmers vs fish' narrative erupts in the Deschute area of North America in a way that implicates decisions made about water policy despite the unlikelihood of similar impacts in such different catchments (Rudestam, Chapter 14). Water, no matter how much we seek to control it, will always retain something wild about it (Edgeworth 2011), leaking, seeping or rupturing out of containment. In these chapters and others (Anderson and Stoodley, Chapter 6; Hartley, Chapter 7) the material and cultural affordances of water (such as a wave for swimming and surfing in the form of an affective pull and iterations of identity) can be seen as ways in which water itself influences the meanings that humans associate with it.

Some of the authors also attribute a type of elemental agency to water that inspires, is given attention or bubbles up in their creative practice. Language used to describe water often involves almost magical or spiritual terms, talking about its 'pull', its 'draw', its 'power'; the coast becomes 'alchemical' or 'magnetic'. In Foley's chapter (Chapter 5), one swimmer compares getting into the water to the part in *The Wizard of Oz* film where it transforms from black and white film into colour. This metaphor describes a sentiment that many people feel towards watery activities and landscapes. Elsewhere, the long-term relationship between special meanings and water sources or confluences have been noted (Edgeworth 2011). Other chapters describe the therapeutic effects and relationships with belonging that water can give (Gorrell Barnes, Chapter 2; Anderson and Stoodley, Chapter 6). Leeson (Chapter 1) describes how her work has unintentionally returned over and over again to the River Thames because of its historical, symbolic and transformative power, while Lyons (Chapter 3) argues that humans have forgotten these mythic, symbolic, magical and subconscious aspects of water. The chapters illustrate how creative approaches can help articulate these special and sometimes intangible relationships.

Part of the strength of drawing on creative and arts-based engagements with water is that they may help to – following Bennet (2009) – 're-enchant' water and illustrate a distinct, attentive relationship or attunement with water materially, as agential and a vital or energising matter. In techno-scientific derived disciplines there is a wariness to engage with the idea of giving water too much agency, with a fear that it errs towards ideas of sentience and animism. Strang, herself, notes that '[i]t is important not to assume some form of intentionality or sentience or to 'fetischize' material objects' (2014, 139). In creative projects it is this type of engagement that may be most powerful. Certainly, historical, anthropological art-forms and religious art has a close relationship with animism (in terms of iconography and symbolism) and indigenous

cultures have different relationships with water via deep attachments to place, totems and spiritual objects. Nature has equally been attributed 'subtle metaphysical qualities' in Western romanticism and nature writing (Lyons, Chapter 3). Disciplinary expectations permit more freedom within creative projects and the arts and humanities to explore alternative forms of agency that do not fit within particular types of scientific language or rationales.

The idea of non-human energy is more common in cultures that do not privilege techno-scientific modernist frameworks in the same way. This can be thought as an animated perception inherent in nature connections. A form of subtle energy can be found in *qi/ki* in China and Japan, as *prana* in India and as *atua* in Maori (Flowers et al. 2014) alongside many more examples, however:

[t]he lack of Western academic consensus regarding its very existence, and the challenge of finding a language to describe it, relegates the knowledge gained from using modalities that profess to work with subtle energies as naïve, impossible, and often, inconsequential.

(Flowers et al. 2014, 113)

Through different methods, many of the chapters highlight the 'subtle energies' of different forms of water, such as waves and rivers. An attention to subtle energies and modes of enchantment does not automatically leap toward material determinism. Across the collection, we can clearly see the subtle political and cultural affective energies of water-related issues. We propose subtle energies might be further brought into water research and celebrated as a mode of knowing.

Another form of creative agency found in our collection is through the idea of connectivity. Echoing Strang's assertion that it is a relational agency that can be found in the material qualities of water, many of our authors take inspiration from ANT and theories of affect to consider the way that humans come into constantly changing constellations or assemblages with other 'actants' including their environment, which co-constitutes both their experience and the meanings attached to it. The way water moves and the forms it takes has inspired our contributors to use it to describe how knowledge is created (Hartley, Chapter 7; Bønnelykke, Chapter 13) through such assemblages. The wave functions as a metaphor where form is always tentative, coming undone and re-forming into new patterns through flux. This stands for the way that individuals make connections and conduct constant tactical improvisations and experiments in their everyday lives that rework connections and create new relationships.

Creative approaches can bring attention to the creative potential in everyday moments in a more overt way. In our introduction, the improvisational aspects or tactics for creativity were highlighted, where creativity is not cut off from mundane and everyday cognition and practices. We cited Ingold and Hallam (2007) who challenge the widespread understanding of creativity as 'the new', as innovative and exceptional, standing out from what came before as radically different. Instead, emphasising a forward-looking creativity, which is improvisational and relational and where life is an ongoing series of improvisational and creative tactics as people and objects bump into each other in different environments, opening myriad possibilities for relations. Creative practice positions things in 'generative juxtapositions' (St John, Chapter 9). Through thinking about connections, a 'contingency awareness' (Meisch, Chapter 10) can be cultivated as a type of ethic or empathy: a disposition to recognise alternatives.

As such, an assemblage approach is taken by several of our authors, which allows for this creative connectivity to be plural and open-ended (e.g. Gorrell Barnes, Chapter 2; Lyons, Chapter 3; Foley, Chapter 5), as a deliberate creative method. Creativity is also found in our chapters to be processual and emergent out of the everyday, involving a re-making and transformation of social practices in everyday life. Understanding creativity as both a professional skill and as informal, vernacular and amateur is helpful in this context, avoiding the policing of what can count as 'creative', and as offering something 'differently valuable' (Hawkins 2018).

Within this type of everyday creativity is the potential for a radical or transformative 'encounter'. Several of our chapters discuss the relational agency of water as an 'encounter' (Anderson and Stoodley, Chapter 6; St John, Chapter 9; Hoolohan and Browne, Chapter 12). An encounter is theorised as a pause or reflective moment that is caused by a rupture in habitual ways of thinking or being. This might be the result of an affective force or might occur out of repetition, when the same becomes dissimilar; in the example of the wave, new patterns are formed out of the old, and a reflection or reconfiguration of our understanding is needed. When we think of creativity as related to everyday practices, a swim, a surf, a river clean-up or a 'way of life' for islanders at risk from rising sea levels might create repetition through difference via regular engagements with water. In this way, this type of creativity becomes a type of micro-politics, in the form of a resistance or a localised change, or through embodied types of knowledge, which becomes the source for a more overt politics (see Anderson and Stoodley, Chapter 6, where surfers become environmental advocates for their local surf spots). It can also be seen via an ethic of care for the ocean or rivers and the organisms that live in it as cultivated through a close relationship with them (Foley, Chapter 5; Hoolohan and Browne, Chapter 12). As Leeson points out in Chapter 1, 'Change (where one is)' is a form of political power. Our chapters show that watery identities emerge out of 'encounters' with water, through practices and through narratives of place that inspire a particular type of relational ethic. They highlight the different sites and scales at which human-water relations can be understood: at the scale of the body, the community, the micro-organism, through narrative exchanges and within creative processes.

Water can function as both the material and environment that makes creativity possible. Through creative practices this can be made explicit and scaled up to affect wider audiences. An encounter can be manipulated through creative methods, which are sometimes also viewed as ethical, to 'render things strange' (St John, Chapter 9), or to focus on the 'hidden details of familiar objects' (Lyons, Chapter 3). Creativity can open new spaces of encounter (Bennet 2009). This type of creative change may be one potential transition out of the lock-in of current socio-technological systems that comprise 'Big' or 'modern' water and the hydro-social contract, as a form of change that is iterative and starts small-scale. For example, none of our chapters frame the individual as a consumer, and none simplify human relationships with water as access to potable supply, or use the language of 'resources' or 'services'. Nevertheless, as Lyons says, the 'powerful forces of status quo' should not be underestimated (Chapter 3). Hoolohan and Browne (Chapter 12) describe how our expectation for an endless supply of clean water is 'baked in' to everyday routines and practices in Western water infrastructure. They critique the current framing of sustainability interventions, as working within a paradigm that views 'modern' water systems as the norm and the only possibility within a neoliberal context. Instead they call for policy options that move

away from placing responsibility on the individual water consumer and towards a more holistic approach for water conservation that recognises the interrelationships between humans, water, animals and habitats.

### **Dangerous neoliberal waters?**

So far in this conclusion, we have shown the contributions that creative approaches can make to understanding or reframing human–water relationships. It is worth also considering some of the dangers that might surface when creative methods or practitioners are enrolled in inter- and trans-disciplinary academic projects. We have seen this approach increase across social science disciplines such as archaeology, anthropology, sociology and geography, with an interest in creative practitioners as more than external figures of interest, but with creative practices as part of the ‘doing’ of knowledge-making (Cochrane and Russell 2014; Hawkins 2014, 2018; Morgan 2009). This ‘creative turn’ is more of a (re)turn where there are important lessons from previous forays with creativity. For example, early geographers and explorers, anthropologists and scientists were keen to place art at the heart of scientific development and as a way of engaging the public, through conveying the ‘geopoetics’ or aesthetics of their discoveries (Hawkins 2018). We can also look to the way that meanings were previously constructed around nature in paintings. Art history shows that cultural tastes dictated that nature often be viewed as part of the rural idyll or ‘wilderness’, symbolically recreating particular power relations, often with humans and exploitative activities omitted, giving a sanitising and othering effect to nature. This effect has been repeated more recently in the creative economies and creative cities agendas where a colonising of artistic practice has had a sanitising effect on city centres and previously culturally and socially diverse neighbourhoods through regeneration projects. Across these, process is less important than final representations.

It is worth looking back to this history and having an eye open to the types of appropriation that can occur, especially in light of current neoliberal contexts within the University. Tolia-Kelly (2011, 137) notes that ‘university funders are bounding towards a culture of impact and public engagement’ enrolling visual culture and arts along the way. There is the perception with this type of work that it is ‘interdisciplinary, forward thinking and relentlessly positive’ (Hawkins 2018, 13). We should also acknowledge the problems that can be attached to such arty engagements, especially if they are ‘parachuted in’. There is a risk that such projects seek an artistic output that can be used to engage the public and over look other important aspects of creative process as a result. The creative practitioner becomes viewed as a translator of research already done, rather than a facilitator or active agent within the research process. Equally, creative practitioners can become part of the workforce that universities ‘extract labour from without appropriate value structures’ (McClean 2017) and their engaged practices might be a ‘slow’ form of knowledge creation that doesn’t quite fit with the ‘fast’ academy in terms of funding timeframes (Hawkins 2018).

Our contributors shared stories of their own experiences. One academic–arts partnership was unable to apply for a recent funding call with a creative focus due to the research body stipulating that artist salaries were not incorporated as part of the grant. Working within multidisciplinary settings with other sectors requires greater appreciation of external structures, such as the understanding that an artist would not automatically have alternative sources of income. Another contributor commented that



it was difficult to fit within the timeframes of 'fast' academic projects and it could work counter to her own approach to take time to build a portfolio of people, groups and communities who offered financial security through ongoing work together. These relationships and related security could be jeopardised by academics external to this who, working via the artist, seek 'quick wins' and outputs but are insensitive to context and dimensions of trust. Individuals seeking to do arts practice research within social sciences departments also find themselves falling between the cracks of existing university structures such as assessment protocols, and one contributor noted PhD work that lost the 'richness of the art' in order to 'fit' (also noted by Hawkins 2018). A final contributor commented that storytelling and creative approaches could be misused when they are applied in a uni-directional or functionalist way, such as the case with boring stories with a too obvious moral punchline. While the arts can sometimes play with manipulation and this can be viewed with skepticism, we could also invite this ambiguity and give credit to audiences, rather than having creative approaches function simply to 'colour the pictures of a preset scientific or economic message'.

There are also political opportunities within creative approaches, as we have illustrated in our chapters, through the blurring of boundaries between human and non-human as a form of water ethics, and through art as a 'politics in action'. Yet there is the danger that it becomes a fad, without critical reflection on the processes and politics involved, and as a form of disciplinary colonialism. It has been proposed that we need to '[r]emain sufficiently vigilant and critically aware to ensure they do not become a parody of themselves, something wholly corruptible and able to be put to use in exactly the opposite ways as those for which they were intended' (De Leeuw et al. 2017, 6).

As Hawkins (2018, 22) adds, it is important to 'temper our excitement over the political opportunities of particular modes of creativity within research projects with a careful reflection on the politics of our own practices'. This is a concern for both artists working with universities in interdisciplinary projects, and artists working independently but with neoliberal partners and in other environments. What many of the chapters cleverly show is that artists and creative projects can contribute to knowledge about their environment without adopting a subject position outside of that. The types of creative methods and 'hybrid ontologies' (St John, Chapter 9) that appear in social sciences and arts and humanities seek this same 'being with' position as a basis for experience, as opposed to an object/subject position; this is a position that can never be adopted by academics or policy makers seeking economic or technical rationales for framing relationships with water because you cannot externalise costs of human exploitation if you acknowledge that we share the same relational web.

Through efforts to become more interdisciplinary, more participatory or accessible to the public, arts and creative methods are being adopted in global challenges and wicked problem research, including issues around water. So far efforts to increase the scope of water policy research has been limited and remain within a techno-managerial framework. These efforts have been described as 'half-hearted' with the most common approach seeking to inject social data such as 'key variables' of human behaviour into analytical and agent-based models used in the natural sciences (Strang 2016). Recent work in 'social hydrology' can be more or less reductive in this way, often limiting real exchange of knowledge; in light of this, Strang (2016, 25) calls for

'less compressive methodologies: ways of bringing different datasets into conjunction without condensing their meaning'. Creative approaches are one way to respond to that call, drawing out and questioning different and plural meanings and values tied up in human–water relationships, and also allowing them to be 'affective' as a transformative 'pause' or 'encounter'. As a collection, we have sought to illustrate the ways that individuals and communities can participate in and frame understandings of relationships with water and environment that can provide a basis for changed practices.

One of the major contributions of this book is the bringing together of contributions that illustrate through their creative engagements the material affordances and creative potential of water enabled and enacted through 'everyday' human–water interactions. These are reflected upon in detail, where, in contrast, previous volumes may have taken such interactions as mundane, normative, taken for granted, subconscious, unimportant, apolitical. Yet, alternative knowledges might enable different sensibilities to be fostered through more meaningful and reflective watery relationships, in response to Krausse and Strang's (2016) argument to cultivate a 'water ethic'. The chapters provide avenues away from more scientific and technical literatures that position the 'knower' as being on the outside of their environment and create a rationalising distance between them. Meaning, representations and knowledge are all closely linked with power as a way of producing, reproducing and maintaining power relations. Through making visible and giving significance to alternatives, we can begin to shift power relationships and chip away at the dominance of modern water systems and associated discourse and ideology. A creative 'water ethic' might allow for alternate patterns of use and management. The human–water relationships given space in the book evidence a different understanding of creativity found in the micro-politics of everyday embodied improvisations, iterations and tactical adaptations, illuminating different aesthetics and values associated with water. We argue that within these lies the potential for something more explicitly and politically transformative to be elicited.

## References

- Alberti, B. (2014) How Does Water Mean? *Archeological Dialogues*, 21(2), 133–150.
- Bennett, J. (2009) *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Cochrane, A. and Russell, I.A. (eds) (2014) *Art and Archaeology: Collaborations, Conversations, Criticisms*. One World Archaeology Series, Volume 11. New York: Springer-Kluwer.
- De Leeuw, S., Parkes, M.W., Morgan, V.S., Christensen, J., Lindsay, N., Mitchell-Foster, K. and Jozkow, J.R. (2017) Going Unscripted: A Call to Critically Engage Storytelling Methods and Methodologies in Geography and the Medical-Health Sciences. *Canadian Geographer*, online first.
- Edgeworth, M. (2011) *Fluid Pasts: Archeology of Flow*. London: Bloomsbury.
- Flowers, M., Lipsett, L. and Barrett, M.J. (2014) Animism, Creativity, and a Tree: Shifting into Nature Connection Through Attention to Subtle Energies and

Contemplative Art Practice. *Canadian Journal of Environmental Education*, 19, 111–126.

Gablik, S. (1991) *The Reenchantment of Art*. London: Thames & Hudson.

Haraway, D.J. (2008) *When Species Meet*. Minneapolis: University of Minnesota Press.

Hawkins, H. (2014) *For Creative Geographies: Geography, Visual Arts and the Making of Worlds*. New York: Routledge.

Hawkins, H. (2018) Geography's Creative (Re)turn: Towards a Critical Framework. *Progress in Human Geography*. Available on Online First.

Kanngieser, A. (2013) *Experimental Politics and the Making of Worlds*. London: Routledge.

Kirksey, S. and Helmreich, S. (2010) The Emergence of Multispecies Ethnography. *Cultural Anthropology*, 25(4), 545–576.

Latour, B. 2009. *Politics of Nature*. Cambridge: Harvard University Press.

McLean, H. (2017) Hos in the Garden: Stating and Resisting Neoliberal Creativity. *Environment and Planning D: Society and Space*, 35, 38–56.

Morgan, C. 2009. (Re)Building Catalhoyük: Changing Virtual Reality in Archaeology. *Archaeologies*, 5(3), 468–487.

Strang, V. (2014) Fluid Consistencies. Material Relationality in Human Engagements with Water. *Archeological Dialogues* 21(2), 133–150.

Strang, V. (2016) Re-Imagined Communities: A New Ethical Approach to Water Policy. In K. Conca and E. Weinthal (eds.), *The Oxford Handbook of Water Politics and Policy*. Oxford; New York: Oxford University Press, pp. 142–166.

Tolia-Kelly D.P. (2011) The Geographies of Cultural Geography II: Visual Culture. *Progress in Human Geography*, 36, 135–142.