

Chapter 12. Ecological awareness with and through human and more-than-human efforts of embracing a former gravel pit

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Abstract This essay explores the relationship between a human body and a particular geographic place: a former Danish gravel pit that was recently turned into a recreational area. Through a sensory-based, auto-ethnographic approach inspired by a/r/tographic fieldwork and living inquiry, the author experiments with how she can craft connections between her moving body and the former pit; understood not as a landscape, but as *Land*. The essay intertwines the author's personal experiences with the history, geology and ecology of Danish industrial landscapes around the city of Roskilde, where she lives. Following theories of Jean-Luc Nancy (2005) and Timothy Morton (2013, 2016), the discussion connects anthropocene understandings of 'deep time' with concrete sensory experiences. By relating to temporality formats that are not limited by human senses and the human lifespan, new directions are given to aesthetic relationships between human and more-than-human forms of being. Structurally, the text alternates between short auto-ethnographic narratives, text-based studies, photos and a short film. In the concluding section, it offers four "propositions" developed by the author. The propositions serve for working pedagogically with ecological awareness in sustainability art education by crafting different ways of embracing and being embraced by a place or a site.

Key-words: Land, ecological awareness, sensory experience, aesthetic education, industrial landscape

Landscape and the disappearance of *Land*

It is the first day of December. I am leaving my house to take a walk. When crossing my doorstep, I already know where to go. These last months, I have become addicted to my visits to the gravel pit. I need to be with her, to make her move my body, to see what kind of mood she is in today, to experience her kind of body close to mine.

This afternoon she is really dark, cold and humid. No trace of friendliness. She just lies there with her dark green water, gravel paths, and small, thin young trees fighting to survive in the arid terrain, growing slowly and without conviction. When I enter her realm, I immediately feel different. Her darkness and depth open towards my

body, embracing it, making me become a part of her immobile way of being, blurring the boundaries between us.

“A landscape contains no presence,” writes the French philosopher Jean-Luc Nancy, “It is itself the entire presence” (Nancy, 2005, p. 58). According to Nancy, *Landscape* is an image, a representation of an absence. When Christianity drove the pagan Gods out of nature, humans belonging to Western civilizations lost their grounding in the material world and were left alone with a strange, empty space, dominated only by the always moving line of the horizon. The landscape “opens onto the dividing up and sharing out [*partage*] – of the sky and the earth, of the clouds and the oaks – that it itself is, the separation of the elements in which a creation always consists” (Nancy, 2005, p. 60).

What disappears with the birth of Landscape is the presence of *Land*, which Nancy (2005, p. 56) sees as “the set of forces that play off one another, against one another and in one another”, and to which, according to the Norwegian professor of urbanism and landscape Janike Kampevold Larsen (2013, p. 84), “the modern era provides no immediate relation, [...]no unmediated reciprocity”. In contrast to Landscape, Land contains a diversity of voices, vibrations and agencies. Land is alive, although on a non-human scale. But how can we, as daughters and sons of Western modernity, find ways to relate to it, having lost our access to our remote pagan Gods?

In this essay I explore my efforts to embrace a recreational area, a former gravel pit, as Land. The inquiry is part of a larger study aimed at producing knowledge about how ecological awareness can be practiced in sustainability art education¹ (Illeris, 2020). By “ecological awareness” I intend an increased sensibility towards how we humans exist as *earthlings*, as bodies that are basically made of the same substances as animals and plants, soil and gravel. Following the British philosopher Timothy Morton, I connect ecological awareness to a sense of intimacy “a sense of being close, even too close, to other lifeforms, of having them under one’s skin” (Morton, 2013, p. 139). While acknowledging our common history of estrangement towards each other, I want my body to become Land, and I want Land to come alive with me.

Living inquiry

In my explorations I adopt a sensory-based, auto-ethnographic approach inspired by auto-ethnographic fieldwork and living inquiry (Pink, 2009, Springgay & Truman, 2018). By “living inquiry” I intend an experimental form of ethnography where movement, learning and the creation of meaning are entangled in processes of creation. Instead of the “discovery” of preexisting “facts”, just waiting to be dug out by the researcher, in living inquiry, movements and actions in and with the world create new realities in ongoing processes of crafting-with reality (Springgay et al., 2005; Illeris et al., in press).

On an almost daily basis, I make small expeditions to Himmelev Forest, a recreational area established in 2003 on the abandoned site of a former gravel pit and

¹Following Sterling (2009) I prefer “sustainability education” to “Education for Sustainable Development” (ESD) in order to keep a critical distance to educational policy documents connected to ESD.

adjacent walking trails, covering an area of approximately 140 ha in total (The Danish Nature Agency, 2017)². On my excursions to what we as locals still just call “the gravel pit”, I use my body to approach the area in different ways. By walking, sitting, lying on the ground, listening, watching, sensing, writing, photographing and filming, I experiment with how I can craft connections to the land which challenge the ways in which I usually approach it on my walks. With my moving body I try to embrace the former gravel pit through ecological forms of awareness, including intimacy and affect (Illeris et. al, in press).

As part of my inquiry, I relate to the history, geology and ecology of Danish gravel pits. Without pretending to generate new knowledge in research fields far from my own, these readings help me to challenge my immediate experiences with the pit and connect to the broader societal and natural processes of Land and Landscape. As Morton (2018, p. 128) writes, ecological awareness is not only about intimacy, it is also about trying to connect to the many, apparently incompatible, time formats present in more-than-human forms of existence. In fact, when I connect to the pit through geology, I slowly begin to perceive the deep time of the becoming of the surface of the Earth. Through readings in history I connect to the accelerated time formats of modern industrial excavation processes, and by connecting through biology, I become attentive to the vulnerable time of biological lifeforms, re-emerging in the pit after its closure.

In order to present the multiple entrances of my inquiry, this essay alternates between short auto-ethnographic narratives, text-based studies, photos and a short film. In this way I hope to create an intertwining of languages able to capture and co-craft my efforts to embrace the Land. In conclusion, I offer four propositions for working with Land in sustainability art education. In this way I hope to leave the reader with an openness towards the potentialities of embracing the landscapes that all of us are entangled with in one way or another.

Landscape

It is a late afternoon in the beginning of January. I walk through the area of the former gravel pit with my camera. Like always she soaks up my human presence like a sponge. While moving forwards, I can see how the lines of the perspective draw me towards the line of the horizon, produced by my habitual glancing in front of me as I walk. As usual, I take some snapshots with my phone to see if I can catch the beautiful, soft winter light. I notice how the pictures reproduce landscapes in the conventional sense of looking: in the foreground the solid land, in the middle ground the central lake with trees and bushes, in the background the borders of the pit encountering the always cloudy winter sky. Through my eyesight and upright, bipedal walking, I see how I craft the gravel pit as an image. Instead of Land, Landscape is reproduced over and over again in the pictures of my camera.

²The plan of the Danish Nature Agency, in alliance with the municipality of Roskilde and the private company HOFOR – Greater Copenhagen Utility that uses the area for the supply of drinking water to the Copenhagen metropolitan area, is for Himmelev Forest to be enlarged over time to a size of ca. 300 ha.

Figure 1 here

Fig. 1: Landscape, photo Helene Illeris

Land

As the low sun disappears behind the slopes and it gets darker, my attention slowly changes. The dark warm colours of the cold landscape intensify and become deeper and deeper. I begin to lose my ability to see what is in the distance. The horizon is lost. Now it is all about process. I look downwards and my gaze is absorbed in the movement of the ground encountering my feet. I perceive how my skin and lungs capture the cold and humid air as I breathe. The air becomes a part of my body and so does the smell from the putrefying black leaves on the ground. Breathing in and out, I feel how my skin begins to smell like the black, wet leaves on the ground. The sound of the humid putrefying substance is a deep dark tone of unbecoming human, at least in the strict sense. My moving body is taken over by processes belonging to Land. There is no landscape any more, the pit is just a black scar in the skin of the earth. The forces of Land transform me, crafting me into something different than a passer-by, something heavier, more earth-driven. The lens of my camera in front of my eyes moves away from what is left of the horizon and I begin to take pictures of the ground, of the stones, the mud, the water.

Figure 2 here

Fig. 2: Land, photo Helene Illeris

Gravel pits

My pit is one among many gravel pits in the area, lying almost side by side, some still active and expanding, most of them closed. When I first moved to Trekroner, a suburb outside the city of Roskilde in Denmark, I was not aware that this municipality is the biggest supplier of gravel in Denmark with more than 3 million m³ extracted per year (Statistics Denmark, 2020, July 1). During the 20th century, the demand for construction materials grew rapidly, and still more pits were opened around Roskilde, wherever the farmers were willing to sell their land. Over a short period the landscape changed from flat, fertile grain fields to an industrial area with huge machines, roads and railways.

Later on, when one after the other the pits were emptied, a raw and naked landscape appeared: No vegetation, no soil, only a surface scarred by dark, gaping holes was left behind, while the sand and gravel they once contained was now encapsulated in constructions made of concrete, cement and asphalt (Eisen, n.d.).

Once emptied, local inhabitants and industries were tempted to use the pits as waste dumps, and the area southeast of Roskilde became one of many wastelands produced by human exploitation and subsequently defined as empty and unproductive by local authorities (Hoag, Bertoni & Bubandt, 2018, p. 90). However, following new political trends of environmentalism, around 1975, the idea of reclamation was introduced, and in 1977 the first recreational area, Hedeland (i.e. Moorland, in Danish), was opened.

The transformation of the gravel pit into a recreational “forest” happened only after I had moved here in 2000. In the 1990s the pit was emptied and as the extraction of gravel slowly subsided, the former pit has transformed into what the Danish Nature Agency (n.d.) defines as “two beautiful lakes”. In 2004, more than 200,000 trees were planted around the lakes and in the adjacent areas. Following recent trends in reforestation, the trees and bushes have been planted directly in the poor soil where the moraine clay has been mixed with gravel and sand. This anthropogenic bioturbation means that the trees grow slowly and that some of them will probably die (The Danish Nature Agency, n.d.). The advantage of not adding topsoil before planting is that the former gravel pits are poor in nitrates but rich in minerals (Olsen & Hansen, 2010), and thus provide a much needed contrast to the intensively cultivated and nitrate-rich areas that cover more than 60% of the ground in Denmark (The Danish Society for Nature Conservation & Animal Protect Denmark, 2018). Today the new forest hosts many threatened species of insects, birds and plants, for example the pallid harrier (*Circus macrourus*) and the protected bee orchid (*Ophrys apifera*) (The Danish Nature Agency, n.d.). From an educational view, another important advantage is that the geological, industrial and ecological history of the area remains perceptible and can be traced empirically through direct sensory exchanges.

Multi-species assemblage

When, a couple of days later, I return to the pit after having read about her history, my attention is focused on the physical traces left by the exploitation of the land. My eyes and body search for recent geological signs: How much is left of the topsoil? Where does the layer of gravel start? While I make my way, crisscrossing the terrain, I can almost hear the sound of the huge excavators removing the 10 m deep layer of black moraine clay deposited through thousands of years by the woods that grew following the glacial period. With my inner eye I can see how the soil is transported away on big trucks driving up and down on the old access road at the southernmost part of the pit – the only asphalt road accessing the area.

The slopes are muddy and it is difficult to walk off the trails, but when I reach the path along the lake, I am able to move faster. At the border of the lake I sit down on the humid ground and observe how moss and herbs have found their way through the gravel. I try to imagine the naked desert that was left behind when the excavators withdrew after the surface of the ground had been removed and the formlessness of matter revealed. At the same time, though, I am also aware that in this moment I am approaching a new and

fragile multi-species assemblage, which could not have come into existence, were it not for the poor soil of this poor and damaged land.

Figure 3 here

Fig. 3: Artistic sampling of images showing different layers of Himmelev skov viewed from above: aerial photo, geological structure, and my usual walking route (in red), image Helene Illeris.

Deep time and the Anthropocene

Deep time is a planetary temporality scale. As far as the official geological time scale (GTS) is concerned, deep time began with the birth of the planet some 4,6 billion years ago. Although the sedimentation of the gravel goes back to the end of the Weichselian glacial period (115,000 to 11,700 years ago), the geologic history of the area around Roskilde Fjord is still close to “no time” when seen from a perspective of deep time. When the ice around Roskilde Fjord began to melt around 25,000 years before our present time, the meltwater deposited layers of gravel and sand which later were covered by a layer of moraine clay (Houmark-Nielsen, 2016). When it comes to my pit, the gravel extracted was part of the Himmelev Formation, a 17 m deep layer of gravel and sand, sedimented by rivers of meltwater in a system of intertwined rivers, delimited by stagnant ice (Jacobsen, 1984, s. 71-72).

A number of researchers (e.g. Larsen, 2013; Morton, 2013) see the connection to deep time as a possibility for humans to increase their ecological awareness beyond romantic ideas of nature as an antithesis to man. The geological term “Anthropocene” is currently used to indicate how the great acceleration of human activities since World War II is dramatically changing the conditions of planet Earth, and how we are already living on a qualitatively different planet than the generations just before us (e.g. jagodzinski, 2018)³. While most of what humans think we know – and even our ways of knowing things – is deeply embedded in a pre-Anthropocene, stable worldview, the Anthropocene is not only a name for human geological dominance, it is also the name of the collapse of the whole idea of humans as separate from other “natural phenomena” (Latour, 2017). The sharpened attention towards deep time is thus inevitably a sharpened attention

³ In 2016 The Anthropocene Working Group (AWG) within the International Commission on Stratigraphy recommended a formalization of the Anthropocene epoch beginning from the middle of the 20th century (Waters et. al, 2016).

towards our own increased vulnerability. A couple of decades ago, very few of us even considered that land could have any other value than as a resource for human needs. Now the forces of Land are talking back, and we need to train our senses anew in order to perceive what the environmental anthropologists Nils Bubandt and Anna L. Tsing (2018, p. 3) call “the feral dynamics” of how emergent ecologies “are produced in the post-industrial scarred landscapes of the Anthropocene”.

Intertwining

My back is getting cold. While lying on the ground, I feel gravity. I feel more-than-human forms of existence all around me. I perceive the clothes I wear as a shield between me and the land: plastic and polyester, viscose and cotton, leather and wool. Protected by all these non-human forms of existence, my skin does not directly touch the ground. I take off my woollen gloves and my hands begin to touch, to explore. Closing my eyes, I let my hands search for a deeper contact with this layer of old gravel, moved forward by the ice front. I sense that the pebbles are different: granite, flint, black, grey, brown, round and smooth or edgy and rough. Together with the sand they constitute a hard surface, that rejects my hand.

Protected by my rubber boots I let my feet take a step into the water. They are getting cold as they sink into the muddy sand. The lake bed is sticky. A thin layer of ice breaks as I walk. In addition to the monotonous sounds from the cars on the highway, three sounds mingle in my ears: the “slurp” my boots pulling out of the lake bed with each step, the water moving around my legs and the thin ice breaking in front of me. At each step black mud from below the lake bed swirls under the thin ice in front of me. I forget the sounds and my cold feet as I admire the beauty crafted by the intertwining of my steps and the thin layers of sandy mud covering the lake bed below the shield of the breaking ice.

Figure 4 here

Fig. 4: Entangled movements of sand, mud, water, ice and my own moving body, film Helene Illeris

Aesthetic connections

The aesthetic experience is about solidarity with what is given. It is a solidarity, a feeling of alreadiness, for no reason in particular, with no agenda in particular – like evolution, like the biosphere (Morton, 2018, p. 121)

When Morton (2016, p. 9) writes that one of the greatest myths of modernity is that the idea of "space" as a homogeneous and empty container has conquered the specific, localized experience of "place", he is entering the same realm as Nancy (2005) writing about the difference between Landscape and Land. One could also say that both authors are arguing for a different approach to aesthetics than the idealistic one forwarded by thinkers such as the philosophers Kant (2007) and Schiller (2004). While Kant's idea of beauty was connected to establishing the "right" distance between human beings and their surroundings (Morton, 2007, p. 28), the challenges of the Anthropocene calls for different conceptions of time and space. Conceptions able to help us open up towards different formats that are not limited by human senses and the human lifetime. Formats that we can hardly perceive.

Through living inquiry I have tried to give new directions to my sensory experiences and thus to aesthetic relationships. I have studied the phenomenon of gravel pits just in order to let go of it and connect to unfinished, uncircumscribed sensations of intimacy and solidarity without empathy or identification, and to explore ecological awareness. To adopt different approaches to what I am used to understanding as "surroundings" or "environment" is not an easy task. After two centuries of modernity, after five centuries of perspectival representation, and after 150 years of violent abuse of landscape as a "resource" we need to experiment with new forms of being and working with the earth, *as earth*.

Morton (2018) puts forward the idea that art and aesthetic experiences will be crucial in the creation of such new relationships. My experiments with embracing the pit might be seen in this light – as exercising solidarity with what is given. As a search for a pedagogy of the Land.

Pedagogical propositions for practices of ecological awareness

In the beginning of this essay I wrote that my ambition with this text was to get closer to an understanding of how ecological awareness can be practiced in education. From this perspective my ongoing expeditions to the pit are an exploration of how to craft relationships with non-human realms. The combination of living inquiry and readings in geology, anthropology and history has been a personal learning experience that I would like to share as an example of an educational approach.

Inspired by the directors of the research network WalkingLab, Stephanie Springgay and Sarah E. Truman (2018) I will end this essay by offering four propositions directed at educators, students or others interested in sustainability education, ecological awareness and crafting new ways of embracing Land. The American philosopher Alfred North Whitehead (1978) coined the idea of propositions as a way of opening human minds towards the relational potential of the world. In the words of Springgay and Truman (2018, p. 130), Whitehead states that "propositions act as hybrids between potentiality and actuality". Also referring to Whitehead, educational researcher David Rousell and his collaborators define a proposition as "a theoretical lure or provocation that combines virtual potentials of the speculative imagination with the empirical dimensions of embodied experience in the actual world" (Roussel et al., 2018, p. 25). Put more simply, a proposition is meant to open up complex and imaginative engagements

with the world with no particular outcome determined in advance. Pedagogically speaking, this means that while usually assignments are given to students to make them understand the world as stable and transparent, propositions offer an entrance to the world as an ongoing process, a *worlding*, of which they themselves are an inseparable part (Manning & Massumi, 2020, p. 8).

In practice, propositions are often formulated as small texts, which are born through an iteration of exploratory behaviours (Roussel et al., 2018). When working with living inquiry at the university, two of the statements that I use in my presentation of propositions to the students are that “a proposition is an occasion to experience sensuous knowledge in the making” and “a proposition is a practice, meaning that you can only create propositions by practicing them yourself before you offer them to others” (Illeris, 2022, p. 187). From my efforts of trying to embrace the gravel pit as Land, four propositions have emerged, which I will now offer to the reader as possible openings towards more ecological ways of encountering a place or a site.

Proposition 1

Find a place where you feel embraced. Preferably outdoors, possibly with traces of “nature” understood as biological life (soil, plants, insects etc.). Try to connect to the place as a partner. Ask “her” or “him” about her name, talk to her, invite her to speak in her own language.

This proposition is an invitation to open human awareness to possible encounters with a place on an equal footing, as partners. The personification through naming is a basic way for humans to connect to non-human forms of existence such as objects, animals and places. To me the idea of “The Gravel Pit” as a name (or nickname), instead of the official “Himmelev Forest” is important, as ordinary as it might be. The same counts for my use of the personal pronoun she/her. When it comes to the pit she communicates by different forms of embrace, allowing me to tune in to her by responding in different ways. Although withdrawn from human ways of being, she offers me a fragile feeling that we are reaching out towards each other, that we are sensing each other’s rhythms and intensities.

Proposition 2

Connect to the place through all of your senses. Listen, touch, smell, taste, look, feel. Instead of interpreting the place as something exterior, a “surrounding”, create your being together as a unique becoming, a crafting-with.

A way to get closer to each other is through the senses. How do humans and places sense each other? Do they smell each other? See each other? Bend towards each other? How do they touch? By giving time to slow sensory approaches, and by overcoming the human discomfort and embarrassment that can be connected to such patient bodily explorations, humans might be able to craft a relationship to Land as a living, breathing phenomenon that we are an integrated part of.

Proposition 3

Explore who your partner might be. Search for her history, physical composition, temporality formats. When you are there, try to imagine how she has moved with time and space.

Ecological awareness in the Anthropocene calls for non-homogeneous conceptions of time and space that we as Modern humans can hardly perceive. Morton (2018, p. 126) writes that “time flows from things” and that “everything emits time”. In order to come closer to non-human temporality formats we have to train ourselves to relate to the deep time of geology as well as to the more ephemeral temporality formats of biology. Together with our partner we need to train both our perception and our imagination: Who are we now, who have we been and how will we as life forms intertwine in an imagined future? What are our potentialities?

Proposition 4

Experience what you can learn from just staying together in this slow, patient manner. Can you sense how ecological awareness might unfold? Maybe you and your place want to craft something together while you are together? Create pictures, sound files, poetry?

In contemporary societies most educational practices are directed at some form of production. Often they are directed at a predictable result that can be measured or tested (Biesta, 2009). Trying to experience the world in new ways through offering propositions to each other is not a part of this kind of schooling, and in most countries ecological awareness is not a recognized learning goal. However, crafting in the physical sense of producing forms of existence, that are also perceptible to others, might be a way of increasing ecological awareness pedagogically. In my own case, writing, photographing and filming while I was visiting the pit became important ways of creating something “together”, trying to capture our relationship. In educational settings I have seen how students choose just to take a few “ordinary” snapshots or to bring back some “random” things, a straw, a stone, an empty beer can. For Modern humans *Crafting-with* a place is not a refined aesthetic activity like it might be for humans of ancient or indigenous cultures. New forms of *crafting-with* a place are yet to be developed and rediscovered. In educational settings ecological awareness should be explored with humility and solidarity towards the seemingly forgotten existence of Land behind the infinite number of images of Landscape.

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