

Chapter 18

Divining the Waters: Capturing the Natural and the Conversational at the River's Edge



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Abstract This chapter reflects on the viability and agency of waterways and their value to Irish culture and society. Nature-culture-innovation interfaces and the realisation of different types of agency are evoked to debate epistemic justice/injustice. The integration of water as commodity and life systems is a matter of national and international debate and tensions. Two theoretical ideas are discussed in relation to Irish waterways, *deterritorialization* and *reciprocal capture*. These ideas offer a materialist extension to how Irish society should use and value our waterways, influenced by our cultural and historical relationships with water balanced with our economic need for increased housing, industry and infrastructure. There are key collaborations that should engage in conversation that are part of the discourse of nature. When and how do we ensure these conversations take place? Can these conversations be simulated and enabled in media and political debate?

Keywords Citizen science · Water disputes · Irish folklore · Epistemic justice · Water humanities · Science and technology studies (STS) · Water catchments

18.1 Introduction

I would like to live
Like a river flows.
Carried by the surprise
Of its own unfolding.

O'Donaghue *Fluent* [1]

Should we lose alternative knowledges of our waterways to the environmental and geographic would it matter in a time of climate crisis? Is keeping freshwater habitable and useable through monitoring and evidence-based action not enough?

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F. Regan et al. (eds.), *Water: Science, Society and Sustainability in a Changing World*, Springer Water, https://doi.org/10.1007/978-3-032-15904-5_18

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The subjective, aesthetic value of a waterway can be maintained at a distance to its environmental value, externalised, made surplus to the main concern, offered up in poetry and reflection in its own space and time. Waterways are generally acted upon and utilised, rather than allowed their own agency. Waterways information reported in policy or the media tend to be done so within the context of environmental damage or protests. However, let us propose here that none of this is enough.

This chapter will explore streams of thought on water, specifically around the tributaries and streams of a river and how senses of value of agency of water can be connected to the scholarship of natural water catchment areas. There are different epistemologies and ontologies of connecting waterways. In other words, different ways to know and experience and *be with* nearby water, whether ponds, streams, lakes, groundwater or the sea. There are several uses of freshwater, such as agriculture, freight, tourism, fisheries, biodiversity, sport and industrial processing. There were also once practices of spiritual or paganist rituals [2], a tiny remaining part of which we briefly explore. Rivers and streams have a special place in Irish culture and folklore [2]. Rivers have inspired the poems of Seamus Heaney, W.B. Yeats, Jane Clarke, as well as the art of Mainie Jellett and Jack B. Yeats. Re-imagined rituals and cultures will inform us as we move down river in the text. Of primary interest in the chapter though is how the combination of science and technology studies and emerging new materialistic lenses open out to wider social sciences and humanities perspectives on rivers, streams, their physical and conceptual edges, and biota. And indeed, the source and groundwater before public visibility. With so much hidden from view, we are forced to accept the viability and agency of waterways on their own terms.

These ways of knowing also involve ways of expressing and indeed this is where the waters can collide. As this book demonstrates, water is vital in every aspect of human life. However, life-cycle management of water can be problematic to green movements and materialist scholars of the Anthropocene if differing understandings and discussions about its essence are not included in this management. There is a duality: water is both utility and natural entity. Referring to it as a “natural resource” can have ownership connotations; likewise giving it a protected status preventing any utilisation invites accusations of naïveté when there is a growing need for increased water supply to modern cities and towns need water.

The conversations and silences are captured here around water and its surrounding biota. There are two competing concepts:

- (1) the control and ownership of water and catchment, and to negotiate what it means to possess and manage water and to “innovate” this ownership in the context of the Anthropocene.
- (2) *hydrosocial territories*, that is, the natural, technological, cultural and social entwined and mapped together but in reciprocal arrangements of knowledge exchange and ontologies of the river [3].

As we go downstream, we will be joined at times by French philosophers (and a Belgian one), who have a lot of insightful things to say about the nature-culture-innovation interfaces and the realisation of different types of agency in what we

usually refer to as the natural environment. In ways, this study brings epistemic justice [4] to water, and its surrounding land, cultures and technologies. For Fricker, epistemic injustice occurs where there is a silencing of those who are characterised as *unknowledgeable*, or excluded from conversation about something that everyone, apparently, knows. Gilles Deleuze and Félix Guattari are the main French guides along the river here. The Belgian philosopher mentioned is Isabelle Stengers. These scholars are of the tradition of conflicting connections and assemblages. For them, there is no easy detachment of the waterway from its geomorphic space, its history and nearby cultures. Deleuze and Guattari's *assemblages* [5] and Isabelle Stenger's *cosmopolitics* [6] are our main guiding maps along the waterways. Assemblages are linkages of objects, signs and ideas in the world. These two scholars have successfully created frustration among positivist scientists by claiming assemblages constantly change far beyond how contemporary science observes them. Cosmopolitics, similarly, are divergent sets of contested mini-universes with which we must coexist, whether an anthill, fallen leaves on a train track or a collection of subconscious thoughts. These reflections follow a course of study traced back to an ontological turn in STS [7, 8]. Some of the reflections in this chapter occur beside or near the River Rye, which rises near Agher Cross in County Meath before joining the Liffey at the Irish Sea. Our brief field studies also bring us inland, where hidden flora and long-derided practices of water sourcing through divining are among the voices that might still need to be heard. *Divining* or *dowsing* is a process of locating water usually underground by individuals with a rod or pendulum. Divining is largely dismissed by scientific processes, seen as the preserve of the occult or pseudoscience [9].

The integration of water as commodity (with utility and aesthetic) and life system (with habitat) forms a wider water innovation network in Ireland. The greater Dublin water systems are part of a catchment area that requires environmental and biodiversity protection as well utilisation as water infrastructure projects. The Greater Dublin Drainage (GDD) Project managed by Uisce Éireann [10] is an example of this type of water governance scheme. The intended design behind this initiative is community-based as well as ecological and climate focused. The ambitions are to protect public health and environment, as well as contributing to social development through employment and economic growth in the region. Uisce Éireann is granted a public services mandate by the Water Services (Amendment) Act 2022. For extra context, a Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy states that

Government policy seeks to enable the 'twin transitions' of digitalisation and decarbonisation of our economy and society. These transitions can—and must be—complementary [11].

There are further contexts with inherent tensions. The EU's Water Framework Directive 2000/60/EC [12] enacted in Ireland requires that basins and water catchments in the Greater Dublin area have "good ecological status" by 2027. The Habitats Directive [13] also requires special areas of species preservation which is in direct opposition to increased farming practice in Ireland. There are increasing pressures caused by Ireland's economic growth. The Irish Government published an emergency

housing plan in 2025 [14], a comprehensive development on its National Development Plan which itself was updated earlier that same year [14] for industry, housing and infrastructure. Then, relatedly, there is the increased data storage requirements. If Ireland's position as an international digital hub continues, there will be pressure to construct extra data centres all requiring additional electricity from the grid, climate impact considerations and water for processing and cooling [11, 16]. There are the competing interests—a growing population, expected climate upheaval, water, transport and data infrastructure, de-carbonising farming practice, and halting biodiversity loss.

With water central to these competing policies, we might consider that the only way to properly explore these wicked problems is to expand the collective understandings of research excellence, bringing the definition of water quality beyond the establishment of potability and animal habitability standards.

Water can be a highly politicised object when the issue is one of governance [17, 18]) as it becomes a boundary object in a contested space [19, 20]. The multiple perspectives on a regional infrastructural project or technology then clearly come into play. Strong views may coalesce around issues of safety and harm [21], what Latour refers to in many contexts as *matters of concern* [22]. Water is a fundamental right [23]. It is why we have public forums, consultations and, if the need arises, judicial reviews. It is why we have a myriad of projects for consensus-building and shared solutions with public partnerships and civil society [17, 23, 24]. Water schemes, local infrastructure or mega-projects can create public friction. However, the case to be made here, following the line of arguments from Isabelle Stengers, Latour and other STS scholars, is that the human and non-human are combined in these disputes and what is needed in Ireland are standards for the cocreation of shared knowledge domains. While community and local authority engagement has led to cocreated solutions with consensus and solutions to disputes, epistemic norms can change over time within such engagement. The warning here from STS scholars is not to allow multiple perspectives and compromise hide the risks or hazards to humans and biota associated with industrial processing and waste [20, 21]. Recent political pushback in Ireland against judicial reviews in the interests of “speeding up progress” are a case in point.

In our original concern here for the loss of traditional knowledge, it remains an open question whether older traditions can help still steer our knowledge of waterways and our mitigations in these quite contemporary contexts of housing and job development, the climate emergency and information and water security.

18.2 Theory and Method

There are two theoretical ideas aligning with the concepts that will help prime the key conflicting concepts of the chapter, to advance the analysis of waterways with a specific humanities approach than can be integrated to environmental marine and geological sciences: *deterritorialization* and *reciprocal capture*.

18.2.1 *Deterritorialization*

Although commonly a geographical boundary, a river is not in itself an easily bounded object. Catchment area waterways such as streams, groundwater and wastewater are part of the system. Like Italo Calvino's character Mr. Palomar in his attempt to isolate and analyse a wave in the eponymous novel [25], marine scientists isolate sections of a water body for biota, flow, dissolved oxygen and hazardous substances. STS researchers, on the other hand, are constantly seeing the blurred boundaries, the limnology of the bank itself with inflows and outflows, the detail of the riparian zone where life and non-life co-exist and within these zones are hybrids of nature/culture and harm/good. That is not to say that one type of inquiry is superior to the other. Never has there been a more important time for all branches of knowledge to learn from each other.

Deleuze and Guattari packed their theoretical constructs with biological and geological terms referring to wasps, orchids, assemblages, rhizomes of social practice, tree-like patterns of social structure and stratifications of organised systems. Their theoretical approach has been used before for Irish water and ecosystems [26]. In their influential work *A Thousand Plateaus*, Deleuze and Guattari [5] distinguished what they called *royal science* from *nomad science*. The idea of the nomad works for the river as no part is ever the same. It constantly moves. Royal science has also been characterised as a type of state science—Government-level strategic knowledge production with purpose and uniform rigour. Nomad science constantly shifts position. According to Belgian STS scholar Isabelle Stengers's reading of Deleuze and Guattari, there is a type of nomad science that

Invents problems [and] follows connections between singularities of matter and traits of expression. Nomad or ambulatory sciences have no age or geographical attachments. The solutions to the problems they invent are...in a reciprocal presuppositional relationship with the collective activities of those who are always living in one territory or another [6, 27].

In our current strategies of public engagement with science, citizen science is a nomad science. There is a resonance here with Michel De Certeau [28]—a scholar with a unique insight into the connections between the practices of everyday life and the formal rituals of science, business, politics and other areas—who distinguished between *strategies* of knowledge production, where the epistemic power lies, and the *tactics* where that power needs to take effect, sometimes by less structured, localised means. Often, tactics are a quiet resistance—what needs to get done. The power here in this case resides in the marking of territory and the strategies of environmental monitoring and social science research. In Giddens's [29] structuration theory—a British relative of the French strategies/tactical ideas—these tactics of citizen science impact on the structure, science itself. Examples are public data collected for insect conservation and diversity [30] and the discovery of exoplanets [31] both of which have profoundly changed the fields in which they are situated as participatory processes which, in turn in continued iterative processes, change the conditions for citizen science in these fields.

The deterritorialization that Deleuze and Guattari [5] defined is rather more conceptual than geographical. The nomadic tactics go outside the lines of the map, as it were. However, territories tend to have owners, and a reterritorialization is always possible. While the “green” image abroad remains, Ireland has a unique position in maintaining this image while also serving as a European hub for internal technology companies, such as eBay, Meta, Google, Microsoft and Intel. The electricity pull from data centres on the grid currently stands at 20% without factoring in future data centres [32]. In the twin missions of decarbonisation and digitalisation, information becomes extracted and disembodied [29] from its geographic site of origin to be rapidly dispersed and re-embedded across space and time [26, 29]. This is the case also for catchment environmental and biodiversity data [33]. The flow of water becomes a flow of data in many dimensions. This increasing datafication of natural entities [34] allows possession on multiple fronts. Besides the land disputes in the development of data centres [35] for the inevitable increase in storage power needed [11, 16, 36], there is the issue of platform ownership [37]. Bresnihan and Brodie [36] describe a new digital colonialism at play in data centre planning. There is a growing technoscientific capitalism that threatens the democratisation of knowledge that is a central tenet of participatory or citizen science, and indeed democracy itself [38]. Firstly, a relatively small number of entities control significant amounts of data. There is surplus value created, “because of that resource’s inherent or constructed productivity, scarcity, or quality” (op.cit:4) [37:4]. The use of the data increases the value of the data, which belongs to the platform owner but is effectively rented to the user [37]. As with social media and online discourses, colonising and control remains with online platforms. Secondly, part of the image of this greenness is tied to perceptions of a cloud-based economy that has environmental sustainability at its core. However, increased data requires increased material resources [16, 36] and as mentioned already water for processing and cooling [11, 16]. The large-scale material impact of data centres is significant requiring new forms of extraction [36], a fact sometimes hidden within the discourses of digitisation. The supposed move from “brown” to “green” manufacturing is not straightforward.

As was stated at the outset, the conflicting values of the commercial and the aesthetic are bound together in natural entities such as Irish waterways. An STS perspective on the structural levels [29]—again the structure of science, policy and cultural norms impacting on and by the lived experiences on the ground, in everyday—would see the overall system as *technoscientific*, that is, borderless science and technology caught into social and political regimes of authority [6, 7, 20, 22, 37, 40]. The structure of water and innovation policy in Ireland might also be described as *sociotechnical* [20] given the entanglements of social impact inwards towards water technologies and outwards to society, and *hydrosocial*, water and society co-constructing each other. International policy agreements to meet climate and water targets are being increasingly aligned through Sustainable Development Goals (SDGs) and OECD policy. The global, transnational focus of these policies is crucial. The National Development Plan [15] currently takes on board OECD recommendations for innovation and social progress. Given this, it is not a major leap to include within a future NDP the OECD’s anticipatory governance approach, which has a

type of inclusive STS thinking behind it. OECD innovation portfolios use anticipatory governance schemes to address complex futures of innovation and development, setting out several scenarios that expect, rather than predict, contingent futures with multi-partnership input for solutions [41]. Such an approach would greatly improve the connected scales of work needed for catchment areas in Ireland.

Given its inclusive approach, anticipatory innovation portfolios would need to also include the social and political objections regarding water. Water is extra-politicised on both the political left and right. In Ireland, a late 2000s post-austerity Government plan to introduce water charges was met with widescale protests, led by left-wing parties, citing the unfairness to the underprivileged when current taxes at the time were high [42]. Water and waterways have been weaponised by right-wing politics in cases where the Irish authorities blocked river walks to prevent homeless people setting up temporary dwellings [43] or where anti-immigrant protesters prevented water maintenance to international protection centres [44]. Now, consider an approach that better protects nonhumans in an innovation policy with these competing interests. The Habitats Directive protects biodiversity up to the level where here there is the necessity for judicial reviews. There are barriers which are legal, practical, political and epistemic. Deibel has noted how legal experts align themselves epistemologically with positivist sciences and so a technoscientific argument can become dominant in legal discourses of judicial reviews designed to protect the biosphere and local livelihoods [45].

Strangely, citizen science can practice its own type of territorialisation in the capture of data. If we were to apply the De Certeau [28] framework, knowledge within the river ecosystem's own ontology is taken by "soft colonial" citizen scientists accruing a new form of knowledge within structured scientific protocols. We are not dealing with the stronger colonial power of knowledge production as described by Edward Said or Mahmood Mamdani but of the soft colonialism described by Rosi Braidotti and Sheila Jasanoff and indeed Stengers in *Cosmopolitics* [6]. Interdisciplinary geographers can create mini-cosmographies of the Earth, competing but fleeting entities with the citizen science data. It is difficult not to see this as a politics of the commons, which has become a politics new to the Anthropocene. As we see later, diviners reject personal ownership, being subsumed by the other, the force within which they expect to gain entrance. Citizen scientists have a power without often knowing what kind of citizen or scientist they are; the powerlessness of the scientific act, when practical action of science can defy strategic science. As for environmental monitoring, will the accumulated data knowledge be enough to effect corrective action, for example if there are signs of pollution or indeed excessive climate-related changes? There is an ethical duty on researchers to ensure that the citizen scientist is aware of the contexts of data storage and implications for data and datafication.

18.2.2 *Reciprocal Capture*

Deleuze and Guattari [5] describe a double capture, a concept that runs right across the work of Stengers, Latour, Haraway [6, 22, 40, 46] and many STS scholars. They describe the action of a wasp and an orchid. There is an exchange that does not appear to be a fair exchange but works within the ecosystem. The orchid has evolved to resemble a wasp which another takes as a sexual partner. The orchid engulfs the wasp. A pollinating agent is left behind from the wasp, which further propagates the orchid. The assemblage created—like Latour’s actor-networks or Haraway’s witty agents—is a wasp-orchid, the constituent entities becoming deterritorialized [47]. Deleuze and Guattari [5] referred to such assemblages as *rhizomes*. Stengers [6] advanced Bruno Latour’s [22] *matters of concern* which are—perhaps controversially—of a higher order than *matters of fact*. For STS scholars, often the relationship between forms becomes the most critical entity, rather than the objects themselves. In a truly ecological system, the multispecies and multi-value entities and their complex relationships must be explored [48].

An exchange does not have to be commodity exchange. What Stengers focuses on is the other types of exchange, a bartering with or without money, that is necessary for any system where an identity change can occur [49]. Can two or more entities cooperate to bring about this conversational gift-exchange at the water’s edge? What does or should the river give back? Why should it give back? What is “the river” when there are connecting locales of their own concern within the ecosystem? What can the collective around a river or waterway be?

One way to *give to* a river has now been secured in international law. In 2011, a landmark agreement between the Maori people and the New Zealand government, the granting of “legal personality” status to the Whanganui River was seen as the most practical way to protect the river from commercial exploitation [50–52]. The Te Awa Tupua Act, signed legally in 2017, states that the Whanganui is a legal person with rights that can be enforced in the courts by appointed guardians. In legal cases around the world, there is growing recognition of this form of legal protection for animals and natural entities. Similar rulings in Ecuador and Bolivia bestowed stronger rights for nature [53]. The legal constructs are often tied to older customs and beliefs. For South America, it is the way of Pachamama, an Andean divinity providing humans with *sumak kawsay* (good living) and *suma qamaña* (living well) [53].

The Whanganui River is deterritorialized as both a non-human person and a non-person. The personhood status, while serving its purpose is, after all, recognised only in the human artefacts of legal documents. The extension to exchange comes from personhood beyond the human. Science, as it is currently practiced, could not solve this. The exchange of value is not just the symbolic order needed to extend an environmental “protection”, but are also lines drawn outside of science-based stewardship, as demonstrated later in our locales of study. The exchange may stray outside accepted scientific practices. For the practitioners of dowsing or divining, belief is a necessity of the process, rather than its corollary. Argyrou and Hummels [50] have argued for a community entrepreneurship not unlike the OECD innovation

portfolio that takes account of sacred places and personhoods bestowed on natural artefacts.

18.2.3 *The Use of Locales in this Chapter*

For a critical theorist like Anthony Giddens [29], a locale has a specific meaning beyond a geographic space and others. This locale as used here differs from Pierre Bourdieu's [54] *field* and the positivist definition of field used in geographic sciences and maths. In a locale, there is a constant changing edge, a fluidity in where its boundaries lie in physical space, in practices and in meaning. The river stakes its own land claim. As river biographer Robert Macfarlane says in *Is a River Alive?*

The water of each spring and stream is not interchangeable. Water's source matters. Its course matters. Each river is differently spirited and differently tongued—and so must be differently honoured [55].

Rivers and streams are constant nomads. A locale cannot then be just a solid, unchanging space. The space changes as the river flows through it. A locale is a conceptual or geographical area acted upon by practices. In structurational practices, rock form, the erosion type and channel all form a structure combined with belief systems and cultures, and shape and are shaped by the terrain and the agency of the lived lives and non-lives that exist to make up that terrain [23, 29, 54]. At the risk of crudely connecting to another discipline, this type of locale has similarities with *pointless topology* in mathematics, an algebraic structure with a partially ordered set also known as *locales*. For the humanities, recording “nature” in the outdoors is not just capturing some description in nature writing but inscribing nature/culture itself into the writing [56, 57]. It means that the butterbur plant beside the River Rye can be described through various biological processes, but also how it looks aesthetically, poetically and with the contexts of meaning and histories brought it by the people on barges, the constructed walkway, the children playing nearby, the observer themselves. We try to identify bound space and time in a “quadrat” of ontologies but end up struggling to find the borders. And yet, in an act of speech from a distance, we know and can see, hear and smell the river and give it its name. These are all part of extensive ethnographic notetaking, keeping structure, practice and agency connected in close attentive observation [58, 59].

18.3 Two Research Locales

18.3.1 *Locale 1: Dowsing at Samhain*

Our first locale is near the Yellow Ford River in County Meath, Ireland. On All Hallows Eve, the researcher and travelling companions visited the Hill of Ward near the river banks, once known as *Tlachtga*, named after the sun goddess and the site of ancient festivals of fire. There are several ancient burial mounds in a quadrivallate enclosure with calp limestone and shale protruding upwards through the grass over an area of 150 m² [60]. It has been described as a megalithic portal. We had come to meet water diviners as part of the local Púca Festival. Water diviners have been afforded equal parts disdain and respect through recent history, the latter because of a strange type of expertise where they were once a primary source of water wells [9, 61]. The festival is a celebration of All Hallows Eve and All Souls Day, *Lá Samhain* (pronounced *law sow-en*) which is of cultural and historical significance. The connecting otherworldliness is clear: this is a space of ghosts and extra-scientific forces. Our diviner guides tell us that this is the time of year where a border can be breached, where the physical and the spiritual worlds are at their closest point, the worlds of the living and the dead. This event is celebrated globally as Halloween. Historians have proposed that *Samhain* comes from the early proto-Celtic *samoni* or Sanskrit *samānā*, [62] both meaning *assembly*, an important word in the worlds of Deleuze, Guattari, Stengers and Latour. For Latour, it is like the Icelandic word *þing/thing*, coming together for a congress or to debate in government [22]. Divining lore runs alongside the accepted historical accounts of this place. According to our hosts in the Hill of Ward, the “energy field” lines connect the ancient royal space of Tara—the seat of the ancient High Kings of Ireland—to the Ward burial grounds and further across the midlands in a network. This was a of site of pagan religious significance.

A barn with incense and candles is our starting point for exploration. The diviner leaders allow us time to practice the divining process. We are each given two L-shaped metal rods, one held in each hand at the shorter stem, pointing outwards (Fig. 18.1). The diviners tell us this action is a way of getting in touch with a part of ourselves that has been lost over millennia. Water sourcing has been popular, but the process can be used to ask—quietly, internally if one so wishes—to find anything, a physical object even some philosophical or emotional insight. The entry point for the diviner is devotional; one might say subservient. We begin by asking “Can I?” meaning do I have permission to enter this process. There is a pause. If the rods remain open in the hands, that means “no”. If the rods close and cross over into an X, moving inwards quickly or slowly, this signifies a “yes”. The remaining questions respectfully ask to enter further. “May I? Shall I?” The ritual is therefore a binary language communicated out into the open. It is a series of yes/no questions to which some mysterious force responds. The diviner, in return, is a respectful conduit for the force’s enactment. We are to perceive it as a reciprocal relationship. There is no ownership of the power but there is a sense of a gift given to those who choose to

Fig. 18.1 Divining rods
(image licenced from alamy)



accept it. Such power rarely works for seeking wealth or treasure for personal gain, we are told. The novice diviner must learn the method, the looseness of the hold on the rod, the position of thumb and fingers. For some of our inquirers, there is an immediate positive action for entry. For others, “it is not to be today”. For all contributors, there is an embodied action of rod and hand that creates the space for either letting go or self-manipulation, whichever way you look at it.

Part of the Púca experience is moving out into the folds of earth and grass, out to the burial mounds. One of the divining leaders demonstrates how we can identify groundwater nearby. There are multiple conversations now as participants break off in groups or individually to wander and test the divining. In the distance, a divining leader speaks of the *sídh*e, how these ancient burial mounds provided close contact with the ghosts of the ancestors. The air is cold as the novices practice their new skills. “That tree has a message for you”, one of the leaders tells me, pointing to the largest tree in corner of the field standing like a sentry to the ancient burial mounds. As a researcher constantly interrogating the human, non-human and non-anthropomorphic connections of nature/culture, I could only walk over and reflect on the tree’s *treeness*, communicating in the breeze beyond human understanding as trees always do. It may not be in my gift to understand further. More pertinently though, listening to the tree is part of the ritual. Our travelling party shows due respect to the ritual practices and we bring belief. There is no chanting or songs in these rituals, no necessary higher being. There still remains the performance of listening in silence, in the *being with* the tree. There is performance also in the ritualistic action of holding the divining rod—gently—and the binary questions asked of the energy, yes or no, like Žižek’s [39] Lacanian sublime, praying to believe. The act of physical ritual brings a practice of worship that in turn allows the discourse and the bodily movement to work in unison, to open to some unknown externalised other/nothing [39, 56]. The Big Other, as Žižek (citing Lacan) [56] calls it. The water and the force cannot be owned to these gentle guardians of older ways, but the activities are not without their commercial potential. Another type of spiritual guide has temporarily set up camp nearby with a young family where he is due to give a talk later the healing

power of nature. Púca has become a popular festival on the international tourism trail in Ireland.

18.3.2 *Locale 2: The Precolonial Stream*

On another occasion, I am near the Wonderful Barn folly in Kildare, where the remains of a *fulacht fiadh* was discovered, an ancient Bronze Age cooking pit. The Barn had been used as an exotic tower location in the Hollywood movie *The Green Knight* [63]. Nature writers often isolate themselves into the undergrowth, on quiet hills, glens and marshes [64]. Geographic author Tim Robinson spent years attempting to identify, map and know every stone and every system of the Connemara landscape [64]. However, this next locale in the chapter is different. It was deliberately chosen at the edges and borders of many practices of life and work in contemporary Kildare. The locale contains a stream that eventually flows to the Rye, flanked by dairy farmland, a stud farm and a motorway joining Dublin to the West. It runs alongside a bye-road which serves as a “rat-run” for Intel commuters on weekdays. To the side of this road, a stream is covered over with lime tree, hawthorn, blackthorn and alder choked by *hedera helix* and *hedera hibernica*. A cypress tree stands alone. On the way down to a wider part of the stream, the road and its companion stream crosses under electrical and telephone wires, criss-crossing the blue winter sky like multiple divining rods. A cock pheasant runs away from its observer in the neighbouring field, darting by a cow feeder. Arriving at a sharp bend in the road, one is struck by how covered-in this part of the stream is. Catching sight of the stream requires balance, standing on the ditch to look down into the partially covered channel bed below. The first section shows signs of eutrophication, excess phosphorus and nitrogen creating an overpopulation of plants, stopping the flow. A little further along, there is a flow and trickle as the stream continues. Absolute stillness is difficult to achieve for the nature-watcher. It can be dangerous. In this locale, the attempts to keep still standing on the verge at the sharp bye-road corner can invite beeps of a passing four-wheel drive.

The Irish journalist and self-taught ornithologist Charles Bethune Moffat [65] had less occasion to meet traffic. Moffat made an art form of still observation. His research papers have been influential for studies of bird behaviour, particularly his *Spring Rivalry of Birds* which has been foundational to knowledge of habitat and territorialism. What was startling then and still has resonance in animal and posthuman studies was not just Moffat’s territorial findings in birds, but also his method. He inhabited the spaces of these territories and became one among them [66]. These are the methods all but lost that keep these habitats speaking to us, although animal studies have brought us to the point where naturalist-writer Helen McDonald [67] and philosopher Vinciane Despret [66] expand on Moffat’s tradition by *being birds* in their writing.



Fig. 18.2 Triptych by a Kildare stream

Isabelle Stengers and Bruno Latour would describe the cosmopolitics necessary in this boundary region, where each entity deserves—and in this epoch demands—its own space for political action. For Latour, there could be a conceptual—if not articulated operationally—Parliament of Things, where the existence of the sovereign polity of entities is argued on one level and their representations in the government of people and nature on another [22]. Mol considered a similar ontological politics of ideas and objects [68]. Although the personhood status of a river or other natural entity as described earlier is conceptually different, a proposal to have a world parliament of rivers 3 [53] begs one to think how this semi-industrial locale could be represented, how the assemblages of flora, fauna and technologies of a relatively quiet country lane—with the constant hum of nearby motorway traffic—can speak to us, and for themselves, part of a network of nature and culture. Unseen in Fig. 18.2 is a small red object; a piece of plastic caught at the edge of the stream. It is a sweet wrapper and from up high where the observer stands, it is not easy to identify it. This will likely have blown from a green bin in the recent storms. It is too small to be a serious coloniser. Here is a gift without expectation of exchange. Yet flora and fauna will coexist with it as they become a deterritorialized assemblage.

The Rye, into which this tiny stream flows, has significant value to Intel. The company is key part of Ireland's economic strategy. It is a central industry of the local economy, currently employing over 100,000 people [69]. While the company uses the River Rye for internal environmental monitoring purposes, the data is reciprocated to the wider community and the biota in its preservation and promotion of biodiversity at the river [70].

Some years previously, this Kildare stream was part of catchment area where the DCU Waterblitz took place [71]. Taking out the pack, dipping the test tube, adding the reagent, holding it up to the light was part of a lab practice protocol. Comparing the solution's colour change to a chart with different shades of dark red and brown demonstrated nitrates and phosphates were of a reasonable colour. There is a scientific colonisation but also a sense of having done a good thing, that inner goodness that comes with a contribution to a *Good Big Other* [39].

18.4 Mediating Locales: Uncovering Waterways and Conflict

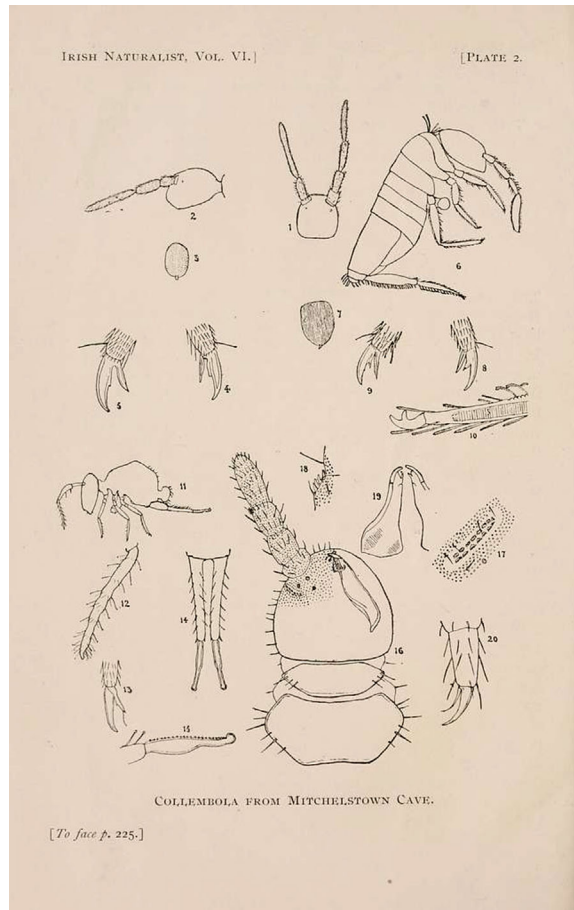
Social media has facilitated a politicisation of the ordinary. What may seem mundane becomes content that advances new types of politics [72, 73]. Anthony Giddens and Ulrich Beck [29, 74] predicted elements of this: what becomes revealed about personal lives or everyday existence through mediated networks are a type of *subpolitics*, much of which aligns or becomes amplified as identity politics. The tiny stories by the River Rye may not have the historic sweep of the past when this river divided two ancient kingdoms. However, there is increasing interest in the folklore and science of rivers [71, 75]. While environmental testing and citizen science projects receive media coverage—particularly in news media [76]—deep qualitative research or ethnographic works are rarely presented on news media [77]. This may be because of the length and complexity of projects and the protection of participants [77]. Outside of nature writing (Fig. 18.3) or documentaries [78, 79], natural entities are not typically items of public interest in themselves, unless the locales described here are the subject of environmental spillages, tourism, droughts or there are protests against water infrastructure or policy measure [42, 44]. In this new agency of nature described here through STS methods, there may be new ways locales such as these can be mediated in political discourses of the everyday [7, 8].

18.5 Conclusions

These were fleeting conversations by the water's conceptual edge. There may seem to be a certain neoliberalism to the paganism and nature-aesthetic as explored in this chapter and indeed in the researcher's dipping into thick descriptions [80]. It fits easily within an open economy where political leaders will attempt more fervently than ever to secure continued foreign direct investment, given the increased uncertainties of geopolitics and global economies. Yet we cannot assess the economic approach too harshly. We avail of, and greatly appreciate, the accessibility to natural amenities and cultural festivals of Ireland with deep histories and meanings brought about by capital investment. There are increasing pressures of housing, industry, other infrastructure.

However, there will be a significant increase in disputes over water globally in the future, and our greater Dublin region will not go unaffected. A neoliberal view of natural resource commodification and data mining risks further public protest. Presented here was a way of advancing within a capitalist paradigm but looking further ahead, potentially using OECD templates of innovation portfolios for regional planning and development. Issues of control and ownership of water and catchments in the Anthropocene cannot be ignored. The de- and re-territorialising measures of hydrosocial entities require a reconfiguration of research excellence involving combinations of the “hard” and “social” sciences and the humanities. Bucchi and Trench [81] stated that conversation was a crucial form of science communication.

Fig. 18.3 “Collem-bola from the famous cavern of Mitchelstown”. Plate by George H. Carpenter from *The Irish Naturalist*, 1893. Courtesy of Royal Zoological Society of Ireland Publisher: Eason & Son, Ltd. Dublin. Contributing Library and Digitizing Sponsor: Courtesy of MBLWHOI Library. Downloaded from Picryl.com



Conversation does not need to have purpose and there is plenty of scope for cocreation of the river imaginary [78].

The conversations the researcher can have by the river are with the flora and fauna, and with the river itself. It is entirely possible, and indeed necessary, to combine the cultural and ontological in current citizen science frameworks, the strategies of royal science mixing with the nomadic tactics of human and non-human participation and local knowledges, the commonplace mixed with the controversial. The extra-human by the water's edge makes us more human.

In our assessment here, the question for the researcher, the nature-lover, the citizen scientist and the policymaker remains the same when conducting natural history or environmental studies: where is the sacrifice, the gift or exchange? These are collegial critiques of dominant ways of knowing and discussing the waterways near a river, the dominant science and its economic value. Knowledge has ripples and backflows.

It contains utterances, debates and conversations combining at the mouth of the river, the voices flowing out into the wide open.

Acknowledgements I am grateful to the diviners for their openness and generosity and to Fiona Murphy and Charlotte Bouffeteau for insights into the cosmopolitical possibilities of Irish water.

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