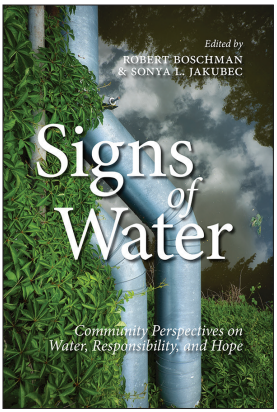
UNIVERSITY OF CALGARY
Press



SIGNS OF WATER: COMMUNITY PERSPECTIVES ON WATER, RESPONSIBILITY, AND HOPE

Edited by Robert Boschman & Sonya L. Jakubec

ISBN 978-1-77385-235-5

THIS BOOK IS AN OPEN ACCESS E-BOOK. It is an electronic version of a book that can be purchased in physical form through any bookseller or on-line retailer, or from our distributors. Please support this open access publication by requesting that your university purchase a print copy of this book, or by purchasing a copy yourself. If you have any questions, please contact us at ucpress@ucalgary.ca

Cover Art: The artwork on the cover of this book is not open access and falls under traditional copyright provisions; it cannot be reproduced in any way without written permission of the artists and their agents. The cover can be displayed as a complete cover image for the purposes of publicizing this work, but the artwork cannot be extracted from the context of the cover of this specific work without breaching the artist's copyright.

UNIVERSITY OF CALGARY
Press
press.ucalgary.ca

Acknowledgement: *We acknowledge the wording around open access used by Australian publisher,* **re.press**, *and thank them for giving us permission to adapt their wording to our policy* http://www.re-press.org

1

Water Imagination in Anthropology: On Plant Healing Matters

Julie Laplante

For a dream to pursue itself with enough constance to give a written account, for it not to simply be the holiday of a fugitive hour, it needs to find its matter, there has to be a material element which gives it its own substance, its own rule, its specific poetic.

—Gaston Bachelard

In *L'eau et les rêves* (*Water and Dreams*), Bachelard (1942) shows how the form and matter of our imagining are two mutually constitutive aspects that we can never completely separate. Building on this foundation established by Gaston Bachelard, Illich makes a distinction between imagination as the source of form, and imagination as the wellspring of formless "stuff" (6). While attesting that what is watery in each place may vary, Illich suggests that "beneath the mass of images, verbal variations, moods, tactile experiences, and lights that shape water in our imagination, there is a stable, dense, slow, and fertile water stuff that obscurely vegetates within us" (6–7). I would like to suggest that this fertile water stuff is not hidden or "beneath," yet very much at the surface of the visible, the lived, and the felt or in the imagination that perdures. In line with Bachelard, I am

interested in the intimate imagination of vegetative and material forces: image "as a plant which needs earth and sky, substance and form" (9). My interest is more specifically in water as element that nourishes everyday practices, one that we grow into and which grows into us, and thus becomes real. Water comes up through my research in ways of healing with plants. Plants pull water from the roots up the stem or trunk, transpiring and nourishing the leaves at the top. How might water be similarly enlivening anthropology?

My first objective is to tease out how water appears in anthropology as more than a metaphor and thus as real ways of understanding worlds; more specifically, I aim to show how water is never either only HO or H_2O, never pure, and thus more elemental than a compound. As such, I will pose a critique to both social and natural sciences, which take this idea of water as a beginning point and thus as a hard object with a prexisting form, rather than a fluid lively element that nourishes everyday thoughts and practices. Second, I write about how water comes up in my research in ways of healing with plants at two edges of the Indian Ocean as well as in the Amazon basin. It is both critique and analysis that leads to ways of thinking and healing with plant waters in terms of plasticities, intensities, and affects in worlds in flux. This suggested way forward goes against the grain, yet it goes along with water.

Poetics

The ice and snow cover yields into the gushing water of the river. It is mid-March and the sounds of the river have been muffled since November. At that time, every year, it always feels as if a new life surges to the surface, overflowing and freezing over itself before it breaks the ice to push through and with it more freely, raging furiously as if catching up with all it had to tell following a long silence. I live along the river, in a small park in the Laurentians in Quebec, Canada. Everyday, I walk along the river, usually going upstream and returning following it downstream. It is never the same, its flows, speeds, and intensities always slightly different, always nourishing thoughts, moods, and ideas in one way or another. As the river is especially high and extends itself out of its bed this spring, the whole province is currently facing an unprecedented flooding situation since May 2017. With snows melting and rain falling incessantly, the

battle to contain water seems hopeless. Water in excess is moving forcefully through the strength of its flows, pressures, the intensities of its waves as it takes up speed infiltering places where it is otherwise unexpected. The extreme situation is framed as the result of "climate change," in this way appearing as an "external" cause, even if attributed internally to a certain kind of "industrial" human in what we have begun to call the "Anthropocene." The Anthropocene would be a new geological period following the Holocene. Its particularity is that it would be marked by a moment in which human activity is leaving a pervasive and persistent signature in form of geological deposits,[1] with the rise of temperature and sea levels being some of the major expressions of recent changes (Waters et al.). The local flooding situation framed within a broader "global ecological crisis" becomes a reminder that water is both life and also has profound limits on a much larger scale. The local flooding also expresses how water *is* movement and flux, namely what science and most of the Western world have tried to contain—and continue to do so—in all sorts of ways, generally opting to learn *about* the world in stasis. Against this current, I aim here to learn *from* the world in flux. The nuance between learning *about* the world and learning *from* it is discussed by Ingold, who specifies that you know as you go "not that you know by means of movement but that knowing *is* movement" (*The Life* 1). So how might we know *from* water flowing through our bodies, sensing its gush, feeling its pressures and intensities as it speeds up and slows down, as it pushes against and within us, sometimes in excess? Water will thus be discussed as an intimate copresence rather than a global bioresource or compound to control or know from the outside, which ultimate objectives lead to either conserve, preserve, or even protect. I hope to convey that this path of conservation, preservation, and protection might aim to contain water, while water itself keeps flowing. The idea of closed entities, whether objects or subjects, seems to be the matter of a certain kind of imagination interested in form, while, upon listening to water, open-ended life matters entwined constitute what is really going on and can also be imagined as a way forward. To achieve this, certain knots or lines caught up in objects imagined as separate forms need to be loosened and perhaps undone.

Some of the most difficult objects to undo are perhaps those of nature as opposed to culture. Descola undertook this task by suggesting that

there are essentially four main ways life has been organized, which he calls ontologies (animism, totemism, analogism, and naturalism) albeit with only the latter doing so through a "Great Divide" between nature and culture. Naturalist ontology, which refers to positivist science, would be the most recent and unique, beginning with experimental science in the 16th century. In this ontological divide, it is only humans who are given culture while all other forms of life fall into nature. Paradoxically perhaps, culture is only given to the higher human form of life, and yet, at the same time, is relegated as secondary with contrast to nature. Latour suggests the nature/culture divide is a great political ploy of science, since what is nature (or how the world is "really" composed, namely of objects such as molecules, atoms, H_2O … , which exist only in the laboratory) is made hierarchically, according to what is visible, lived, and felt and thus pertains to the realm of culture ("Another Way"). While Descola's solution to move across the nature/culture divide is to replace it with one of interior/exterior that can then apply to the other three ontologies as well, Latour's solution, resting on the Stengers-Despret normative argument, is to find a middle ground which moves transversally across the current disciplines as a plea for more articulation rather than less ("How to talk"). Haraway also offers a third way she calls the Chtulucene, inviting us to join and "become with" underground critters as well as other forms of life to reworld or amend the current trend to diminish places of refuge. With the suggested Chtulucene, Haraway is nuancing the discussion emerging across the disciplines suggesting we have entered the period of the "Anthropocene." While there have always been anthropogenic effects, the Anthropocene awakes us to its planetary and accelerated scale, bearing the risk to reify the human once again. It is, however, only a certain kind of human that is disturbing (destroying?) earth's motions rather than humanity as a whole. The Anthropocene is thus more specifically refering to the Capitalocene as a particular kind of human using Nature as resource who would follow the Plantationocene (which would have begun with agriculture and can be understood as a process of enslaving plants), with the Chtulucene being a suggestion as to how to "become with," perhaps as opposed to "against" Nature. To this we might add the Elementalocene that continues to move through us in more or less committing ways, with sounds and water, for instance, as powerful affects that overflow and can point a way forward, as

I will suggest with ways of becoming with water. In a similar spirit to find ways of understanding worlds or how to reconstitute them, Deleuze and Guattari had previously suggested ways of thinking in-between by bringing us to think affects (or nonhuman becomings of man) in a world in flux, an approach Ingold (*The Life*) also suggests by inviting us to consider humans as inhabitants rather than exhabitants. We are also water and it is this immanence that continues to escape us.

Yet another way this Great Divide has been understood is through *zoe* and *bios*, or what respectively distinguishes between the "natural" (simple fact of living) and the "political" (qualified life). Hannah Arendt and Michel Foucault upheld that in the 16th century, when experimentation arose, there was a rupture that would have shifted the importance formerly granted to *bios* to *zoe*. This means that, from the ancients to the moderns, what is "natural" comes to take precedence over what is "political." For Giorgio Agamben, this separation is thus of the same *polis*, being the very foundational philosophy of Aristotle proposing a hierarchy of lives, with the lowest form of life given to plants (for its nutritive function) when minerals is attributed no life, while water, together with air, earth, and fire, is one of the four known basic elements in Greek philosophy. In his genealogy of the concept of life, Agamben suggests that both before and after the 16th century, it is the same separation that is at play, that is, one that moves towards making bare life political.[2] For him, this is the anthropological machine, namely the machine that makes man distinguishable from animal, and consequently from other forms of life. It is upon making this "bare life" as the locus of our politics, or what we are accustomed to call biopolitics following these authors, that we act upon it as if it were an object. In turn, all forms of life are deemed amenable to scientific experimentation as well as to forms of governmentality. In the process, we have privileged the separation of humans from nature, with the consequence of turning much of its compositions into parts and commodities. Water, for instance, in this anthropological machine, can become a bioresource, HO or H_2O, which we can then contain, sell, control, contaminate as well as protect, conserve, or treat. Generally speaking, in the Western worlds, we have come to think of water in a pure form that perhaps exists nowhere. Defined at its molecular level, which is currently at the top of science's hierarchy of knowledge legitimacies, water becomes

a dictionary entry: "a transparent, odorless, tasteless liquid, a compound of hydrogen and oxygen, H_2O, freezing at 32°F or 0°C and boiling at 212°F or 100°C, that in a more or less impure state constitutes rain, oceans, lakes, rivers, etc."[3] The idea of water as H_2O has, however, never been settled. Water has been made into such a molecular object or compound during the Chemical Revolution between 1760 and 1860; it is with early electrochemistry that water's compound nature was confirmed and, with early atomic chemistry, it first became HO and then H_2O, but without decisive empirical evidence (Chang). With the idea of water in a "pure" form, it only "appears" bluish when in thick layers, and movement is only given back to it upon reference to external qualifications. To overcome this objectification of water, we need to avoid thinking through separation and let go of the anthropological machine. To render inoperable the anthropological machine that has separated human from animal, vegetal, elemental, and ethereal, we need to think water not as H_2O, nor as "life" and its limit, but as full of life, animation, and intensity, as a number of anthropologists have suggested by turning to water as both metaphor and real ways of doing in anthropology.

Carse suggests that water has been taken for granted in anthropology; however, its presence acts pervasively as we find numerous metaphors throughout the discipline, some doing so more convincingly by bringing the matter of water to life. Marcel Mauss, sometimes called the father of French anthropology, suggests for instance that "we see [how things really are] in motion as an engineer sees systems, or as we observe octopuses and anemones in the sea" (181–182). He continues to say real-life human beings inhabit fluid reality in which nothing is ever the same, and this is also what the philosopher Henri Bergson is saying at about the same time. Picking up on this oceanic metaphor, Ingold suggests that "in this oceanic world, every being has to find a place for itself by sending out tendrils which can bind it to others" (*The Life* 11). As such, Ingold is taking this fluid reality out of the water to account for the ways we are immersed in the air and the world as inhabitants. Stefan Helmreich for his part does underwater anthropology literally or an "anthropology of sound" by diving to the seafloor, suggesting we understand seawater as "a lively and deadly element that swirls semiosis and substance together in an indivisible eddy" (*Sounding* xxvii). The oceanic metaphor thus rests in particular forms and

materiality. Steinberg similarly suggests that we should engage the ocean "as a material space characterized by movement and continual reformation across all of its dimensions" (156). How then might we know water best by thinking and doing through such lines and movements, ebbs and flows, rather than beginning with objects (organisms) or components (biotic or abiotic) as is done through most research in ecosystems and ecology and as we think water as H_2O or as global water? These abstractions enable us to make up or construct water as a commodity in crisis, which is part of the problem rather than a solution. To the contrary, thinking with and immersing ourselves in water keeps bodies open-ended; it also enables us to pay attention to the space improvised as people and water entwine in motions to live and stay alive, thus bringing attention to the importance of keeping water alive and flowing as well.

Helmreich (*Sounding*) suggests we understand seawater imagery and metaphors in anthropology as having undergone three moments. In early anthropology, giving in examples scholars such as Malinowsky, Firth, Lévi-Strauss, and Margaret Mead, water would have been treated as atheoretical or a substance upon which to meditate. Second, in what Helmreich calls maritime anthropology, water would have become a more explicit substance to think with. Third, he suggests that it is only in recent social theory—with Gilroy, Bauman, and Sloterdijk, for example—that "scientific descriptions of water's form, molecular and molar, have become prevalent in figuring social, political, and economic forces and dynamics" (96). While seawater would have moved from an implicit to an explicit figure in anthropological accounts, attention to watery materiality would have paid more attention to "the form of water," perhaps thus missing out on its very substance. Numerous recent works pointing in this direction, however, do not quite succeed in letting water flow through their thoughts. For instance, in *Waterworlds: Anthropology in Fluid Environments,* Hastrup and Hastrup take up Bauman's idea of liquid modernity (liquid fear, liquid times, liquid worlds) while adding "fluid" to environments, but they do so from the outside. The authors also take the Anthropocene as a starting point without making the distinction that it is only a particular kind of human who is acting from hubris, namely the one who makes up the world into objects or resources as part of the Capitalocene, as discussed above. The authors are intrigued by Helmreich's proposition

that nature "moves faster" than culture to allude to different speeds as we think in land-based idioms (*Sounding* 3). The question they ask on this point, however, is "why is that so, and how may it be measured?" (Hastrup and Hastrup 7), thus keeping with the nature/culture divide and slipping into an objectifying project that they seem to oppose, at least in part. They also later state that it is "people"—like Bauman, Helmreich, Tsing, and themselves—"who decide what is worth analysing and what is not … " (15). This odd comment attests to the externality of their position from the environments they aim to "know," thus perpetuating the very problem they wish to surpass, namely that water suggests passage through and in-between human and nonhuman life forms, not primacy of the subject (in "them" and "us" terms). In this way, Hastrup and Hastrup fall short of recognizing that the greatest pathology of Western thought is the idea of the subject, as suggested by Bateson, whom they ironically cite for his notion of flexibility yet without mentioning his main thesis which cuts across the subject-environment divide. It would not appear that it is they who decide what is worth analysing; yet, they could have left a place for water as presence and thus taken part in how things are imagined and come to the surface. This implies letting go of a quest to either measure or analyse: "analysis means taking something apart in order to understand it" (Capra 30). What is rather desperately needed are ways of understanding how things hang together, entangle, and create affects in-between, such as what happens when an excess of waters occurs. This is the route I aim to explore and it is one closer to what Deleuze and Guattari suggest with a world of flux, lines, taking up speed in the middle, with no beginning and no end, pulling and bending. It is not adding "flux" or fluidity to environments, yet it offers to understand lines of becoming as material-flux interwined with potentialities of taking lines of flight in a plane of immanence.

Similarly on the theme of flow within containment, Wagner's *The Social Life of Water* maintains an interest in developing more effective water governance. Taking obvious inspiration from Appadurai's *The Social Life of Things*, which pertains to global flows and seems to fit, the author extends the theme, borrowing from Latour. Upon doing so, however, Wagner does not take inspiration from Appadurai's theory of flows (*Modernity*), in the sense that people and things, he argues, entangle in all sorts of ways locally or become indigenized (or not). Further, Wagner

contends in his introduction that the social and the ecological should be considered conjointly; however, it is the social that he aims to connect to water rather than the other way around. In other words, water is not penetrating the text. While it is stated that it is about "the ways in which social practices shape and are shaped by water" (Wagner 3), the text clearly reveals an interest in "the influence of water on our social lives" (6). Thus by keeping water on one side and humans or the social on the other in causal logic, it leads the author to want to add "agency"; upon undertaking Latour's actor-network theory, Wagner even ventures into making water into a commodity (or actor) upon which we can continue to govern. Treating water as an actor and giving it agency in only a limited fashion makes the whole discussion a little bit troubling : "we cannot assign intentionality to water as we conventionally define that term, but we can assign agency to it in ecological terms and therefore in socioecological terms" (8). However, who are we to assign agency? According to Ingold, this dilemma can only be resolved "by conjuring a magical mind-dust that, sprinkled among its constituents, is supposed to set them physically in motion" ("Materials" 11). Given Wagner's discussion at the beginning of the book's introduction of how we are mostly water, it is hard to grasp how objects and subjects, actors and agency are maintained as useful beginning points. This is again how I find the world in flux, without subjects and objects, the most interesting way forward.

Strang's work *Water: Nature and Culture* is perhaps the one that comes closest to achieving this. While her work on the entire story of human-water relations can appear thin because of its immense scope in time and space, it never *contains* water but rather lets it *permeate* through her words. Her very gentle critique is quite powerful. Essentially Strang highlights recent dams as the greatest calamity, contrasting them with Roman dams that continued to respect water by letting it flow (132), never aiming to control water with taps or closed pipelines. Further, she begins with water moving through us and all animate and nonanimate lifeforms, and ends with expressing the need for us to correspond with water as kin for any new kind of relation to emerge. Simple as it may sound, it is perhaps the most "sustainable" and worthwhile solution to consider.

The remainder of this chapter will explore ways people have found to think and do with water: namely thinking in winds understood as streams

and currents as found in Javanese philosophy, and as done in the Cape and in the Amazon where I conducted fieldwork on ways of healing with plants. The effervescence of fresh liquid vegetal healing remedies reveals how keeping the flows going are vital and can be something one can hone.

Worlds in Flux

> There is indeed such a thing as measured, cadenced rhythm, relating to the coursing of a river between its banks or to the form of a striated space; but there is also a rhythm without measure, which relates to the upswell of a flow, in other words, to the manner in which a fluid occupies a smooth space.
>
> —Deleuze and Guattari

The Amazon basin is never fully contained, its tides moving up and down, filling its forests and draining its swamps, meandering East, disgorging its flows into the Atlantic Ocean. I aim to describe how water occupies ways of healing when I conducted fieldwork in the Amazon and at two extreme points of the Indian Ocean. More specifically I am interested in practices of taking fresh plant waters as remedy, and yet also to discern ill-being and dreams, to communicate with ancestors or with the cosmos, to know and to keep on going in life. Throughout these studies, plants and people are understood as passing through each other, both shaping and being shaped through waters. While I set out with interests in different medicine used as remedy, whether biopharmaceutically transformed or in their plant, animal, mineral, and elemental forms, I became interested in what emerges and matters in these processes. In 1992, my journey began in the Brazilian Amazon in the "Casa das Plantas Medicinais da Amazonia" (House of Medicinal Plants of Amazonia) in Belém de Parà, where an abundance of fresh plants stacked up on boats travelling downstream arrived on a daily basis to be sold at the Mercado-Ver-O-Peso in the port. Indigenous women travelling on those boats or arriving by foot with their liquified plant mixtures to share and sell most intrigued me. I soon began to imagine a way to do my doctoral studies upstream in Indigenous villages, highly attracted, like numerous anthropologists before me, to what I

would find at the "source." The political situation made it difficult to obtain permits and, as I began my PhD in January 1998, I undertook at the same time training to become a volunteer for Médecins Sans Frontières (MSF or Doctors Without Borders). A foot in each path, I negotiated an official affiliation with MSF in their projects in the Brazilian Amazon, namely in the Medio Solimoes, doing some work as a volunteer as well as extending my stay as an anthropologist (Laplante, *Pouvoir guérir*). Both with this highly global and local entry into the deepest black rivers where Indigenous people live, my interests went, on the one hand, towards the lengthy process of turning plants into pills; on the other hand, I became fascinated with how biopharmaceuticals were tested locally in the *rami* (*banisteriopsis caapi*) hallucinogenic drink known by shamans to enable access to the wisdom of vegetal and cosmic worlds. Upon following this elaborate medicine-making trajectory in multiple directions, one of turning life into a commodity and the other of bringing a commodity into life, a few crucial things had escaped me at the time; one was sound and the other was water. In other words, I omitted to pay attention to the ephemeral and the elemental, which is typical in academia. It is only recently that sound's assumed ephemerality has been put into question (Samuels et al.); it is perhaps also only recently that the elemental has returned into academia as a way to address the presence of water as flow and flux. While sound and water escaped me academically, I grew into them and they into me, their intensities, plasticities, and affective presence undeniable, in particular as they passed through plants or plants through them.

Interested in how an Indigenous plant is transformed into a laboratory pill during my subsequent research in Cape Town, South Africa (2006–2010), I became aware of how powerful sounds were with relation to connecting with plants in healing. An *isangoma* (Xhosa healer in this case), who pointed to drums and invited me to a drum healing session to explain how a plant "works" (heals), awoke me to this (Laplante, *Becoming-Plant in India*). With a gesture of his arms, he indicated that a person needed to be (en)sounded to connect and heal with plants. He did not speak of water, although water was at the centre of the healing session in a big pot in which a dream plant (ubulawu) was mixed with a stick, its foam rising on the top attesting to the proper connection with the ancestors.[4] This experience led me to undertake my more recent study on jamu medicine

in Java, Indonesia, directly through sound and movement (Laplante, *Jamu Stories*), with water taking up my attention more directly. Jamu medicine is a practice of healing with vegetal beverages prepared to heal and maintain vitality in human life. Mostly women prepare daily healing beverages with plants, rhizomes, and spices of all sorts to be drunk fresh while it is still in liquid form, and thus watered up. Jamu medicine makers spend numerous hours on a daily basis slowly and rhythmically washing, pounding, and mashing fresh rhizomes, leaning their whole upper body in a back and forth motion to extract their juices—for instance, rolling a volcanic stone cylinder onto fresh herbs placed on a stone tablet (*pipisan*) to obtain their precious liquids. These processes of entanglement in between humans and plants are explicitly designed to increase vitalities, unblock passages, even to enliven thoughts, practices, and places; the vegetal flows increase vitalities, cleanse bodily fluids, and adjust vital bodily movements (Laplante, *Devenir humain*; *Becoming-Plant: Jamu*). It is said these elixirs constitute just another fluid passing through bodies of winds and flows (Ferzacca), namely offering possibilities of healing and of staying healthy by unblocking passages. Javanese fluid ontologies and the notion of "rasa" (sensing) further enable humans to grasp ways of knowing water from the inside without breaking it up into parts that make it decohere.

Bodies in Java are fluid bodies of winds and flows which very much echoe Deleuze and Guattari's suggestion to think "Bodies without Organs" (BwO), or more precisely to problematize the organism as "leaving just enough to the body so as to let it reform each dawn" (160). For Ingold, who also takes inspiration from Merleau-Ponty (1964), bodies are never objects, for they are always flesh in motion. Should lines as imagined by Ingold (*The Life*) and Deleuze and Guattari always be in becoming, then so should bodies which are made of lines or knots of lines made up of forms and substances that entwine. Water moves through bodies, passes through them, immerses them, moves upwards, swirls, circulates through them in all sorts of directions, never fully contained. Jamu attends to the ways fluids occupy bodies, thus considers them as smooth space rather than objects or even subjects, of which fluid is contained. Taking this approach to the surrounding waters, Deleuze and Guattari follow Pierre Chaunu to suggest accordingly that it is from an extended confrontation

at sea between the smooth and the striated during the course of which the striated progressively took hold.

Deleuze and Guattari suggest that the sea is both the archetype of smooth spaces and the first to have undergone gradual striation; its striation was taken to land, cities, and also air and to the stratosphere. Another way of understanding striation in the social sciences is with the Latourian notion of actor network (points that connect), smooth space being closer to Ingold's notion of meshwork (interweaving lines). I am not suggesting returning to an earlier system of navigation, but to a contemporary one as "the smooth always possesses a greater power of deterritorialization than the striated" (Deleuze and Guattari 480), to the image of the strategic submarine, or in the sense of enabling to find a line of flight from dominant grids. Water carries this potential, as does the air: that is, of continuously becoming smooth space again, and in a way that can be very powerful.

Cape Town, where I conducted my research in South Africa, is situated near the meeting of the Atlantic and Indian Oceans, the actual meeting of the currents moving seasonally between Cape Point and Cape Agulhas. On the Atlantic side of the Cape, the waters are icy-cold as per the northward flow of the Atlantic's Benguela current, which originates from the upwelling of water from the cold depths of the Atlantic Ocean against the west coast of the continent. The huge flow of warm water is the Agulhas current, which runs southward along the Indian Ocean shoreline of Southern Africa. The meeting of the waters appeals to the imagination, but also speaks to the tensions between Indigenous medicine and biomedicine. Practices coming from the West were cold and colonial, and they progressively rendered Indigenous medicine practices illegal from as early as the 1860s. Practices coming from the East, namely the Ayurvedic ones, were warm, enriching, and weaved into everyday practices with much more camaraderie. Within such everyday practices, weather lines offer a way to understand people's engagements with plants for healing in the Cape, namely in thinking through water's fluidities. The Agulhas "leak," peel off from the Indian Ocean, and form eddies increasing in strength and in warm salty waters pouring into the Atlantic Ocean. Recent studies suggest this leaking may have the effect of balancing "global warming," showing Indian Ocean worlds are necessary to Atlantic Ocean worlds.

The Indian Ocean is the smallest, youngest, and most physically complex of the world's three major oceans, covering approximately one-fifth of the total ocean area of the world.[5] Yogyakarta (Jogja), the city where I did my research in Java, is situated near the Indian Ocean's deepest point—the Sunda Deep of the Java Trench off the southern coast of Indonesia's Java island. Abram describes the Indonesian archipelago "as enlivened with indigenous animism appropriating Hindu Gods and goddesses by the more volcanic, eruptive spirits of the local terrain" (14–15). It is a terrain filled with such indeterminacies permeating Jogja's livelihoods; the city sits at the foot of one of the most active volcanoes on the island (Merapi) to the North. To the South lies one of the Indian Ocean's deepest points bringing all sorts of uncertainties of its own. The high cliffs of Java's southern coast are known for disasters often attributed to the South Sea Queen. Present-day fishermen from Java and from Bali still make a ceremony every year in her honour to appease her temper.[6] Jogja thus lies between the Merapi volcano to the north and the Indian Ocean to the south, a location that suggests, perhaps, a more in-depth movement of Ayurvedic medicine into Javanese everyday healing practices, ones currently emerging as Jamu. Traces of Jamu medicine from as early as the 8th century can be found in the Hindu Temple of Prambanan, near Jodja, but Jamu bloomed during the Mataram Kingdom from the late 16th to 18th century.

Jamu's healing practices, like those regrouped under the term *muti* (broadly indicating all South African Indigenous medicine), are set as contrasting lines to modern biopharmaceuticals often overshadowing their multiplicities as well as interweavings, as they too become watery and fluid as they move through and in between those who consume them. The idea of "water" or the ocean provides ways to grasp how these practices might move fluidly and with infinite possibilities of both undercurrents and breaking the surface: certain practices are made to rise to the surface in a certain way under particular circumstances, only to disappear again beneath the surfaces following different tempos and rhythms. Oceans meet with no fixed point or limitation of worlds, borders that dissipate further when we are fully immersed in the world of the everyday. It is only from afar that we can see such lines separating the oceans, and only from the inside that we can understand how oceans meet and mix, carrying things and people in and across them (Laplante, *Healing Roots*).

It is also upon thinking with water that I was able to understand how human-plant entanglements are prized and how the long hours spent preparing the elixirs contrast with how the customers drink it quickly, in a single shot, enabling the plant mixtures to meet and mix with human winds and flows. The turmeric and tamarind pressed with hands, the juice trickling down through the fingers, enables jamu makers to extract textured part of the rhizomes' and fruits' flesh to make the beverage with the right consistencies. The yellow-orange tincture left on the hands following this step, which is also accomplished through movement and rest, is known to be different if coming from meshing with fresh rhizomes or if it comes from chemical dye, expressing a higher value of the woman's copresence with the plants' colourful waters.

The movements in preparing jamu beverages are in fact similar to those of *Pencak Silat*, a popular martial art in Java, in particular, the hand movements pushing forwards and backwards, synchronizing between breath and motion and producing energy. Producing energy is to correspond breath with movement in kicks, yet also through firm movements of the arms, this action being done in preparing *jamu*, namely in attuning breathing with upper body motions. This combination enables one to "enter in correspondence" with fresh plants, which are also producing energy. The added value in the case of jamu, in contrast with *Pencak Silat*, is that it is energy entangling with plant lives, the latter also in motion and producing energy. Some of the jamu makers revealed that they both gain as well as put energies in their beverages through corresponding motions, making the beverages that much more powerful and connected to the customer they have in mind as they prepare the drink.

The idea of life forces that one can hone to mobilise an increased ability to sense, including with other life forms, is invested in doing jamu that treats a body of flows and winds:

> *Aliran* [flows, winds, literally translated as stream or current] in the socio-political realm organize and channel fluid political forces that are always on the verge of sluggish motility or even disorder. Aliran as Indonesian socio-political streams or currents described by Geertz [1959] and Anderson [1990] share similar characteristics with the embodied

> aliran of fluids and winds, nerves and veins—channels of and for essential life-forces. These perspectives on the potential nature of aliran coincide with Javanese perspectives on and practices towards the body as a comprehensive pattern, a fragile kaleidoscopic structure, an organized and unorganized but potentially organizable integration that when operating smoothly signifies good health. (Ferzacca 118)

One of the healers Ferzacca met during his fieldwork combined massage with herbal and plant medicines she grows and processes herself. Her work is one of disentangling "channels and networks that allow for the smooth flow (*lancar*) of fluids, airs and winds—the currents (*aliran*) of life—and in the process revitalize the fluent and virtual pathos of self and omipresent ethos of identity" (119).

> While some masseuses say their work is to loosen up entangled nerve networks, most masseuses see a functionalism of nerves (*saraf*), veins (*pembuluh darah*), bones (*tulang*), joints (*persendian*), muscle (*otot, urat*), breath (*napas*), winds (*angins*) and flows (*aliran*) as networked within a dynamic configuration of inner life force (*tenaga dalam*), natural life-force (*tenaga alam*), and social life-force (*tenaga lingkungan*)—a *badan mengalir*, or a body that flows—all of which are signified by *rasa*. (116)

Healing work done on the body is thus done on a body of *aliran* open to these life forces.

Jamu is often used to clear passages, channels, or blockages. "For many of the healing traditions breath (*nafas*) is an important sign and symptom of health and disease, for it is the essence of a fluid life" (Ferzacca 119). In its healing aspect, *pencak silat* can enable one to transfer, mobilize life forces, bringing attention to the manner in which a fluid occupies a smooth space. Achieving inner power and attuning rasa can augment the possibility of making and preparing the right jamus for the right problem at the right moment. It is in this way that jamu beverages can be understood as tailored vegetal flows that can enable, restore, or clarify fluid bodies.

This movement and open-endedness came from thinking through the ocean, fluidities, winds, lines, and water. While my work in Java, Indonesia, and in Cape Town, South Africa, was mainly to follow plants, thinking through water showed to be a fruitful path to merge sociocultural and ecological issues into what Ingold (*The Life* 12) calls a study of the life of lines in a world without objects. Upon looking back to my earlier research in the Amazon with these thoughts, it brings entirely new sense to my understandings of what was going on at the time.

If, as anthropologists, we can find ways to attend ethnographically to those processes of form amplification and harnessing as they play out in the Amazon, we might be able to become better attuned to the strange ways in which form moves through us (Kohn 160). The Amazon is soaked with water, both in the air and earth, even the forests being places to travel by canoe when the tide is up. Upon describing how forests think in the Amazon, Kohn cannot help but bring water up and, perhaps more importantly, how the logics and properties of form have largely escaped the ethnographic object. The lack of tangibility, the ephemerality, and elusive nature of water, as of sounds alluded to above, generally escape science as a whole. In a place where there is so much water, it becomes crucial to grasp how it moves (through) us. Kohn's attention was taken by whirlpools as emergent phenomena that appear under particular conditions whose form, should we block the water, would disappear. He continues to argue that whirlpools are something other than the continuous flow, "freer, more turbulent, and hence less patterned flow of water in the rest of the river" (166). The whirlpools would have novel properties, detaching themselves from the river, and exhibit "a coordinated circular pattern of moving water" (166). He further suggests that the whirlpool is other yet also less, as it would flow in a less free way "when compared to all the various less coordinated ways in which the water otherwise moves through a river" (166). While I do not agree with the idea that the whirlpool is more or less than the river it forms (which would place the striated as primary to the smooth, in deleuzoguattarian terms), nor that this kind of emergent phenomena can also explain symbolic reference as the author suggests, I do think the idea of harnessing form, in the sense of joining with water's movements, is an interesting one. The whirlpool in my view, however, would only be one of the possible motions taken by water and

which, upon an encounter with humans, can be joined and create affects (or not). In other words, the whirlpool can be a plus value should it become meaningful to other forms of life that encounter it (or not). Hence the whirlpool would not have its own agency as an actor, nor would it be a lower order process of water, yet it is a form taken by water that one can harness to produce energy (or not). We can thus harness its form as suggested by Kohn, yet Bachelard suggests we also need to foster the intimate imagination of vegetative and material forces, which is how it can affect in more or less meaningful ways. I did not encounter any meaningful whirlpools during my many years of fieldwork in the Brazilian Amazon. Water, however, moved through me in subtle yet powerful ways as I was both carried by water as well as carrying new life in waters.

Chandler and Neimanis offer a discussion on water and gestationality that I will take partly literally here as my journey in the Amazon was immensely intensified with my first pregnancy. Arguing a similar point that I brought above with the issue of giving agency to actors, Chandler and Neimanis criticize Latour's project as "retaining one of Western philosophy's central ontological tenets—that is the active, rather than the facilitative, capacity of the entity that renders it worthy of political voice" (64). Following Kohn's suggestion that form or harnessing form can be effortless, these authors suggest that we need to attend to what flows beneath or carefully attune to water's material capacities which are gestional, yet also more than that, as gestation is joined by communication, contamination, dissolution, and destruction (65). Here again, I would suggest this is not flowing beneath, yet very much at the surfaces and contact zones. The authors nevertheless offer a fascinating discussion towards a new kind of ethics by taking from Levinas, also turning towards new materialism with Deleuze. In line with what I am arguing in this chapter, these authors also propose a break from Western ontological schemata. The idea which they bring is that "all bodies—human, other animal, vegetable, meteorological, geophysical, or otherwise—necessarily 'water' one another in key co-constitutive ways" (65). Contrary to Latour's actor-network, which suggests that entities have agency, it is proposed that we need to undo the prerequisite for a bounded entity. This is what I discussed with jamu in Java, and also what I found in the Amazon where water permeates people and place with great intensities given its abundance. My own body undergoing

foetal becoming only increased these intensities and it is again in dealings with plants that this came to my attention. As in Java and in Xhosa practices in the Cape, plants are prepared in fresh liquid form with the most potent drink prepared into a beverage called rami. It is through water that the wisdom of this plant can be passed to humans, usually shamans. The drink is also used to treat different ailments such as stomach flu. While I was experiencing flu-like symptoms and in my state of early pregnancy, a missionary nurse visiting the village suggested I take the milk from a green papaya, another watered up fresh plant juice. Indigenous women, however, explained this would potentially provoke an abortion. A shaman rather suggested we undergo a rami ritual. As watered up rami was offered to me following a tobacco fumigation, the shaman carefully made sure it reached a careful threshold by sensing my pulse, or the speeds and rhythms taken up by waters in their passage through my body. While the swampy waters of the Amazon carry multiple forms of life, so do we, making water a flow that we might prefer joining in its formlessness rather than in form. The gestational ethics proposed by Chandler and Neimanis is one of becoming milieu, of responding "to the needs of habitats, the ecological dwellling places and sources of nourishment that give rise to and support life as plural" (79). This is what seems to be done in healing with plants in the Amazon, as well as at two edges of the Indian Ocean where waterways move into and across lives, enabling to go on with ways of caring and carrying on with the more-than-human.

Conclusion

One of the main arguments I made in this chapter is that to know water, we need not take it apart, nor stop its flow by turning it into an object (whether a compound or bioresource) or form, yet we can learn to affect and be affected by its plasticity as a "capacity to both receive and give form" (Sanabria 40). I suggested that by placing ourselves in the middle of things, in this case within water's movements, we can find a line of flight away from stern imaginations of worlds split into nature on one side, and culture on the other, to get closer to what is going on. This implies letting go of the idea that humans and nonhumans are bounded subjects or objects. I showed how numerous anthropologists suggest we think with water and how water inspires ways of understanding worlds. Through my three

fieldwork sites, I explored how bodies understood as fluid make medicine preparations with plants attend to bodies of winds and flows in worlds in flux. I also showed how thinking with water enables us to find commonalities in between these fieldsites, as well as how water impregnates them in different ways. Hopefully, I provided some insights into ways in which water's presence might also constitute inspiration and opening in an imagination that perdures, as it rests in correspondence to its vital motions and matter passing through both human and nonhuman lives, rather than solely lead to commodification and closure in an imagination that rests in form. Human healing in the contexts I evoked passes through watered-up plant lives, honing abilities to create affects.

NOTES

1 For some it is the atomic bomb, for instance leaving traces across the globe, which would mark the beginning of the Anthropocene, while for others it takes us back to the beginning of agriculture some 12,000 years ago.

2 Agamben holds that the anthropological machine is manifested through culture in two forms, ancient and modern. The ancient anthropological machine works by humanising the animal, while the modern anthropological machine works by animalizing the human. (https://thrownintotheworld.wordpress.com/2013/08/04/the-anthropological-machine/#_ftn3). In both cases, he suggests we need to give it a rest since it causes separation, sorrow, conflict, and hierarchies of lives, which are harmful for both the human and the more-than-human.

3 www.dictionary.com/browse/water.

4 One variety of *ubulawu* is named more specifically *undlela ziimhlophe* in Xhosa (Hirst, "Roots"; "Dreams") and corresponds to the botanical taxon *Silene capensis* (syn. *S. undulata*).

5 http://www.britannica. com/EBchecked/topic/285876/Indian-Ocean.

6 http://api.sg/main/index.php?option=com_content&view=article&catid=57:special-articles&id=36:the-mystery-of-javas-spirit-queen. Accessed 28 June 2015.

REFERENCES

Abram, David. *The Spell of the Sensuous.* New York, NY: Vintage Books, 1996.

Agamben, Giorgio. *L'Ouvert. De l'homme et de l'animal.* Éditions Payot & Rivages, 2006.

Appadurai, Arjun. *Modernity at Large: Cultural Dimensions of Globalization.* University of Minnesota Press, 1996.

———, editor. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge University Press, 1986.

Arendt, Hannah. *The Human Condition*. University of Chicago Press, 1958.

Bachelard, Gaston. *L'Eau et les Rêves*. Corti, 1942.

Bateson, Gregory. *Steps to an Ecology of Mind*. Balantine Books, 1972.

Bergson, Henri. *Creative Evolution*. Translated by A. Mitchell. Macmillan, 1911.

Capra, Fritjof. *The Web of Life: A New Scientific Understanding of Living Systems*. Anchor Books, 1996.

Carse, Ashley. "Water. Editor's Introduction." *Cultural Anthropology*, 2010, https://culanth.org/curated_ collections/10-water.

Chandler, Mielle, and Astrida Neimanis. "Water and Gestationality: What Flows beneath Ethics." *Thinking with Water*, edited by C. Chen, J. MacLeod, and A. Neimanis, McGill-Queen's University Press, 2013, pp. 61–83.

Chang, Hasok. *Is Water H20? Evidence, Pluralism and Realism*. Springer, 2012.

Chaunu, Pierre. *L'expansion européenne du XVIe au XVe siècle*. PUF, 1969.

Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. University of Minnesota Press, 1987.

Descola, Philippe. *Par-delà nature et culture*. Éditions Gallimard, 2005.

Ferzacca, Steve. *Healing the Modern in a Central Javanese City*. Carolina Academic Press, 2001.

Foucault, Michel. *Sécurité, territoire, population. Cours au Collège de France (1977–78)*. Gallimard/Seuil, 2004.

Haraway, Donna. "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin." *Environmental Humanities*, 6, 2015, pp. 159–165.

Hastrup, Kirsten, and Frida Hastrup, editors. *Waterworlds. Anthropology in Fluid Environments*. Berghahn Books, 2016.

Helmreich, Stefan. "Human Nature at Sea." *Anthropology Now*, vol. 2, no. 3, 2010, pp. 49–60.

———. *Sounding the Limits of Live. Essays in the Anthropology of Biology and Beyond*. Princeton University Press, 2016.

Hirst, Manton. "Dreams and Medicines: The Perspective of Xhosa Diviners and Novices in the Eastern Cape, South Africa." *The Indo-Pacific Journal of Phenomenology*, vol. 5, no. 2, 2005, pp. 1–22.

———. "Root, dream & myth: The use of the oneirogenic plant Silene Capensis among the Xhosa of South Africa." *Eleusis. Journal of Psychoactive Plants & Compounds*, 4, 2000, pp. 121–149.

Illich, Ivan. *H_2O and the Waters of Forgetfulness: Reflections on the Historicity of "Stuff."* Dallas Institute of Humanities and Culture, 1985.

Ingold, Tim. *The Life of Lines*. Routledge, 2015.

———. "Materials against materiality." *Archaeological Dialogues*, 14, 2007, pp. 1–16.

Kohn, Eduardo. *How Forests Think: Toward an Anthropology Beyond the Human*. University of California Press, 2013.

Laplante, Julie. *Becoming-plant in Indian Ocean worlds: Lines, flows, winds, and water*, 2015, http://read.hipporeads.com/becoming-plant-in-indian-ocean-worlds-lines-flows-winds-and-water. Accessed 14 June, 2017.

———. "Becoming-Plant: Jamu in Java, Indonesia." *Plants & Health: New Perspectives on the Health-Environment-Plant Nexus*, edited by L. Olson and J.R. Stepp, Springer International Publishing, 2016, 17–65.

———. "Devenir humain-plante aux abords volcaniques de l'océan Indien." *Cahiers d'anthropologie sociale*, vol. 14, 2017, pp. 153–170.

———. *Healing roots. Anthropology in life and medicine*. Berghahn Books.

———. Jamu Stories–Anthropological Film 104 minutes, 2015 https://www.youtube.com/watch?v=CMRZRw1z2Fw.

———. *Pouvoir guérir: médecines autochtones et humanitaires*. Presses Université Laval, 2004.

Laplante Julie, et M. Sacrini. "Efficacité thérapeutique comme ligne de fuite. Le cas de la médecine jamu." *Anthropologie et sociétés*, vol. 40, no. 3, 2016, pp. 137–159.

Latour, Bruno. "Another Way to Compose the Common World." Lecture given at an Executive Session of the AAA Annual Meeting, Chicago, 23rd November, http://www.brunolatour.fr/sites/default/files/132-AAA-CHICAGO-PHIl-ANTH-2013.pdf, 2013. Accessed 18 June 2017.

———. "How to Talk About the Body? The Normative Dimension of Science Studies." *Body & Society*, vol. 10, no. 2–3, 2004, pp. 205–229.

Mauss, Marcel. "Essai sur le don: forme et raison de l'échange dans les sociétés archaïques." *L'Année sociologique* (nouvelle série), vol. 1, 1923–1924, pp. 30–186. Alcan.

Samuels, David W., Louise Meintjes, Ana Maria Ochoa, and Thomas Porcello. "Soundscapes: Toward a Sounded Anthropology." *Annual Review of Anthropology*, 39, 2010, pp. 329–45.

Sanabria, Emilia. *Plastic Bodies. Sex Hormones and Menstrual Suppression in Brazil*. Duke University Press, 2016.

Steinberg, Philip E. "Of Other Seas: Metaphors and Materialities in Maritime Regions." *Atlantic Studies*, vol. 10, no. 2, 2013, pp. 156–169.

Strang, Veronica. *Water: Nature and Culture*. Reaktion Books, 2015.

Wagner, John R., editor. *The Social Life of Water*. Berghahn Books, 2015.

Waters, C., et al. "The Anthropocene is functionally and stratigraphically distinct from the Holocene." *Science*, vol. 351, no. 6269, 2016, pp. 137–147.