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Eco-Empathy, or towards a co-creative sympoietic embodied relation with more-than-human environments

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This paper investigates the aesthetic embodied experience of more-than-human natural scapes and spaces. Above all, I want to introduce the idea and practice of an ecocentric and sympoietic empathy towards more-than-human otherness, more particularly towards plants, minerals, inanimate nature, and non-visible air or substances. In that sense, I want to invoke Félix Guattari's proposal when he expanded the idea of ecology beyond the normative sense, by stating that we need to connect *environmental* ecology to *social* ecology (the life of human community), to a *mental* ecology (demanding the production of a new mentality), likewise affirming that an ecosophy (or ecocentric ecology) entails a sense of responsibility "for the future of all life on the planet, for animal and vegetable species, likewise for incorporeal species such as music, the arts, cinema" (1995, 120).

So what might be an ecocentric empathy? When we talk about empathy, we usually refer to a "transposing" emotional process towards other human beings (often less fortunate, more fragile and co-dependent beings), sometimes towards animals (but mostly mammals), occasionally towards works of art (although that is where the concept originated), but very seldom towards soil, rocks, seas, clouds, mineral, vegetal and nonvisible features of our environed earth. Empathy involves an embodied interaction, a collaboration, a co-creation, a *sympoiesis*: a term etymologically derived from the ancient Greek verb *poïesis*, which is at the root of "poetry", and means creating, producing, transforming. Sympoiesis (from Greek *sún,* together, and *poíēsis,* production) denotes collective creation or organization. An ecocentric empathy is therefore a sympoietic embodied relation with more-than-human environments, including what we commonly term "natural landscapes".

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Ecology from micro- to macro-landscapes

My reflection today focuses on empathy towards such more-than-human environments, not only actually experienced but also mediated by art, film and photography. I start with what I call micro-landscapes, with two plates painted by Ernst Haeckel, the German zoologist who first coined the term ecology *oekologie* in 1869, derived from the Greek *oikos*, which stands for "house", "dwelling", "shelter", "refuge" or "place where one lives". The term was applied by Haeckel to refer to the relation of living beings to their surrounding environments. Haeckel's drawings are works both of natural science and art, striking not because they are pleasing, for they are often uncanny, but because they provoke a feeling of amazement, of mystery and unfamiliarity, a feeling of *surrealité* akin to the Romantic idea of the sublime.

In a similar vein, one hundred years later, Gaston Bachelard (1884-1962) dedicates his book *The Poetics of Space* (1957) to the study of one of the primal "intimate" and "felicitous" spaces that "attract": the house. The house is the *oikos*, the dwelling of life, a space that protects, connects and is invested with imagination. In Bachelard's terms, ecology presupposes a reciprocally affective, imaginatively invested, and co-created relationship among living beings and things. He finds that the houses of humans, the houses of animals (nests, shells), the houses of plants (seeds and pods), and the houses of things (drawers, chests, wardrobes) all bear witness to the activity of the imagination, and to a play of relationships (small and large, open and closed, within and without, minute and immense) that are affectively produced.

Not surprisingly, Haeckel's drawings evoke a Romantic idea of nature. Indeed, the ancient Greek notion of "feeling-into" from which empathy derives, was endorsed by Romantic theory and aesthetics as a pantheistic and synesthetic mode of cognition, through feeling oneself into art, nature and human relations. Within that perspective, empathy is an immanent and ecocentric experience involving an embodied resonance, or a "transposing" process; it implies transformation, and is as much about self-care as caring for otherness. Seeking to evoke such a feeling through artworks, poet Novalis (1772-1801) argued that *the world must become romanticized*.

In their works, German Romantics artists and scientists evoked a feeling for more-than-human Nature that implied an embodied aesthetic experience. Such is the case of Caspar David Friedrich (1774-1840), whose paintings make us inhabit the landscape with an uncertain yet totalizing

subjectivity, as if we were actually experiencing it with our body-mind. As Joseph Koerner (1990) states, when referring to Friedrich's artworks, "Somehow the painting places you. You do not stand before a 'landscape', everything seems to imply your own gaze (9-10). (. . .) The picture does not so much place you as embrace you" (*Ibid*., 14). That is why Friedrich's landscapes "remain open-ended, because they presuppose, from the start that the operation which shall interpret them 'is still unknown'" (*Ibid*., 35).

Thus, ranging from the empathic beholding of the micro-landscapes of seeds (Haeckel, Bachelard), to the viewing of the vastest unattainable mountains (Friedrich), the aesthetic embodied experience of more-than-human natural landscapes leads us to a re-enchantment of the material world, or to a sympoietic understanding of sublime divinity in nature's infinite scales. Significantly, Friedrich once remarked about one of his paintings how "The divine is everywhere, even in a grain of sand; there [in *Swans in the Rushes*] I represented it in the reeds" (Koerner, *op. cit.,* 22).

Phenomenology's Embodied *Sympoietic* Experience

An embodied sympoietic experience of both more-than-human natural landscapes and human-made artworks has correspondingly been asserted by some trends in phenomenology, particularly in French philosopher Maurice Merleau-Ponty's works. Arguing that space is not the setting in which things are disposed or arranged, but rather "the means whereby all things connect", Merleau-Ponty observes that our relationship to space is not that of a disembodied subject to a distant object but that of "a being who dwells in space" and is intimately connected to its habitat. Rather than a mind *and* a body, a human being is a mind *with* a body; her body is anchored in space, and it is her lived spatiality and coexistence with the world that binds her to things and links them to each other. The things of the world are not neutral *objects*, each speaks to our body and to the way we live (1962, 284-291).

In contrast to the idea of a "real" world that can be objectively studied, measured, and revealed by the natural and social sciences, phenomenology posits that art and philosophy "allow us to rediscover the world in which we live, yet which we are always prone to forget" (Merleau-Ponty 2004, 39). This world that we may rediscover is the world "as we perceive it" (*le monde perçu*) through the entirety of our senses. Thus, there is never an absolute separation between space and landscape—for both are embodied experiences. Landscape entails a point of "anchorage" (my body in a given environment), multiple levels of perception, and a temporal "lived" experience within space. In the same manner, an artwork is never complete without a beholder, spectator or reader that animates it.

The recognition of space's immanent materiality is extremely relevant towards an empathic and sympoietic experience of both artworks and more-than-human natural landscapes. As David Abram (1991) observes, the first assumption of the "mechanical philosophy" initiated by René Descartes is that nonhuman matter has no life or creativity of its own; the second assumption is that if the earth can indeed be described as a "machine", then it functions according to a set of predictable and fixed rules and structures that it itself did not generate, which implies that it was constructed from "outside" by an inventor, maker, or builder. Eventually, the concept of "mechanism" gained historical ascendancy and became a central tenet of modern sciences, both "pure" and "social", leading to the assumption that the nonhuman material world is incapable of reciprocity and response, and to increasing claims that all phenomena (including social ones) may be explained and mapped through quantifiable and measurable "facts".

The Cartesian separation between nature and culture has led to the postmodern accelerationist notion of nature as fabrication, or to the Derridean poststructuralist concept that there is no such thing as "nature", since there is "nothing outside the text" of culture. This view reduces the traces of the organic/biological in the human, and denies the material agency and dynamic presence/interaction of a more-than-human world. If we accept that nothing exists outside language/culture, that there is no extra-linguistic perception, then more-than-human nature is evidently also a cultural construct—a position that not only justifies the historical human mastering of nature, but also a reliance on climate engineering and geoengineering so that humankind can proceed with "business as usual". If, on the contrary, we consider that space is a medium that connects all things, then nature becomes the larger context of all cultures (not only of humans but also of other living beings, as well as of all matter). This implies that human beings are inevitably part of a more-than-human natural environment, even if they apparently control and manipulate parts of it.

Neuroscience's Synesthetic Embodied Simulation

Neuroscience provided an organic basis for the power of empathic resonance, when in the mid-1990s in Italy, scientists Giacomo Rizzolatti and Vittorio Gallese discovered a special class of neurons in the brain of monkeys and birds that came to be called *mirror neurons* (Gallese 2016). The discovery of mirror mechanisms has contributed towards a significant validation of *simulation theory,* which attests that when we imagine performing an action, certain physiological parameters, such as our heartbeat and breathing rhythm, behave as if we were performing that same action physically. *Embodied*

simulation assumes a significant role in aesthetic experience, both in creating and beholding works of art. It is at the basis of empathy, through a complex process in which we experience the sensation of living *in* an external object, with our inner activity transferred *onto* the object.

In a recent collaborative work between neuroscience and film theory, *The Empathic Screen* (2020), Vittorio Gallese and Michele Guerra have observed how the process of "embodied simulation", which is at the basis of empathy, makes possible intense and diversified experiences of space, landscapes, objects and living beings. They argue that films afford us the opportunity to simulate the experiences not only of imaginary others in imaginary places (fiction films), but also of real otherness in situations remote from us in space and time (documentary films). This engagement is a result of embodied simulation, whereby humans relate to other agents by simulating the movements made, sensations felt, and emotions experienced by them. And when they simulate, they do so in embodied fashion, through their vision, audition, and many other senses working together, allowing them to grasp shapes, feel textures, recognize affective states of others, and internally mimic their movements.

Eco-empathy in photography and film

The neuroscientific model of *embodied simulation* has revitalized the relation between empathy and aesthetics, and may be particularly significant towards understanding how certain artworks induce a sympoietic eco-empathy: namely Godfrey Reggio's "landscape" films, *Koyanisqqatsi* (1982) and *Powaqqatsi* (1988); and Sebastião Salgado's "landscape" photographs that have composed both an exhibition and a book entitled *Genesis* (2013).

Godfrey Reggio's films have been categorized as belonging to the poetic mode of the documentary genre (Terry 2020). *Koyaanisqatsi* borrows its title from a Hopi word that translates as "life in turmoil", "life disintegrating", "crazy life", "life out of balance", and "a state of life that calls for another way of living". *Powaqqatsi* is equally named after a Hopi word that indicates "a mode of existence that consumes the life forces of others in order to further its own". Through image and sound alone, these films present not only the intrinsic connection existing between humans and their natural habitats, but moreover the destructive processes that are threatening our ecosphere in the present

Capitalocene era.[2]

When I first watched *Koyannisqatsi* followed by *Powaqqatsi*, I noticed how, by the end of the double movie session, most viewers made an overt eye contact with each other. We were so emotionally shaken and at the same time in awe, for these artworks are both beautiful and shocking. A man in tears admitted to other spectators around him who were complete strangers, "I feel so sad. I have never seen anything like this". I was immensely moved by the massive and distinct landscapes of the earth, places I never saw and which I will never get to see in person, and which in effect I do not seek to see in person, so as to actively refute the voracious culture of sightseeing stimulated by mass tourism. These are places that have been here for billions of years, much before the existence and settlement of human beings. In an interview, the director (formerly a mendicant monk) confesses that he was "trying to show in nature the presence of a life-form, an entity, a Beingness" and that he uses "a poetic language, not of word, but of pictures, neither linear nor logical, so as to provoke feelings, sensations, different perceptions of the world in which we live" (Reggio, 2013). Shifting speeds and perspectives of camera movement operate on the sensory level to provoke emotional responses in the viewers, enabling affective empathy, care and attention.

Both films unfold images of a messy and unsustainable urban growth, of mass tourism and hypnotic consumerism, of an increasing technological mania and spatio-temporal daily distress in megacities. Relentlessly, they display the obstinate and brutal depletion of resources through mining, deforestation, and the industrialization of agricultural lands. Above all, the films expose the contrast between two understandings of a more-than-human nature: one that views the land as a sacred source of life to be revered, cherished and protected, as an earthly sympoietic matter; and another that treats the land as a quantifiable resource to profit from and exploit, through structures of domination, accumulation and enslavement. In the words of the director, the latter "world is breathless, the other is full of breath... we are sensate beings who become what we see, hear, touch and smell. We become the environment we live in" (Reggio 2013, 26:50/35:18).

[2] Philosophers Deborah Danowski and Viveiros de Castro (*The Ends of the World*, 2017) argue that the notion of the Anthropocene may erroneously imply that all humanity is equally responsible of climate transformation and environmental depletion, when in fact we should attribute responsibility to "localized networks of some individual bodies". Consequently, they propose the Capitalocene as an alternative designation to our current geological age.

Sebastião Salgado's *Genesis* series (2013) is composed of large black and white photographs taken over a period of eight years. It signals a period when Salgado turned away from the world of human toil and struggle that previously defined his career (after having witnessed the genocide in Rwanda), and started looking at pristine expanses of nature unspoiled by human civilization. As in Reggio's films, we behold landscapes emptied of all human reference or scale, boundless, horizonless, breathtakingly beautiful and hauntingly sublime. In images with a larger-than-human-life feel, we see vast tracts of land in a sympoietic dialogue with rays of sunshine through enormous masses of clouds, others surrounded by mists or struck by lightning. According to Salgado, through his work on *Genesis*, he "was transformed into an environmentalist" (Esposito, 2022). In effect, since they created *Instituto Terra* in 1998, Salgado and his wife Lélia Wanick have overseen the reforestation of a huge area ruined by deforestation, by planting millions of trees and developing initiatives of ecosystem regeneration, environmental education, and sustainable rural development in Rio Doce, Brazil.

Geopower of more-than-human nature

Philosopher Bruno Latour recently observed how "economy, the science of managing limited resources, has become an argument for forgetting all limits" (2020, 13), decrying how in the name of globalization we have finally succeeded in universalizing the same calculating humanoid over the whole surface of the Earth. In effect, so-called globalization has accelerated a process of territorial imperialism whereby wildlife sanctuaries, vast expanses of forests, agricultural lands, and even urban parks are being destroyed, to the point of extinguishing many animal and plant species, causing ecosystems degradation, and turning humans into "development refugees".

However, as Donna Haraway asserts, "*sympoiesis* is a simple word; it means 'making-with'' (2016, 58), implying that the Earth does not operate as a closed-off system, neither in a mechanical nor in a cybernetic fashion, but rather evolves through complex and entangled collectively-producing systems and networks. Consequently, geopower refers not only to the ways human power has been exerted over and through the earth (as extrapolated from Michel Foucault's notion of biopower), i.e., to the technologies and tactics used by dominant structures to frame/exploit terrestrial environments and natural beings, but also to the ways in which more-than-human systems and complex networks of the earth have the power to disrupt human regulated environments. Although often disastrous for

human settlements and cultures, these more-than-human material manifestations are themselves aesthetic and may be reimagined in artistic form. As Elizabeth Grosz reminds us, "the geological order is the most tangible and concrete condition for all forms of life, and indeed, for the existence of all terrestrial objects"; yet "it is often left out of consideration in addressing philosophical and political questions, elided or considered inert, non-living" (2017, 131). Hence, in a political alignment between feminist futures and the earth, Grosz suggests not only that more-than-human immanent cosmic forces dynamically modify social relations in actual fact, but also that the recognition of more-than-human orders provides an understanding "that culture and history have an outside" (2011, 97).

Casa Árvore's sympoietic "worldling-with, in company"

As stated in the introduction, the present reflection on eco-empathy focuses not only on more-than-human environments mediated by art, film and photography, but also as actually experienced. In that sense I want to conclude by referring to the embodied sympoietic reciprocity that I have experienced in Casa Árvore's events. Conceived and activated in 2018-19 by André Fausto, together with David Nunes, Silvia Floresta, Álvaro Fonseca, Rita Wengorovius, Beatriz Wey, among others, *Casa-Árvore: Arte Comunitária e Ecologia* (*Tree House: Community Art and Ecology*) is an Action-Research Project that investigates forms of cooperation among artists, permaculturists, local communities, social agents, ecologists and researchers, with the aim of forming heterogeneous communities of social and ecological intervention in local territories. This transdisciplinary network, which I joined in 2020, organizes programs of recreational walks through the woods, informal lectures and debates in outdoor settings, combined with regenerative agriculture and tree-planting activities, and with improvisational performances of theatre, music and visual arts. The aim is to activate bonds with human and more-than-human nature, and to come up with actions-thoughts towards protecting and restoring local ecosystems.

These encounters, where we gather together in an actual present time-space, have been very enriching for us all, in strengthening our knowledge and bonds, in expanding our empathy beyond the human, in learning and caring for multiple ecosystems at the macro- and microscale level. In them, we often simply take time to simply observe plants—in their relations to each other, with insects, birds, and moss. At dusk, one evening, we were greeted by a magical dance of hundreds of fireflies, in a striking example of a more-than-human creative synergy. As Donna Haraway reminds us, *sympoiesis* "is a word for worlding-with, in company" (2016, 58). And that is what we do.

In this sense, I want to cite ecofeminist Val Plumwood when she notes how "Our obsessive focus on human consciousness, has only with difficulty extended respect and consideration beyond the human and the human-like, excluding existences like rivers or stones. Yet even the smallest stone represents an amazingly complex conjunction of earth forces" (2007, 17). Then she adds: "The culture that refuses honour to stones refuses honour also to the great earth forces that have shaped and placed them" (21). By prompting actual lived experiences that intensify an embodied feeling as a whole with nature, both individual and collective, projects such as Casa Árvore are opening up spaces for alternative eco-empathic futures.

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