



UnderCurrents

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Below

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About Us

UnderCurrents is a collectively- and student-run journal based out of the Faculty of Environmental & Urban Change at York University (previously the Faculty of Environmental Studies), in Tkaronto / Toronto, Canada.

UnderCurrents explores relations among environment, culture, and society. We are committed to publishing a variety of scholarly, creative, and activist work that critically engages with conceptions of the environment and seeks to break down traditional interpretations of the world around us. All back volumes are available, free of charge, on the UnderCurrents website.

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Editorial Essay

Zachary Dark, Laurence Butet-Roch, Melvin Chan,
Karl Petschke, Laura Tanguay, and Sarah Urquhart
for the UnderCurrents Editorial Collective



From the depths of Dante’s *Inferno* to Verne’s *Twenty Thousand Leagues Under the Sea*, subterranean and subaquatic environments have often been depicted as repositories of primordial forces and abiding secrets in the Western tradition. The much-repeated (if somewhat misleading; e.g., Copley, 2014) claim that humans have “explored” more of outer space than of Earth’s oceans points to the mystique associated with the deepest regions of this planet. Though dramatic environmental changes are becoming increasingly evident all across the face of the Earth, we surface-dwellers can scarcely fathom what has been occurring below the ground and beneath the waves. In these deep places, rising temperatures deplete aquifers and destabilize sea beds; infrastructures (both old and new) wind through vast urban undergrounds; heavy industry delves ever deeper in its search for fossil fuels, rare earth metals, and geothermal energy; and plastics and other toxic contaminants come to settle among the extremophiles inhabiting the most remote reaches of the ocean.

This volume of *UnderCurrents*, like many before it, is an invitation to descend into the depths of these lively underworlds, with all their buried curiosities and submerged contexts. We explore what is going on beneath the surface in an effort to confront, expand, and/or interrogate existing understandings of the subterranean and subaquatic. We ask: how does the condition of being subsurface affect understandings of these physical environments and/or perspectives? Responses to this call took many forms, including scholarly articles, poetry, visual art, and conference proceedings. We are excited to present these collected works in Volume 22 of *UnderCurrents*, entitled *Below*. We hope that the provocative and thoughtful pieces in this volume inspire further subterranean and subaquatic investigations, and demystify and complicate the sub/surface distinction.

The three articles which open this volume demonstrate the breadth of scholarly approaches to the often-overlooked world beneath the surface. Métis historian David

McNab's essay, "'Water is Her Life Blood': The Waters of Bkejwanong and the Treaty-Making Process," explores how water is considered in the treaty-making process between the peoples of Bkejwanong (what is now often called Walpole Island, Ontario, Canada) and the British Crown (and later the Confederation of Canada) since the Royal Proclamation of 1763. Noting that there are few references to water and water rights in treaties, McNab expertly chronicles the struggle of the peoples of Bkejwanong over water and demonstrates the importance of water to all life and survival. Artist Natalie Wood similarly braids the threads of water and life in her piece, "They Say We Can't Breathe Underwater," which documents Wood's solo art exhibit of the same name. For Woods, "many people of the African diaspora have an ambivalent relationship to the Atlantic Ocean" (2025/this volume, p. 27). She explores the "geo-tidal" (Wood, 2025/this volume, p. 27) space of the Atlantic, memorializing the millions of Black lives stolen through the transatlantic slave trade while also "remembering, memorialising, imagining Black futures that overcome the trauma of slavery... [wherein] caring for the environment and the ocean is synonymous with caring for ourselves" (Wood, 2025/this volume, p. 32). The final essay by environmental scholar Jason Young, "Nature Loves to Hide: Navigating Surface and Depth in the Anthropocene," investigates experience, representation, and ambiguity in understandings of nature's 'surface' and 'depth.' Engaging with the philosophy of Maurice Merleau-Ponty and Craig Chalquist's (2020) work on "terrapsychology," Young points to the possibilities offered by embracing the ambiguity and uncertainty of nature's depths.

We are pleased to share a number of creative pieces that touch on the subsurface through various media. The intersection of arts and environmental thought is a rich space, allowing for intricate, imaginative, and surprising ideas to take form and be communicated with a variety of audiences. Performance duo VestAndPage (Verena Stenke and Andrea Pagnes) detail the creative and theatrical aspects of their experimental project, "STRATA: A Performance-Based Film Project on Deep Time in the Body and the Geologic," which took place in the Swabian Jura caves system in southern Germany and investigates "the human body as a site that exists in continuity with the geological" (2025/this volume, p. 50). Robert Budde and Corey Hardeman's "Petrichor and After Hardeman's 'Petrichor'" is a compelling combination of visual art and poetry that explores grief as a function of surface and depth together. For "In Depths," George Hiraoka Cloke and Anna Luy Tan utilize sound (hydrophone recordings) to contemplate subaquatic assemblages of diverse marine life, radars, and excavation equipment and "refute portrayals of an 'intact and uncompromised' ocean floor untouched by anthropogenic activity" (2025/this volume, p. 76). Two works of creative fiction dealing with the subterranean are published in this volume. In "Nun Cho Ga (Big Animal Baby)," Shelley O'Brien details the discovery of a baby woolly mammoth in the Yukon, Canada, and ponders the life experiences of this mammoth and how they might guide us into unknown futures. In "A Network Beneath the Soil," Savi Gellatly-Ladd writes about a young person who turns into a network of fungi; in turning to mycorrhizal fungi, Gellatly-Ladd delves into what humans might learn from subsurface symbiotic relationships. Lastly, as nods to possible futures, Subham Mukherjee and Mengzhu Fu offer two distinct calls for reflection. Mukherjee poetically conceives of a new ocean through their piece, "oceanic tauromachy," and Fu's "Future as an Underwater World" comic depicts a dream of a submerged future for humans who live in underwater cities. Together, these

creative works implore the reader to ponder and feel: What worlds will we be compelled to create, on the surface and below?

The volume is rounded out with a conference summary from sessions held at the American Association of Geographers 2023 Annual Meeting. Geographers Una Helle and Flora Parrott introduce the two sessions they convened that brought together scholars and artists whose research centers "the more-than-human within the subsurface" (2025/this volume, p. 96) and engages "these underground beings, habitats, and imaginaries" (2025/this volume, p. 96). In addition to this introduction, Parrott, R. L. Martens, Dara Saville, and Helle provide extended outlines of their arguments and works.

Taken together, the works in UnderCurrents Volume 22, Below, point to the importance of attending to the relations, dynamics, and processes that exist below the surface. These pieces explore the possibilities that emerge when one is willing to explore where sunlight does not reach and where new forms of life emerge. As Young argues (2025/this volume, p. 42), "while surficial thinking *represents* objective realities and quantifiable phenomena, the ambiguity of depth *manifests* through image, affect and correspondence." It is through embracing this ambiguity that new perspectives emerge.

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The Earth is said to be a woman. In this way it is understood that woman preceded man on the Earth. She is called Mother Earth because from her come all living things. Water is her life blood. It flows through her, nourishes her, and purifies her. On the surface of the Earth, all is given Four Sacred Directions—North, South, East, and West. Each of these directions contributes a vital part to the wholeness of the Earth. Each has physical powers as well as spiritual powers, as do all things. When she was young, the Earth was filled with beauty.²

The story of the water is the story of beauty and peace and life. It is the beginning and the end of life.³

This article will examine the waters of Bkejwanong, as reflected through the Treaty-making process, since the issuance of the Royal Proclamation of 1763. These Treaties include the framework of Gus Wen Tah, the Covenant Chain of Silver, the Treaty of Niagara of 1764, the Treaty of Detroit of 1765, the Treaty of Lake Ontario of 1766, Treaty #2 or the McKee Treaty of 1790, the Simcoe Treaty of 1794, the St. Anne Island Treaty of 1796, among others.

The waters of Bkejwanong are non-negotiable. In these Treaty negotiations, it should not be surprising that there are a few specific references to water. Both the land and the water cannot be alienated; it can only be shared. Water is not to be sold; it was too important to the traditional way of life. Water had to be protected or the land and the people would die.⁴ For example, the solemn commitments of the Crown made at the Council Meeting of August 30, 1796 constitute the terms of the Treaty of St. Anne Island. Water and water rights were not for sale. In fact, they were once again in 1796 re-affirmed as part of the Bkejwanong Territory.

All of these Treaties were negotiated, and agreed to, at significant places of ancient Council Fires. They were also held by First Nations waters, for example, the Niagara River, the Detroit River, Lake Ontario, the Chenail Ecarte River, and Lake St. Clair. The Council Fires were held on both sides of the waters which purported to become the international boundary between Canada and the United States sometime after 1815. Many of the boundaries of their Territories and their Reserves were water boundaries. Water and water rights were then, as now, a significant part of the way of life and the history of the people of Bkejwanong, the Walpole Island First Nations; “Water is indeed Her Life Blood”.⁵

Water is also essential for First Nations and Metis communities’ economies and trade. It provides food and abundance to the First Nations (Anishinabe, Odawa and Potawatomi) of Bkejwanong—meaning in English, “the place where the waters divide”. Canada, or Kanata, means the Places, i.e., villages, where the waters, the rivers and lakes, meet the lands (islands). The French and British imperial colonizers had it the other way around since they only valued the land and often took the waters for granted, except for the fisheries. Until fairly recently, the histories, Indigenous story(ies), of water have not been well told in Canadian history.⁶ To be sure, much has been written on some of the uses of the water, particularly fishing. However, this part of the story has been told largely from the perspective of the written record.⁷ Apart from Richard Bartlett’s path-breaking legal study, Indigenous Water Rights in Canada, comparatively little has been written on the Indigenous history of water or on the significant relationship between water and the Treaty-making process.⁸ Admittedly, this historiography of water has changed over the last quarter of a century as

“Water is Her Life Blood”

The Waters of Bkejwanong and the Treaty-Making Process

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Abstract

This paper, originally presented over thirty years ago at a conference at Walpole Island, examines the waters of Bkejwanong, as reflected through the Treaty-making process, since the issuance of the Royal Proclamation of 1763. Drawing on extensive historical research and documentation, the paper offers a unique insight into Treaty negotiations surrounding Indigenous water rights and title in Canada and the United States. In doing so, it helps explain the profound importance water holds in Walpole Island First Nations’ culture, heritage, and economy, not only as a crucial natural resource, or an essential aspect of Indigenous territorial sovereignty, but moreover as the life blood of Mother Earth, the beginning and the end of life.

Keywords

Indigenous history of water, Treaty-making, water rights, Bkejwanong, Walpole Island First Nations

The story of water is a significant one for First Nations, Metis Nations, and their communities. This story was, and still is, one of profound importance, of nourishment of the land, of creation and purification.¹ The late Anishinabe scholar, Edward Benton-Banai (1931-2020), wrote that

When Ah-ki’ (the Earth) was young, it was said that the Earth had a family. Nee-ba-gee’-sis (the Moon) is called Grandmother, and Gee’-sis (the Sun) is called Grandfather. The Creator of this family is called Gi’-tchie Man-i-to’ (Great Mystery or Creator).

a result of the work of Indigenous scholars as well as non-Indigenous scientific studies of climate change. However, that is a different subject and far beyond the scope of this article.

It should also be highlighted that the Indigenous perspective of water is a holistic one. The European written tradition separates land and water as well as the uses of water from the waters themselves. Indigenous perspectives do not. As a result, when land is often referred to by Indigenous people, water is also included. And yet, a few perceptive, non-Indigenous people have observed its importance within the Bkejwanong Territory. In July 1836, Anna Jameson, the wife of the Upper Canadian Attorney General, and an Irish writer, lyrically described the waters of Bkejwanong:

Leaving the channel of the river and the cluster of islands at its entrance, we stretched northwards across Lake St. Clair. This beautiful lake, though three times the size of Lake Geneva, is a mere pond compared with the enormous seas in its neighbourhood. About one o'clock we entered the river St. Clair, (which, like the Detroit, is rather a strait or channel than a river,) forming the communication between Lake St. Clair and Lake Huron. Ascending this beautiful river, we had, on the right, part of the western district of Upper Canada, and on the left the Michigan territory. The shores on either side, though low and bounded always by the line of forest, were broken into bays and little promontories, or diversified by islands, richly wooded, and of every variety of form. The bateaux of the Canadians, or the canoes of the Indians, were perpetually seen gliding among these winding channels, or shooting across the river from side to side, as if playing at hide-and-seek- among the leafy recesses.⁹

The Walpole Island First Nations have always lived by, and from, the waters of their Territory. It is their life blood. On what is now seen, by some, to be the Canadian side, it extends from Lake Erie in the south to Lake Huron, northward. It includes the watershed of Lake St. Clair and the Thames River as well as the St. Clair and Detroit Rivers. Bkejwanong is truly a place of water. Here the muskrats live and the fish and the fowl have been bountiful. It is a protected place. It is a sacred place. It is the soul of Indian Territory.¹⁰

The people of Walpole Island have used their waters within Bkejwanong for many purposes. Their Treaties reflect this fact as well as their tenacity regarding Indigenous rights and title. Fishing, hunting, and gathering as Indigenous land rights are primary parts of their culture and their heritage. They hunt on the marshlands, a rich, sustainable resource. They have developed traditional ways to sustain their fishery resource for many purposes, including personal, communal, and ceremonial uses, for barter, for trade and commerce. Today their natural resources remain a primary component of their culture and heritage as well as their economy.¹¹

Bkejwanong was protected by the Crown, as part of the larger "Indian Territory" in the Royal Proclamation of 1763. The Indigenous title and rights of the Walpole Island First Nations to its Territory were re-affirmed and protected as part of the "Indian Territory" by the Royal Proclamation of 1763.¹² The waters of Bkejwanong were part of the Indian Territory, if not the most important part. They were never the subject of the Treaty-making process that was begun long before the British Crown issued the 1763 Proclamation. The waters were protected under Gus Wen Tah, the Covenant Chain of Silver, initiated at the Treaty of

Albany in 1664.¹³ The significance of the Covenant Chain of Silver cannot be underestimated in terms of the Indigenous Nations' waters, lands, and sovereignty.

Sir William Johnson, the British Crown's Imperial appointee to the Indian Department in 1755, highlighted its magnitude in 1764. This statement was made by Johnson after the Royal Proclamation of 1763 and after the Treaty of Niagara of 1764 through which the Western Confederacy became a party to the Covenant Chain:

... as I know it has been verry [very] customary for many People to insinuate that the Indians call themselves Subjects, although I am thoroughly convinced they were never so called, nor would they approve of it. Tis true that when a Nation find themselves pushed, their Alliances broken, and themselves tired of a War, they are verry [very] apt to say many civil things, and make any Submissions which are not agreeable [agreeable] to their intentions, but are said meerly [merely] to please those with whom they transact Affairs as they know they cannot enforce the observance of them. but you may be assured that none of the Six nations, Western Nations [including the Western Confederacy] &ca. ever declared themselves to be Subjects, or will ever consider themselves in that light whilst they have any Men, or an Open Country to retire to, the very Idea of subjection would fill them with horror.

Johnson was keenly aware of the complexities of Indigenous languages and knowledges:

Indeed I have been just looking into the Indian Records, where I find in the Minutes of 1751 that those who made ye Entry Say, that Nine different Nations acknowledged themselves to be His Majesty's Subjects, altho' I sat at that Conference, made entrys [entries] of all the Transactions, in which there was not a Word mentioned, which could imply a Subjection, however these matters (notwithstanding all I have from time to time said on that subject) seem not to be well known at home, and therefore, it may prove of dangerous consequence to persuade them that the Indians have agreed to things which (had they even assented to) is so repugnant to their principles that the attempting to enforce it, must lay the foundation of greater Calamities than has yet been experienced in this Country.

It is necessary to observe that no Nation of Indians have any word which can express, or convey the Idea of Subjection, they often say, 'we acknowledge the great King to be our Father, we hold him fast by the hand, and we shall do what he desires' many such like words of course, for which our People too readily adopt & insert a Word verry [very] different in signification [signification], and never intended by the Indians without explaining to them what is meant by a Subjection.

He was also aware of Indigenous sovereignty as well as its implications:

Imagine to yourself Sir, how impossible it is to reduce a People to Subjection, who consider themselves Independant [Independent] thereof by both Nature & Scituation [Situation], who can be governed by no Laws, and have no other Tyes [Ties] among themselves but inclination, and suppose that it's explained to them that they shall be governed by the laws liable to the punishments for high Treason, Murder, Robbery and the pains and penaltys [penalties] on Actions for property or Debt, then see how it will be relished, and whether they will agree to it, for without the Explanation, the Indians must be Strangers to the Word, & ignorant of the breach of it.¹⁴

In July, 1764 at the Treaty of Niagara, held at the "crooked place", the Western Confederacy, among other Indigenous Nations, met Johnson, the Superintendent General of Indian

Affairs, and other officials of the Crown. At that time the representatives of the Western Confederacy (also known as the Lake(s) Confederacy) were told, among other things, that their Territory, including their waters, was confirmed and protected by the Crown. Johnson, the Crown's representative, gave the Indigenous Nations, including the Lake(s) Confederacy, "the great Covenant Chain, 23 Rows broad & the year 1764 worked upon it." This belt has been kept by the Indigenous Nations.¹⁵

These solemn Treaty promises were re-affirmed in the next two years at the Treaties of Detroit (1765) and of Lake Ontario (1766). Specific reference to water is found in the latter Treaty in connection with trade and trading rights, as spoken by Chief Pontiac:

Father. We thank you for the goodness you have for us in sending plenty of Merchandise to Detroit this will be a great means of promoting a good understanding between us as it will enable us, as we shall always have it in our power, to clothe our Children well. We likewise heartily thank you for not letting the Traders to straggle through the Woods to our Villages, but to trade only at the Posts under the Inspection of the Commissary (at the different Posts, that causes great mischief for them to be able to go through the Villages) and if they came up their Rivers they shall be protected (meaning the Commissary of the Different Posts). It was not prudent to let them ramble where they pleased but as you have settlements there will be no danger along the Waters to the Forts and there we shall be fairly dealt with.
A Belt of 6 Rows¹⁶

Johnson passed away in 1774, eight years later. After that, things began to fall apart.¹⁷ The Treaty documents were lost and then the Treaties themselves were forgotten by the Indian Department by the 1790s. In the years that followed, the Crown failed to keep the solemn promises that Johnson had made on its behalf in 1764-1766. These solemn promises remain outstanding to this day to the Western Confederacy of Nations.

On May 19, 1790 the Treaty #2, also known as the McKee Treaty, was entered into by the Crown and the ancestors of the Walpole Island First Nations.¹⁸ Gifts from the Western Confederacy were subsequently transferred into unfulfilled promises, alienation of Indigenous lands and surrenders.¹⁹ It is clear from the geographic description in it that the waters of Bkejwanong was not included or referred to in that Treaty, including, most significantly, the Thames River.²⁰ At the time, the Crown's representative, Alexander McKee, reiterated the solemn promise, among other Treaty promises, made in the 1760s by Johnson, his predecessor, on behalf of the Crown, to the Walpole Island First Nations. Certain waters and lands within Bkejwanong, including the islands in Lake St. Clair and the Rivers St. Clair and the Thames, would be especially protected by the Crown. Moreover, the Walpole Island First Nations would never have to surrender or relinquish these waters and islands. They were to be reserved and protected for their exclusive use.²¹

The St. Anne Island Treaty of August 30, 1796 included the following terms which were made by Alexander McKee on behalf of the Crown. These terms can be summarized as: 1) The Crown re-affirmed its care and protection of the Indigenous Nations, as in the Covenant Chain and at the Treaty of Niagara in 1764. The Covenant Chain contemplated water. 2) The "rights and independence of all the Indian Nations" are recognized. These rights included the waters. 3) The Indigenous Nations "are to be perfectly free and unmolested in their Trade". This trade was wholly dependent on the waters of Bkejwanong. 4) The Indigenous

Nations "are to be perfectly free and unmolested" in their "hunting grounds". The hunting grounds included both lands and waters. 5) The Indigenous Nations are to be free "to pass and repass freely undisturbed to trade with whom they please", which is referring to the International border between the U.S.A. and the remaining British colonies and the rights under Jay's Treaty. This border between the British Empire (later Canada) and the United States was, of course, then as now, a water boundary and a highway of the Indigenous Nations for their international trading and trade.²²

It is clear from the oral tradition of the Walpole Island First Nations that the St. Anne Island was a significant Treaty with the British Crown for the matters discussed at the Council meeting on August 30, 1796. This oral tradition states, in part, that

When he [Alexander McKee] came to see us on St. Ann's [St. Anne] Island down Baldoon [Chenail Ecarte] River, he built a fire in front of his Red children and said, "I do not build this fire before you to take the land from you. It is the fire of friendship. The hands are so strongly put together that no man can part them asunder, and no person shall extinguish it." [the St. Anne Island Treaty of 1796]

When we surrounded the fire of friendship that he had kindled, he again told us that the land was to remain ours, that the words which he now spoke was heard by Him who made us and would be sent to our great father over the waters. As some of our young men were not present, they might come whenever they please and enjoy all that was promised us; and again told us that this land should forever belong to the three tribes. Moreover, he told us that this land is good; even the marshes will yield you [plenty]. The great River is full of living animals for your use and the Prairies will give you something; therefore, keep it for the use of your three tribes and never part with it.

He moreover told us that the lands we had given him was of a great benefit to him; if you attempt to come upon it we would tell you to stand aside. "Now your marshes are as good as the land is to us; if any of our people come to take your game, make a strong arm against them. Let us know, and we will prevent it. Therefore, keep this place for yourselves and children."

He again told us that some of his young men might come and fancy the good land of [ours]; but do not sell it, do not give it away, but keep it for the benefit of [our] children. Moreover he told us that he had a great many young men, that they had smooth tongues. They may tell you a fine story and try to cheat you out of your lands, but do not let them have it. Let me know. My eye cannot see them but I have great command over them and I will prevent them from getting the lands from you.²³

The power of this oral tradition has survived to this day to safeguard the Covenant Chain of Silver, the ancient Treaties and the St. Anne Island Treaty of 1796. The Walpole Island First Nations, respecting and trusting the solemn commitments made at the Treaty of Niagara in 1764 and at other places on other occasions for the King's Bounty, both regarding their presents and their Territory, began to see that these Treaty commitments were not always being kept.²⁴

The Walpole Island First Nations kept the Covenant Chain of Silver bright and untarnished. They continued to reside in their traditional places at the confluence of the waters of Bkejwanong and moved seasonally to obtain the abundance of the natural resources from the waters and the lands of Bkejwanong. These places included, for example, the Reserves at Walpole Island, Chenail Ecarte and the ancient village of Kitigan on the banks of Big Bear

Creek, among other locations. They also continued to occupy and use all of their Territory, including the Lake St. Clair and the St. Clair and the Chenail Ecarte Rivers, the Reserve of that name and its waters, in their seasonal round of traditional activities.²⁵

In 1807 the Walpole Island First Nations entered into a Treaty, again at Detroit, with the government of the United States. In this Treaty, the waters on the American side of the international boundary, were to be shared as well as some lands in Michigan. A number of Reserves were excepted from this Treaty along the St. Clair River and Lake St. Clair. However, the uses of these waters, including fishing, were not relinquished by this Treaty. And, moreover, no islands were surrendered.²⁶

During the War of 1812-14, along with the famous role played by Tecumseh, they defended the “Indian territory” against another American invasion, assisting in the defense of Upper Canada and thereby the maintenance of it as a colony within the British Empire. Yet that War changed fundamentally the military balance in North America. The American threat was effectively removed and the Indigenous Nations were, from the perspective of the British imperial government, no longer required as military allies. After the War, the British Imperial government gave them medals and gave their waters and lands to the white settlers for little or no consideration. The peace, called the Treaty of Ghent, signed on Christmas Eve, 1814, ended this conflict between Britain and the United States. But this Treaty did not include the Indigenous Nations.

This 1815 Treaty had long-term unfortunate consequences since the Treaty provided for the settlement of the boundary questions between the two countries. This resulted in the survey of the boundary thereafter as a water boundary through the Great Lakes. By 1822, thanks to the “generous magnanimity of the British Government”, this survey led to the bifurcation of part of the unceded Walpole Island Reserve. For example, the waters and Harsen’s Island in Lake St. Clair, were no longer seen to be part of the Reserve without a Treaty being signed for either waters or the islands.²⁷ Significantly, the solemn commitments made by the Crown at the Treaties of Niagara (1764), Detroit (1765), Lake Ontario (1766), the McKee Treaty (#2) at Detroit (1790), the Simcoe Treaty (1794) and the St. Anne Island Treaty at the Council Meetings at the Chenail Ecarte in 1796, were either forgotten or dismissed by the Indian Department in the years after the American Revolution and in the War of 1812-14.

In the years from 1815 to 1840, more than two million British and American emigrants arrived in Upper Canada to settle and take the waters and lands of the Indigenous Nations, often without regard for the precise terms of the Royal Proclamation of 1763 and the promises made in the Treaty of Niagara, one year later. But the Nations of Bkejwanong did not forget the solemn terms of their Treaties. They continued to protect their lands and their waters.²⁸

In 1825 a provisional agreement was made for this land and in 1827 the Treaty was concluded at Amherstburg overlooking the Detroit River. It is difficult to discern, given the “Council Minutes” or notes taken either in 1825 or in 1827, what lands were to be subject to the Treaty and what was the understanding of the Walpole Island First Nations concerning their Indigenous title and rights.²⁹ The Treaty area specifically did not include waters; nor did it include the surrender or the relinquishment of water rights. Since these matters

were not explicitly referred to, the understanding of the Walpole Island First Nations is that their Indigenous title as well as water rights remained intact.³⁰ Moreover, the Crown made a solemn promise at the Treaty negotiations that never again would the Crown seek to obtain any additional lands and waters from the Walpole Island First Nations. The Reserves, including the waters in them, which were excepted from the Treaty area, were also to continue forever. The Crown promised never to ask the Indigenous Nations to share more lands or more waters. This solemn promise was not kept either.

In 1867, about one month after the Confederation of Canada, the ancestors of the Walpole Island First Nations wrote a “Memorial” (a letter from the First Nations in the form of a petition) to the Governor General of Canada, dated August 5, 1867. This “Memorial” was reiterated in a further petition to the Superintendent and Deputy Superintendent of Indian Affairs, dated November 14th of that same year. The Walpole Island First Nations stated in both Memorials that they were the “rightful proprietors of the Peninsula between Lakes Huron, St. Clair and Erie”, including their waters, the Lakes, the Islands in them, and the connecting waters within that Territory. This “Memorial”, and another one in 1869, were presented to the Crown’s representative in Canada, the Governor General, to re-affirm the Walpole Island First Nations’ relationship with the Crown flowing from the Royal Proclamation of 1763 and in the Treaties of Niagara (1764), Detroit (1765) and Lake Ontario (1766). It also again served to remind the Crown of the extent of Bkejwanong, the Walpole Island Territory and the significance of their lands and their waters.

There is no evidence that the Crown, as represented by the Governor General of Canada or any other official representing the Crown, has ever responded to these “Memorials”. However, in internal Department of Indian Affairs reports in 1869-70, officials of the Crown, notably William Spragge, then Deputy Superintendent General of Indian Affairs, acknowledged the validity of the Indigenous title and the rights to the waters and the lands of Bkejwanong without apparently communicating these views to the people of Walpole Island.³¹

Since the 1870s the Walpole Island First Nations has vigorously protected its waters and marshes. Through the negotiation of various leases, the First Nations asserted its rights and title to the waters and marshlands, and to protect the resources on them. In doing so, they resisted the intrusion in its affairs of the Indian Agent and “Headquarters”, the Department of Indian Affairs in Ottawa, the Prime Minister of Canada and non-Indian users of the marshlands. It successfully negotiated leases directly with private interests, on its own initiative. These leases were in their long-term interests. The leasing of the waters and the marshlands by the Walpole Island First Nations was a significant departure from the nineteenth century treaty-making process. Yet, at the same time, it was wholly consistent, as we have seen with the Walpole Island First Nations’ position on their waters and water rights within the framework of the Covenant Chain and the Treaty-making process.³²

One of the casualties of the Treaty-making process has been the waters and the water rights of the Walpole Island First Nations. Many of their waters have been taken over by the white settlers since the 1820s. Colonisation has meant a history of water degradation and pollution at least since the early 19th century. Commercial, and then sports, fishermen have overcaught and destroyed the valuable fishery. The commercial fishery of Lake St.

Clair, and elsewhere, was closed in 1970 as a result of mercury pollution. Governments have sanctioned pollution of the waters by private industry in the twentieth century and destroyed the quality of the waters on the lakes and the rivers. Spills from Chemical Valley were still almost a daily occurrence in the 1990s. Pollution from the St. Lawrence Seaway continues to destroy the waters and the natural resources in the St. Clair River and Lake St. Clair, part of the unceded Walpole Island Reserve.

In 1766 Sir William Johnson asked the Western Confederacy to keep the Treaty of Lake Ontario “fresh in their memories.”³³ Oral tradition is a powerful tool of their history. The representative of the Bkejwanong First Nations told the head of the Indian Department in the early 19th century that “We have no words of ancient treaties to refer to, we have no books handed down to us by our ancestors to direct us in our speech; we have but our hearts and the traditions of our old men; they are not deceitful.”³⁴ “We have but our hearts” and our “traditions”. One of these traditions is the story of the waters of Bkejwanong. Surely this a theme worthy of exploration for historians. This is the beginning of the story of water; it is not the end. “Water is her life blood”, for without water, Mother Earth will not survive. Without water, and Mother Earth, the Indigenous Nations of Bkejwanong will not survive.

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Conflicts of Interest

The research was conducted in the absence of any conflicts of interest.

Notes

1. This paper was originally presented at a conference at Walpole Island in 1994, now over three decades ago, and then published as, “Water is Her Life Blood: The Waters of Bkejwanong and the Treaty-Making Process”, *Earth, Water, Air and Fire: Studies in Canadian Ethnohistory*, (Nin.Da.Waab.Jig., ed.), Waterloo: WLU Press, 1998, 35-63.
2. Edward Benton-Banai, *The Mishomis Book: The Voice of the Ojibway*, Saint Paul, Minnesota, Red School House, July, 1988, 1-2.
3. In 2022, I learned first-hand recently about the significance of “Water is Her Life Blood” when I fell at home in Toronto—at Mississauga Place on the shores of Lake Ontario where the Don River flows. Disabled, as a sixteen-plus year stroke survivor, I suffered two hair-line fractures in my pelvis on my right side. I could not stand and it was painful, so I went to an emergency ward of one of Canada's largest hospitals. Given the Ontario provincial policies on the paucity of funding to the healthcare system and especially of nurses, I had to spend, as is the case for most emergency wards, four days there before I was admitted to the hospital. I had an x-ray, CAT scan and finally an MRI to discover that I had not broken my ten-year old artificial hip or caused other damage. For some reason, at emergency wards, they do not offer or even provide the patient with a minimum amount of food or water. I was offered only minimal food or water for three days, since I was in an Emergency Department. On the fourth day, one emergency room doctor found me severely dehydrated and hungry. He admitted me directly into the hospital as a patient and put me on an IV to recover and hydrate for three days. After receiving water and food, I recovered. This situation was not unusual during the Pandemic and similar situations were happening every day in Ontario.

4. 1987, Nin.Da.Waab.Jig., Walpole Island, *The Soul of Indian Territory*, Nin.Da.Waab.Jig., Bkejwanong, Chapters 1 and 2, 1-26. An Indigenous historian has remarked on the significance of the lands and the waters. In this context, land means water, as well as land under the water. They are inseparable:

The loss of land, the selling or ceding of land, was a foreign idea to the Indian mind. Under the influence of the new commercial ideas and practices from the later Middle Ages onwards, Europeans had come to regard land largely as a commodity. As a commodity, it could be bought and sold and held in exclusive ownership by one proprietor. Indians had certainly recognized territorial boundaries pertaining to Indian nations. Wars had been fought over territory and control over territory had passed from one Indian nation to another. However, no Indian nation regarded land as a commodity. The general Indian concept of land, as contrasted with that held by Europeans, was held by all Indian peoples. Land with the waters, trees, plants, and animals has a spiritual dimension. Through that spiritual dimension human beings live in relationship with the land that supports them. The land is permanent, while the life of a human is transitory. A human cannot ‘own’ the land. Land was often referred to as a ‘mother’... There was an obligation to care for the land which nurtured the people as a child grows up and cares for its mother.” (Nin.Da.Waab.Jig, 1987, pp. 19-20)

Frederick Hamil, a regional historian, in his *The Valley of the Lower Thames*, Toronto: University of Toronto Press, 1951, has also remarked on the significance of the waters of Bkejwanong:

The great marshes and plains of Dover and Tilbury spread eastward along the banks of the river for six miles from Lake St. Clair. Then the trees began, but on the south the plains continued almost to the Forks at Chatham, at a distance of less than a mile from the stream, and with an average width of three or four miles. On the north the prairies extended along the shore of Lake St. Clair and the Chenail Ecarté to the River Sydenham and for several miles inland. The grasses there grew rank and luxuriant to a height of four or five feet, presenting a level sea of verdure broken only occasionally by small islands of shrubs and dwarfish willows, and by streams of sluggish water. Herds of elk roamed through these thousands of acres, where eagles and hawks circled in quest of prey, and where blackbirds, meadowlarks, and thrushes nested among the reeds. In the fall wild ducks and geese swarmed on the waters, which were filled with turtles, frogs, crayfish, and venomous snakes. For the Indians it was a hunter's paradise, and a place where in the drier portions they could plant their corn.

The remainder of the Lower Thames area was covered with a dense forest, intermixed with bogs and swamps, and open beaver meadows. In the depth of the woods the overhanging foliage shut out the sunshine and most of the daylight. The black mould produced little underbrush or herbage there, except for a reedy grass which sheltered deadly rattlesnakes. The great trunks of the forest giants and the vaulted boughs which closed like a roof far above created the impression of an enormous cathedral. These were, in general, hardwood trees, oak and walnut and maple and ash; white pine grew only on Pointe aux Pins at Rondeau Bay. The birds and the animals lived in the clearings, which abounded in sumach and flowers, and in grapes and berries. (1951, pp. 14-15)

5. For these Treaties see the following: July 9-14, 1764, Treaty of Niagara, *The Papers of Sir William Johnson*, Prepared for publication by Milton W. Hamilton, Vol. XI, Albany: The University of the State of New York, 1953, pp. 262-333; the Treaty of Detroit, August 27-September 4, 1765 in *Documents Relative To The Colonial History of the State of New York*, edited by E. B. O'Callaghan, Vol. VII, Albany:

- Weed, Parsons and Company, Printers, 1856, 775-788, Letter, "Sir William Johnson to the Lords of Trade. Plantations General, XXV., (K. 7.), Johnson Hall 16th Novbr [November] 1765." The enclosure containing the Treaty of Detroit, is with this letter, "Journal of Colonel Croghan's Transactions with the Western Indians. [Plantations General Papers, XXV.], "Journal & Transactions of George Croghan Esqr Deputy Agent for Indian Affairs with the several Indian Nations on his Journey to the Illinois as delivered by him to Sir William Johnson Baronet on his return." The Treaty is on pages 782-784; July 22-30, 1766, Treaty of Lake Ontario, National Archives of Canada (NAC), Record Group 10, Volume 1829, pps. 1-36; *Documents Relative to the Colonial History of the State of New York*, edited by E.B. O'Callaghan, Vol. VII, Albany: Weed, Parsons and Company, Printers, 1856, 854-867, "Proceedings of Sir William Johnson with Pontiac and other Indians. [Plantations General Papers, Vol. 26, T. No. 5], Proceedings at a Congress with Pontiac [Pontiac, War Chief of the Ottawas, b. c. 1712-1725, d. 1769] & Cheifs [Chiefs] of the Ottawas, Pautawattamies [Potawatomi], Hurons and Chippawaes begun Tuesday, July 23. 1766." See also 1979, "Sir William Johnson", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume IV, Julian Gwyn, 394-398. It should also be highlighted that the Aboriginal perspective of water is a holistic one.
6. There is no history of water, ice, or snow in Canada from the perspective of the European written tradition. There are only regional histories of the uses of the waters or legal studies see for example, *Bibliographia Canadiana*, Claude Thibault (compiler), Toronto: Longman Canada Limited, 1973, pps. 625-628. See also the bibliography by Shepherd Krech III, *Native Canadian Anthropology and History, A Selected Bibliography*, Revised Edition, Winnipeg: Rupert's Land Research Centre, 1994. Although older, Frederick Hamil's *The Valley of the Lower Thames* is useful. Hamil pays special attention to the waters of the Thamesd River and its tributaries. However, more attention is being paid to the significance of the water in recent years. For example, see Barry M. Gough, *Gunboat Frontier*, Vancouver: University of British Columbia Press, 1984, which shows the conflict on the waters between the gunboats of the Royal Navy and the aboriginal Nations in the Pacific Northwest. Gunboats were also used on the waters of Bkejwanong for a variety of purposes. Aboriginal people, of course, have their own "history" of their waters.
 7. See Brittany Luby, *Dammed: The Politics Loss and Survival in Anishinaabe Territory*, Winnipeg: University of Manitoba Press, 2020. See also the work of the Metis historian Michelle Murphy, (with Max Liboiron, Natasha Myers, Dayna Scott, Reena Shaadan), *Pollution is Colonialism* (Endocrine Disruptors Action Group and CLEAR, September 2017) and by the Anishinabe legal scholar, Aimée Craft, "Navigating Our Ongoing Sacred Legal Relationship with Nibi (Water)", in J. Borrows, L. Chartrand, O. Fitzgerald and R Schwartz (eds), *Braiding Legal Orders: Implementing the United Nations Declaration on the Rights of Indigenous Peoples* (Centre for International Governance Innovation, 2019) pp.101-110; "Neither Infringement nor Justification – the SCC's Mistaken Approach to Reconciliation", in B. Gunn and K. Drake (eds), *Renewing Relationships: Indigenous Peoples and Canada* (University of Saskatchewan Native Law Centre, 2019) Chapter 3, pp. 59-82; "Giving and Receiving Life from Anishinaabe Nibi Inaakonigewin (Our Water Law) Research", in J. Thorpe, S. Rutherford and A. Sandberg, *Methodological Challenges in Nature-Culture and Environmental History Research*, (Routledge, 2017) pp. 105-119; "Living Treaties, Breathing Research". *Canadian Journal of Women and The Law*. 26:1-22, 2014; "Anishinaabe Nibi Inaakonigewin", Report on Elders Gathering, Winnipeg: Centre for Human Rights Research, 2014.
 8. See, for example, Robert Doherty, *Disputed Waters, Native Americans & the Great Lakes Fishery*, Lexington, Kentucky: The University Press of Kentucky, 1990. Professor Laurence Hauptman has done some excellent work on the use of the waters for the St. Lawrence Seaway in his *The Iroquois and the New Deal*, Syracuse: Syracuse University Press, 1981 which spans both sides of the Canadian-American international border. For Canadian work, see the publications by Leo Waisberg, Victor Lytwyn and Tim Holzkamm on fishing in the Treaty #3 area in Krech, *Native Canadian Anthropology and History*. The only work on Indigenous people, water and water rights which covers all of Canada, and only from a legal perspective is Richard H. Bartlett's *Aboriginal Water Rights in Canada: A Study of Aboriginal Title to Water and Indian Water Rights*, Calgary: The Canadian Institute for Resources Law, The University of Calgary, April, 1988.
 9. Anna Jameson, *Winter Studies and Summer Rambles in Canada*, London: Saunders and Otley, Conduit Street. 1838, Coles Canadiana Collection, Toronto: Coles Publishing Company, 1970, 1972, Volume 3, 5-6.
 10. 1987, Nin.Da.Waab.Jig., *Walpole Island, The Soul of Indian Territory*, Bkejwanong, especially 1-26. Richard Bartlett has observed that there are three legal sources of Aboriginal rights to water: 1) Aboriginal title, 2) Treaties, and 3) Riparian rights which flow from Reserve land ownership under English common law. See also his *Aboriginal Water Rights in Canada*, 1-6. Aboriginal title and rights to water also are protected under Section 35 (1) of Canada's Constitution as "Existing Aboriginal and Treaty rights". The latter is significant for federal and provincial legislation (which is often in direct conflict with Aboriginal water rights) since most waters in Canada have not been the subject of a Treaty.
 11. 1987, Nin.Da.Waab.Jig., *Walpole Island, The Soul of Indian Territory*, Bkejwanong, especially 1-26.
 12. October 7, 1763, Royal Proclamation of 1763, *As Long as the Sun Shines and the Water Flows: A Reader in Canadian Native Studies*, edited by Ian A.L. Getty and Antoine S. Lussier, Vancouver: University of British Columbia Press, 1983, 29-37.
 13. National Archives of Canada (NAC), Record Group 10, Volume 1822, 35.
 14. *The Papers of Sir William Johnson*, Volume XL, 395-396. See also 1979, "Sir William Johnson", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume IV, Julian Gwyn, 394-398.
 15. July 9-14, 1764, Treaty of Niagara, *The Papers of Sir William Johnson*, prepared for publication by Milton W. Hamilton, Vol. XI, Albany: The University of the State of New York, 1953, 262-333.
 16. July 22-30, 1766, Treaty of Lake Ontario, National Archives of Canada (NAC), Record Group 10, Volume 1829, 1-36. Another later copy of this Treaty is in *Documents Relative to the Colonial History of the State of New York*, edited by E.B. O'Callaghan, Vol. VII, Albany: Weed, Parsons and Company, Printers, 1856, pps. 854-867, entitled "Proceedings of Sir William Johnson with Pontiac and other Indians. [Plantations General Papers, Vol. 26, T. No. 5]. This latter document is noted to be "... a true copy of Sir William Johnsons Transactions at Ontario compared with the Records." See also 1979, "Sir William Johnson", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume IV, Julian Gwyn, 394-398; 1974, "Pontiac", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume III, Louis Chevette, 525-531; 1987, *Atlas of Great Lakes Indian History*, Norman: University of Oklahoma Press, Helen Hornbeck Tanner, (editor), 52-53.
 17. 1987, Nin.Da.Waab.Jig., *Walpole Island, The Soul of Indian Territory*, Bkejwanong, especially pps. 1-26; 1979, "Sir William Johnson", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume IV, Julian Gwyn, 394-398.
 18. 1979, Biography of "Alexander McKee", *Dictionary of Canadian Biography*, Toronto: University of Toronto Press, Volume IV, Reginald Horsman, 499-500.
 19. The best examples are Pelee and Bob Lo Islands, both of which are currently the subject of specific land claims before the federal government. Neither of these islands has ever been surrendered to the Crown.
 20. May 19, 1790, Treaty #2, (otherwise known as the McKee Treaty of 1790). Canada, *Indian Treaties and Surrenders*, Vol. 1, Ottawa: Queen's Printer, 1891, (Reprinted by Fifth House Publishers, Saskatoon, 1992), 1-5.
 21. 1797, Upper Canada Land Petitions, Bundle A, 1796-1840, Petition of Sarah Ainse, NAC, Public

Records Division, RG 1, L 3, VOL. 3, A Bundle 4, 1796-1798, NO. 45, (Microfilm Reel C-1609), 45c-45d. See also 1964, *Matthew Elliott, British Indian Agent*, Detroit: Wayne State University, 113-114. See also for a modern study, 1987, Colin G. Calloway, *Crown and Calumet, British-Indian Relations, 1783-1815*, Norman: University of Oklahoma Press, especially 51-76.

22. Ibid., The copy of the document quoted here is from RG 10, Volume 785, 181477-181480.
23. National Archives of Canada (NAC), Record Group 10, (RG 10), Indian Affairs Records, Vol. 58. 59,412-59,812.
24. For example as early as 1798, Alexander McKee reported that a Shawnee Chief had told him that they had met in council and decided to send a delegation to England to place their views before King George III. On May 24, 1804 Wetawninse, likely also Wittaness, "Chief of the Chippawa's" of the Walpole Island First Nation, who was at the 1795-96 Council meetings and who had signed the alleged Treaty #7 document in 1796, wrote to Alexander McKee's son, Captain Thomas McKee. The latter had married one of John Askin's [a trader and land speculator of Detroit] daughters and was thus part Indian. Wetawninse reported, from the "River St. Clair" that

Brother

As you always told me to let you know when any person or persons, molested us in regard to Our Lands. And in compliance with your friendly request, I now take the Liberty to inform you of the same.

I went yesterday with Captain [Alexander] Harrow [the naval commander at Amherstburg] to Chenail Ecarte to see those people that are now settling there and to observe whether they were encroaching on our Grant which if you remember, you told me, that it was allotted for us and our Children and to remain so. I found they had not encroached any as yet, but Captain A. Harrow then and there told me that we had not one Inch of Land in these parts and that which belongs to us lies a great ways to the westward of this.

Such language as that, held forth, is not very agreeable to us and hope my Brother will take it into Consideration and if possible put a stop to such proceedings. And will much oblige your Friend and Brother.

At the bottom of this letter, after drawing his totem, Chief Wetawninse wrote: "N.B. Brother I have now acquainted you of it, I heard a bad Bird speaking and makes me feel very Ugly and my heart is very sore." Only eight years after the Councils of 1795-96, which established the Chenail Ecarte Reserve, officials were denying that such a Reserve ever existed. Captain Thomas McKee's response to this letter has not been found.

25. 1987, Nin.Da.Waab.Jig., *Walpole Island, The Soul of Indian Territory*, Nin.Da.Waab.Jig., Bkejwanong, Chapter 3, "Enaaknigewinke geeshoog Treaty Making 1790-1827", 17-26.
26. Treaty of Detroit, 1807.
27. *The Unfortified Boundary, A Diary of the first survey of the Canadian Boundary Line from St. Regis to the Lake of the Woods by Major Joseph Delafield American Agent under Articles VI and VII of the Treaty of Ghent*, edited by Robert McElroy and Thomas Riggs, Privately printed in New York, 1943, 62-63; see also for its effect on the Walpole Island First Nation, 1987, Nin.Da.Waab.Jig., *Walpole Island, The Soul of Indian Territory*, Nin.Da.Waab.Jig., Bkejwanong, Chapter 3, "Enaaknigewinke geeshoog Treaty Making 1790-1827", 17-26.
28. For example, on June 18, 1821, the spokesmen of the Walpole Island First Nation, (the "Chippawas of River St. Clair", as reported by the Indian Department), delivered a Speech (the "Substance" of which has been recorded) in the presence of "Captain Reed 68th Regiment Commandant Lieutenant

Jackson 68th Regiment and Superintendent, Clerks and Interpreters of the Indian Department":

Father

Our Just Father/Mr. Askin [Senior, (1739-1813), the Detroit trader and land speculator]/ told us that part of the Shawansee Township should be ours, it was on this condition that we agreed to sell our Lands. You know that We hesitated a long time before We would consent to let our Great Father have them but when we were promised to be allowed to settle in this Township we then consented, we have since been ill treated by the Settlers who are now there. Many of us have had our Corn destroyed and our Camps set fire to.

Father

It is Customary among the White people to exact Interest from their debtors if the amount is not paid when due, it is now four [1817?] years since We have been in treaty about our Lands [Treaty #21 (1819), the Longwoods Reserve, among other Aboriginal lands] and we require some remuneration for the losses we have sustained in not receiving our payments at the proper time, if you do not intend to pay us, return us our Land and say Nothing more about it, but as we have signed the agreement you probably will insist upon keeping it, if so, pay us, why have we not been paid before.

Father

The People on the other side do not tell you that we are deceived, but they tell us—do we say they make promises which we do not fulfill. Do we not pay you for our Lands the moment the payments become due look at the difference. Your Father promises but does not perform. This they tell us and we have good reason to believe them.

29. "Treaty #27 1/2 and #29", *Canada, Indian Treaties and Surrenders*, Vol. 1, Ottawa: Queen's Printer, 1891, (Reprinted by Fifth House Publishers, Saskatoon, 1992), 65-7, 71-5.
30. April 26, 1825, Treaty #27 1/2, and Treaty #29, July 10, 1827, *Canada, Indian Treaties and Surrenders*, Vol. 1, Ottawa: Queen's Printer, 1891, (Reprinted by Fifth House Publishers, Saskatoon, 1992), 65-7; 71-5. It should be noted that the provisional agreement, Treaty #27 1/2, contains no reference to waters and Treaty #29 states, without any further discussion, that the Treaty area includes "waters, watercourses". This inconsistency is obviously an error in the Treaty #29 document which certainly had not been discussed with the First Nations in the negotiations. On this subject see also McNab, "Treaties and an Official Use of History", *The Canadian Journal of Native Studies*, Vol. XIII, No. 1, 1993, 139-43.
31. August 5, 1867, "Memorial of the Chippeway, Potawatomy and Ottawa Indian Nations of Walpole Island, touching their claim of the Huron Reservation, Fighting and Bois Blanc Island" to Lord Monck, Governor General of Canada. Hand delivered by William N. Fisher at Ottawa, Nin.Da.Waab.Jig. Files; May 30, 1869, "Memorial", Walpole Island First Nation, to Sir John Young, Governor General of Canada, NAC, RG 10 Volume 787, (Microfilm Reel # C-13,499), 12-20.
32. McNab, "The Walpole Island Indian Band and the Continuity of Indian Claims: An Historical Perspective", Nin.Da.Waab.Jig, *Occasional Papers*, 1985. The solemn Treaty promises have not been fulfilled to this day despite official pronouncements by the federal government since the resistance movement at Kanehsatake in the summer of 1990. The Crown's relationship with the Aboriginal Nations has been put into jeopardy and severely damaged. The Covenant Chain, always unbroken, has not been "recast"; it has been tarnished and bent since the 1820s.
33. July 22-30, 1766, Treaty of Detroit, National Archives of Canada (NAC), Record Group 10, Volume 1829, 1-36.

34. Jarvis Family Papers, Metropolitan Toronto Reference Library, Toronto, Ontario, Baldwin Room, pp. 378-380. A copy is also in Nin.Da.Waab.Jig.'s files.

About the Author

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They Say We Can't Breathe Underwater

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Abstract

This photo essay takes the reader through the images and ideas Wood explores in her solo exhibit, *They Say We Can't Breathe Underwater*, installed at A Space Gallery in Toronto in September 2022. It incorporates photos of the artwork and installation, along with a discussion of the concepts floating through the exhibit. The images and this essay are found at the intersections of Abolition geographies, Black Radical Tradition, Black feminist, Black Atlantic, Aquatic theories.

Keywords

Black Radical Tradition, Abolition Geographies, Black Atlantic, the Undrowned, Black Aquatic theories

I am saying that those who survived in the underbellies of boats, under each other under unbreathable circumstances are the undrowned, and their breathing is not separate from the drowning of their kin and fellow captives, their breathing is not separate from the breathing of the ocean, their breathing is not separate from the sharp exhale of hunted whales... Their breathing did not make them individual survivors. It made a context. The context of undrowning. Breathing in unbreathable circumstances is what we do every day in the chokehold of racial gendered ableist capitalism. We are still undrowning. (Gumbs, 2020, p. 2)

Figure 1

They Say We Can't Breathe Underwater Poster



Introduction: I Can't Breathe

"I can't breathe", a last cry from Eric Garner and a rallying cry of Black Lives Matter became a terrifying reality for me in the time of Toronto's lockdown. A flare up of asthma from a combination of anxiety brought on by the fear of contracting COVID-19, the trauma at witnessing how fungible Black lives are, the fruitless organizing around relentless institutional anti-Black racism, left me struggling for breath. Caring for myself and preparing for this show, I thought about what abolitionist practices that channel collective caring for those of us considered inhuman would look like; how those practices must extend and embrace watery (pelagic) ecologies; and how to dismantle and do some freedom dreaming and world-building.

I have always known I was living in a time which Christina Sharpe (2016) calls slavery's wake, I just had not felt it as viscerally as in this time. I write in our artist' text,

It is as though I had been pushed under, underwater, I could not find my breath in the face of fear, rage, and institutional aggressions. I believe in that moment (which lasted a year for me) I learnt to breathe differently, I learned to breathe underwater and through time. I felt myself to be what Alexis Pauline Gumbs (2020) calls the undrowned. Out of my depth, out of my breath, underwater I imagined myself flowing into and out of the holds of decaying ships, not drowning but struggling. I reached across time and encountered a vision of a water-breathing woman and recognized her as Yemayá, Mother of the Oceans and protectress of those undrowned and drowning – a knowledge keeper and healer located in the Black Atlantic, the domain of the Middle Passage. I believe through this time many of us have learned to breathe differently to expand our breathing into the depths of the ocean and our interior lives to find some healing for ourselves and our communities. (Wood & Wallen, 2023)

Out of this relationship and ancestral knowledge flowed this exhibit, which explores living in the wake of slavery, in the wake and waves of the pandemic, in the wake of anti-Black racism, in the wake of Imperial ecocide. It is meant to acknowledge my? our? adaptations and mutations that allow us to breathe and live differently and to create and dream and build new worlds.

Yemayá, Mother Who Cares for All

Yemayá is the Orisha (African Traditional Religion) deity who travelled with Africans through the Middle Passage, onboard slave ships to be reconstituted, and revitalized in the diaspora as a powerful deity, healing those who are sick and bringing wealth to her devotees. Gumbs (2020) speaks of the sounds of whales calling to each other, emanating from sea and heard by the Africans confined to the hold of the ship. Were these comforting sounds? Did it evoke the presence of Yemayá? In her origin story it is said Yemayá birthed the seas, which flowed from her like a ruptured amniotic sac and created life, making her the mother of all life, of all the Orishas (African spiritual deities) and of the World (González-Whippler, 1992). In the diaspora, she is known by many names – Mami Wata, Mama dlo, Imanja, Yemonja, Lasiren and she appears in many forms, a beautiful woman, a mermaid, a woman with two fish tails instead of legs, a dolphin, a whale, a snake charmer (Drewal,

2008). Whatever form she takes or name she is called by, she is considered the ruler or Queen of the seas, reputed to live in an underwater palace in Ginen with her devotees and Africans thrown overboard from slave ships. Ginen is derived from the European name for the West African or Guinea coast and is “the home of the spirits, a forested island residing simultaneously at the bottom of the cosmic waters (anba dlo) and at the backs of mirrors (do miwa)” (McGee, 2012). This underwater island home is where she takes people and where two things can occur – either they struggle in panic and drown, or they flow with Yemayá learning to breathe underwater and are returned as the undrowned with the power to see into the future and to heal and provide spiritual and mental care for the community (Brown, 2001). Thus, Yemayá, Mami Wata, etc. provides a journey of care and a collective care practice to those who know her in the diaspora. She embodies or is depicted as having the properties of water, cleansing, cooling, healing, life giving and a portal to the subconscious and its fears and anxieties. She forms the central motif and inspiration for this exhibit. Although I am not a devotee, I am like many other artists before me who see Mami Wata as an artists’ muse (Drewal, 2008). An epistemology of caring and respect for water, and for life.

The Tour of *They Say We Can’t Breathe Underwater*

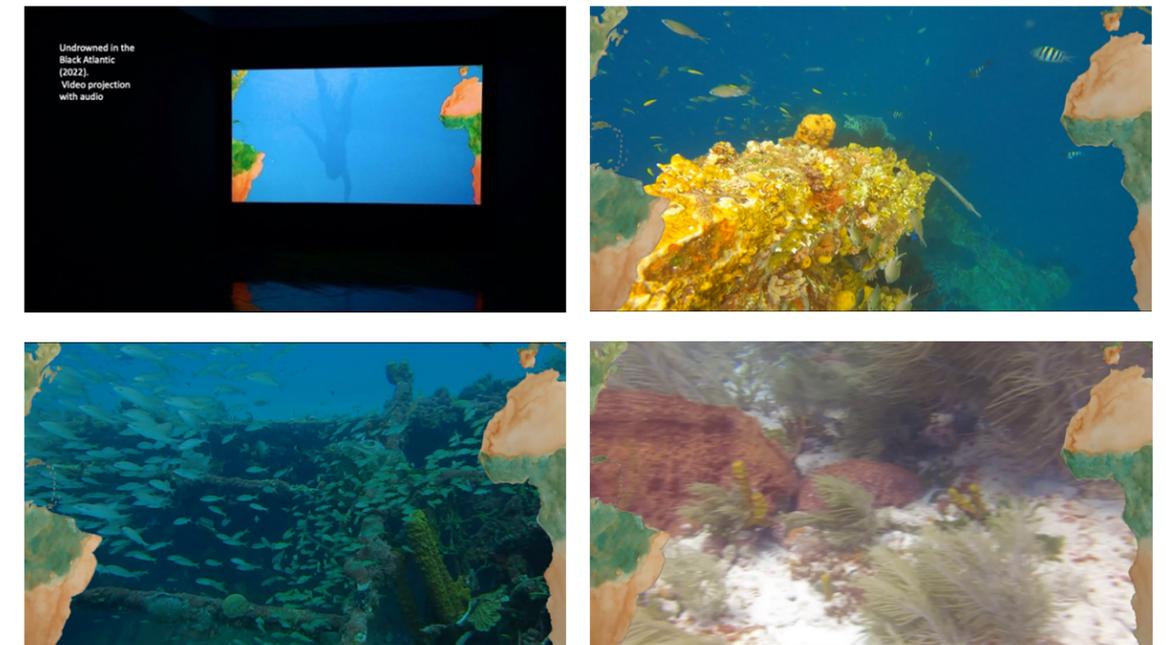
I now will take you on a photo-based tour of the exhibit. I begin the journey with the floor to ceiling projection of the video *Undrowned in the Black Atlantic*. This video is 11 minutes long and takes the viewer on a journey under the waves of the Atlantic Ocean. In the video, there are two tour guides. The first is Yemayá, who appears faint as though from a distance. She takes us underwater until we encounter the wreck of a ship. The second guide is a turtle who takes us further down into the holds of the ship and finally onto the ocean floor, where we encounter sharks, sponges, and other sea creatures. Once we are on the ocean floor, the turtle returns to take us back up, all the wiser for encountering life underwater in the Black Atlantic (see Figure 2). The breathing of the unseen scuba diver is the only sound that we hear, and her breathing is rhythmic and measured. This is meant to be a meditative piece where viewers see an underwater world abundant with life and where anything can transform becoming something else. The shipwreck becomes home for corals and fish and other living organisms, reconstituting it into jewel like effigies of ancestral gods. It is also where the practice of breathing is reinforced, and we are reminded that we too can breathe when it feels life is unbearable and unbreathable.

Going from top to bottom, Yemayá takes the viewer underwater: a turtle swims up the bejeweled and coral encrusted mask to continue our journey to the ocean floor, entering the hold of the ship – teeming with life, swaying bushes, flora, fauna, and anthropomorphic sponges on the ocean floor.

There are many stories associated with the Black Atlantic and the Middle Passage. One says Yemayá collects and cares for the souls of the Africans thrown overboard. Others speak of her transforming, in particular the children of pregnant mothers thrown overboard into Black merfolk who now form the mythic underwater civilization of Drexciya (Scales, 2021). Drexciya is a techno synth album and imaginary world created by a Detroit techno duo who chose to be anonymous and who have since sparked numerous books and songs. In creating this underwater world, they drew inspiration from the stories of Yemayá and Mami

Figure 2

Stills from *Undrowned in the Black Atlantic*, 2022



Wata, like was done for *They Say We Can’t Breathe Underwater*. Ultimately, many people of the African diaspora have an ambivalent relationship to the Atlantic Ocean: “As far as the sea and ocean were concerned, reverence and fear, and sometimes both simultaneously, characterized our relationship to bodies of water, especially the sea” (Walcott, 2021, p. 64). In agreement with Gilroy, Walcott recognizes that Blackness was birthed in the dark, salty, amniotic, and rough seas of the Atlantic, which is awash in the memory of Black death. This, he rightfully says, is a form of hauntology. *They Say We Can’t Breathe Underwater* are like the visions of Drexciya. After watching the video, viewers commented on the meditative state induced by the breathing and the beauty underwater despite the history of trauma and pain they knew was associated with this geo-tidal space (my terminology to indicate an underwater space that is always in motion).

After leaving the projection room, we enter the installation *Rise Up!* The installation is a deconstructed carnival costume that myself and a team built to enter the 2022 Caribbean Carnival parade. The costume was also entered into a Kings and Queens competition under the category of Individual Female. The costume itself stretched 15 feet all around and had to be pulled on wheels attached to a metal frame. Upon the metal frame was attached 7 waves (metal rods with fabric and sequins to simulate waves) upon which 7 embodied spirits were attached. In the middle was a painted foam core statue of a dreadlocked Yemayá blowing a conch shell. The back and sides of the costumes had 7 fishes, including one dolphin. The number 7 is associated with Yemayá and is one of the ways we chose to maintain a spiritual connection to her. These separate pieces, the waves, and fishes were attached to the walls and the floor and Yemayá was situated in the centre of the room with the waves behind her and the fishes in front of her.

As part of the installation, we projected waves, so the room appeared underwater (see Figure 3). Viewers met Yemayá in this projected underwater world, breathing, sometimes in awe at the translucency of the fabrics and size of the costume deconstructed. Several devotees of Yemayá and the Orishas visited this exhibit and said they connected with her power and the healing presence of her underwater domain. In this site we were all protected and preparing for imagining and re-worlding asking perhaps “what is your theory of change?” (Tuck, 2022) and can it not reproduce the harm of colonialism, and racial capitalism?

Figure 3

Rise Up! Installation with deconstructed Yemayá carnival costume with Carnival Chairs



Carnival

In front of this installation, I placed what I called two Carnival Chairs. These chairs were painted and decorated with sequins and feathers as though it was a costume ready for visitors to sit in and enter the carnival. Sitting on the chairs we performed, dancing and ‘jumping up’ and thus creating a portal transporting us to carnival through evoking our collective memories of the festival. We danced to a soca song that participants chose such as “Famalay” by Skinny Fabulous, Machel Montano, and Bunji Garlin with lyrics such as “play with meh famalay, jump up together”. The performances activated the birthing process taking us from the underwater domain (anba dlo) of Yemayá to a space of joy, caring and community. Soca, coined by Lord Shorty, a Trinidadian calypso singer, in the 1970’s “is both a fusion of

calypso and East Indian music, and sometimes thought of as ‘soul calypso’. ...It draws upon West African and Indian drumming and percussion, African American gospel vocals, and traditional calypso sounds” (BAC, 2022). In its combined form it can transport, bring joy, heal souls (see Figure 4), showing participants performing in the Carnival Chairs who were photographed, and posted on Instagram under the #theysaywecantbreatheunderwater.

Figure 4

Performance on Carnival Chairs



For me one statement combines the visit to the depths of the Black Atlantic to Carnival. It is as the voice over says on my second video called Yemayá’s Journey (see Figure 5). It is “wherever there was slavery, there was Carnival”. This statement meshes with Gilroy’s (2018) argument and presentation of his Sea Level theory where he reminds us that coastal areas form the end and beginning points of the triangular trade crossings, according to Alexander (2005) a form of crossroads (see Figure 6). These areas were often subject to maritime ethics and values which Gilroy (2018) equates to “breezes that speak of courage and liberty”. In and around the Atlantic, enslaved Black people refused to stay inhuman and instead developed and applied Indigenous, Afro-Indigenous, Asian, and European cosmologies and “subordinated knowledges” to assert themselves and invent new embodied ways of healing, and radical placemaking, such as Carnival.

Figure 5

Stills from the video Yemayá’s Journey

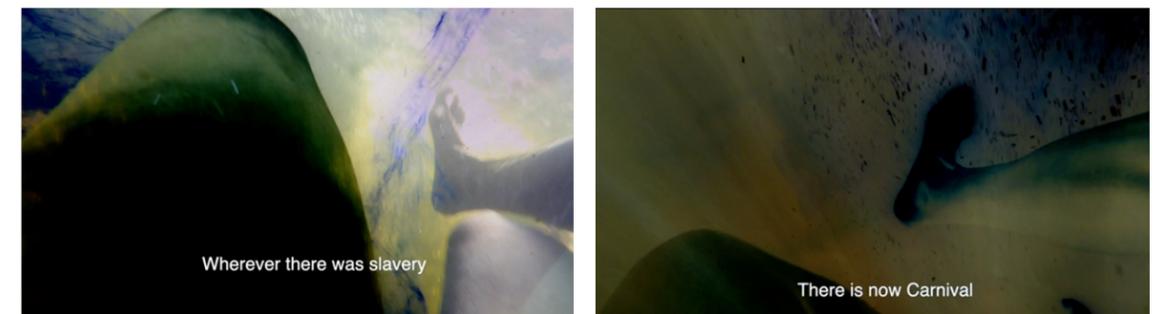


Figure 6

Still from the video *Breathing Lessons*



Alexander (2005) sees this as “the space of convergence and endless possibility; the place where we put down and discard the unnecessary ... It is that imaginary from which we dream the craft of a new compass” (p. 8). The symbol of the crossroads spanning and bordering the Atlantic Ocean is also present in the Caribbean carnival. Philips (2017) in her writing of characters into the parading of the Carnival says they were,

... understanding and tasting the power of the crossroads of Eshu-Elegbara [Deity of the crossroads in West African cosmologies] and the power of anything happening; they breaking up space into rhythm which is time, and time and space making one. They know when they reaching the crossroads where living and dying meeting, they forgetting the jobs they not getting, the money they not making and so they taking to the streets and to the crossroads of their minds hearing the sounds of their ancestors... (p. 241)

In this room that held the *Rise Up!* installation and 2 other videos, the viewer was able to cross from the ethereal, devotional space and altar of Yemayá to the joy of the Carnival Chairs where we played Soca and captured ourselves jumping up.

The final installation piece held within the hallway vitrines at A Space Gallery was called *Dismantling Patterns; Abolition Dreams*. Encased in four vitrines were four sequential versions of a 4 x 2 ft boat wreck that showed four stages of dismantling (see Figure 7).

Figure 7

Dismantling Patterns; Abolition Dreams (Wood, 2022)



The piece was inspired by Gilroy’s (1993) statement,

...ships were living means by which the points within [the] Atlantic world were joined... Accordingly they need to be thought of as cultural and political units rather than abstract embodiments of the triangular trade. They were something more – a means to conduct political dissent and possibly a distinct mode of cultural production. (p. 17)

That they were something more inspired me to create abolitionist pods, dismantling representations of white supremacy, and racial capitalism. These pods were made from stone paper dipped in wax and attached to the cardboard boat series in the vitrines as though they were ingesting the material of the boats and leaving behind patterns. The patterns carved into the cardboard boats were based on my research of wood boring beetles and the beautiful and mesmerizing tracks they carve into tree barks in their demolition and recycling. The artwork within the vitrines became a form of imaginary of abolition geographies and an invocation of not just the loss but also the innovative and resilient beauty of nature’s adaptive cycle where destruction can release innovation and creativity (Westley, et al., 2006). The last boat which was just a flat piece of carved cardboard no longer looked like a boat but instead looked like something else. Some folks saw a shield, a stain glass window, an arrow, a home. These conversations made me realize the power and importance of imagination useful in the calls to abolish colonial and carceral logics and their world-ending outcomes. Throughout the colonial era Black and Indigenous communities have faced numerous Anthropocene moments – in fact a billion and one Anthropocenes (Yusoff, 2018). We know that world-ending and world-building can happen simultaneously (Maynard & Simpson, 2022); it takes resourcefulness, a willingness to heal, share power, and imagine ways to generate collective care.

Throughout the exhibit I lay calabash bowls and filled them with different ingredients useful in care practices and healing processes. The abolitionist pods in the vitrines represented

imagination and creativity, the salt under the video Breathing Lessons referenced the sea, amniotic fluid and tears, the water at the foot of the Yemayá statue was a respect for and in honour of life, the cowrie shells represented a choice to prioritize what is valuable, and the carnival sequins called to the joy and communal nature of carnival. For me, this was an attempt to engage the imaginary of the Black Radical Tradition, which Robinson, et al. (2017) see as “a questing for freedom” (p. 7). As Gilmore (2017) further states, it is an ongoing practice of selecting and re-selecting of the past, of ancestors, for acts of freedom in order to generate hope and what Heynen (2021) calls an abolition ecology, one that inspires us to start world-building through radical acts of placemaking.

In Summary but Not in Conclusion

An example of radical acts of placemaking and learning to breathe differently is the call to memorialize the Middle Passage (Menzie, 2020). Scholars from institutions such as Duke University and the U.K.'s University of Southampton and the Republic of Sierra Leone Permanent Mission to the United Nations, have called for a virtual memorial that would take the form of coloured ribbons printed onto World Maps of the Atlantic Ocean (Turner et al., 2020). The memorial is meant to recognize that the Atlantic seabed now the site of many European nations' exploratory attempts to extract minerals in international waters, is also an archaeological site of cultural value marking the deaths of up to 2 million Africans (Scales, 2021). This to me is an example of action that leads to Black Futures, geographies of the future, it is a socio-spatial fight for recognition, reparation, and memorializing. In Scales' (2021) article for the Guardian Seascape series, she quotes Rivers Solomon, a nonbinary science fiction author inspired by the imaginary world of Drexciya to write the award-winning *The Deep*. Solomon says, “our human history, our stories, what happened to us, our cultural legacies, are extraordinarily important, informative and shape who we are today. [They] should be at the forefront for how we think about how we're going to engage with the environment, how we engage with the ocean”. The struggle for our histories is a struggle for our futures. “How we memorialize the dead is also a struggle over how we care for the living” (Maynard & Simpson, 2022, p. 251). This act of placemaking is an Abolitionist practice and Black Radical futures strategy. In *Critical Black Futures: Speculative Theories and Explorations* editor Philip Butler (2021) writes, “Black Futures... are new spaces... of critical thought and imagination” (p. 2). For Black Futures Jam, an ideating collaborative process designed to create healthy Black Futures at George Brown College, Wood (2023) writes,

Black Futures is a process that engages in dismantling and building new worlds that find Black folks thriving, empowered and alive. Critical to this process is the role of imagining worlds that do not exist as yet, ones that defy the forces of colonialism, white supremacy, neo-liberalism, racial capitalism and racism to create worlds that are truly inclusive and welcoming of all Black perspectives. (p. 19)

Therefore remembering, memorialising, imagining Black futures that overcome the trauma of slavery to envision caring for the environment and the ocean is synonymous with caring for ourselves. I sought to engage viewers of my exhibit in this ongoing discussion of Black futures, Black radical imaginings, collective care and caring for the environment and the ocean. The Atlantic Ocean and the Middle Passage continue to be important in Black spiritual, epistemological, traditional, and contemporary mythmaking narratives and artistic

work. This paper asks that we join the international push by Black communities to virtually recognize the millions lost in the Atlantic during the slave trade.

In *Freedom Dreams: The Black Radical Imagination*, Kelly (2002) writes that the “...most radical art is not protest art, but works that take us to another place, envision a different way of seeing, perhaps a different way of feeling” (p. 11). I believe in this exhibit, I was able to take the viewer to visit Yemayá, Mother who cares for all, in her underwater domain. My aim was to remind the viewer of the richness of Black traditional narratives, contemporary innovations and symbologies of caring. In my performances of this show (artist talk, tour, and Carnival Chairs) I practiced forms of caring and healing, of mindful and meditative breathing, bringing community together, of finding joy and laughter after the gravity of leaving the underwater world of the Black Atlantic, the memory of the Middle Passage and the reminders of contemporary Black struggles to breathe. The hope is that viewers engaging with the artwork would have left A Space Gallery feeling lighter, more grounded, enriched by the knowledge of Black ingenuity to provide care and generate Black radical futures. Maybe they would even begin to reflect on what their theory of change is.

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Conflicts of Interest

The research was conducted in the absence of any conflicts of interest.

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About the Author

Born and raised in Trinidad, Natalie Wood arrived in Toronto in 1984 to study psychology, sociology and women’s studies at the University of Toronto before obtaining her studio training at Ontario College of Art. Wood then went on to complete an MA in Art Education from OISE, at the University of Toronto, in 2000. Wood’s work cohabits the areas of popular culture, education and historical research, spanning the visual and media arts. The practice includes painting, drawing, printmaking, photography, video and performance, and extends into Wood’s work as a curator, educator and community-based queer activist. Wood is currently a tenured Professor in the Social Service Work Program at George Brown College, where she co-founded and coordinated their Social Innovation Hub, an early stage incubator. She is also pursuing a PhD through the Environmental Studies program at York University.

Nature Loves to Hide

Navigating Surface and Depth in the Anthropocene

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Abstract

While humans explore and map the subsurface environments of earth, there remain unplumbed depths of nature that cannot be so exposed. This essay argues that along with a literal sense of depth as a spatial dimension, there exists a latent depth of nature hidden to everyday perception that may nonetheless manifest in/as attentive imaginative involvement. It begins by briefly comparing the ontological assumptions of Newton and Descartes with those of Merleau-Ponty before examining how the everyday phenomenon of sunrise might be interpreted through the latter. The practice of terrapsychology is then explored as a means to deepen our engagement with(in) nature and sensitively navigate the necessary ambiguity of imaginative involvement. This latter is highlighted as a corrective to the logic of certainty and control that attempts to maintain human “progress” at the expense of more-than-human nature.

Keywords

imagination, ambiguity, Merleau-Ponty, terrapsychology

Technologically mediated vision and mobility has allowed unprecedented access to the most remote depths of the planet. Caves like the Veryovkina in Georgia have been mapped to a depth of 2,212 metres wherein explorers have discovered more than 6km of subhorizontal passages. Deeper still is the Challenger Deep located in the southern end of the Mariana Trench, which has been measured and explored to its deepest point at nearly 11 kilometres below sea level. Despite these astonishing journeys into the subsurface environment, however, we do not encounter depth *per se*, but rather newly

exposed surface. Unlike the spatial depths of Veryovkina and Challenger Deep that can be measured relative to their ground, the “depth” of our *experience* of these places cannot be so determined.

This essay is an exploration of this latter sense of depth, one that cannot be so located in terms of spatial Cartesian coordinates. It argues that along with a literal sense of depth as a spatial dimension, there exists a latent depth of nature hidden to everyday perception that may nonetheless manifest in/as attentive imaginative involvement. This latter sense of depth is developed along the lines of Merleau-Ponty’s “indirect ontology” (Mazis, 2016), which interprets the world in relational terms. For Merleau-Ponty, the world is not a collection of discrete entities undergoing mechanical relations that are represented “in” consciousness (or not) with varying degrees of “accuracy”. Our participation in the world is rather a creative gestalt of embodied involvement possessing various registers of sense that may include affective, memorial, and/or imaginal aspects.

Beginning by briefly comparing the ontological assumptions of Newton and Descartes with those of Merleau-Ponty, the essay proceeds by articulating the role that imagination has to play in the latter. It provides an example of the ways in which the everyday occurrence of sunrise might be interpreted through these lenses before exploring the practice of terrapsychology (Chalquist, 2020) as a means to deepen such engagement. The essay then concludes with some suggestive comments regarding the value of ambiguity in a world of failing ecological relations.

In the absolute spacetime of Newton, from which much of the mechanical sciences have developed, we exist within, and separate from, three-dimensional space. Likewise does time proceed independent of perception, “equally without regard to anything external” (Newton, 1674/1934, p. 6). For Descartes, there is similarly a separation between *res extensa* as extended corporeal substance existing in three-dimensional space, and the incorporeal, non-extensive *res cogitans* that represents it. In both the Newtonian and Cartesian models we exist surrounded by spacetime-as-container, bound by its three dimensions of space and one of time.

In his commentaries on Descartes, Merleau-Ponty (2003) locates the origins of this distinction in the Judeo-Christian conception of a transcendent, omniscient God. For Descartes, the world born of an infinite conception of God is one in which everything is foreseen by Him; “there is not an anteriority of the Whole to the parts, not a separation between ends and means” (p. 9). Because of this, finality has no meaning for God, nor for humans who, unable to apprehend the whole, can perceive only the movement of Nature’s parts. There is thus no room in Descartes’ philosophy for purpose and he is led towards an image of Nature-as-machine:

Nature loses its interior; it is the exterior realization of a rationality that is in God. Finality and causality are no longer distinguished, and this indistinction is expressed in the image of the “machine”, an image that blends together a mechanism and an artificialism. There must be an artisan, and in this sense, such an idea is anthropomorphic... Nature thus becomes a synonym of existence in itself, without orientation, without interior. (p. 10)

Without interior (that only God possesses), Nature is (re)presented to cognizing humans as mere extension, as an exterior of pure surface. Whether considered in terms of matter, elements, monads, corpuscles, atoms etc., thought reaches a boundary beyond which it cannot proceed.

Despite advancements in contemporary science beyond this mechanistic worldview (in complexity theory and quantum physics for example), we can yet detect Cartesian assumptions haunting accounts of the natural “environment” as the surface upon which cognizing beings go about their business. The catastrophic breakdown of ecological relations has, however, forced the recognition that the “environment” is itself agential, unpredictable, and at times unstable. As Latour (2015/2017) has put it, “it is as if the décor has gotten up on stage to share the drama with the actors [and that] from this moment on, everything changes in the way stories are told” (p. 3). The environmental crisis is revealing the limitations of a mechanistic worldview, and it is here that we find ourselves invited towards a reimagining of the “depth” of nature that cannot be so measured.

For along with the apparently surficial aspect of nature, we may consider its depth *as it occurs in experience*. Our *experience* of nature cannot, after all, be located on a Cartesian grid, nor placed within a straightforward Newtonian chronology. Where, for example, might we locate the memory called to mind by the scent of a spring morning? From whence does inspiration arise? Why is it that an hour waiting for the bus feels longer than an hour lost in the flow of engaged activity? Whatever the answers to these questions might be, they do not seem to indicate absolute spatial coordinates, nor any kind of metrical chronology. We do not *experience* the categories of space and time *per se*, as they are rather derived from a more immediate perception. What we experience is the movement of the sun across the sky, the growth of flowers in spring, and the shifting sensations of embodied, emplaced perception that they engender.

In describing the relatively straightforward perception of the colour red, for example, Merleau-Ponty (1964/1968) begins by stating what it is not:

this red under my eyes is not, as is always said, a *quale*, a pellicle of being without thickness, a message at the same time indecipherable and evident, which one has or has not received, but of which, if one has received it, one knows all there is to know, and of which in the end there is nothing to say. (p. 131)

“Red” is, in other words, not a singular, isolable phenomenon that exists in a positively identifiable way. The *experience* of red rather emerges from a “more general redness” whose precise form is “bound up with a certain wooly [sic], metallic, or porous configuration or texture, and the *quale* itself counts for very little compared with these participations” (pp. 131–132). The particular red here before us emerges from an elemental involvement, as a “node in the woof of the simultaneous and the successive” that becomes distinct by “connecting up from its place with other reds about it, with which it forms a constellation, or with other colors it dominates or that dominate it” (p. 132). The experience of a rose, the cardinal outside my window, or in Merleau-Ponty’s example, a dress, “punctuat[es] the field of red things” (p. 132). “Red” is thus for Merleau-Ponty not an object that can be positively identified and is rather likened to an “ephemeral modulation of the world... a difference between things and colors” (p. 132).

Perceiving is thus for Merleau-Ponty (1945/1962) a creative gestalt of meaning making whereby “what” we perceive instantiates a *provisional* foreground/background distinction, though, it is important to note, there is no absolute background from which we can derive positive identifications, no “surface” upon which to build systems of certainty. The meaning of encounter is instantiated in the act of perception itself:

Perception is just that act which creates at a stroke, along with the cluster of data, the meaning which unites them—indeed which not only discovers the meaning which they have, but moreover sees to it that they have a meaning. (p. 36)

In the example of experiencing “red”, I might identify this particular instance of it in front of me as such, though another (an artist perhaps) might see there burgundy, carmine, or scarlet, a sensitive poet might feel love, passion, or courage, or perhaps this particular shade calls to mind a memory of a woolly blanket once owned, while someone with protanopia (inability to perceive red light) may not register the colour at all. What is important to note is that the taken-for-granted identifications of our experience (i.e., red = “red”) are not its basic facts, as they are rather more like modifications of a more primordial pre-reflective perception. Our identifications, each true in their own way, thus modulate the world in an iterative, ongoing manner. As the quality of light changes, as the colour here before us is further examined and discussed, as we delve deeper into the phenomenon, its identification and subsequent meaning transforms, and with it, the way we move through the world.

As Merleau-Ponty scholar Glen Mazis (2016) highlights, participating in this creative possibility requires directing our attention beyond the apparent surface of things. Opening to the depths of experience is an “embrace” that occurs by “sinking into things in perception” with the quality of “hushing or stilling the voices and enunciated categories that resound within consciousness” (p. 26–27). Participating in the depth of nature happens as a “kind of releasement into the body’s more primordial exchange with the world” (p. 27). It begins in immediate, pre-reflective, embodied engagement, and is only subsequently identified in categorical terms. Thinking *with* the unruly creativity of nature (as opposed to merely thinking *about* surficial nature) requires cultivating an ability to participate in its depth dimension—a task that requires suspending categorical judgement, for as Mazis puts it, “the perception of depth is the perception of impossible things being at the same time, and thereby being together in a way that defies rational categories” (p. 448). The perception of depth is not accomplished with the kinds of analysis that correlate percepts with preconceived systems of thought (i.e., as members of a genus), but rather through a *labile imaginative comportment that can dance with the ambiguity of expressive nature*. As each encounter is unique (*this tree, this moment, this red*), by circumscribing it in accordance with a given category or scheme, the ambiguity of its expressive depth is diminished, and along with it, creative potential.

We may find one such example of reductive correlation in a (quite literally) everyday phenomenon. Meteorologists will typically report the exact time of sunrise down to the minute (i.e., as an objective phenomenon), and while there is a sense in which this is statistically true for a given area, it neglects the situated involvement of myriad perceiving subjects—each of whom will experience a unique sunrise at a particular time. For perceiving subjects, the time of sunrise will vary in accordance with the orientation of the earth, the location of the sun, and the location of the observer (not only in terms of latitude/longitude,

but so too height/depth, surrounding environment etc.). The “time” of sunrise thus emerges as a relational involvement of earth, sun, and perceiving subject, and not, it is important to note, as a universal (e.g., sunrise at 6:46 am).

Our *imaginative* involvement with the event of sunrise is yet even more dynamic and particular to a given perceiving subject. For unlike the correlation between earth, sun, and subject that can be identified with clock time, the depth of the *experience* of sunrise is not limited to such correlations. The *experience* of sunrise encompasses myriad registers of sense whose manifestation depends on the quality of attention given to it. An artist may notice the hue it casts on the autumn leaves, a poet may contemplate themes of renewal and rebirth, a physicist may imagine the nuclear fusion occurring at its core. A sunrise may further manifest different affective tonalities depending on the climate of the area, perhaps manifesting apprehension for those city dwellers in the middle of yet another record-breaking heatwave, while bringing relief to others suffering through the chill of an arctic night. Is it an orb of nuclear hydrogen and helium that rises there, or Tōnatiuh—the Aztec sun deity of the daytime sky? Perhaps it is an unwelcome presence, John Donne’s (1897) “busy old fool”, a “saucy pedantic wretch” who “through windows, and through curtains call[s] on us” (pp. 7–8)? What we call “sunrise” is all of these things and much, much more. When reduced, however, to an explanation based on surface appearance (as in the example of the meteorologist’s prediction above), something is severed of our imaginative involvement, and likewise the expressive potential of the event itself. There is a kind of depth to phenomena, in other words, that will always exceed their su(pe)rficial explanations—a depth that may be further disclosed by considering the place in which they occur.

The practice of terrapsychology (Chalquist, 2007), while ostensibly the study of “place”, is a manner of interpreting place not only in terms of its spatial coordinates and objective aspects, but also as a (co)emergence of otherwise unconscious elements having variously symbolic, oneiric, imaginal, and memorial dimensions. Terrapsychology expands the field of subjectivity to encompass the more-than-human world and emphasizes the “interactive, multidimensional, interdependent, and symbolically connective and meaningful” (p. 9) (as opposed to the quantifiable or measurable). It seeks to disclose these meaningful interconnections through imaginatively attuned forms of attention and augmentation, to listen *into* phenomena for images and meanings instead of merely learning *about* them from the outside:

Terrapsychology is the study of how the currents of aliveness, reactivity, interiority, or psychic animation of a geographical location and its creatures and features interact deeply with our own. It offers descriptions of this interaction, methods for registering it, and practices for managing it... A primary goal of terrapsychology is to find out more about the depths of relations between people and places, the human soul and the soul of locale (*genius loci*). By doing so, it strives to play a meaningful part in ending the war against nature that is poisoning the ecosphere while mutating lethally into suicidal antiworlds. (pp. 10–11)

When engaging with(in) place in this way, we are invited towards deeper modes of imaginative involvement that seek to emplace us as ethically responsive beings. As such, the process is guided by three key questions:

What does the place want from me? What obligations has it left me with? How effectively can I stay with and tend the potent actuality I sense here instead of escaping into some kind of treatment plan imposed from above? (p. 66)

By attending to place with these questions in mind, a “mutual deepening” occurs whereby otherwise su(pe)rficial, banal, or overlooked events may become meaningfully felt experiences (p. 67).

Chalquist (2014) provides an example of terrapsychology in action when he “lorecasts” the weather as a meaningful expression of depth, as “nonverbal, imagistic words in the vocabulary of animate Earth” (p. 251). Imaginatively engaging with the event using techniques of image amplification derived from Goethean science and depth psychology¹, Chalquist finds in a tornado that touched down in Goshen County, Wyoming:

a meteorological counterpart to psychic complexes: vortices of unbalanced forces whirling around a center point until the energy that created the imbalance dissipates. Reaching down from high above, [the tornado] bridges the gap between higher and lower while flooding out and cleansing, often destructively, whatever [it] touches. (p. 256)

He then remarks on the irony that this rather destructive storm touched down on June 5th, 2009 (i.e., World Environment Day) before interpreting the event as a kind of injunction to look “inside” nature for the “whirling aliveness” that is addressing us (p. 256).

These kinds of interpretations may appear as idiosyncratic and indeed must be so. For while there may be overlapping commonalities of interpretation, each individual’s experience of a given place is uniquely situated and as such will resonate in likewise particular and unique ways. The “meaning” of place is here not something imposed from without in accordance with abstract categories (whether Cartesian, Newtonian, or otherwise) but rather emerges from a situated, embodied encounter with(in) the world.

When imaginatively engaged in this way, an otherwise “common” place, perhaps one visited many times before, may be expressed in/as an uncanny sense of (un)familiarity, ambiguity, beauty, or weirdness. One is no longer viewing the world in terms of its utility, taxonomy, or accordance with abstract systems of thought, but rather in/as a dynamic, living image that may surprise, astonish, or otherwise enchant. Participating in nature’s depth dimension thus requires a willingness to accept the necessary ambiguity of not knowing. In practices like terrapsychology there is no arrival at certainty, for to do so would be to (re)inscribe a system of meaning onto an otherwise indeterminate process of meaningful participation. We must be willing, in other words, to forgo the relative certainty of objective analysis in favour of the ambiguity of creative becoming. And while objective analysis is of course desirable in certain situations, relying *only* on what is clear and distinct loses access to the depth of experience that provides us with a vital sense of meaning-full engagement.

Manifesting the creative depth of place requires, in other words, a willingness to move beyond the taken-for-granted view of surface appearance. It requires plumbing the

¹ A process of resonating an image through a twofold approach of tracking one’s own personal connections with it and investigating the history of meanings, symbolisms, cultural appropriations etc. associated with it.

often-ambiguous depths of phenomena as manifest in the uniquely situated particulars of a given encounter. For while surficial thinking *represents* objective realities and quantifiable phenomena, the ambiguity of depth *manifests* through image, affect, and correspondence. Our imaginative participation with the ambiguity of the depth of place is in this way creative insofar as it is that with(in) which we are taken up in/as the generative source of the present.

Indeed, this is the perspective of Ingold (2022), for whom to exercise imaginative perception is not merely to conjure up images that re-present an absolute reality “out there” but is rather to “participate from within, through perception and action, in the very becoming of things” (p. 32). We enter “from the inside into the generative currents of the world itself, by balancing one’s very being on the cusp of its emergence” (p. 4). “Imagining for real” thus “demands continued attention” (p. 5) not to that which correlates with preconceived categories (i.e., to surface) but rather towards that which is emerging from its own depths. Rather than an examination of surface, imaginatively oriented perception is a hermeneutic process of *descent* into the underworld of image, affect, and memory. Like the boundary crossing messenger-god Hermes, imagination creates a correspondence between otherwise impossible realities. Its hermeneutic function is thus one of navigating between surface and depth, creatively transforming perception from within.

And while this traversal into the relative obscurity of creative depth is necessarily ambiguous, we need not react by reducing the experience to a system of certainties. Indeed, there is much to gain by harmonizing ourselves with its unruly movements! The “progress” of modernity that has led us to the edge of ecological collapse is, after all, predicated on a vision of nature as something to be accurately classified, catalogued, controlled, and/or improved upon (see Merchant, 2015). It relies, in other words, on the relative clarity of surficial analysis. And while this may be necessary when building a bridge, designing a building, or creating more energy-efficient appliances, when applied to nature writ large, something of our creative potential is thereby lost. Addressing (and being addressed by) ecological crisis requires not only the tools of analytic consciousness, but also meaningful participatory engagement in its depth dimension.

It is here that the post-Jungian scholar James Hillman (1979) implores us to “stick with the image” rather than reduce its expressive potential to a correlate, for “when we believe we know the invisible, we begin on a ruinous course... [it is] essential [to adopt an] attitude of unknowing [that] leaves room for the phenomenon itself to speak” (p. 193–94). If indeed “nature loves to hide” as Heraclitus inscribed it at the dawn of Western philosophy (see Hadot, 2004/2006), then it behooves us to enact its disclosure not with the hubris of certainty, but rather with the care-full attention of imaginative involvement that does not limit its (and concomitantly our) capacity for creative emergence and renewal.

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STRATA

A Performance-Based Film Project on Deep Time in the Body and the Geologic

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Abstract

This article introduces a poem excerpted from the text of STRATA, VestAndPage's fifth performance-based film project, which deals with the notion of deep time, the formation of layers in human history, memory, and the geological. The lyrics exemplify how VestAndPage resume through poetic words their thought process, the information gathered during their artistic research that led to the making of the film, and the felt emotions and perceived sensations while performing inside the Swabian Jura caves system, the location in which they chose to produce the film. The authors highlight topics that serve as the framework for their co-creative processes, such as transcendental imagination and queer ecology, in discussing their experience of making the film.

Keywords

performance, deep time, geologic, filmmaking, therianthropes

*In the flickering light of a torch,
Stalactites and stalagmites
Lash the space, curl, vibrate, blossom.
One centimetre a century.
One thin, another three times thicker.
Pinnacles of feelings:
Courage, shame, pleasure, fear
Inside the subterranean void
Created by nature.*

*They can resemble the hook of a scythe,
Spears on display in subsurface armoury,
Swords suspended from the ceiling,
Gnarled, carved canes of shepherds,
Letters of lost alphabets
Pressing down and pulling up
To seal the base of the underlying
And overlying rock, to stand, to hang.*

*Their poetry and prose tune Deep Time,
Layers of the mind of a holy fool.
The steamy, hasty flow of the universe:
Mosaics of phrases, material forms of ideas
Revealing unattainable artistic gesture,
Even if only to express the splendid boredom
Or the missing parts of an ancient cosmic dream—
Aeons of time spread away like the dust
From the pages of centuries-old history books.
Birthplace of time, therianthropes, divinities.
Humanity — headless, faceless self-reflection.
Subsurface poetry and prose are different
From the lyrical shifting of clouds
Blown by the wind.
Me (the guest), the eternal troglodite, say:
No wind blows here.
Pink eyeless troglobites (the dwellers),
The belemnites and ammonites, speak:
Ephemerality is different here
On our fossilized sponge riffs' skeletons.*

*Stalactites and stalagmites,
Clustered and sleepy as they appear,
Show as stratocumuli gazing upwards, downwards.
A verticality,
With the flat base held firmly by the rocks above, below,
They give rise to a theory of terrestrial elements
In silent meditation,
A spectral perspective on time.
Their intimate gift isn't
Being the motionless witnesses of the time
But being their mirror,
Containing what time does not reveal.
Pinch-black, an empty passage
Of ever-dripping water, drops.
Drops. Drops, ...*

*If I think long enough about what I see inside a cave,
I begin to assume that I will understand everything one day.
But the underland's corridors and tunnels yell at me
That there is nothing to understand.
Listen to the stolen echoes.
Untell the story,
In the scars of the rocks, like your skin,
They spill.
There is only a here, a before, and a now.
Perhaps, an after that corresponds
To nature's generous, cruel creativity,
A complementary determination
To the universe in motion,
Joyful odes to celebrate
The transience of life on Earth.*

*If I shelter in a cave for some time,
I end up distinguishing the (anthropomorphic) shadows of things,
The echoes of form.
When emerging from it,
The first thing I observe
Is the configuration of the stuff of reality
Lit up by the light of the sun.
I stare at the sun reasoning about
When will I go back inside?
Is the outside just the dreamscape
That I dreamt while inside?
If I linger at the portal,
I realise that I am disposed
On the threshold of the worlds.
The liminal is my sanctuary.
Here, I get extinct
In the eloquence of silence
And begin talking to you
In a hundred silent ways.*

Figure 1

One/Many (Blind Latex Creature)



Note. Performance by Verena Stenke (VestAndPage). Location: Schiller Cave. Photo: Fenia Kotsopoulou, 2021.

Figure 2

Pietas



Note. Performance by Verena Stenke and Andrea Pagnes (VestAndPage). Location: the eye of the Kleine Grotte (Small Grotto). Film still, 2021.

The poem is a text excerpt from STRATA, our fifth performance-based film project, which deals with the notion of deep time, the formation of layers in human history, memory, the geological, and nature at last. These topics and concepts served as the framework for our co-creative processes to produce the film.

After three years of preparations, sudden delays, and waiting due to the pandemic, we started filming in spring 2021 in the prehistoric caves of the UNESCO World Heritage Site “Caves and Ice Age Art in the Swabian Jura.” These subsurface environments located in Baden-Württemberg, southwest Germany, were used by Ice Age humans for shelter about 43,000 to 33,000 years ago. They are sites where some of the oldest known figurative artworks and musical instruments have been found: handcrafted flutes, small ivory figurines representing a waterbird, a horse and a mammoth, the Venus of Hohle Fels, and the therianthrope figurine of the Löwenmensch (Lionhuman) of Hohlenstein-Stadel.

As It Began

We conceived STRATA as an experiment where science meets performance art, theatre, dance, visual art, and music through international collaborations and interdisciplinary processes. We brought together performers, multidisciplinary artists and specialists from archaeology, geology, speleology, art history, philosophy, and time psychology. We investigated notions of time and the human body as a site that exists in continuity with the geological.

When we started filming, the lockdown and COVID-19 regulations were still in force, making the production more complex than expected, but it could not have been otherwise.

From April to September 2021, we performed for the camera inside the Swabian Jura cave system. Entrusting our ecological intelligence, we question if we are truly capable of comprehending such a system in all its complexity through performance-making. To connect with nature is just to imagine ourselves as part of it, wandering and temporarily dwelling in it? In the interplay between the natural and human-made worlds, our actions constantly impact the natural environment in some way.

We chose to perform and film in those sites to understand if the transient immediacy of performance-making allows us to become part of those underground landscapes for a fleeting moment in the chasm of deep time. We sought to develop a holistic understanding of the interrelation between nature-human-time through our performance practice-based research. We were also aware that performing in places somehow incompatible with contemporary humans, we could not avoid anthropomorphizing the cave's natural structures with our presence and art actions.

Our visceral way of performing in response to the environment means we cannot foresee a performance before we perform it. The emotional structure of the film's content is based on our memories and experiences during production. We use the camera intuitively, and it must be an essentially practical device, like a mnemonic prosthesis, which aids memory.

We perform in real-time: the camera captures our actions, and in editing, we process them into moving images. We never perform the same action twice.

Poetic Texts for Spoken Words

In a poetic stream of consciousness, the film spoken text is left to background voices. We seek to create a meditative atmosphere to tap into spiritual realities and convey an immersive, transcendental experience through cinematic language. This will allow the viewer to become absorbed in the film's images and sounds (Schrader, 2018).

It took almost a year to write the spoken text for the film, which the lyrics here are part of. We reflected on the experience we had inside the caves. We rewound and rethought our performances to capture the essence of our actions in response to the cave's geological conformations.

The text for the film is usually written after the performance journey has ended. We re-shape in the form of a poetic, philosophical chronicle or log book the notes, the cues, and the fragmented thoughts we sketched down during the days spent filming. Thus, the poem here is an example of how we enucleate through poetic words our thought process. It includes poetic back-ups of scientific and conceptual information gathered during the artistic research that led to the making of the film. It also attempts to return the emotions felt and perceived sensations while performing inside the caves.

For us, writing a film text is like retracing a dream within a dream while dreaming. In the editing process, we incorporated these words into the moving images to express what those places made us feel while hosting us. Texts, spoken words, and actions should integrate into each other to structure the moving images as a unity. We view them as organic matter under the imprint of a scenic invention that blends well with natural sites, almost alien, worthy of any words.

Examining universal human experiences through the prism of extreme environments, our performance-based filmmaking process eventually aims to convey a sensation of pure, irreducible sweetness that transcends philosophical concepts and social concerns.

Figure 3

Rocks/Venuses



Note. Performance by Fenia Kotsopoulou and Verena Stenke (VestAndPage). Location: Falkensteiner Cave. Photo: Marcel Sparmann, 2021.

Figure 4

Voice/Rock/Body/Time



Note. Voice performance by Susanne Weins. Location: Gustav-Jakob Cave. Photo: daz disley, 2021.

By staging the recognizable within the inaccessible, we create a compelling visual experience. About our films, David C. James wrote that the result is a heightened reality: both entirely surreal and as familiar as a dream. “These transient human feelings may be as ephemeral as a mote of dust, but everyday kindness is as important as the most epic of landscapes” (James, 2013). For us, even in the extreme depths of particular natural environments like caves and grottos, altruism, partnership, and love still possess unique importance.

The Route To Performing (Deep) Time 1

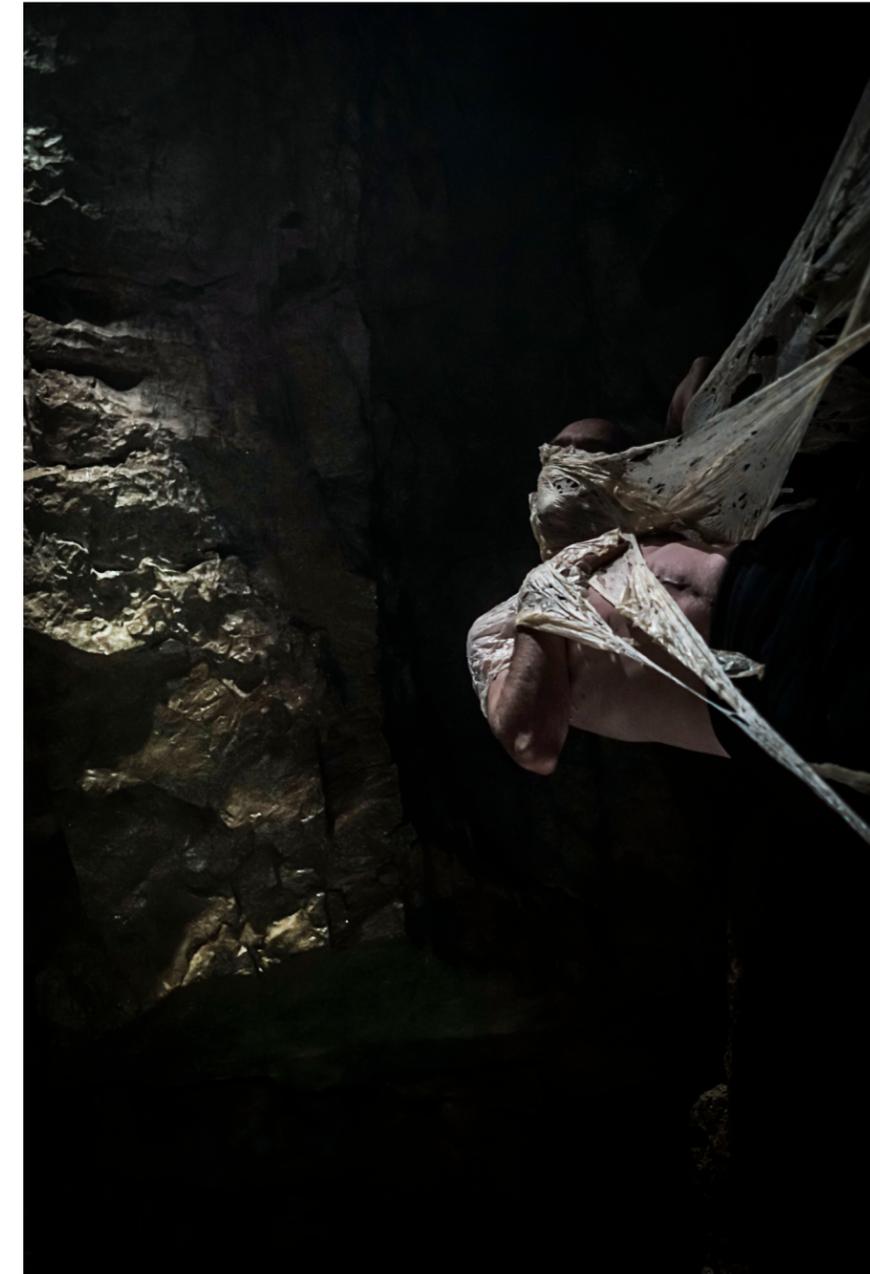
Performance art is a time-based practice and ephemeral. What remains after a performance is accomplished are a few relics and leftovers, or just the memory of it. As performance artists, often engaging in durational and site-specific performances, we were intrigued by exploring the concept of deep time to understand if we were capable to return it by performing.

Deep time is a profoundly different time scale in evolutionary processes than that with which we deal in our daily lives. John McPhee introduced the term “deep time” (1981, p. 20) to the modern philosophical concept of geological time developed in the eighteenth century by Scottish geologist James Hutton (1726-1797), regarded as the father of modern geology. Observing sequences of formations from rocks cut across and intruding on each other, Hutton recognized an ancient Earth with “no vestige of a beginning, no prospect of an end” in these unconformities (Baxter, 2004, p. 231). Earth’s landscapes are shaped

through long-lasting cyclical counterforces: erosion, deposition, consolidation and uplift. For Hutton, over long time scales, nothing is constant: “We are as lost in time as in Copernicus’ space” (Baxter, 2004, p. 231). Hutton’s concept of time was refined in the mid-twentieth century when it became possible to date rocks accurately using radioisotope decay.

Figure 5

Rock/Body Entanglement



Note. Performance by Marcel Sparmann. Location: Falkensteiner Cave. Photo: Fenia Kotsopoulou, 2021.

Figure 6

Rock/Body



Note. Performance by Fenia Kotsopoulou, Marcel Sparmann, and Sara Simeoni. Location: Gustav-Jakob Cave. Photo: daz disley, 2021.

STRATA poses an imaginary journey that questions the structure of time and how human beings relate to geological phenomena. To realize the film, we considered a transcendental time perspective. Many scholars have used this notion to describe different aspects of Husserl's phenomenological philosophy and the concept of transcendental imagination (2019). This concept is already present in different ways in Kant (1998, 2000), Heidegger (2008) and Merleau-Ponty (1968).

From the transcendental perspective, time means crossing the limits of earthly life, from mental travel to eternity. Paul Ricoeur discusses transcendental imagination to describe the ways in which the creative and interpretive faculties of the mind shape our experiences of time and narrative. In his essay, "Imagination in Discourse and Action," he writes, "By mapping out actions in this way, the storyteller produces the same reference as the poet who, in Aristotle's terms, imitates reality in his mythical reinvention. The story is a heuristic process of redescription in which the heuristic function stems from the narrative structure and redescription has the action itself for referent" (Ricoeur, 1994, p. 125).

We have resorted to the transcendental imagination as inspired by the fact that the findings in the caves of the Swabian Jura, specifically the figurines, have led to the hypothesis that they are means of explaining the world, thus that the caves are not places

of illusions, inhabited by shadows of forms of the things that make up the world, as Plato (2007) imagined. Instead, they are the places where the first anatomically modern humans developed the concepts of image and reality, where humans became, operating as artists that sculpt and paint what they perceive as energy and vibration of what animates the visual matrix of reality (Demuth, 2022).

These ideas have been highlighted by several prehistorians and archaeologists we interviewed. These include Nicholas Conard, whose team found the Venus of Hohle Fels figurine, considered to be the most ancient and undisputed sculptural example of artistic depiction of a human being, in 2008; Kurt Wehrberger, former co-director of the Museum Ulm and curator of its Archaeological Collection, which hosts the zoomorphic Lionhuman figurine; and Stefanie Kölbl, director of the Prehistoric Museum of Blaubeuren, where the Venus of Hohle Fels and the waterbird are displayed.

We interviewed them and other archaeologists, including Guido Bataille, Johannes Wiedmann, Rudolf Walter, cultural scientist Barbara Spreer, and art historian and philosopher Bernhard Stumpfhaus, during the preliminary stage of our research and the preparatory phase of the film to shed light on our questions. Can the divide between nature and culture be overcome by viewing the human body as an expression of geological matter? Is the human body also a site of exposure and response to changes in Earth's systems and dynamics? Can art make visible the sediments in humankind's depths, the history of our planet, society, the individual and collective psyche? Could the encounter between art and science shift the anthropocentric thinking driven by capitalist imperatives into a post-anthropocentric view, to soothe the wounds of our bleeding, hemorrhaging reality?

Housed in the STRATA Knowledge Archive, a section of the film STRATA website, these conversations raise awareness of our geological past. They discuss progress through cultural exchange and cooperation. They analyze social systems' growing complexity and their evolutionary consequences. They share the necessity of a more holistic approach to life to recover harmonious coexistence between humans and nature (VestAndPage, 2023).

Eventually, they inspired us to imagine a film under a poetic gaze, one wherein performing within nature, as part of nature rather than apart from nature, is a way to experience the world anew, with heightened, empathetic sensitivity to beauty and emotion. A method of looking at human existence is to capture its deeper meanings and cultivate a greater sense of connection, the essence of things rather than simply their surface appearance.

Archaeologist and prehistorian Nicholas Conard, the founding director of the Institute of Archaeological Sciences at the University of Tübingen and director of the department for early prehistory and quaternary ecology, stressed the fact that the therianthrope images—mixed human-animal depictions—all come about at the same time, which suggests that in the early stage of human culture, thresholds are opening into a symbolic world. The transformation from human to animal, from material to spiritual, is a fundamental aspect of the Ice Age people's lives. It is perhaps the first proof of religion intimately entwining humans with nature. These depictions of fantastic beings that do not exist in the real world but only in the world of ideas demonstrate some quite sophisticated aspects of Homo

sapiens' life. They may represent their interconnectedness with the natural world—its mysteries and creative force.

Equally fascinating are Stefanie Kölbl's and Kurt Wehrberger's considerations. Highlighting that culture beyond a formal administrative language is what animates us and makes us a society, they also assume that our Ice Age ancestors were upheld together through art, attempting to portray what made a side in themselves vibrate, perhaps to show where they belong or want to go.

This cultural leap happened 40,000 years ago with figurative artworks that are the oldest we know. These artworks accentuate a human perception of nature, which is missing in today's society. Also, from the footprints found in French caves, we know that children, women, and men were together there. Life was a joint, shared process. This discovery opened up a completely different perspective on prehistory, shaking up also our understanding of gender roles and how society evolved.

Also in prehistoric times, storytelling, making music, or even performing was crucial at the end of the day. Using creative activities, the community devised rituals and celebrations to consolidate bonds and move forward. Additionally, from the findings in the Swabian Jura Caves, it is conceivable that the Homo sapiens were driven to externalize through symbols what they felt inside, the visions they had. There are signs and symbols that tell the story of the intangible, but perceivable, just like concepts of other spaces that are liminal or beyond the real.

Figure 7

On Scars and Myths: A Conversation



Note. Kurt Wehrberger with the Lionhuman ivory figurine. Museum Ulm (DE). Interview still, 2021.

The Route To Performing (Deep) Time 2

By combining performance art and filmmaking, we question our perceptive processing of reality. In so doing, we rely on our experiences and how we organize and store information in our memory and bodies. It is a process that presents gaps, paradoxes, and ambiguities, but leaves room for the imagination. In that respect, the conversations undertaken with those eminent archaeologists and prehistorians have helped us understand how to approach deep time performatively.

To perform the idea of deep time, we were faced with the difficulty of our human brain grasping a concept of time based on the entire geologic history of our planet, spanning over billions of years, or, as in Hutton, a time without a beginning or an end. We wondered if we could imagine deep time as a poetic, imaginary dimension. A time of imagination, "not the kind of time we normally experience. But in a sense, just as real as what we call real-time" (Hawking, 1996).

Yet how could we, through performance, hope to retrace the vestiges of a distant past we cannot hold? We attempted to imagine a nonlinear time that contained real-time fragments. We imagined a mythic dimension of time, where performing inside it involved embodying imaginary characters inspired by the therianthrope figurines found in the Swabian Jura caves.

Figure 8

Seven Rock Bladelet Cuts/The Lionhuman and the Shaman



Note. Performance by Andrea Pagnes (VestAndPage) and Nicola Fornoni. Location: Hohlenstein-Stadel Cave. Photo: Marcel Sparmann, 2021.

The scholars we interviewed gave us the decisive impulse to tackle time's complexity in the film. We did not choose the linear approach of the Judeo-Christian eschatological tradition nor the circularity present in ancient cultures, where time cyclically devours everything. Instead, we sought an alternative to the philosophical concepts of Newton and Einstein, which contextualize the being in an absolute or relative dimension of time contained in a multidimensional space, and of Heidegger, which imagined that the being exists and moves in space contained in a multi-temporal dimension. Even the idea of the infinite present could not correspond to the experience of entry, transit, and exit that occurs when continually entering a cave, performing in it, and then coming back out, constantly shifting from the outside to the inside.

For instance, in the more difficult caves to access, and due to the low temperatures of the water and the mud, we were able to complete only a small number of performances, often performing only one at a time. After two hours inside the cave, the body begins to show clear signs of fatigue and possible hypothermia, especially when performing half-naked. That was how it was in Schiller Cave when we performed the Angel of History in its mud funnel and immersed ourselves in the icy waters of the Wimsener Cave and when we tested our physical limits of resistance to the cold by going upriver through the Falkensteiner Cave subterranean creek to dive in it and perform the story of the wanderer angel.

Figure 9

The Plunge. Castaway through Time/Wanderer Angel



Note. Performance by Fenia Kotsopoulou. Location: Falkensteiner Cave. Photo: daz disley, 2021.

Figure 10

The Rescue. Castaway through Time/Wanderer Angel



Note. Performance by Andrea Pagnes (VestAndPage) Location: Humility Passage (Falkensteiner Cave). Photo: daz disley, 2021.

During the film production, we soon realized that our performative actions were somehow wedging into one another. They were clustering on top of each other, but opening in opposite yet connected trajectories and directions, forming a spiral-like pattern. They were like growing strata of space-time and movement, captured by the video camera, and that could still be layered and edited in different orders depending on our artistic choice.

The concept of spiral time implies that action patterns tend to repeat themselves, but not exactly in the same way as the cycles of life, death, and rebirth in some spiritual and mystical traditions. Action patterns evolve and change as they repeat, creating a spiral or a process of growth and transformation, moving outward and upward, expanding and evolving, like David Bohm's (1980) idea of a dynamic interplay of order and chaos to which Timothy Morton (2013) also refers concerning larger societal and cultural patterns, nature, and time, assuming a new level of human awareness transcending the limitations of the modern rational mind for a more intuitive understanding of consciousness, time, and space.

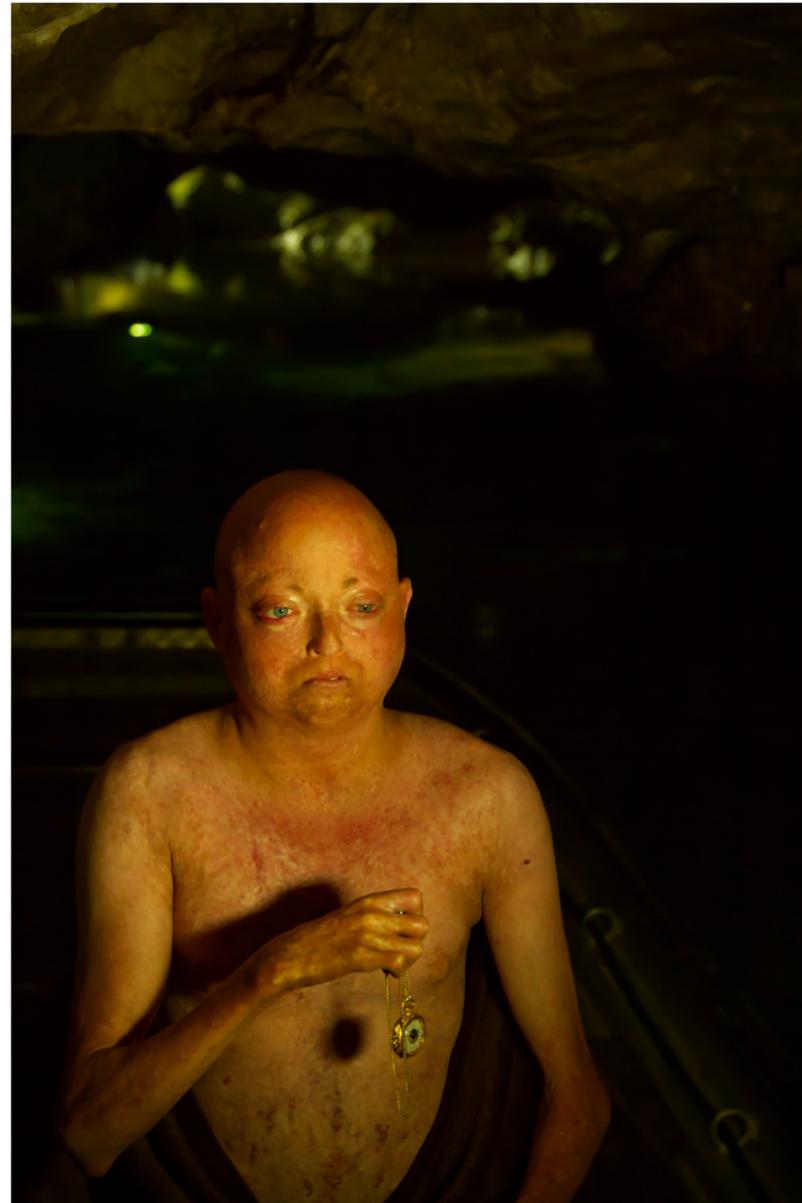
Discussing the notion of the spiral, philosopher and psychologist Jean Gebser sees the poet "participating in the timeless memory of the world" (1985, p. 327). His stance led us to consider that the caves that sheltered our Ice Age ancestors are not simulacra of origin, but places of sharing, shells of the inner world, metaphors for our insides, spaces where a transcendent reality exists, and thoughts enter a process of becoming form.

We ventured inside them audaciously but respectfully, always silently, in order not to disturb the eloquent silence inside the caves, which seems to preserve the secrets of

everything, as the concluding stanza of the poem tries to convey. By means of artistic generative encounters, performing through labyrinths of rocks, mud, and gelid water, we sought to understand the force of geological and time. Have we learned to embody their cadence and rhythm? Can we interlace a dialogue with the caves' breathtaking calmness and stirring stillness? Moreover, do we have the right to step inside these immaculate spaces and perform?

Figure 11

The Secret Heart of the Geological Clock



Note. Performance by Nicola Fornoni. Location: Wimsener Cave. Photo: Marcel Sparmann, 2021.

Figure 12

Inside and forth



Note. Performance by Sara Simeoni. Location: Gustav-Jakob Cave. Photo: daz disley, 2021.

Figure 13

The Walk. Castaway through Time/Wanderer Angel



Note. Performance by Sara Simeoni. Location: Falkensteiner Cave. Photo: daz disley, 2021.

Figure 14

The Rescue 2. Castaway through Time/Wanderer Angel



Note. Performance by Andrea Pagnes (VestAndPage). Location: “White Giant” flowstone (Falkensteiner Cave). Photo: daz disley, 2021.

It Is About Ecological Thinking

STRATA's opening moves are that art-making processes can function as harbingers of possible changes, that ecological thinking is essential to understanding human existence, and that plurality, nonbinary, inclusiveness, and diversity are fundamental prerequisites for social development. In the making of the film, grounding in ecology has been a research tool to understand the interaction of concrete entities by performing in underground landscapes shaped by cold, muddy waters, and wet, slippery rocks; the *oikos*, or “house” in the root meaning of ecology being the bodily self.

Can the human body become an expression of geological matter and a site of exposure in response to changes in time and Earth dynamics? Can performance-based filmmaking move beyond the nature/culture divide?

In *Ecology without Nature* (2007), Timothy Morton criticizes authoritarian politics. He calls for a new way of thinking about our relationship to the environment, advocating for a philosophy of symbiosis rather than dominance. Morton (2016) suggests we must embrace nature's dark and unpredictable aspects rather than controlling or taming them. This radical rethinking of ecology encourages us to think in more creative and more nuanced ways about our relationship with the natural world. Reflecting on the importance of interconnectedness, coexistence, inherence, and relationality in ecological thinking paves

the way to move beyond a dualistic view of humans and nature as separate entities, for we are deeply intertwined with the environment and dependent on its health and well-being.

Morton proposes that biology and ecology deconstruct notions of authenticity and that life exists as a fluid mesh of interrelations and interdependences that blurs traditional scientific boundaries, like species, living and nonliving, human and nonhuman, and even between an organism and its environment. According to Morton (2010), it is the idea of a queer ecology that emphasizes a perspective on life that transcends dualism and distinctive boundaries. Queer ecology shifts paradigms away from binary, heteronormative ways of understanding nature, instead recognizing that unique relationships exist between life forms at different scales.

With its many gaps, crevasses, occupied territories, and yet-unknown grounds, STRATA is a composite labyrinth. In a psychogeographic and performative process of embodied memory activation, we have performed to physically explore layers of sites in the depths of the earth—caves guarding under their surface enigmatic traces of our becoming. Does the subsurface hold the key to trespassing the binary and linear toward spiralling complexity and trust in change? How can we unbury deposits in the depths of the human being, in the earth and human history, and in society and the psyche?

In queer ecology, growing complexity is an evolutionary consequence, and plurality, non-binary, and social inclusion are necessary prerequisites to understanding life. The film offers artistic and academic perspectives on crucial social issues of the present to open up a contemporary discourse on the past. Remembering historical facts and imagining possible worlds, we aim to raise awareness of our geological and cultural past to draft a possible postcolonial future.

We critically confronted romantically distorted images of nature and naturalness to dismantle consolidated narratives and aesthetics, such as Wilhelm Hauff's (1826) novel *Lichtenstein* and the Nazi research program “SS Ancestral Heritage,” which complicated geology's detachment from the region's factual historiography.

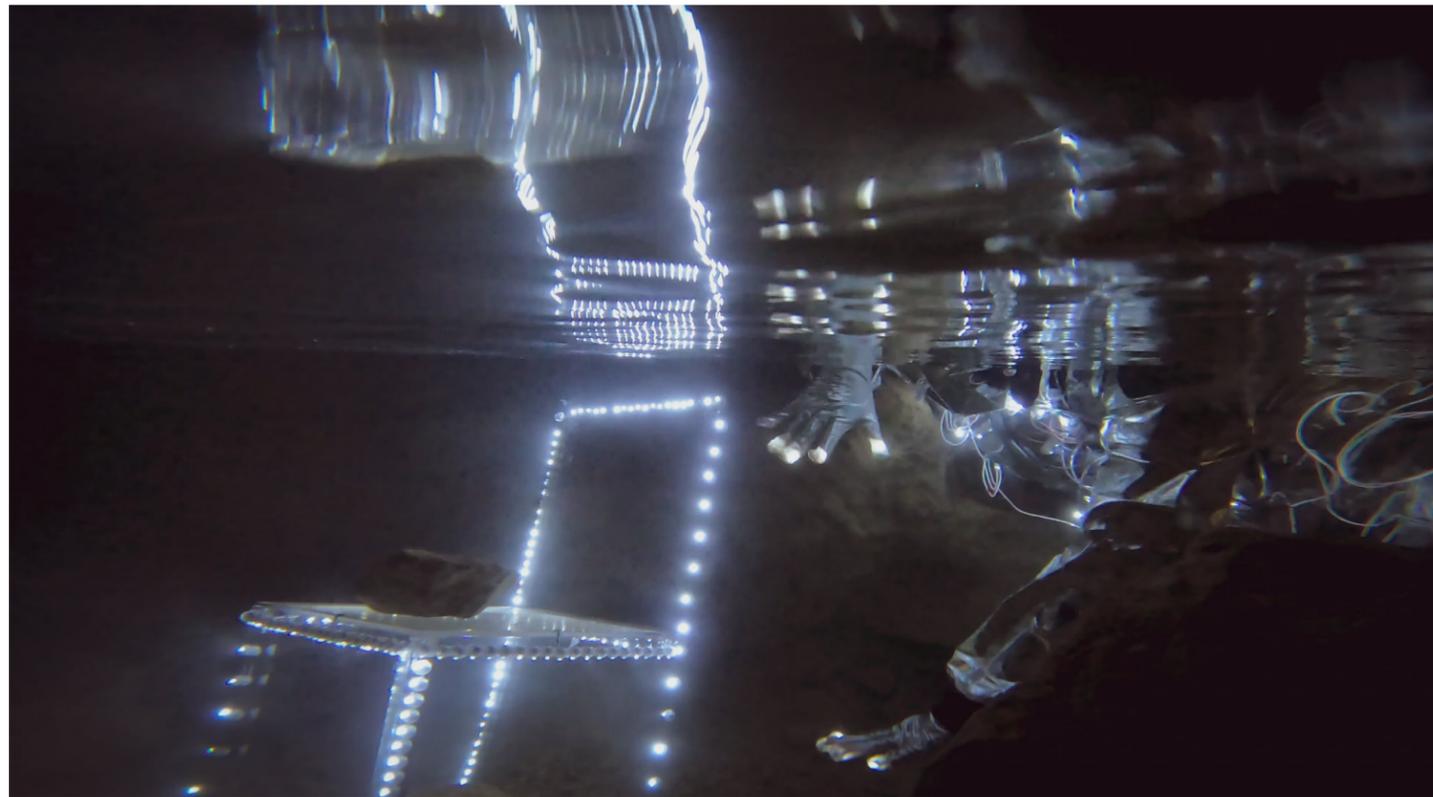
Thus, in both method and outcomes, STRATA also embodies a critical stance concerning German romanticism's misleading imageries, nationalist dogmatic beliefs and codified accounts, presupposing the superiority of the Aryan race and man over nature.

Morton analyzes how poets and philosophers of the Romantic period, particularly Schelling and Hegel in Germany and Coleridge and Wordsworth in England, had insights into ecology long before it became a scientific discipline wishing “for reconciliation of subject and object” (2007, p. 22). However, in learning about the history of the caves of the Swabian Jura, we could not help but encounter once more how German romantic writers and artists often depicted nature as a pristine wilderness, disconnected from human society and untouched by civilization's negative impacts, disregarding nature's practical and material aspects. With an emphasis on individualism, inwardness, the sublime and an idealized view of nature, they were celebrating the grandeur of the natural world while at the same time perpetuating an unrealistic understanding of the relationship between humans and nature: an alienation leading to significant cultural and environmental consequences and social implications (Stone 2014).

In that regard, contributions from Italian performer, filmmaker, and 3D artist Francesca Fini, vertical dancer and performer Marianna Andrigo, transgender non-binary performance artist Giorgia de Santi, and Gabonese interdisciplinary artist Anguezomo Mba Bikoro to STRATA are noteworthy. Focusing on future bionetwork, identity, and diversity, Fini, Andrigo and De Santi have performed examining gender outside of categorization, while relating to the natural environment under the lens of a queer ecology acceptance.

Figure 15

Time to Come/The Cosmo Rabbit



Note. Performance by Francesca Fini. Location: Falkensteiner Cave. Film still, 2021.

Figure 16

Transit/The Woman Waterbird



Note. Performance by Marianna Andrigo. Location: Blautopf spring. Film still, 2021.

Figure 17

Spiralling Time/Ammonite



Note. Performance by Giorgia de Santi. Location: Schiller Cave. Photo: Marcel Sparmann, 2021.

Working on tender transgressions, ancestral healing, transformative justice, and future monuments, Anguezomo realized a performance-for-camera at the historically charged site of the Hohlenstein-Stadel cave, where in 1930 archaeological excavations were financed by the SS. At this site, Mba Bikoro unleashes an urgent discourse about Germany's colonial past and present structures, oppression, patriarchal harm, and white liberalism. Sharing and politically-poetically contextualizing narratives of their ancestral archive, they enact their vision of postcoloniality and queer ecology by remembering through the traces of the ecosystem. In STRATA, their art actions demonstrate that performance-making is a powerful tool to uncover the untold and give justice to the silenced in a way as needed as it should be.

Figure 18

The River of the Ancestors



Note. Ritual performance and floating installation by Anguezomo Mba Bikoro. Location: Wimsener Cave. Photo: Marcel Sparmann, 2021.

Figure 19

Disentanglement



Note. Ritual performance by Anguezomo Mba Bikoro. Location: Bärenhöhle Cave (The Bears Cave). Photo: Marcel Sparmann, 2021.

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The research was conducted in the absence of any conflicts of interest.

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Artist Statement

With our experience in body-based performance art since the early 2000s, we have also dedicated ourselves to exploring how original documentation of performative acts evolves into complex, contextual, non-linear narratives through performance-based filmmaking. Our films are produced on-site as direct and visceral performances, which are never rehearsed or staged and happen in response to often extreme environments such as Antarctica, underground cave systems, Patagonia, Kashmir, and military enclaves. Working alone or with a small team of collaborators, we use minimal, non-invasive equipment. Through a reflexive mode, we search for new images of interior landscapes.

We consider the world our studio. We do not travel to a place to tell a story; we come to a place to find its story. This approach contains the essential discourse of decolonisation: the land holds us; we never own a land. All forms of oppression and abuse on persons, beings, space or objects for art's sake are to be avoided as all are equal partakers in the co-creation.

In our films, we explore locations in between, where the veil between different temporalities, occurrences, and stories is porous. To perform at these thresholds where the visible blends with the invisible, we have developed a psychogeographical method to activate memory. We uncover layers of information and imagery stored in the human body, psyche, spirit, and environment to let the silenced and the untold emerge.

Our work and the STRATA project, in particular, resonate philosophically with the queer and dark ecology

and object-oriented ontology of Timothy Morton and the phenomenology of perception and embodied cognition studies of Merleau-Ponty. Working on performance art's liminal, spectral, and ritual nature in an ongoing "Poetics of Relations", we apply endurance, sublimation, and risk-taking with a poetic bodily approach to art practice and a focus on universal human experiences.

We consider performance-based filmmaking an artistic practice that serves the body's capacity to generate knowledge, convey meanings and shape concepts of intimate archiving. In that, the perceptual functions as a magnifying glass on how we view reality and the spectrum of relationships to address the social nature of representation.

For us, film can delude space-time, open the unconscious as a resourceful vessel, and reveal processes and relations by linking apparently disconnected persons, objects, and happenings.

Our production process involves recollecting different elements or "shards": a series of disconnected filmed, non-staged performance actions, poetic texts produced as stream-of-consciousness writing, foley sounds, and elaborate musical soundscapes. In assembling them, these shards are organically intertwined in the editing process.

Film work reveals the connections between previously scattered fragments by making a new whole. Reduced use of digital effects such as dissolve, reverse, and layering is deployed to reveal perceptions of elemental reality. We also use film as a mnemonic archive for testimonial purposes. We produce conversations and interviews on existential topics with people from the arts, culture, and science.

About the Authors

Artist duo VestAndPage consists of Verena Stenke and Andrea Pagnes, transdisciplinary artists and curators of gentle collaborations in the ephemeral and immaterial. They engage with art as a social practice by nurturing temporary artistic communities within artist collectives and acting as the founders and directors of the Venice International Performance Art Week. Through performance-as-research and poetic writing, they explore the intricate nature of creativity and embodied practice, presenting performance art as a crucial methodology in contemporary society. Their work has been showcased internationally in theatres, museums, galleries, and cinemas, encompassing various formats, from month-long performance walks to 24-hour performances. www.vest-and-page.de, www.stratafilm.de

Petrichor and After Hardeman's 'Petrichor'

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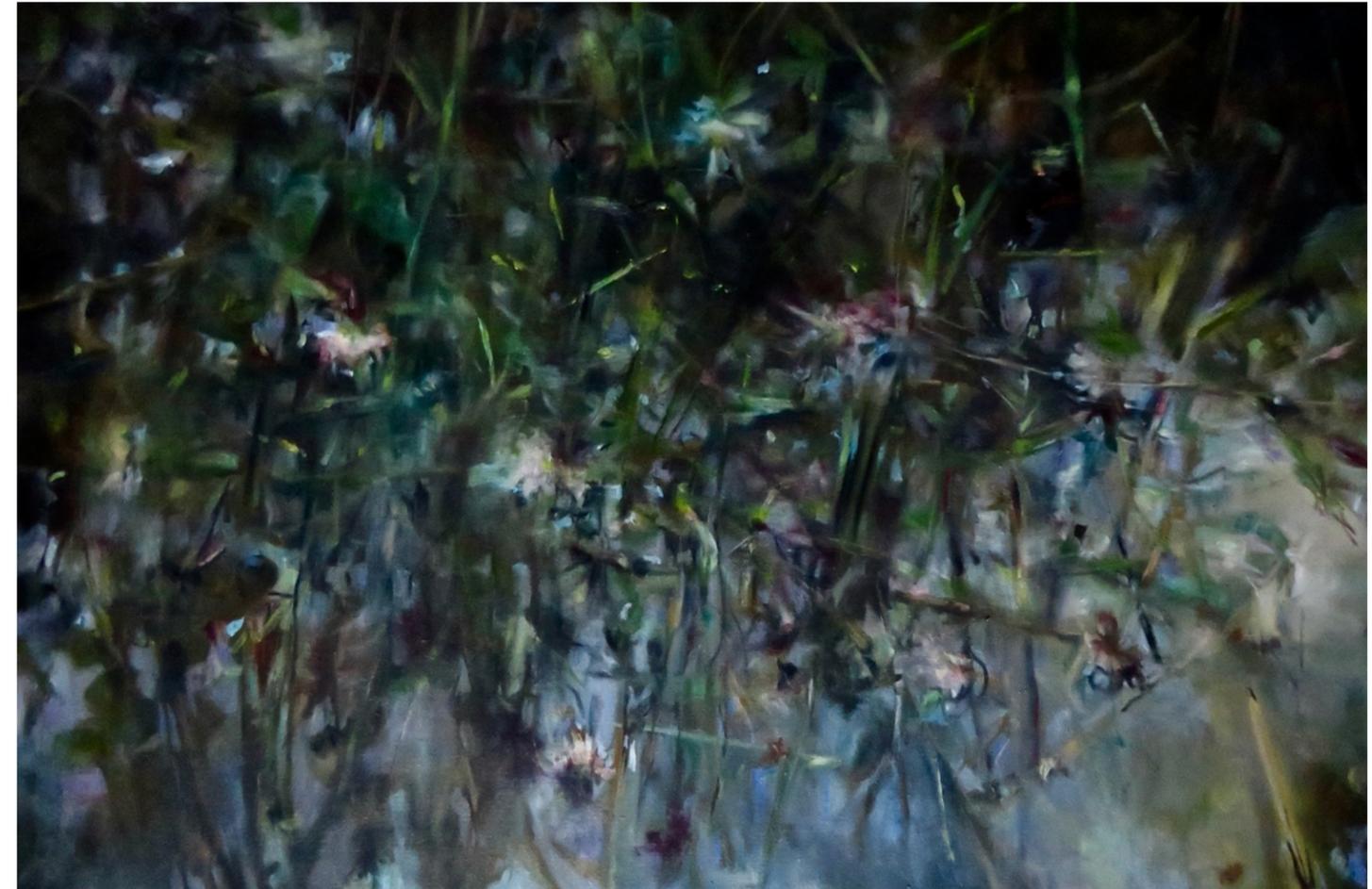


Abstract

One artist might plumb the depths of another artist's work. Surface necessarily implies depth and Hardeman's *Petrichor* documents grief as a play between surface and depth in the detritus of living. Budde's poem *After Hardeman's 'Petrichor'* follows her there with tender hands of language and a sharing of grief in all its levels.

Figure 1

Petrichor by Corey Hardeman



After Hardeman's 'Petrichor'

The state of being under water remains
relative—and if you reach down further
through muck and bog, past the floundering
flowers, your fingers dig into
heart muscle, brain,
and I vaguely try to keep my guts
from floating in this deluge
of a world. My lungs take on green
algae and leeches. This is not a complaint,
or whining—I want this, this
hiss of life diluting my own, this
swirl of agency so I don't have to,
this sweet release into the seething teem.

Funding Statement

This research received no funding from any funding agency in any sector.

Conflicts of Interest

The research was conducted in the absence of any conflicts of interest.

Artist Statement (Corey Hardeman)

By painting these small tempests, these roadside ditches filled with flowers, weeds, and insects drowned by rain and meltwater, My work showing growth in water, the sky reflected, acts as a very literal representation of the way climate grief feels to me: that the world is under this surface, while the surface changes everything, covers everything, refracts and emphasizes some elements, and drowns and occludes others. I consider the surface as disorienting and unmoored, a kind of separation from the known world.

Biography (Corey Hardeman)

Born and raised in Halifax, Corey Hardeman has lived most of her adult life in British Columbia. She holds a BSc in Biology and has spent most of her life searching for ways to make a living gazing into tidal pools and forest canopies. For several years she lived off-grid in a hand built yurt, and made paintings in the brief intervals between tending to her four young children. Now that her children are larger and she's traded her tent in the forest for solid walls, she paints all day and often marvels at the luxury of hot and cold running water.

In Depths

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Abstract

Stretching hydrophone recordings of diverse marine life with the whirring noises of radars and excavation equipment, In Depths is an acoustic exploration of deep sea entanglement, through which subterranean soundscapes echo and resound from the abyssopelagic to the ocean surface. Drawing upon Stacy Alaimo's notion of abyssal temporalities, In Depths uses time-stretching production techniques to contemplate subaquatic assemblages, consider the cumulative costs of deep sea mining, and value temporalities of slowness in resistance to the accelerating rhythms of resource extraction.

Keywords

soundscapes, abyssal temporalities, blue humanities, entanglement

Encompassing a diverse mosaic of terrains and life-forms, the deep-sea biosphere is the largest ecosystem on earth (Danovaro et al., 2017). The abyssal zone is home to a wide network of species from benthic fauna to cetaceans, and the myriad functions it provides helps to sustain pelagic, marine shallow, and terrestrial communities (Thurber et al., 2013).

Nevertheless, the increasing interest in Deep Sea Mining (DSM) operations gravely threatens these complex yet precarious habitats. Mining exploration licenses have already

been granted to UK Seabed Resources and Canadian firm The Metals Company, despite widespread calls for a moratorium on mineral extraction until more is known about abyssal ecosystems and the potentially devastating impacts of DSM.

Protecting the ocean floor first requires us to consider the prolonged timescales of the more-than-human depths, defined by Stacy Alaimo as its “abyssal temporalities” (Alaimo, 2017, p. 154). Deep sea fish species have longer lives and extremely slow reproduction rates, whilst bio-structures nestling in the subterranean take millions of years to form (Beckman, 2013, p. 277). As DSM operations harvest mineral rich polymetallic nodules from the seabed, abyssal temporalities will be compressed into anthropogenic time, expeditiously damaging subaquatic ecosystems and deteriorating the marine and coastal communities which depend on them.

Drawing upon the notion of abyssal temporalities and the deep listening sound practice of Pauline Oliveros, *In Depths* uses a production process of extreme sound stretching and “spectral smoothing” to contemplate subaquatic assemblages and timescales, and consider the cumulative costs of deep sea mining. (The production software used in this project, *Paul's Extreme Sound Stretch*, allows users to “stretch” an audio sample up to one thousand billion times its original length: <https://hypermammut.sourceforge.net/paulstretch/>.)

Stretching hydrophone recordings of diverse marine life with the whirring noises of radars and excavation equipment, *In Depths* is an acoustic exploration of deep sea entanglement, through which multispecies voices echo and resound from the abyssopelagic to the ocean surface.

By listening *through* the abyss, we can expand upon auditory “dimensions of awareness” (Oliveros, 2005, p. xxiii), refute portrayals of an “intact and uncompromised” ocean floor untouched by anthropogenic activity, and value temporalities of slowness in resistance to the accelerating rhythms of resource extraction (Alaimo, 2014, p. 196).

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Conflicts of Interest

The research was conducted in the absence of any conflicts of interest.

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George Hiraoka Cloke is a PhD student and artist based at SOAS, UK. His academic research focuses on representations of rivers in contemporary Southeast Asian ecocinema. As a musician and audio-visual artist, his creative practice integrates notions of ecological awareness, attentive listening and acoustic imagination. His music has been featured on BBC Radio 1, 6 Music, NTS and Spotify Editorial, and his audio-visual works have been exhibited at film festivals and art showcases worldwide.

Anna Luy Tan is a documentary filmmaker and writer from Chicago. As a student of both the sciences and the humanities with a lifelong passion for coral reef ecosystems, she has always been intensely invested in sharing her love of this unique living environment with the world and believes that it can be uniquely communicated through the medium of film.

Nun Cho Ga (Big Animal Baby)

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Abstract

In 2022, a woolly mammoth baby was discovered in Yukon Territory, on Tr'ondëk Hwëch'in land, by a young placer miner. Named **Nun cho ga**, which means “big animal baby” in the Hän language spoken by the Tr'ondëk Hwëch'in, the baby is one of the best-preserved woolly mammoths ever discovered. She is around the same size as the Lyuba, who was discovered in Siberia in 2007.

Keywords

placer mining, permafrost, decolonial temporality, extraction

The human found you, shivering, probably, on June 21st, 2022. National Indigenous Day. Summer Solstice. You were unearthed from what is called the Eureka creek bed, south of Dawson City, Yukon, on Tr'ondëk Hwëch'in Land, at a placer mining site. The human, a placer miner, young and green behind the ears, didn't mean to, but as he was digging away the dirt to wash out the gold, he cut you in half with the blade of his front-end loader.

When I heard this part of the story, I felt such wretched sorrow for you, but what do I know? My connections to this place (they feel strong to me) are tenuous at best. I am a settler and also green behind the ears. I lived only three summer seasons in Dawson City, on the land you were found. I worked various jobs, including as an artist, and for the Tr'ondëk Hwëch'in government.

No matter. A placer miner found you, and you were a great treasure. You'd been there for around 35,000 years. Probably before you went under, 35,000 years ago, you were eating grass near a beautiful creek bed. You didn't name the creek, but you probably loved it. Eating your favourite food (next to your mama's milk), you happily munched away. Your mama was probably close by, within earshot of your calls, I'm sure. But then, a sudden storm. A landslide! And despite your trying, slipping, gasping, wishing, the mud came down, down, down. My dear, at only 30 days old, you were buried. The mud took you, and you perished. Baby girl, baby mammoth. You passed from this world to the next. And, like some kind of magic, you stayed in this world too. A baby time-being trapped in that perfect collaboration of earth and frozen water: permafrost. It kept you. Kept you somehow embraced. Kept you somehow whole.

Placer miners in the Yukon use water to gouge away permafrost and cut down mountains, to get to the gold in the lower layers of gravel. It is gut-wrenching, seeing valleys become mud-lands. Seeing the guts of the valley wrenched free, the violence of destruction-extraction. This is the process by which you were unearthed too, little one. It isn't for me to judge the events that brought you (again) into this world. It is enough to say you were mined like gold, and golden you are. I will say this: as words, “extracted” and “unearthed” feel too unholy to carry on using in the case of you. They aren't the right words for this sacredness. What you were was rebirthed. Unknowingly for the most part, but with not unkind intentions. You were rebirthed, Nun Cho Ga.

As a mother, I use the word rebirth in all its fullness. The gushing of water, the pushing and pounding against the inner valley wall, the ripping and pulling of you out from your comfort, your resting place, the uncanny horror at the alien discovery: a small slippery wet body made from earth—and yet much more than earth—suddenly in someone's hands. The making of responsibility, the bursting-forth of surprise, then love.

In the hours after your rebirth, the sky exploded with thunder, with lightning, with rain. With a storm that took everyone's breath away. The hapless midwives (miners and geologists mostly) had to slip and scramble through the liquified permafrost to get you to safety. From front end loader bucket to truck, from truck to freezer. From frozen darkness to wet light, from wet light back to frozen darkness. Because air is your enemy now, Nun Cho Ga. You've been in darkness and cold, it is your safe place, and they knew this. How bright it must've been for you, emerging after tens of thousands of years right into the height of the midnight sun, the longest day of the year! How you must've called that storm to mark your coming. Told the sky to darken for you, that it was too bright, too bright.

The elders know how to honour you, Nun Cho Ga. They know how to care for you. As soon as they heard, they gathered and sang for you, thanking you for coming. I for one am marveling at you, time traveler, being from the cold cold past, landing in the warm warm present, and guiding us into our precarious and hot hot future.

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About the Author

Shelley O'Brien is a multidisciplinary artist, singer-songwriter, and researcher whose work explores themes of time, memory, and ecology through an arts-based and often post-human lens. With a PhD in environmental studies, Shelley has held various roles, including Education Coordinator at the University of Toronto Centre for the Study of Pain. As a settler with lived experience in Dawson City, Shelley brings a tender perspective to the discovery of Nun cho ga, a young woolly mammoth, engaging questions of extraction, preservation, and temporality. Through both writing and music, Shelley bridges creative expression and environmental consciousness, offering poetic insight into our shared histories and futures.

A Network Beneath the Soil

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Abstract

A Network Beneath the Soil is a short fiction story that follows a young person who is struggling with their existence in a heteropatriarchal, colonial, racial capitalist society. They transform into part of the *Amanita muscaria's* mycelium, a network of fungal threads that form a symbiotic relationship with the roots of plant organisms in the forest. The character is presented with a choice: to abandon their humanity and become fungi, or continue to exist as a human. *A Network Beneath the Soil* looks toward mycorrhizal fungi to express what we, as humans, might learn from the symbiotic relationships that occur below the surface of the Earth.

Keywords

fungi, mycorrhizal, transformation, human, escapism

I let my hand trail behind me as I walked, fingers gliding over the rust-crusting wires of the chain link fence. The silver ring on my index finger skipped against each bump of metal, producing a rhythmic sound that I found unpleasant yet oddly soothing. Looking down at my beat up converse sneakers, I navigated my feet along the ground to avoid irregular shaped rocks of concrete and the occasional discarded needle.

My pace quickened, eager to reach the familiar gap in the fence that would allow me to cross this metal barrier. I had been visiting this spot for the past few months after discovering it on one of my solo adventures. Well, the word "adventure" is probably not the most accurate term. These trips could more accurately be described as anxiety-induced

escapes, in which I look towards nature to try and find some form of solace from my transphobic boss and overwhelming feelings of existential dread.

After what seemed like forever, I finally found the gap in the fence where it bends just enough for me to step over and go through onto the other side. Despite having only discovered the wooded area a few months ago, it makes me feel safe. It feels as though I have known this place forever. I have yet to encounter anyone here, likely thanks to that old, ugly fence. It seems out of place in a spot this beautiful.

I haven't always felt the need to escape. I once had impermeable dreams of being a writer. I was enthralled by the possibility of creating works that might shape the lives of other people. These dreams were quickly shut down when it came to receiving support from my parents to enroll in a creative writing program. Apparently, being a writer is not an acceptable career path for my family. At least, not in this economy. Under the pressure of my parents, I began working as a paid intern in an office, putting my data analysis degree to use.

I found myself losing the passion I once had for life, falling into a deep well of hopelessness and apathy. I lived the same old story: stuck at a low-wage job I despised, struggling to pay rent, experiencing migraines and neck spasms from looking at a screen all day, and having to choose between instant noodles and hard boiled eggs for dinner. Except it never gets old enough to become accustomed to, does it? Alas, the cycle continued. Week after week, I found myself struggling to stay afloat with no time or energy to do the things I love. I can't remember the last time I volunteered at the community garden, went out to see my friends, or sat down to write poetry. This constant treading water is exhausting.

Don't even get me started on the news, which plays constant reminders of all the violence, death, and horror that we are expected to accept as reality. As hatred rises along with the sea levels, how are we expected to "keep calm and carry on" with our daily lives? My doctor suggested that I see a therapist to talk through all of my pent up anger, sadness, and stress. She also prescribed me antidepressants to help with my anxiety and depression. Not to be bleak, but I don't think pills will fix the illnesses caused by a society that forces me to *survive* instead of *live*.

I did, however, follow my doctor's advice. My therapist and I have talked about loads of things that stress me out. I resent him in some ways, knowing that he only talks to me because I pay him to. But I know it's not his fault. We all have to do what's necessary to survive in this capitalist hellscape, even if it means participating in the privatization of important health services. One day, he suggested that I should spend quality time in nature to help combat some of my stress. I joked, suggesting that he was pawning his job off to Mother Nature. He didn't like that. Nonetheless, I wouldn't have found this special place if he hadn't suggested taking up nature walks so for that, I'm grateful.

By now, the path to my favourite spot is familiar to me. I made my way through the bushes, moving thin branches to the side to prevent them from snapping at my legs. Finally, I reached the clearing. I paused, taking a moment to admire the serenity of this place.

The area is surrounded by slightly dense brush and several types of trees. The tall oaks and red maples are a comforting presence that remind me of my late grandfather's garden. The open area is nothing too special, with a few rotting logs and emerald-coloured ferns. There isn't an overpriced condo in sight, only life. A towering oak tree stands in the clearing, just slightly off to the side. The base of her trunk forms a slight curvature. It is a spot I have leaned up against many times, the rough trunk molding almost perfectly around my back like a hug. Just past the clearing is a sloped river bank that leads down to a small but mighty stream. The soft sounds of steady running water and wind rustling through the leaves contrast the constant droning of motors I am accustomed to hearing from my downtown apartment.

Most people would not give this spot a second glance, but to me, it's special. Here, in my little safe space, I am shut off from all of that racial capitalist, colonial, heteropatriarchal, transphobic bullshit. In this clearing, I don't need to be worried about being forever stuck in a job I have no passion for, isolated from my friends while struggling to afford my twelve-hundred dollar rent. I can't hear the shrill voice of my supervisor instructing me on why I *must* follow the gendered dress-code. The trees don't care if I am single or married, if I look "presentable," speak a certain way, or even speak at all. I'm able to push these stresses away to the back of my mind, if only for a few hours. I don't even think about the way I carry myself in this space, I'm able to be myself without the fear of being judged by others. The clearing provides momentary relief from the burden of endless expectations in my life.

I navigated through the clearing with familiarity, my sights set on a small spot of red near the base of my favourite oak. I crouched to examine the mushroom further.

Rare to the human eye, it stands glorious. A temptation and a teacher from beneath the forest floor, waiting to be found.

Could it be? The mushroom looked as though it had been plucked out of a fairy tale. Its cap was a beautiful strawberry red, speckled with white spots. I reached out my hand, fingertips grazing the soft, bumpy skin of the mushroom cap. Without a second thought, I tore the mushroom cap off of its white stem. While I examined the red mushroom cap between my fingers, I felt guilty and unsure of what came over me. Something about it was just so alluring. I gently tore a section of the cap off, popping the piece into my mouth. "Why did I do that?" I contemplated, eyes widening in confusion. I chewed the mushroom slowly, a slight grimace settling on my face. The flesh was chewy, almost rubbery in texture. It tasted earthy and bitter, reminding me of soil. Finally gulping it down, I cleared my throat and swiped my tongue across my front teeth to rid them of the mushroom's residue. "People eat wild mushrooms all the time," I thought to myself reassuringly. "What's the worst that could happen?"

I sat there at the base of the tree, listening to the faint sound of rushing water in the distance. Tilting my head back to let it rest on the trunk, my gaze was drawn to the rustling oak leaves above. The bright white sky peeked through the vibrant green leaves which somehow appeared much more vivid in colour. They twinkled in the kisses of warm yellow light. I became lost in the beauty and magic of the scene above me. My eyes hypnotically followed the fluid movements of the leaves, which transformed the sky into a kaleidoscopic blur of moving colour.

Another being to teach. Another being to guide.

A small wave of panic struck me as I startled back into reality. “How long have I been sitting here?” I thought. In my dreamlike state, I seemed to have lost track of time. I could feel a bubbling of nausea begin to emerge in the pit of my stomach. My head became clouded with dizziness. Suddenly, a sharp pain in my stomach forced me onto my side. Maybe eating that mushroom wasn’t the best idea after all.

I don’t know how long I lay there, curled up on the ground in a helpless fetal position. My arms had clutched themselves onto my knees, pushing them into my chest. My feelings of delirium settled, along with the debilitating pain in my stomach. As I opened my eyes again from their scrunched position, I noticed that the sunlight around me had dissipated. The forest floor had become much colder without the sun’s warming rays. I felt a slight, brief pressure from the ground beneath me, nudging my arm. Sitting up, I trailed my hand across the small patch of soil.

Another being to gift the importance of life giving and sharing.

I know I should have been scared, but any apprehension melted away when I felt a strong warmth emanating from the ground. I shivered from the cold air, desperately brushing away leaves and twigs to get my hands closer to the source of warmth. My hands settled atop the bare soil. The heat felt similar to that of a fire, steady, but just slightly out of reach. Without a second thought, I began to dig beneath the soil. There was nothing but desperation in my actions. I felt a need to reach the source of this elusive warmth.

To touch, shape, change, mold.

With the earth finally covering my hands, the liquid heat entered through my palms. It burned and tingled like a drug coursing through my veins. The warmth soothed my body, which had become stiff from the cold air. The years of tension that had permanently tangled itself throughout my body began to dissipate. My shoulders unclenched, and the knots lying between my shoulder blades loosened. The dull throbbing beneath my eyebrows began to fade, my eyes relaxing into their natural state as though the ache had never been there at all.

To show how life should be.

The relief was almost too much. It was overwhelming to feel so present and grounded in both mind and body, finally free from the aches and pains I had grown accustomed to. I felt overcome, almost invaded with this warm being that felt so purely alive. Hands still buried in the soft soil, I felt the presence pulsing beneath my fingertips. “What are you,” I whispered in wonder. Suddenly, my surroundings quickly faded to black.

The body, no longer a body. Disassembled. Reshaped. Transformed.

The merging of two beings, conjoined in an entanglement of the air above, and the earth below. The human is given a choice. One world or the other.

I understand it. I don’t know how it happened, but I know that it happened nonetheless: *I have become one with the network beneath the soil.*

We span across the vastness of the forest. Each minuscule branch has a purpose in supporting life from beneath the ground’s surface. Each part of me, the mycelium, *belongs*. The network forms a partnership with the plants of the forest. Our fungal threads reach out, connecting to the roots of the plants and trees. The network focuses towards the large oak, her root system strong and supportive. We communicate, there is an understanding between us. Filaments to roots, roots to filaments. An exchange occurs. The supplying of water and nutrients, and the reception of sugars. Strength is provided to the entire mycelium. The oak thrives. *Mutualism*. Ah, a concept long forgotten by many. There is no fear here. No shame. No violence. No hierarchies. No hate. How refreshing.

The human finally feels as though they have a purpose, part of something bigger than themselves.

A choice is made.

The human is no longer human. Part of them forever entangled in the vast, complex, life-giving network beneath the soil. Their other half awakens from a deep slumber under a large oak tree.

The human curiously touches the small pile of soil in front of them, wondering whether their breathtaking transformation was just a hallucination after all.

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About the Author

Savi Gellatly-Ladd (they/he) is currently an undergraduate student in Gender and Women’s Studies and Environmental Arts and Justice at York University. They are a lover of queer horror novels, gardening, and community organizing.

oceanic tauromachy

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Abstract

oceanic tauromachy conceives of the new ocean beyond the tropes of catastrophe and disaster, as an evocative 'zone' of evolution, transformation, and unforgiving change, beyond the ontology of despair. The ecological turn has transformed the oceans into complex zones. It has become an apophenic abstraction stitching together other abstractions—an abcanny zone of aberrating non-meaningfulness, of clandestine unbeing, of fractal unbecoming, oceanic tauromachy is *musica universalis* of residual divinity in toxicity, of lingering sanctity in erosion. Here I invoke the froth that has been gurgling out of the spasms of the sea. The new ocean has become a breeding haven for chthonic deception which has been accommodating the holy havoc of bioprospecting exploitation. The sea bed exhibits the paralysis of our unhinged telos. The ocean has lost its topos. oceanic tauromachy is a will to recover; a preamble to invite and engage a diagnostic planetarity in praxis.

oceanic tauromachy¹

the 'queer'² ecology of the benthic zone is an anomalous fold

where polythene bags, petrochemical pipelines, submarine cables, and carbonate saturation entangle

in a strange complicity—I have submerged my head underwater

held my breath in the new acid to see them flutter and wave

in a curious mystery—twist, turn, and twine with each other in a divine coitus

like the flowing gown-tail of a freshwater *betta*³ dancing uncannily

to the faint instrumentals of a drowned William Basinski⁴

a Barthesian *atopos*, the subaquatic froth is ineffable

it is a fractal multiplicity of fractal⁵ multiplicities stirred violently into gurgling foam

deferring everything, every perception, and every perspective into the unrest of the froth

Thalassa⁶ is a hole-y space, infested with burrows, cracks, fissures, and forlorn wrecks where venomous creatures discreetly camouflage themselves

shape and fold themselves according to the oblique design of the froth-scape—an imperceptible disguise to hide from each other.

1. Tauromachy is another word for bullfighting. I am inspired by Michel Leiris's book titled *Mirror of Tauromachy* and his 1993 article titled "The Bullfight as Mirror". For Leiris, the bullfight, with its mythological and cultural significance, is a sacred-erotic confrontation, like a ritual sacrifice, and a means to immerse oneself into the world of tragedy and commune with death. It is a radical affirmation of the vitality of life even in death.
2. I have used the word 'queer' at my own discretion and not explicitly and definitively in the current context of Queer Studies within which it is being familiarised. However, without disregarding the context of queer ecologies, blue ecologies, etc., I have borrowed and extended the idea into the current predicament of the changing ocean, without blatantly ontologising despair and nihilistic tendencies of thought, and without ontologising a nonsensical romantic desire of some magical return. Rather, I have located and used the word in respect to labour and change, crucial in the context of here and now.
3. Siamese fighting fish, or *betta splendens*, is a freshwater ray-finned fish native to Southeast Asia. Initially bred for blood sport, the *betta splendens* has become the national aquatic animal of Thailand and has also gained popularity in the global aquarium market. They are known for their vibrant appearances, their long fins, and their tolerance of low oxygen levels owing to their unique physiology.
4. William James Basinski is an American composer who is widely known for his album *The Disintegration Loops* (2002-2003) constructed from old decaying tape-loops, and his spectral otherworldly music.
5. For an insightful analysis on fractal ontology, please refer to A. T. Kingsmith's "An Introduction to Fractal Ontology" (2017) published in the 3:AM Magazine.
6. In classical mythology, Thalassa is the primordial goddess and a literal embodiment of the sea.

“. . . they stared across at the event site. You were never sure what you were looking at.”

—M. John Harrison, *Nova Swing* (2006)

“What’s there to understand? . . . It’s the zone.”

—Arkady and Boris Strugatsky, *Roadside Picnic* (1972)

“The Zone is a very complex maze of traps.”

—Andrei Tarkovsky’s *Stalker* (1979)

“The intermediate zone means simply a confused condition or passage in which one is getting out of the personal consciousness and opening into the cosmic . . . without having yet transcended the human mind levels . . . It is a zone of formations, mental, vital, subtle physical, and whatever one forms or is formed by the forces of these worlds in us becomes for the sadhak for a time the truth—unless he is guided and listens to his guide. Afterwards if he gets through [sic] he discovers what it was and passes on into the subtle truth of things. It is a borderland where all the worlds meet, mental, vital, subtle physical, pseudo-spiritual—but there is no order or firm foothold—a passage between the physical and the true spiritual realms.”

—Sri Aurobindo, *Letters on Yoga, Part Two and Three* (1972)

“The *atopia* of Socrates is linked to Eros (Socrates is courted by Alcibiades) and to the numbfish (Socrates electrifies and benumbs Meno). The other whom I love and who fascinates me is *atopos*. I cannot classify the other, for the other is, precisely Unique, the singular Image which has miraculously come to correspond to the specialty of my desire. The other is the figure of my truth . . . I am obliged to make myself a lover, like everyone else: to be jealous, neglected, frustrated, like everyone else. But when the relation is original, then the stereotype is shaken, transcended, evacuated, and jealousy, for instance, has no more room in this relation without a site, without *topos*—without what in French we call, colloquially, ‘*topo*’—without discourse.”

—Roland Barthes, *A Lover’s Discourse: Fragments* (1977)

“To become imperceptible oneself, to have dismantled love in order to become capable of loving. To have dismantled one’s self in order finally to be alone and meet the true double at the other end of the line. A clandestine passenger on a motionless voyage.”

—Deleuze and Guattari, *A Thousand Plateaus* (1980)

“They have no chance of succeeding unless they mix the alloy from which they will compose the foil of their mirror (their spectacle, erotic *mise-en-scène*, poem, work of art) with an element apt to cause to appear through the most rigorous or most tender beauty something lost, wretched, irrecoverable, and irremediably tainted. A touch of venom, without which no alcohol would be conceivable, for drunkenness—however euphoric—can never be other than a more or less close-up picture of our future communion with the world of death.”

—Michel Leiris, *The Bullfight as Mirror* (1938)

“A script from the absolute unknown, how do you even begin to think about that? ‘Meaning’ is a diversion. It evokes too much empathy. You have to ask, instead, what is a message? In the abstract? What’s the content, at the deepest, most reliable level, when you strip away all the presuppositions that you can? The basics are this. You’ve been reached by a transmission. That’s the irreducible thing. Something has been received. [And] to get in, it had to be there, already inside, waiting. Don’t you see? The process of trying to work it out—what I had thought was the way, eventually, to grasp it—to unlock the secret, it wasn’t like that. That was all wrong. It was unlocking me.”

—Nick Land, *Chasm* (2015)

“When I started, I didn’t know if I was composing or not. But I was painting with sound, making something out of nothing.”

—William Basinski (as cited in Blagburn, 2016)

“You were hearing actual particle showers coming down from space in between the stations . . . All that sparky, static-y sound that’s in *The River*, that stuff is coming from other worlds.”

—William Basinski (as cited in Blagburn, 2016)

“[M]y ‘music of the spheres.’”

—William Basinski, referring to his work *The River* (as cited in Blagburn, 2016)

“It’s fun, it’s not commenting on the world, I mean, God, how can you comment on this crazy bullshit? *The Disintegration Loops* said it all. So, it’s about loving and dancing and lounging.”

—William Basinski (as cited in Blagburn, 2016)

The ocean is a phantom in pain and my piece is a lover's discourse on the changing ocean, embracing the imperceptible dismantling of the desperate thalassic womb, like the mother embracing death during the birth of her child, without lament. oceanic tauromachy is a voluntary sinking into the crude peripheries of marine dust. It is a conscious refusal to resurface; a will to drown yet not die. But to grow back the gills we have lost. It is an apology, a pilgrimage, a meditation upon ocean-back, amidst the decay, scavenging for barbed wreckage in the hope of relieving the pain—like Androcles pulling out the thorn from the lion's paw and becoming a *sadhak*⁷, someone who cares. oceanic tauromachy is Thalassa in a coma. And here we are in a pilgrimage, matadors voyaging into the coma—into the *terra nullius*⁸, into the yawning maw of cessation, like Ahab riding into the religiosity of Moby Dick, into drunkenness, into the nucleus of a religious pause where rapture is held in suspension and disbelief. oceanic tauromachy is the ripple of a lover's appeal, an invitation to non-knowledge.

It is not a poem. I do not know what it is nor do I feel the obligation to classify it. I derived the 'zone' trope from Andrei Tarkovsky's *Stalker* (1979). Despite its brilliance, I became dissatisfied with the lack of spiritual sincerity for which I resort to Sri Aurobindo's philosophy of yogic practice⁹. Deeply inspired by Basinski's *Disintegration Loops* (2002-2003), Aurobindo's thought, Indian mythology, and Barthes's *Lover's Discourse* (2001), my piece is not about the ontologisation of depravity and ecological disaster, but neither explicitly about healing or wistful lamentations. It is a submarine invitation, apologetic and conscientious—to drift through the damage we have caused, to diagnose the chances of repair, and engage with it in praxis—a praxis without cause, without expectation, without duty, but an ability to respond, to apologise, and to dismantle the self; a gentle push towards kindness, a little step into compassion, its meditative trials into empathy for other worlds. My piece is not an expression of mere grief, but of care simply for caring, love simply for loving—a tender ritual in the face of corrosion. oceanic tauromachy radiates with an urgency to care—a care without any need of philosophical precedence, without intellectual exhaustion, without any reason to care. oceanic tauromachy is *drsti*¹⁰ beyond damage, beyond destruction, beyond demise,

7. In Indian religious philosophies and as well as in Buddhism, *sādhaka* has a wide range of meanings with respect to a variety of subjects ranging from dramaturgy, philosophy, architecture, medical science, history, grammar, esotericism, and so on. In general, *sādhaka* is a mystic spiritual aspirant and a practitioner of spiritual realisation, generosity, tolerance, and peace. In yogic practice, the *sādhaka* affirms and activates the liberation of body and spirit, their sense and perception through deep focus and practices that require complex psychological techniques.
8. Land belonging to nobody.
9. Yogic practice and the modern westernisation of yoga practice are completely different. Yogic practices are not merely exercises. Rather, they involve complex physical and psychological techniques of attainment and liberation.
10. *Drsti* means seeing by means of yogic practice. It is as much looking inward as it is looking outward and beyond. Although having a lot of different meanings in Indian philosophy, astrology, and science, *drsti*, in general, is the processual praxis of focus and concentration, of opening up the sight, looking beyond the superficiality and deceptions laid by the trivialities of myopic existence. *Drsti*, thus, is the spiritual embodiment of vision beyond excess. It is an exercise of seeing with mind's eye—an insight into the interdependent intensities of the vast ecology of otherworlds that encompass us. *Drsti* is the overcoming of sight made intelligible by a heterogen[er]ous unfolding of the eye that is able to discern the multiplicity of life.

into a silent and forgiving divinity. It speaks about the tragedy of the seas and locates the ocean as the site for the *sadhak*—a priest, a saint, a pilgrim, a musician, a *khyapa*¹¹, a *Gautama*, a *Siddhartha*¹², a dancing matador, like *Krsna* upon *Kaliya*¹³, in the midst of a corrida, upon raging bulls, whose task is not to kill, but to calm—calm the waves, calm the violent gurgling of the froth, calm the seizures, calm the undercurrent, calm the bruise, calm the abrasion, calm the hurt—calm the froth. oceanic tauromachy is a divine abstract of meditation carrying the massive weight of the seas and a Basinski with wings made of polythene bags lounging under the ocean like Buddha upon the aquatic spine, composing the cosmic hum of our spirit.

11. In general, *khyapa* means a lunatic. However, in Baul music and poetry, *khyapa* is a common mystical expression signifying one who is wise and understands the ways of life, and has been liberated from the trivialities of everyday existence that bind our spirit. They carry a wild and ecstatic madness in their love for the divinity in life and nature.
12. Although commonly used as an epithet for Buddha, *Siddhārtha* (*siddha* + *artha*) is one who has attained *siddhi*, or perfected spiritual enlightenment.
13. The episode of Krishna and Kaliya, or the *Kāliya Nāga Mardan*, is narrated in the sixteenth chapter of the *Bhagavata Purana*. The event is often referred to as *Kāliya Daman*. Kaliya is a half-serpent, half-human semi-divine venomous *Nāga* with 101 heads who resided in the Yamuna River and poisoned its water. The contaminated river exuded a toxic miasma that polluted the air with poison. The episode speaks of a hostile confrontation between Krishna and Kaliya in the Yamuna River in Vrindaban. According to the legend, Krishna, after expanding his form, sprang onto the serpent's head with the weight of the universe and danced on its head to subdue the creature, and restrain it from further polluting the river. However, Kaliya was not killed by Krishna. Instead, Krishna freed the creature from the disillusionment of fear, envy, ignorance, and anger without wiping out the vital force and functions of the serpent. Later, Kaliya worshipped Krishna and left Yamuna, restoring her.

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About the Author

Subham lives in Brandenburg with his beloved and their heads filled with dreams. He writes to escape the droning of masculinist-fascist worlds, and fruitlessly daydreams of becoming a musician-cum-bartender-cum-empath 'extraordinaire' who would one day get the chance to swim with whales, hoping if the whales could breach a better 'world' out of him. Music stirs a profound sense of apology in his heart. He apologises to all.

The Future as an Underwater World

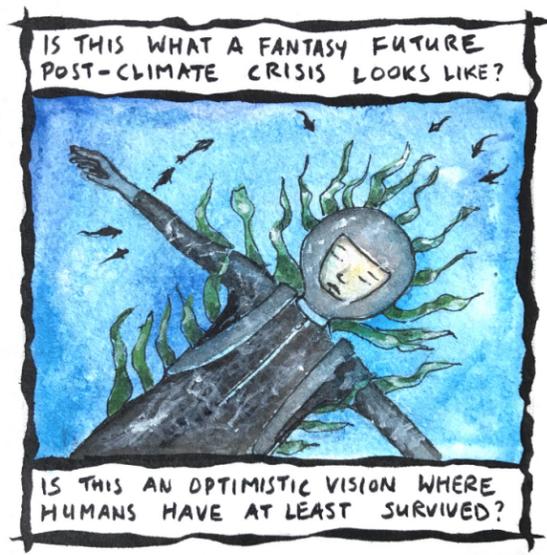
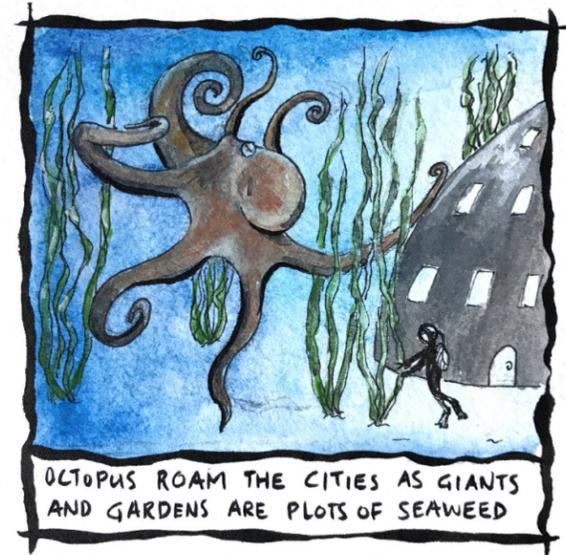
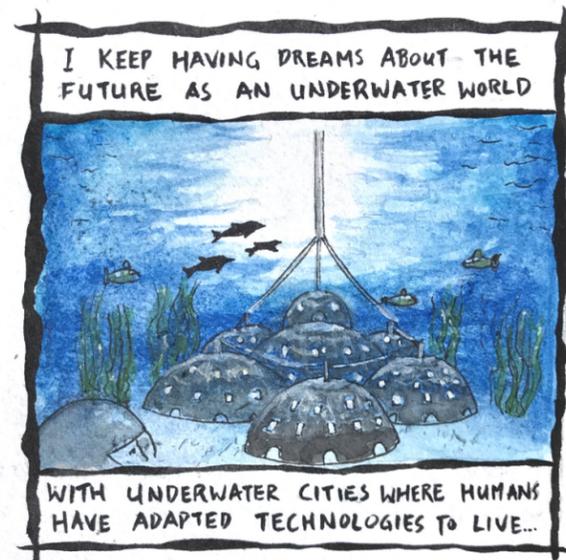
A Dream Comic

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The climate crisis is high in all levels of our sub/un/consciousness. As flash flooding and sea level rising around the world occupy the headlines while a pandemic is still raging, a nocturnal dream in January 2021 inspired this comic. In ink pen and watercolour, the comic depicts a dream of a future where humans have survived and cities are built underwater, where all the human world is submerged. Offering dreaming as method, Tanana Athabascan scholar Dian Million (2011) explains how dreaming and theory are not exclusive of each other. Like Million (2011), dreamings for me have 'led to further searches for meaning'. What are the teachings of our dreams? In my waking interpretations, I wonder if this was a dream steeped in ancestral memory of prehistoric pasts where our bodies were not yet human, when we could only live underwater in relationship to seaweed and octopus—a full circle, return to the ocean. The character for 'ocean' in Chinese (海) is composed of the radical for 'water' and the character for 'every' (每) which requires 'mother' (母). Rita Wong (2015) interprets this to mean "the mother of all waters". In the face of current and looming calamities, there was a strange calmness in the dream, a calmness contrasted by waking climate anxieties. While there is a presence of new technologies in this dream, I do not believe in techno-fix or green capitalist solutions. As many Indigenous scholars and activists have been saying, climate justice requires a restoration of Indigenous sovereignty and care economies, a radical transformation of dominant and extractive relationships to all land and life (Alook et al., 2023). The meaning I take from this dream is that we must relate with a deeper respect for water, which we may return to as a new/old home, as well as a radical love for land, which could be submerged once again.



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About the Author

Mengzhu Fu is a doctoral student in the Gender, Feminist and Women's Studies at York University. Their MA research focused on the lifeworlds of young Asian survivors of domestic violence in Aotearoa (New Zealand) through an analysis of structural violence, age and intersectionality. They have been involved in diasporic Asian activism on gender-based violence, migrant justice, anti-racism and building Asian support for Māori sovereignty. Their PhD topic is on Chinese diasporic solidarity with Indigenous sovereignty movements in Aotearoa and Canada-occupied Turtle Island.

Introduction to “Thinking with More-Than-Human Subsurfaces”

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As part of an interdisciplinary research team called “Thinking Deep,” which looks at “novel creative approaches to the subsurface” (Royal Holloway, University of London, n.d.), we registered a growing interest in the more-than-human subsurface across art, geography and beyond. As such, we put together a call for papers for the 2023 American Association of Geographers Annual Meeting, inviting papers that give thought to the environments below our feet—environments which have been “decentred from our imagination” (Hawkins, 2020, p. 4). In response, we received a wide range of interdisciplinary presentations that were willing to think-with cave-, marine- and soil-dwelling creatures; microbial networks and other elements of the subsurface. We ran two sessions and heard from academics and artists whose research centres the theme of the more-than-human within the subsurface, and who explore the ways in which our disciplines can best engage with these underground beings, habitats, and imaginaries. The papers interrogated the implications that thinking-with the more-than-human can have for human interactions, whether in maintaining infrastructure, ingesting and excreting other species, or making offerings to spirits of place. The presentations also engaged with sensory, collaborative, and artistic responses to underground spaces, as well as fantastical and mythical narratives that intersect with the more-than-human world.

In the first session, we heard from Dhiraj Nainani, who gave a paper titled “Notes from the Underground: The Spatio-Legality of More-Than-Human Wastewater Assemblages.”

Through a critical legal geography approach, and using Singapore as a case study, Nainani’s talk considered what the spatial and legal implications would be if the wastewater surveillance deployed throughout the COVID-19 crisis were to be used after the pandemic recedes. This research is currently being prepared for publication. Co-organiser Flora Parrott gave a talk titled “Invisible Fish” in which she described an ongoing artistic collaboration inspired by the moment of encounter between a cave diver and a recently discovered species of cave fish. In the paper “Repairing Memory and Place: The Undergrounding of Water in Naarm (Melbourne),” Marilu Melo Zurita discussed an interdisciplinary research project she is part of, involving academics and indigenous elders. The project aims to repair memories of water through a healing process that incorporates indigenous ways of knowing into current urban water management practices. The project is in its beginning stages and will result in an exhibition in four years’ time. Finally, herbalist and PhD Student in Geography Dara Saville described the interspecies knowledge exchange and collaboration she has with the plants betony, globemallow, and vervain in her talk “Stories from the Botanical Underground: Medicinal Plants as More-than-Human Knowledge Keepers.”

The second session began with co-organiser Una Hamilton Helle, whose talk “Beneath Clouded Hills: A More-Than-Human Approach to ‘Deep England’” presented an art project that aims to pierce the popular notion of England as a pastoral surface and shed light on the subsurface myths present in popular culture and rhetoric post-Brexit. Taylor Coyne next described “The Vibrant Soundscapes of Sydney’s Subterranean Water Kininfrastructures,” presenting a plea for care, duty, and kinship when dealing with the ecologically vibrant subterranean worlds of our cities. Coyne described how he used sound and field recordings to pay attention to the often ignored more-than-human elements of urban infrastructure. Readers can hear the “multispecies symphony” of a “speaking subterranean” on his Soundcloud (<https://soundcloud.com/user-45158901>). Our final presentation was by R.L. Martens, titled “Deep Listening: Tending Future Soil Song.” Here, the possibilities of the practice of Deep Listening, to “read the ground as an archive” in response to settler colonialism and environmental degradation, were opened up.

The two hybrid sessions ran consecutively and featured a panel debate at the end with all participants. What emerged was a rich discussion about methodological approaches and a real sense of new insights to other ways of working. What became clear through the resulting conversation were the ways in which subsurface lives are often starkly different from those above ground and necessitate other ways of adapting, sensing and thinking, whether one is visiting, inhabiting or even imagining these spaces.

We are grateful to all our speakers for their participation and to those authors who were able to share their work in transcripts. We would also like to thank the *UnderCurrents* editorial team for their generosity and support in the process of bringing this work together.

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About the Authors

Una Hamilton Helle (NO/UK) is a multidisciplinary artist, curator and researcher currently undertaking a practice-based PhD in the Geography Department at Royal Holloway, University of London, with the working title *Spirits of place: Thinking through subterranean subjectivities*. In addition to a written thesis, the outcome of the research will conclude with a number of creative responses realised as exhibitions, sound works, and artist publications. The first instalment of this was *Beneath Clouded Hills*, an exhibition at Bloc Projects, Sheffield, 18 May – 17 June 2023. <http://www.unahamiltonhelle.co.uk>

Flora Parrott is a practice-based researcher working primarily in sculpture and textiles. The work looks at notions of the subterranean, experiences of darkness and the restructuring of the senses. Based in the Geography Department at Royal Holloway since 2016, initially as Leverhulme artist in Residence and then as a Techne PhD student, the artistic practice is informed by contemporary thinking in geography and the geohumanities. Parrott trained in Printmaking at Glasgow School of art and the Royal College of Art, the practice is still rooted in the techniques and approaches of printmaking workshops; using materials and processes as a way-in to making.

Invisible Fish

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I'm going to describe an ongoing artistic project with the title "Invisible Fish." This project began in 2018 as a collaboration with South African writer and director Lindiwe Matshikiza. Before I begin to describe how Invisible Fish' came about, I want to set the scene by reflecting on a photograph of my daughter several years ago in an aquarium, looking at a diver cleaning the tank. I've had this photograph on the wall of my studio ever since I took it and, in many ways, I can trace the start of the thinking for this Invisible Fish project back to this moment.

In this photograph, you can see a two-year-old girl looking at a diver floating in a tall cylindrical tank. The diver is cleaning the tank and fish are swimming around their body. For me, there was something important here about trying to see this moment through my daughters' eyes; the imaginative power and freedom of a two-year-old watching a situation unfold in front of them, not recognising the dynamics, associations, and hierarchies that I might have seen at first glance. After looking at the aquarium, I took my daughter to the café and she sat on my knee, outside of the body in which she had grown. We looked out over open water and watched rain run down the windows. When I think back to the aquarium, I am able to reset my imagination to a place of watery interconnection, alternative sensing, and porous boundary.

1 List of Invisible Fish exhibitions:
'I'm In The Bath On All Fours' Well Projects (2019)
As part of group exhibition, Sonia Boyce's 'In The Castle of My Skin' Eastside Projects (2020)
As part of group exhibition, Sonia Boyce's 'In The Castle of My Skin' MIMA (2021)

Figure 1

Two-year-old girl looking at a diver floating in a tall cylindrical tank



This way of thinking informed the work for the Invisible Fish project, inspired by a new species of cave fish discovered in the Danube Aach River in Germany in 2016. The first sighting of the Cave Loach was by the experienced cave diver Joachim Kreiselmaier and evolutionary biologist Jasminca Behrmann-Godel confirmed the uniqueness of the fish (Behrmann-Godel et al., 2017). A few of the fish were filmed in the cave and subsequently captured by Kreiselmaier. A small colony of the Cave Loaches are now in the laboratories of the Limnology Department at the University of Konstanz in Germany. At the time I visited, Behrmann-Godel believed that there are schools of fish living in the sections of the networks that are not accessible to humans. The fish have no vision and very little

pigmentation, and have evolved over 20,000 years from surface species. The moment of encounter between the diver and fish is set within the perimeter of the cave; the walls are solid rock and the water within them heavy with sediment and harsh currents. The diver has a thick, spongy skin of neoprene covering almost every inch of flesh and the fish has a thin transparent skin through which its internal structure can be seen. But in the depths of the cave of course, nothing can be seen. I think what our project has begun to think through is the beauty and opportunity that this regressive evolution might offer our surface thinking: thinner skin, lengthening of form, other ways of navigating, other ways of understanding and responding.

I'm going to speak about the Invisible Fish project with speculative feminist practice in mind, particularly the essay *The Second Body* (Hildyard, 2017). The book describes the notion that "every living thing has two bodies" (Hildyard, 2017) and that "to be an animal is to be in possession of a physical body, a body which can eat, drink and sleep; it is also to be embedded in a worldwide network of ecosystems." Hildyard (2017) speaks about an encounter with a pigeon, which becomes a touchstone for the essay. The pigeon represents the tangible and proximate more than human in Hildyard's consciousness—her first body and perhaps her second body is reaching and floating over parts of the world facing climate catastrophe that feels abstract and distant. For me, this central animal encounter is with a tiny, almost invisible fish.

The Cave Loach that has become the site for the second body of the Invisible Fish project requires a much less extreme imagination of depth, and of consciousness—but to me, it is an unreachable depth, nonetheless. And this the unreachable depth. It is where the Invisible Fish project keeps one imaginary toe, while on the surface, other thoughts and associations come together.

My second body and the second body of the online conversations that I have with Lindiwe in Johannesburg are often to be found in the Aach Spring cave network in Konstanz Germany, which I have visited only once by climbing down a long ladder to the edge of the underground water system. I am unlikely to visit there again. The richness of the imaginary encounters in that water are something that my imagination can't seem to leave behind. Lindiwe wrote a number of vignettes for the project and we sent images and words back and forth to develop the show. In one piece of writing, Lindiwe describes the experience of some kind of imagined regression back to a muddy prehistoric creature that takes place in bath tub, seeing fingers becoming webbed. She invites audience members to imagine 5 meter hairs growing all over their body and stretching out to the walls around them, feeling and tasting the surfaces they meet.

We are now working on the fourth iteration of Invisible Fish. This growing and changing project is important and is the nature of the long distance, digital collaboration with Lindiwe Matshikiza. These have been long, slow, and distant ways of thinking that adapt to new surroundings that underpin the project. When I try to explore these ideas through materials in the studio, I imagine them as intensities—most easily described as sound. Not exactly musical sounds or notes, but more as densities of noise. These densities then lead me to think about different types of materials, their combinations with one another, and which forces and directions should be at play in their manipulation and display. Where things come

from. How they occupy space. How they relate to the other things around them. Where are the bleeds and the boundaries. I believe there to be a lot of care and consideration of the more than human consciousness, inherently present in sculptural practice. Meyer (2016) describes outdoor silence as absences that are performed and materialized through process and material objects. The current conversation between Lindiwe and I, has evolved into a story about a young person adjusting to life in a new city, told through a series of school swimming lessons and the strangeness of a new environment as an uneasy backdrop.

I imagine new Cave Loaches have been born in the lab, never having encountered the deep waters of the Aach Spring and instead only know the smooth still waters of a tank. I find myself wondering how their experience of space might differ from the cave loaches in their natural habitat. What would happen if this new generation were released into the cave, only having sensed glass lines and corners? Thinking back to the aquarium makes me wonder whether the fish in the tanks are able to think and feel beyond the tank; extending, connecting into the layers of materials outside of the first glassy wall.

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About the Author

Flora Parrott is a practice-based researcher working primarily in sculpture and textiles. The work looks at notions of the subterranean, experiences of darkness and the restructuring of the senses. Based in the Geography Department at Royal Holloway since 2016, initially as Leverhulme artist in Residence and then as a Techne PhD student, the artistic practice is informed by contemporary thinking in geography and the geohumanities. Parrott trained in Printmaking at Glasgow School of art and the Royal College of Art, the practice is still rooted in the techniques and approaches of printmaking workshops; using materials and processes as a way-in to making.

Deep Listening Tending Future Soil Song

RL Martens

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Soil as a (Living) Archive

The ground is the surface we call home. Inscribed in it is a record of geologic and social life. It is a site of earthly memory. The soil is marked by the now 400-year-long social and ecological crisis of colonial capitalism. Land dispossession, the plantation model of agriculture, chattel slavery, and the imposition of these modes of extraction and unfreedom worldwide leave the planets soils severely degraded. If current rates of degradation continue, the world's topsoil will be gone in sixty years, according to a UN official (Arsenault, 2014).

In the United States, the traces of this wound are everywhere. The event and aftermath of European settlement “considerably eroded and altered the chemistry and structure of soils” (Geleta et al., 2014, p. 625). Reading the ground as an archive, it becomes apparent that the current ecological crisis is rooted in conceiving it as a commodity or resource to be extracted. This colonial and extractive logic of the ground is inextricably linked to a Western European conception of nature and of global racial hierarchy. Theorist Sylvia Wynter (1976) writes that “the New World and its large-scale exploitation by the West...initiated Man's revolutionary new relation of Nature. And the new relation to Nature was a new relation to Other Men”. Violences enacted towards Indigenous people whose land was stolen, towards Black people who were enslaved and forced to work the soil, and towards colonized people around the world are coterminous with violences to the soil. The soil is an archive of this global catastrophe.

Soils, however, are not only wrought by past (and present) injustice. As dynamic, lively, and life-giving assemblages, they are also sites of resistance. “The inscriptions on and in the palimpsest of the soil tell narratives of both the wretchedness and the liberatory potency of its humus” writes Filipa César (2018, p. 272), describing agronomist and anti-colonial revolutionary Amílcar Cabral’s theorization of soil. In twentieth century Guinea-Bissau, then a Portuguese colony, Cabral studied the effects of colonization on the soil and expounded upon a vision of soil as the product of human, earth, and atmospheric interaction over time, described as “a counter-extractivist mindset, an animistic activation of the soil, a convocation of various knowledges and a negation of coloniality. A soil reclamation” (César, 2018, p. 272).

Soils are ongoing, collaborative, mutually interdependent processes in which minerals, microbes, organic matter, plants, humans, non-humans and atmospheric processes collide. Soil microbial respiration evidences this lively process: soils breathe. I conceptualize soils as living archives, capable of recording the past as well as capable of regenerating, composting, and recomposing. Soils speak to the space in the present shaped but not fully totalized by the past, and to a future which is possible yet unrealized, save for in moments of tending to the collaboration. Tending to soils tends toward a living future, one which is utterly in crisis.

What can the practice of listening to soils, both as historical archives and as living assemblages, do? Two soils, in Illinois and Alabama, both degraded by interconnected monoculture and dispossession, ground this speculative listening exercise.

Deep Listening

I begin with my ear to the earth, face pressed to the dirt in the middle of a corn field behind my parents’ home in central Illinois. This is an exercise in deep listening. Deep as in underground, deep as in time, deep as in paying attention to the mediating surface between—between being rock and being human, being bacteria and being bone—and the stories it holds.

The eerily quiet monotone of the monoculture-degraded midwestern soil reverberates hollowly against my face. The corn, glyphosate, and chemical fertilizer regime that the land is subjected to by agri-business farming is an assault on the microbial community of the soil—leaving it half-dead, the image of soil, but without the liveliness that makes it something other than a compacted, chalky substrate. What 200 years ago was some of the most fertile soil in the world is now washed out, cracked, nearly-barren earth. 99.9% of the tallgrass prairie that once covered this land (an 8,000 year old cultural and eco-system) was destroyed by European settlers who drained the swampy areas and turned them to agricultural fields. Settlers and the United States government dispossessed Native peoples from this land through violently-enforced, inequitable treaties and the Indian Removal Act of 1830; this is the ancestral home of Očhéthi Šakówiŋ, Myaamia, Kaskaskia, Peoria, and Kiikaapoi (Kickapoo) peoples (Native Land Digital, n.d.). Now, it is a vast wasteland of dual feed-corn and soybean monoculture production. Government loans and subsidies support the growth of neuro-toxin laden commodities that languish in towering grain elevators until the global price is right.

The destructive Midwest monoculture of the present more than echoes the destructive plantation monoculture of the past. They are, in fact, intimately linked. The Corn Belt got its start as an export center for corn and pork sent to plantation owners in the South who wanted to “minimize operating costs,” according to Dr. Sarah Taber (2021, para. 14). Profits truly intensified, however, post-emancipation, when former plantation elite switched to the Jim Crow model of agriculture and intensified racial terror in an attempt to reproduce the economic and cultural system of slavery through the bondage of debt rather than the legal provision of humans as chattel property.

Cotton was the monoculture of the Southern sharecropping regime. Black farm workers were forced to take out loans from the estate owners to pay for housing, seed, tools, and food—all to be paid back in cotton harvest. Estate owners imported huge quantities of cheap degerminated corn from the Midwest as rations to sell to sharecroppers. Taber writes, “What mattered was filling up the land with cotton. That way, there was simply nowhere for anyone to grow food. In this economically stunted region with few stores, poor people had to go through estate owners to buy food. And once they did, they were trapped in debt” (2021, para. 11).

Like the soils of the Corn Belt, the soils of the South are marked by Indigenous dispossession, settler-violence and plantation afterlives. In Alabama, years of cotton monoculture, both pre- and post-emancipation, had depleted the soil that sharecroppers worked in the early twentieth century. This cotton monoculture began just a hundred years prior, when the land was seized through the Treaty of 1832 and Mvskoke (Muscogee) people were removed by acts of terror, violence, and theft on the part of white settlers. The soil holds these stories in its mineral, organic, and microbial arrangement.

When George Washington Carver (Figure 1), a Black agronomist at the Tuskegee Institute, arrived in Alabama in 1896, he saw that the soil degradation and the environmental regime of the sharecropping system were pillars that cemented a system of bondage for Black southerners. The soil degradation was coupled with the injustice faced by sharecroppers. Carver’s mission was to help Black southern sharecroppers deal with and regenerate the degraded soils they were impelled to work as a means to resist the Jim Crow oppression they faced¹. Much like Amílcar Cabral, Carver understood the politics of soil health, the liberatory potential of tending to humus, and “the mutual dependency of the animal, vegetable, and mineral kingdoms” (Kaufman, 2019, para. 24). Carver advocated for soil-regenerative farming practices like composting, crop rotation, and planting legumes like peanuts for their soil nitrogen-fixing properties. Activist-visionary Jim Embry (2022) argues that Carver should be remembered as the grandfather of the regenerative agriculture movement. Although he was a scientist, Carver’s grounded vision of soil health came out of his interdisciplinary mode of inquiry and attention to the world around him. Carver cultivated his relationship to plants and soils through careful observation with an artist’s attention, a deep listening practice. He began his career making botanical paintings and then transitioned to agronomy. Carver was “someone who... says he talked to the plants, he talked to the peanut plant and the peanut plant revealed its secrets to him” (Embry, 2022). Scientists now understand that some plants “need to be fertilized with nitrogen, [but] peanuts can produce their own, thanks to a symbiotic relationship with bacteria that live

¹ Perhaps this is what Amílcar Cabral would think of as the liberatory potential of humus.

on their roots” (Kaufman, 2019, para. 16). Carver lacked the technology contemporary soil scientists have, but this was no obstacle to him recognizing the benefits of peanut plants to the soil. It was his attention to and tending towards—his practice of deep listening for mutual dependence—that gave rise to his knowledge.

Listen.

The earth hums in polyvocal song as you tend to and towards it. The hum you hear is the sound of soil microbes breathing. A microbial chorus (Figure 2) compos(t)ed in multispecies mineral collaboration. This hum is the precondition of your life. The hum of humus in human.

(Future) Soil Songs

A recent development in soil health analysis—the measurement of soil microbial respiration as an electrochemical signal—makes the sonification of the soil’s song for human audition possible (Mohamed et al., 2021). Or to put it more simply: what soil microbes exhale can be measured by an electrical current that can be amplified and turned into sound. The more microbes breathing, the more current, the more sound. Breath being the basis of song, soil microbial respiration being an indicator of overall soil health, the hum produced offers evidence of the lively activity of the soil. It also offers the possibility of registering the effects of regenerative soil practices in the present as the seeds of songs produced in the future.

I use this potential sonification as a speculative exercise: how does listening to the soils’ song open ways of thinking about the collaborative nature and temporality of soils as living archives? It takes a thousand years to regenerate three centimeters of topsoil. Can the slow rebuilding and caretaking of soils (always a collaboration between humans and the earth) be thought of as a practice of producing future-songs? What, for example, would it take to transform the depleted Illinois soil and its barely audible hum into a rich chorus? What political transformations are needed to tend to soil health? What human social relations? What relation to the earth? What types of land tenure? What histories must be contended with?

Human-(Western)Man=Hum

Humans and soil are deeply and inextricably linked. The word human shares a Proto-Indo European root with the word for soil, humus: “(dh)ghomon-, literally ‘earthling, earthly being’” (Online Etymology Dictionary, 2021). The treatment of soils as a resource to be extracted is concomitant with a Western worldview that defined white people as (hu)Man and everyone else as Other. Might humus offer grounds for an alternative conception of an earthly “we,” rather than the “ideology of humanism that whilst it saw itself as a universal, it was universal only in the context of a WESTERN-DOMINATED WORLD” (Wynter, 1976)?

Composing soil songs will require composting and a transformation of not only the relations of waste, caretaking, and maintenance work, but also those of debt, property ownership, and unfreedom. Wynter (1976) writes that the conditions giving rise to Universal Man as white man were concretely global. They were the material relationships of colonization

and imperialism. Thus, altering the human must also require concrete, material, global shift—an alteration of the humus. Deeply listening to the soil and tending future soil songs involves simultaneous movements of regenerating the soil and redressing the historical and political injustices that produced this degraded soil and this degrading culture of Man.

Soils are not inert. They are not only mineral and organic, but lively and political. Soil is the infrastructure of life, its song tending us to the earth. What does care, justice, and responsibility to current and future humans sound like when tending to the soil as archive and as song?

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Figure 1

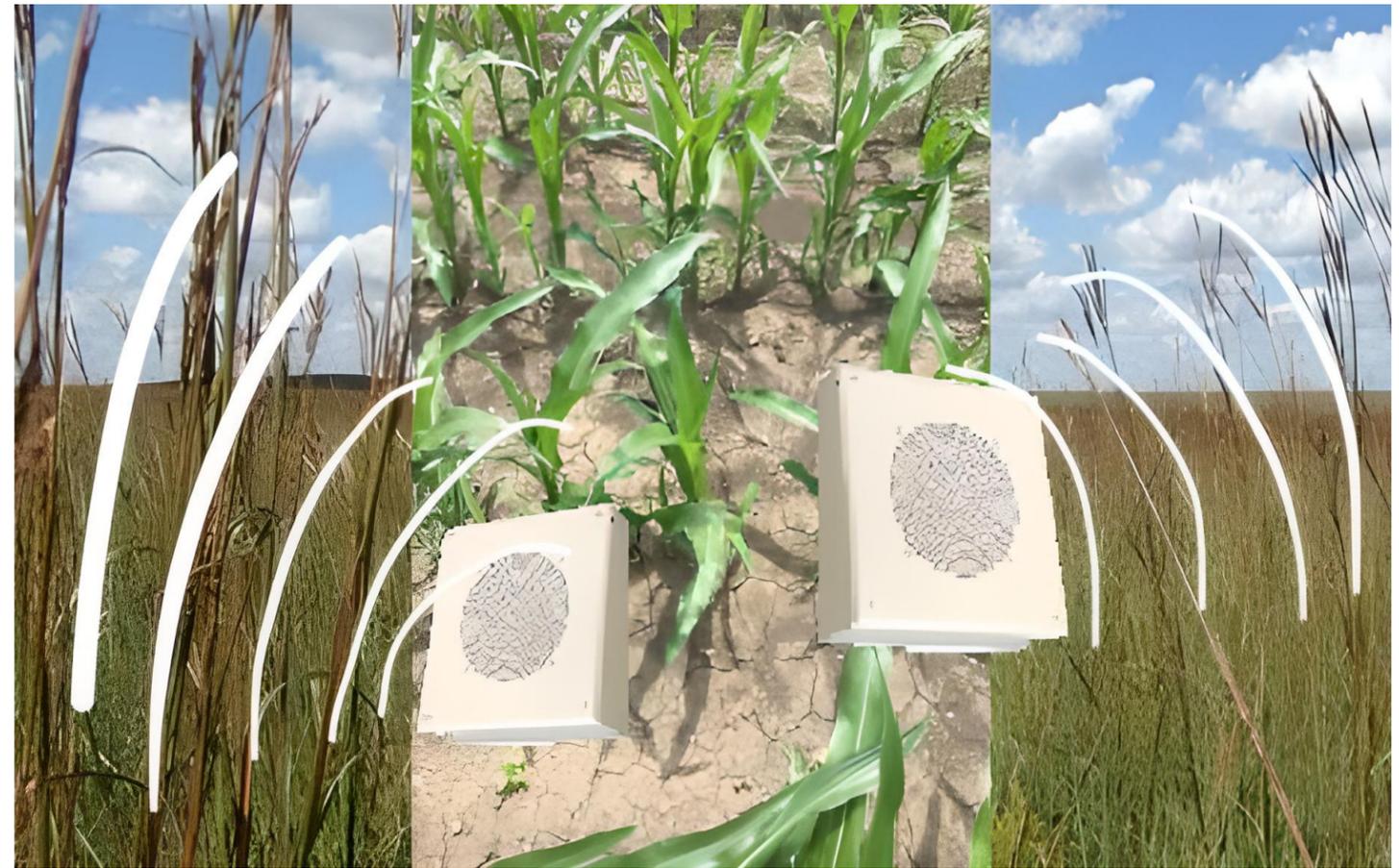
George Washington Carver



Note. George Washington Carver, full-length portrait, standing in field, probably at Tuskegee, holding piece of soil. Image by Frances Benjamin Johnston, 1906, Library of Congress, Prints and Photographs Division. In the public domain. <http://www.loc.gov/pictures/item/95507555/>

Figure 2

Microbial Chorus



Note. Composite image by RL Martens.

About the Author

RL Martens is a conceptual artist and transdisciplinary scholar. They perform historical, place-based, and often idiosyncratic research, producing ceramic objects that act as mnemonic devices and tools for thinking, in addition to text, images, and video. Recent publications include “Digging and the Doctrine of Discovery,” a pamphlet on ceramist’s responsibilities to the land, and the essay “Material Witness: Sediment and Carceral Architecture in Lorton, Virginia,” published in Room One Thousand. Martens is a founding member of Urban Soils Institute’s Art Extension Service, and helped design Project: Soils, a collaborative initiative between artists and soil scientists.

Stories from the Botanical Underground

Medicinal Plants as More-than-Human Knowledge Keepers

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Plants are intelligent keepers and communicators of more-than-human knowledge. Their stories relate the agency of place and plants, showing us how to live where we are, what it means to contribute to the continuance of life, and how to collaborate with nonhuman others in resilient place-making. Botanical storytelling reaffirms people-plant relations, reimagines human relationships with the land, and intervenes in prevailing social and environmental narratives. *Stories from the Botanical Underground*, presented at the 2023 American Association of Geographers conference, relates the ecological-social lives of betony (*Pedicularis*), globemallow (*Sphaeralcea*), and vervain (*Verbena*) and the knowledge they hold for navigating socio-environmental challenges. This collection of stories intends to de-center human impositions of colonial power upon botanical landscapes and re-center the teachings of place and plants on a damaged planet. In this research, medicinal plants themselves are recognized as primary contributors of knowledge. As the disruptions and uncertainty of climate change escalate, plant-knowledge grounds humanity in the interconnectivity of ancient biological communities and opens new possibilities for living well in a fluctuating more-than-human world. *Stories from the Botanical Underground* is a set of perspectives, experiences, and imaginations that aims to reestablish our multi-species connectivity and conjure new ways of feeling, knowing, and being.

Medicinal Plants as Knowledge Keepers for Living Through Environmental Change

The more-than-human underground is pulsating with intertwined symbiotic systems of biological life, plant root intelligence, and ancestral reverberations. Plants are often overlooked as sources of place-based knowledge, both above ground and below the surface.

Living simultaneously in worlds of subsurface darkness and cosmic light, plants transfer knowledge across time and place thresholds. They communicate in myriad ways including through their models of being and their interactions in plain sight and beyond view, often escaping the reaches of the human imagination. Medicinal plants, in particular, offer the intimacy of embodied sensory knowledge. As we consume them, ecosystem functions and timeless plant ways of being are re-enacted inside our bodies through physiological actions of nourishment and healing. These enactments of continuance connect people to ancestors and futures through plant-people relationship. Exploring primordial stories of plants opens new possibilities for rethinking the origins and relations of other species including humans. Recontextualizing origins may also facilitate re-imagining future possibilities born from an ancient inheritance of liveliness and interconnectivity.

Rippling through the rhizosphere are the mutualistic interactions among diverse beings, transferring vital forces and ways of knowing across the landscape. Here is an obscured and thriving zone of multi-species encounters where microorganisms intermingle with plant roots to express their sympoietic life-sustaining agency. The lives of endophytic fungi and bacteria nested inside of plants, haustorial (parasitic connections) penetration across root structures, biotic soil crust communities, and plant meristems (centers of cell division and intrinsic information) call into question fundamental assumptions including how knowledge is produced, who can produce it, and how it moves across species. The plant stories included in *Stories from the Botanical Underground* move through nonlinear botanical time to the formations of early Earth's proto-soils and into possibilities for futures of symbiotic wellbeing, despite the chronic inflammations of Anthropocene living (i.e. living at the crux of decades of extractive land and water use, escalating destabilizations of climate change, and active colonial powers). The multi-species entanglements in ancestral Earth's botanical underground continue in a state of ongoing mutualisms unfolding timelessly in Chthulucene realities (Haraway, 2016). This series offers a site for thinking through possibilities of making relations with plants and the nonhuman world, fostering multispecies symbiotic wellbeing, and cultivating perseverance through Anthropocenic calamities. It illustrates how knowledge is co-produced and shared in a more-than-human world and the ways in which plants teach collaboration, equilibrium, and rootedness for living through climate change realities. Auguring into the depths of life, these plant vignettes explore the unseen botanical ways of being within the subsurface.

The stories of betony, globemallow, and vervain illustrate ways in which humans might enjoin plant worlds, understand plant communications, and incorporate botanical knowledge. They serve to disrupt the narrative that humans are the primary sources of knowledge and the associated research practices of excluding other species and places in the production of knowledge. They dissolve colonial binaries of nature/culture, primitive/modern, rational/magical, and universe/pluriverse (Sundberg, 2014) and dismantle the meta-narrative that systematizes nature, separates humans from it, and displaces Indigenous knowledge systems (Johnson & Murton, 2007). These stories are woven from threads of a pluriversal world in which Earth, human, and multi-species narratives are unified and clarify a vision for seeking life together through changing realities. Betony, globemallow, and vervain intervene in prevailing scientific narratives of planetary life hopelessly spiraling into discord. These and other plants offer an invitation into new imaginaries brought forth

by a botanical timescale that has been in existence long before colonization, capitalism, and climate catastrophes, when multi-species life-building enveloped the planet.

The more-than-human knowledges conveyed within these stories arise from the places where they are enacted. In this sense, place may be considered as teacher (Larsen & Johnson, 2016). As a settler in Indigenous Tiwa lands working through a process of decolonization, plants and place have served as profoundly important guides in reshaping my perspectives and actions in accordance with those of the living landscape. This research rests on a foundational premise that place as a living organism has stories to tell; stories of subsurface knowledge that are expressed through plants. This knowledge is produced through interactions of the "bio" and "geo" (Whatmore, 2006) with plants as actors telling tales of relationships among living beings and place (Salmon, 2010). Furthermore, place teaches coexistence and what our responsibilities are to others as part of the web of life (Larsen & Johnson, 2016). Plants convey these messages, in part, through their collaborative underground relationships with mycorrhizal networks, endophytic organisms, hemi-parasitic host interactions, and their above ground pollinators and other living beings. Edible and medicinal plant use is a way for people to participate in the living world (Salmon, 2010), employing gathering techniques that are simultaneously acts of tending to place and contributing to life (Anderson, 2005; Salmon, 2010; Tsing, 2010). Moving away from the notion of plants and their habitats as resources or places upon which we impose our will, there is an urgent need to expose the potential consequences of continued ecological disruption by delving into underground entanglements of more-than-human activity. Herein lies an opportunity to advance more equitable ways of living in a multi-species world by uniting multiple epistemologies including Indigenous, western scientific, and nonhuman knowledges. In doing so, it becomes clear that everything is alive and exists in relation. Thinking with plants not only expands research potential but conjures profound gratitude for the vibrance of living in relation with all beings.

The Intersection of Herbal Practice, Storytelling, and Knowledge Production

Herbal practice is a set of botanically-based methods for healing of individuals, community, and land and may also be seen as an empowering and healing research method. The goal of the herbalist is to act as a liaison between their human community and the more-than-human world and this can be done through botanical medicine, storytelling, or other means. Similarly, geographers engage in writing Earth stories, translating related knowledge (Boyd, 2023), and "knowing otherwise" (Hawkins, 2014). Story features strongly across human geography subfields as forms of knowledge production with the capacity to evoke alternative worlds, spark imaginative possibilities, and elicit change (Cameron, 2012). Haraway (1994, p. 62) proposed the concept of "materialized reconfiguration," in which stories foster the unmaking and making of worlds and reorient what counts as knowledge. As noted by Cajete (1994), story underlies human teaching and learning and thus has enormous potential as a research tool. Within a more-than-human context, stories have the capacity to bring ourselves and others into relation with plants. Sharing stories of plants and our relationships with them opens possibilities for understanding more-than-human ecological-social lives and plant knowledge for healing and living through environmental change.

Vasudevan et al. (2022) argue that storytelling theorizes a pluriversal reconceptualization of the planetary crisis and reimagines the ecological role of humans as part of a multi-species network. As a way of making sense of the world, it enables meaning-making from lived and embodied experiences, of “felt” knowledge (Million, 2014, p. 31) that are reproduced in order to be felt again and made meaningful in new and unique ways by others (Boyd, 2023). This process is a practice of relationality with the more-than-human world and a foundational force for imagining the world otherwise (Vasudevan et al., 2022). Storytelling brings into focus the relationality of the body and land, altering the temporal and spatial scales through which we might perceive socio-ecological crisis of environmental change (Vasudevan et al., 2022). Rejecting notions of the body as a discrete entity, the body may be perceived as linking oneself temporally to the past, present, and future, and likewise connecting one to land, water, and life (Vasudevan et al., 2022). These associations also entangle social and ecological challenges and bring people into relation with plants. In this ontological view, bodies may be seen as sites of stories (Anzaldúa, 2015), “corporeal cosmic memory” of ancestral knowledges (Cabnal, 2010, p. 22), and possibilities born from healing, resistance, and multi-species sympoetic living throughout time and space. Thus, the body may become a storage site of plant knowledges and an incubator of plant-people relationships, which may be activated through herbal practice and brought into focus through storytelling as academic research.

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Beneath Clouded Hills

A More-Than-Human Approach to “Deep England”

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I'd like to tell you a story, 'bout how England came to be...

So begins a retelling of *Des Grantz Geanz*, a more-than-human origin tale of England (Birt & Helle, 2023), which recounts how thirty exiled giants were the first to appear on Albion's shores, named so after the eldest. Here, they lived in harmony with the existing flora and fauna until the tyrant Brutus invaded and made them flee underground. The tale starts off *Beneath Clouded Hills* (Figure 1), an artist film by Verity Birt and myself, which forms part of a wider art and research project in which we explore the ambiguous term “Deep England” (Birt & Helle, 2023).

The notion of Deep England invokes a particular kind of England and Englishness; images of a picture-perfect rural idyll centred around agricultural ways of living; a bucolic landscape of village greens, country fairs, and local pubs. It inadvertently lays claim to an authentically English way of life, yet it is by no means representative of how most people in England live today. The landscape of Deep England is ultimately then a landscape of the imaginary, used as the familiar backdrop to well-known stories and television productions. *Wind in the Willows*, *Midsomer Murders* and *The Detectorists* all have a distinct Deep English feel to them—or as shorthand for an undefined ‘golden era’, located always in an equally undefined past (Williams, 2016).

Such romantic depictions of rural England started taking on a patriotic function during World War I when images of pastoral tranquillity were used to inspire young men to enlist in the war. Dakers (2016) writes, “Country life was never more desired than at the moment when it appeared to be on the brink of extinction” (p. 132). We saw this again during the

Brexit debate, where the image of the local farmer, or fisher, was pitted against the faceless bureaucracy of the European Union; a way of life under threat, which had to be fought for, lest it vanish. Such nostalgic notions can easily fall prey to parochial and xenophobic politics, with the English countryside positioned in opposition to both real and imaginary threats, whether they be other people, diseases, motor cars, or modernising town plans (Wright, 2001; Matless, 2016). The inaccessibility of much of rural England due to private ownership (Ware, 2022) or the implications of colonial wealth in the shaping of the English countryside (Fowler, 2020) are other factors that problematise the pastoral idyll.

It is through this muddy prism that we, as artists, have been engaging with Deep England as a term of both inspiration and complication. How to belong in a landscape with such a tangled history? How to encourage enchantment without glorifying an idealised and problematic past? And how can we sculpt a land-based mythos for today that is radically inclusive rather than parochially exclusionist?

For this we turned to the mythic past. For just as there is a reactionary side to Deep England, with an assumed entitlement to place and narrative, there is also a long history of using myth to celebrate the subversive side of bucolic England (Clarke & Rudkin, 1974; Harle & Machin, 2019). In this understanding of the term there is a pulsating, mystical current which runs through the land—or at the very least, through the popular national consciousness.

The 1974 film *Penda's Fen* (Clarke & Rudkin, 1974) is set within the green summer hills of the Malverns, in a landscape from which the spectres of myth and history are slowly rising. In one symbol-laden scene, we see young protagonist Stephen's musical prowess on the parish church organ cause the floor to crack, revealing a subterranean pathway to the transformational journey he is about to undertake. We could burrow deeper still into this mythic dimension; it is there from the very beginning, in the founding of modern Britain, where the harmonious co-existence between the giants and the more-than-human world of Albion is severed by Brutus' arrival. Given the deep scars this severance caused, how can the more-than-human world again be part of the story? And is this where we find a Deep England that resonates today?

There are countless English tales that proffer sleeping giants—or kings—waiting to spring forth from the fissures of the earth when England needs it the most. Surely then, in this age of multispecies extinction and climate change, the time is now. But as the giants had yet to appear by the time we started our project, we took it upon ourselves to wake them up. For this we had to go back to a place of many origins. This site was Creswell Crags, a group of caves whose formation go back to a time when there were no national borders and where Britain was still integrated into Europe through land mass. Here, in the middle of modern-day England, have lived a multitude of species over the past 40,000 years, including Neanderthals, *Homo sapiens*, spotted hyaenas, woolly rhinoceroses, and hippos. Creswell Crags contains the only verified cave art in the UK, made at least 12,700 years ago. According to Creswell Crags's (n.d.) website, these are “images of bison, reindeer and birds, as well as some abstract symbols which may have had religious meaning”. But historian Ronald Hutton (2013) makes clear the difficulties faced in interpreting prehistoric cave art and the at-times speculative nature of prehistoric archaeology, highlighting the disruptive function cave art has to modern binary categories of gender and non-/human. It is in this

speculative potential that prehistory presents, along with its potential for relation and ritual, that we, as artists, found creative opportunity. The many temporalities Creswell Crags offered up were like layers of history waiting to be excavated by experimental artistic approaches.

Hutton (2013) remarks that caves that have a large collection of images are often particularly resonant spaces and goes on to speculate that cave walls could have been seen as membranes between human and other worlds, with the cave art giving expression to spirit forms thought to exist in the world beyond the membrane. What if the cave was a spirit in its own self? What offerings could we give to this more-than-human entity? To be in exchange with the cave, we invited experimental singing group CRONE to join us in the dark. Together, we leaned into the imaginative qualities of the space, embracing our intuitive, spatial, and auditory responses to both each other and the cave. Reaching out to the sleeping giants, the cave acted as an *axis mundi*, a link between above and below with which one can pass from one realm to another by way of religious ritual. Past the membrane.

Having spent time in the cave's archives, we came armed with ideas about the previous inhabitants of the space, and this helped us get into a pluriversal state. In this state, the cave held a different reality than the outside summer world, resisting a linear relationship

Figure 1

Beneath Clouded Hills



Note. Still from *Beneath Clouded Hills*, a film by Verity Birt and Una Hamilton Helle (author's own)

to time. As we stood there, enveloped in darkness, our bodies seemed to blend in with the cave and the cave with us, denying our boundedness as modern human subjects. It was a fluid and permeable state, with geology and land seeping in and out of us; we were

states of being and sites in ourselves. This leaky inter-subjectivity of becoming multiple and decentralized was disconcerting, but at the same time the erasing of boundaries and hierarchies felt necessary and freeing.

In the final scene of *Penda's Fen*, Stephen, having just thrown all his neatly defined boundaries and assumptions out the window, undergoes an unequivocal embracing of his ambiguous and hybrid nature. In riotous joy, he shouts out over the fields of England; "*I am nothing pure. My race is mixed. My sex is mixed, I am woman and man. Light with darkness. Mixed. Mixed. I am nothing special. Nothing pure. I am mud and flame.*"

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Una Hamilton Helle (NO/UK) is a multidisciplinary artist, curator and researcher currently undertaking a practice-based PhD in the Geography Department at Royal Holloway, University of London, with the working title *Spirits of place: Thinking through subterranean subjectivities*. In addition to a written thesis, the outcome of the research will conclude with a number of creative responses realised as exhibitions, sound works, and artist publications. The first instalment of this was *Beneath Clouded Hills*, an exhibition at Bloc Projects, Sheffield, 18 May – 17 June 2023. <http://www.unahamiltonhelle.co.uk>

