

Ecologies of a Mattering Mind

Philosophy Thesis [bachelor double degree]

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1. Introduction

‘We are not outside the ecology for which we plan - we are always and inevitably a part of it’ the English anthropologist Gregory Bateson writes in the concluding part of his book *Steps to an Ecology of Mind* (Bateson 2000, 512). He addresses here an incomprehension of how his society is shaped and changed. This may not come as a surprise, however, western society has difficulties understanding their entanglement with other organisms or physical surroundings. Reason (logos) has been proclaimed as the exclusive pride of humans and it has consequently developed into a separation between nature and culture along with a division between our human mind and body (Ingold 2000, 27). This separation leads to a lack of ecological understanding. In a time when our home (eco) starts to produce inharmonious sounds, a genuine ecological understanding of ourselves would construct a world which is more attuned. According to Bateson, the unfortunate divorce of mind and body might just be a logical misunderstanding of the working of ecosystems (Bateson 2000). Bateson’s influential book opens with “steps”, indicating a road map, assuring us of a critical reflection on our current behaviour in our environment. Nevertheless, half a century after the book was published, the realisation of our entanglement within meshworks of ecosystems have obscured Bateson’s steps, thus making it difficult to follow. The book is formed by a compilation of essays, written between 1960 and 1975, which pivot on developing an abstract model of ecology in which the environment is merely conceptually described. His model speculates on the material environment, but he digresses from practical means or implications. In this thesis I will reflect critically on Bateson’s book and bring its ideas into the sphere we habituate, because I believe the heart of the matter is situated in following the ecological processes embedded in our built environment.

Bateson (1904-1980) was born in a family of scientists and became an anthropologist trained in Cambridge. Researching Balinese and Iatmul tribes he became sceptical of common western ways of establishing culture and individuality (Visser 2003). In his writings Bateson took an evolutionary approach. His essays argued that the ideas on evolution from his contemporaries had been incomplete, seeing as they lacked an “ecology of ideas”. This insight formed the core of his writings. He pleads his readers to consider the ‘phenomenon of context *and* the closely related phenomenon of meaning’ as equally important in order to understand the full picture of development (Bateson 2000, XXIII-XXV, my emphasis). Bateson has made the discussion of evolutionary development theories much richer, proposing a total reassessment of both ontological and epistemological evolution. He has altered the idea of a linear developmental line of the “fittest” and speaks about the various ways in which ideas unfold in organisms and contexts. Thereby he abolishes the western idea of a mind enclosed in the skull and brings in a more entangled and ecological understanding of our existence. Our ontological being is not merely situated within the head or heart, demanding for a review of epistemological knowledge production. Bateson’s thinking gives priority to the “mind+environment”

and displays an understanding of humans in the middle of ecological processes (Bateson 2000, 339-339). Equipped with anthropological and biological examples, Bateson unfolds preliminary steps to understand our position within the world of contexts.

However, Bateson's theories revolve mainly around the idea of "mind". He is interested in how the mind can be understood and how it develops. He barely talks about the other part, namely "the environment". Yet, in a time when our environment is changing rapidly due to loss of biodiversity and climate change, I feel the urge to understand this side better. Therefore, I will ask the question: *How can we understand and what are the implications of an ecology of a material mind?* I am interested in exploring the topology of ecological thinking which is underrepresented in Bateson's diagrammatic and metaphorical thinking. Whereas Bateson tries to grapple how mind interacts with the environment through diagrams and metaphors, this thesis tries to understand the interaction with less abstract-thinking by picking the practice of earth-architecture as an example to point our direction to the surface Bateson arrives at.

In the following pages I will elaborate on Bateson's steps, relate them to contemporary theories, and investigate the topology(meaning) he describes insufficiently. In four stages I will expand along the side of the material environment. The first two stages describe parts of Bateson's theory and will be supported by the practices from indigenous societies, who championed ways of thinking which dwell in quasi-oblivion. They should be read as helpful illustrations to enrich our worldview. The main goal in this part is to negate the separation between mind and body, and to learn an alternative method to comprehend a combined development. After this negation, my aim is to understand our position in our environment by using Bateson's theory on learning, and assimilate his oft-used illustration of the map and the territory. From here we part with Bateson, as I believe his theory misses the material foundation which is constructed economically and politically. In the third step I will look more closely at the topology on which we stake out territories. This will be done by using a very young philosophical movement, New Materialism. By starting from the conception that all objects have an equal degree of beingness, a so-called flat ontology, a New Materialist aspiration restores an ethical and aesthetic world, which we will explore in the final stage. In this stage I will use three terms from New Materialism as a method to evaluate the uncommon architecture practice of earthen buildings.

Thinking through an ecology of a material mind aims to return to a place a Western oriented society is inclined to leave. By building higher dikes, thicker insulated walls for our houses, or space crafts to explore new terrains to settle, it appears to be evident that neoliberal society has difficulties defining territorial grounds - their home (Latour 2017). The grounds which the American architect and architecture theorist Jennifer Bloomer (1996) calls 'the natal home [...] that dirty place, the matter of mater (p. 164).' Both echoing and expressing Bateson's work, Bloomer's words are exceptionally fitting when she states that we try to leave in order to stay in the virtual, the new, the mind (Bloomer 1996, 161-166). Yet, it is the dirty and heavy matter of soil that gives us gravity and stability, counterbalancing the volatile ecological thought.

2. Ecological Evolution

*‘... the evolution of the horse from Eohippus was not a one-sided adjustment to life on grassy plains. Surely the grassy plains themselves were evolved *pari passu*¹ with the evolution of the teeth and hooves of the horses and other ungulates. ... It is the context which evolves.’* (Bateson 2000, 155)

With the example of the horse and the grass plains, Bateson aims to illustrate the importance of an entangled evolution. The grass would not thrive without the horse population and vice versa. To understand this entanglement, we cannot think of the development of one separate from the other. For Bateson it is not about the intensities of the interactions, but rather “the qualitative structure of context (p. 155)”. In other words, the structure of the context makes developments possible, not the reiteration of actions. Bateson has familiarized himself with cybernetics, a relatively new theory at the time in which emphasis is given on feedback loops inherent in developmental structures. This field engrossed Bateson and it enabled him to understand the intertwinement of organism+environment in evolution.

When a horse gains knowledge² about the plains, their horseshoes develop simultaneously. Bateson uses the metaphor of a Janus-head structure. On one side, an inward direction is based on physiological and mental aspects of the organism (information), while on the other side the outward oriented direction is established by environmental demands (energy) (Bateson 1979, 79). Through difference in environment, all organisms gain divergent information and develop accordingly. The Janus-head metaphor is already visible in earlier works of the zoologist Jakob Johann von Uexküll (1864). He is considered as one of the founding fathers of the concept of environment (Umwelt) and illustrates this concept while taking his readers on a foray through the forest. Uexküll explains the development of organisms on the basis of gateways. One of them is perception (the *Merkwelt* - information), while the other gateway produces effects according to these perceptions (energy). Together these gateways form a closed unit – the environment+organism (Uexküll 2013, 40). What both Uexküll and Bateson developed is a relational understanding of organisms in their environment. To their dismay, although they tried to discard the dualism their conception remained connected to it. In placing the organisms *in* or *plus* the environment, there is still a polarity at play. A more radical (rooted) step is to say that organisms *are* their environment.

Although the entangled development of organism+environment is known for over half a century, it changed only little of modern, neoliberal ways toward the environment. A minor step would be the enhancement of the linguistic capacity of modern society. Radical terms such as ‘sympoiesis’ are coined as an alternative to ‘autopoiesis’ by the contemporary feminist scholar Donna Haraway (2016), emphasising our co-development. But how is it possible that these terms only recently have started to become accepted? Why are we so slow to think of our evolution being entangled with our environment? And, as a more critical note, could a change in language result in a change of behaviour?

Ecology, as a real-world view, would bring together our language and actions in a careful reflexive way. However, ecology is oftentimes framed as an epistemic construct, focusing on either language and cognition or on material flows. Bateson for example, uses the Janus-head metaphor to

¹ From Latin, meaning: “with an equal step”

² Knowledge should not be understood here as a colloquial knowledge. Rather, it refers to an awareness or intelligence.

show the discrepancy between those two modes in ecological thinking. The two sides of the coin represent the economy (management) of energy and materials with the economy of information (Bateson 2000, 466). Despite this insight, errors tend to occur as a result of both sides using different ways of communication. Bateson's main contribution lies in addressing the importance of the "mind", in other words the intellect we develop, as a glue between the two ways. How we deal with energy and materials is linked to the ideas we have about them. The economy of information makes us operate and forms our habits in a way that is cross-generational. Bateson uses the example of Socrates as a bioenergetic individual whose ideas - while he is already dead - continue and linger on across contemporary ecologies of ideas (Bateson 2000, 467). It creates an understanding of history which is less about historical events and more the patterns of relationships (e.g., dependency, love, hate, trust) that are formed without an exact starting or ending point (Bateson 2000, 478; Ingold 2007, 3; Delanda 2010).

The patterns of relationship emerge and construct *modes* of communication with our environment (of which language is just one way). Though, we could question whether certain modes are still relevant or desirable if we realize that there is a discrepancy which makes human dwelling on the earth inharmonious.³ According to Bateson, there are important reasons for causing the two different ways of communication generating the unintended modes. First of all, Bateson links the discrepancy to the Cartesian dualism. According to Descartes (1596-1650) our mind is separate from our body. Put differently, our thoughts (information) are thought without neither our bodies nor within our environment (energy + material). Secondly, the inheritance of Bacon, Locke and Newton has further detached us from our environment by rendering it quantitatively measurable. Ethics and sensitivity have been overshadowed by the drive to unravel and investigate "Nature" (Bateson 2000). The ontological duality of Cartesian thinking is based on the idea of a mechanical and mathematical idea of matter. This is a powerful idea of domination and control of our material surroundings by human reason, sensibility and timeframe (Coole & Frost 2010, 93-95). Through this series of events being human is portrayed as separate from the processes in our environment.

In sum, in order to understand ourselves more ecologically, we should understand our development as being synchronized with our environment. Current western thinking often remains disembodied and separate from the environment. We are, as Bateson states, situated in a systemic false consciousness which is part of our own ecological condition (Goodbun 2011, 43). Only slowly, western thoughts and acts are being questioned owing to symptoms of disruption in the investigated "natural" world. The natural backdrop against which we positioned ourselves is starting to fall apart as we have distributed the planetary systems to such an extent that we will face a more volatile series of planetary conditions, a world more alien than the Holocene in which human civilizations have emerged (Latour 2014, 4).

Each string of knowledge taken from Bateson's thinking will be supported with small excerpts from indigenous knowledge in order to access what is uncharted in the occidental thinking. Their knowledge is presently often consulted by western scholars because of its attractive premise to be adaptive and amenable to constant changing and variable conditions. Their body of knowledge should not be considered static and "traditional". As such, the United Nations Educational Organization states that indigenous knowledge has always been 'a dynamic system that is collectively

³ Interestingly, in Bateson's writing words like harmonious or balance are used describing a more holistic understanding of the world (See for example, Bateson 1987, 181). In contrast, his leveled structure of learning, explained in the next part, portrays an understanding of the world as ever developing. Influenced by cybernetics a balanced or harmonious idea of the world is replaced by the conception of every developing world.

and continuously re-visited, re-shaped and shared across a web of social actors. It maintains its adaptive capacity and vitality' (Chandler and Reid 2019, 41).

Besides Bateson, anthropologists Ingold and Kohn have come across similar findings. By researching indigenous tribes around the globe, they were thrilled by the way indigenous societies were engaged within their environment. The world is not built up in front of them, but rather viewed from within while they dwell in it. (Ingold 2000, 41; Kohn 2013, 27-103). Non-western thought is more apt to impart their potential personhood to things in their environment (Ingold 2000; Viveiros de Castro 2019; Descola 2009). It is more common in their world to personify their surroundings and perceive animal actions interconnected to theirs. The plants and animals are not humanized,⁴ but the personification suggests an order of nature that is embedded in the surrounding. Ingold studied the Cree people of Canada and made some compelling observations. He states that the western society has a two-level categorical division of humans as "both persons and organisms" and animals as "all organism" whereas for the Cree people both animals and humans are "all organism" (Ingold 2000). This is expressed by the hunting relationship with the caribou as their prey. The hunting process is seen as a story – an unfolding relationship between the hunter and the caribou. Through this framing the hunt of the caribou is a practical engagement established beyond the narrow definitions of the human-centred culture and should instead be seen as a cosmology (Ingold 2000, 10-14; 48). For several of the aboriginal tribes, wells have become sources of genesis, celestial bodies tell life lessons about love and sisterhood, birds are messengers and one can speak to fire if they study the language (Sutton 1998). The animality of the Cree people or aboriginals is not a perspective from above, modelled onto their environment, but rather a way of looking *through* their environment. Personality is extended towards natural elements such as forests, trees, and rivers. As Ingold says: 'If the people themselves profess to be aware of but one world, of persons and their relationships, it is because, seeing their own social ambience reflected in the mirror of nature, they cannot distinguish the reflection from reality (Ingold 2000, 49).' In other words, the personification is not a revealing process of something hidden, rather how they exist in their perception sphere (Ingold 2000).

Bateson also discarded the division between culture and nature. For him our ideas and behaviour are formed beyond the human skin. However, in his writing he focussed on the ecology of mind, the flow of ideas, and thereby separated the ideas from the world in which they come to be. If we look at what the Cree people and the aboriginals bring to the table it is a more thorough inter-linkage between nature and culture. Their practice could help diminish our systemic false consciousness.

With the example of indigenous tribes, anthropologists illuminate a rich and strong relationship between humans and their environment. As stated in the introduction, the function of the illustrations is not given as a ready-take alternative to occidental perspectives. In addition to that, I would like to emphasize here that a proper understanding of indigenous societies and cosmology requires more in-depth research as many contemporary scholars often mystify indigenous knowledge (Descola 2009, 147-148). Given that contemporary society developed differently, I do not propose an unrealistic turn to their ways, but rather a listening ear to unheard societies who appear more aware of the ecologies they inhabit. With this sensible perspective, many indigenous societies⁵ learned to dwell caringly.

⁴ Occidental writings often speak about anthropomorphism which is similar to the indigenous personification.

⁵ I want to stress that not all indigenous societies live/lived peacefully with their environment. I use specifically the societies Ingold, Kohn and Bateson address because they bring insightful and inspiring worldviews to the fore.

What Bateson heralded to western society to consider our mind in and beyond our body - a “flexible organism-in-its-environment” (Bateson 2000, 457). He emphasizes the importance of our environment for survival. This calls into question how this environment is actually perceived. How can we read it and how can we perceive it differently to construct new narrations? In the following I will focus on the question of perceiving and learning. Thereafter I will explore further and look at the things which make up our environment.

3. Mind in ecology - becoming the map

Bateson’s career as anthropologist, ecologist and cybernaut brought him to many different places. His research ranges from societal constructs in Bali, dolphins in Hawaii to social therapy in Palo Alto (Goodbun 2011, 42; Bateson 1987, 1-16). In all his studies he concerned himself with epistemological operationality and how it informs our actions (Bateson 2000, 488-495). He was immersed in the mental characteristics displaying biological, social and material systems. The contribution from Bateson lies in gaining an understanding of the relational processes within and between these systems. He wanted to alter the western dichotomy between culture and nature to a dynamic synergy of organism and environment. The dynamics of the synergy point at a constant process of forming, deforming and reforming to designate the environment and mind to be read as a verb. To understand this, the term metaplasticity has been introduced by the Oxford researcher Lambros Malafouris. He points out that the plasticity of our brains by the working of synapses is intertwined by the plasticity of our culture production. The metaplasticity of our brain is always busy to comprehend what we perceive, feel and sense and make relations with our physical surroundings (Malafouris 2018). The mind is a constant learning procedure of organism+environment. Bateson was interested in this learning process and constituted a levelled structure to comprehend it. In this part I will turn to this learning process, support it with the map-territory example and bring the concepts into practice by using indigenous practices once again.

To begin, if we consider Bateson’s evolution theory, a substantial emphasis is placed on our environment which he sees as pathways of messages. Organisms can read these messages as an ecology of patterned signals (information). Organisms, thus, receive echoed parts of a complete environmental reality (Bateson 2000). The pathways are located inside and outside physical individuals. And in order to describe the topology of these pathways we should therefore dismiss the idea of boundaries. For example, grass plains signal horse feet and the stomach of horses. Or, the boomerang of aboriginals is not just a weapon, but an instrument through which they communicate with their surroundings. For indigenous tribes, tools assist an intimate social relationship with the plants and animals. For example, the hunter speaks to his/her prey through their tools and if the animal agrees to be taken, it surrenders (Ingold 2000, 61-76). By experiencing various elements in the environment, specific aptitudes and sensitivities are translated into habits and techniques. Some objects from the surroundings are transformed into tools to reveal ‘the hegemony of natural law’ (p.320). Tools and techniques are not used to emancipate from the alien world of nature, nor designed to control or manipulate the environment (Ingold 316-320). Rather, they form navigation features through which the environment can be read. According to both Bateson and Uexküll, our environment holds temporally and spatially bound signals as a ‘coordinate system, consisting of levels’ (Uexküll 2013, 54-55). A place is a co-production of the interaction of organisms in an environment. We could say that our environment is thus not a static place which can be mapped, but a riddle we can slowly unfold between actors (Walter 1988; Ingold 2007, 74-106).

When the world is experienced through the environment and understood as manifold as there are organisms, the riddle becomes complex and rather puzzling. Despite the chaotic images this might suggest, Bateson is convinced that a communicational network without boundaries is merely in need of a hierarchic classification - one of his famous steps (Bateson 2000, 250-252). This system, as explained before, is often used in cybernetics. Through levels and feedback loops, one slowly processes to a better understanding of an ecology of mind.

In the first level, Bateson describes an organism learning an action and habituating itself to the context. The second level is called deuteron-learning. Within this level, an organism learns to learn (an organism is able to constitute signals). Finally, in the third level - trito learning - the organism starts to understand the meta level (the context of the context of learning). This is often an unconscious process and only rationalized after acting (Visser 2003; Bateson 2000, 276-277).

According to Bateson, most prevailing errors we see currently arising in our “Newtonian world” happen due to a lack of understanding of this third level. We often overlook ‘the context of the context - excluding indeed all meta-relationships’ (Bateson 2000, 250). Research, politics or other decision-making processes fail to notice a larger gestalt (Bateson 1979, 223). The reason for this disability pertains to what Bateson calls a “double bind” situation. As a pathology of deutero-learning, the double bind emerges by decoding the context in which conflicting information is given. Challenged habits and mindsets often cause error and result in a total review of current ways of doing and thinking. Evolution itself is, according to Bateson, a double bind situation. Changes in environment demand for adaptation and a double bind situation can therefore not be escaped. (Visser 2003; Bateson 2000, 206-210; 276). A common understanding of our learning and experience processes would give organisms in the position to oversee the feedback loops and the larger gestalt of their actions (Bateson 2000, 273). But currently the capitalist system seems to surpass, forget or neglect the double bind situation, limiting only one possible attitude towards our surroundings (Bateson 1979, 218).

To project the levelled structure on the environment, I will use the example Bateson himself often uses: the map-territory relation of Korzybski. In this example, the relationship between the territory and the act of mapping is investigated. The territory must be understood as the total environment, that is to say, the sum of all parts. In this environment, as we have seen, things can catch attention and signal messages. Or, as mentioned before, objects in the surroundings become caught up in relational patterns. There are metalinguistic (non-verbal) messages at play which set out the map on the territory (Bateson 2000, 180). This map is thus constituted by things which are of importance for an organism. What gets to be mapped is what is crucial - what makes a difference - for the reader of the territory. Actually, Bateson states: ‘The territory never gets in at all’ (p. 460). After each step an organism sets out on a terrain, extracted data from the territory is transacted and a map gets to occur immediately (Bateson 2000, 457, 461 footnote; Bateson 1987, 17, 20-21). This example illustrates that an organism is entangled within its environment. It shows that Bateson’s levelled structure is a constant learning process in which both mind and environment are necessary. Only by considering both, we do justice to a genuine ecology of mind. However, the example of the map and the territory only showed abstractly how this entanglement works. Furthermore, the conceptual portrait Bateson offers as current environmental catastrophes often occur in epistemic pride - the idea that we have fully figured out how organisms and context interact. Although diagrammatic figures display relations between variable quantities, it is doubtful if the abstraction also does justice to a genuine ecology of life - based on contemporary society. To turn Bateson’s epistemic approach into an ontological prowess requires skill.

In this part I will again draw on an example of indigenous tribes to associate this project with different ontological perspectives. The examples demonstrate value in Bateson's thinking while augmenting it with alternative practices. Tapping on Ingold's research, I will display how indigenous tribes, such as the Cree people and the aboriginals, map their territory. This will display a different mindset on a territory which is more modest and very rich at once. As explained in the previous part, some indigenous societies personify their surroundings.⁶ The territories of Cree people or aboriginals contain many stories which emphasize places. To put it more profoundly, the land of indigenous societies is formed by many storylines. These storylines cover what Ingold called, a region. Ingold proposed to use this distinct word to express a place between individuals, stories and natural elements. These three elements are always at play when a region is constituted (Ingold 2000, 219-227; Ingold 2007, 74-106). The animated landscape of indigenous societies is understood or read through many storylines connecting one region to another region. When traveling across the land, indigenous societies walk these storylines. Rather than going at a quick pace from A to B as western people often do, Cree people and aboriginals move slowly over the land and tune themselves to the storylines. The movement is not through dry navigating from place to place, but more what Ingold called "wandering" (Ingold 2000, 219). This is considered to be a slow movement through the landscape forming deep relationships and meaning is attached to elements in the environment which are passed down through generations. Each generation knows how to read their surroundings and obtain long histories. A skill only few modern western people still master.

Furthermore, the process of wandering can be seen as a constant "mapping" (Ingold 2000, 40-60; Ingold 2012, 230). Just as Ingold explains: 'Our perception of the environment as a whole, in short, is forged not in the ascent from a myopic, local perspective to a panoptic, global one, but in the passage from place to place, and in histories of movement and changing horizons along the way (Ingold 2000, 226).' Considering that mapping a dynamic synergy between organism and environment is perpetual, there is no final product in the form of a map, and no finite body of knowledge or ultimate truth. According to Ingold, the practice of cartography, for example, is a misleading development (Ingold 2000, 209-218, 226). Due to abstracting points in order to orient large and diverse groups of people, any sensory testability is left out. The practice often uses satellite images portraying plain excerpts from the globe's surface. The cartographic system's ambition to create generic and easy comprehensive overviews disconnect feelings from intellect. While feelings are mainly attached locally, a generic overview would predominantly result in a loss of meaning (Walter 1988). Modern western mapping practices are often portraying mere fragments from the upper layer of a landscape produced by single-minded narratives. Atlases display important trade routes, resource or holiday locations and adjust land sizes according to dominant power structures. The abstraction erects 'barriers segregating features of experience' (Walter 1988). In contrast, when entering the countries and specific sites the map changes through experiences. A feeling of gravity emanates and unseen relations and forces establish relationships - an ecological understanding emerges. 'We need to experience the world in a radically old way,' letting feelings and intellect both establish the map (Walter 1988).

Bateson similarly pointed at the importance of the act of mapping. This is readable in his example of the map-territory relation from Korzybski which demonstrates that it is impossible to get a full understanding of the total territory. Furthermore, the examples put emphasis on the mental

⁶ Not all indigenous societies personify their surroundings. Moreover, there are different levels in personification. The French anthropologist Descola as well as the Brazilian anthropologist Viveiros de Castro emphasize that there is a rich variety between indigenous societies in how they understand and relate to the non-human world (Descola 2009, 151-152).

ecology establishing meaningful and ineluctable connections with the landscape. As Bateson explains in this quote: ‘You decide that you want to get rid of the by-products of human life and that Lake Erie will be a good place to put them. You forget that the eco-mental system called Lake Erie is a part of your wider eco-mental system - and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of your thought and experience’ (Bateson 2000, 492).

To summarize the explanation on the mind, one step to this ecology is to consider mind as a verb - we are constantly ‘minding’. It is constantly territorializing and deterritorializing matter. Secondly the eternal processes of mind happen within *and* beyond organisms. The function of the mind is not to make things ‘internal’, but to make contact with the environment. The cognitive capacities of a mind do not emerge after development, but innervates the very matter since its constitution. And if the mind develops enmeshed with the environment, it stretches out through timescapes (Malafouris 2004; Ingold 2012, 438). Bateson endorsed this understanding and developed a levelled structure to make it comprehensible. The structure has been exemplified by the map-territory relationship and further explained by indigenous practices of mapping. What we can learn from their practice is that every travel follows and creates storylines. These lines establish ecologies and are readable in the landscapes. Bateson, as an anthropologist, was interested in indigenous knowledge but managed to incorporate their practices poorly. He addressed the societal structures of indigenous society, but never got into detail how ideas of these societies were generated or manifested. By critically reading his work, it can be assumed that he himself gets “out of step”. He aimed to gain an insight by studying learning processes for an approach to prevent human kind from succumbing to insanity (Bateson 1979, 221). Sadly, his abstractions defeat on a very basic level the purpose of his theory because an abstraction generalizes the idea and seeks to be suitable for different situations. However, if the ecology of mind is seen as a verb, one conjugates it according to time, space, and the relation to the subjects of the sentence. In other words, an ecology of mind deforms and reforms according to a multitude of situations. An abstraction in itself helps little to illuminate the topics it aims to address which are always situated. Places are riddles, they are double bind situations, which can only be understood when mapped from material, historical grounds. Therefore, I will lay even more emphasis on our environment in what follows and look closely at the materiality of the things mapping out life. I will tackle this by using the relatively new philosophical movement New Materialism. Through this move, I aim to bring the indigenous practices closer to our western environment. This will lead to the final step in which I will go into the practice of constructing large parts of this environment, namely architecture.

4. Matter in Ecology

'The lions in Trafalgar Square could have been eagles or bulldogs and still have carried the same (or similar) messages about empire and about the cultural premises of nineteenth-century England. And yet, how different might their message have been had they been made of wood!' (Bateson 2000, 130).

Mapping - the continuous movement along storylines in the landscape - is an important practice to incorporate the material aspect of an ecology of mind. As we have seen, landscapes bear within them both environmental elements, organisms and ideas. Bateson expresses the importance of landscapes in questions like 'Onto what sort of surface shall "aesthetics" and "consciousness" be mapped?' (Bateson 1979, 210). Surface, indicating the material aspects of our surrounding, plays a critical role. Likewise, in the example above from his essay *Style, Grace and Information in Primitive Art* (1967), the materiality of statues in urban settings is crucial. Unfortunately, the effect of bronze rather than wood, or the surface of the map, are not discussed in Bateson's writings. Another close attempt can be found in his essay *Minimal Requirements for a Theory of Schizophrenia* (1960). On the question of what he thinks about materialism, he states: '...I would say that this word stands in my thinking for a collection of rules about what questions should be asked regarding the nature of the universe. But I would not suppose that this set of rules has any claim to be uniquely right (p. 265).' Throughout his work it becomes clear that materialism determines moral and aesthetic behavioural rules. When something is done in sync with rules entrenched in nature, it is inherently more ethical and aesthetical. However, *how* we could tune in to these rules seems to require a methodology which is not offered by Bateson. I would like to draw further on the moral and aesthetic implications in the final part of this thesis. First, let us elevate our understanding of material.

Matter, according to the American feminist theorist Karan Barad, should not be seen as just some minuscule parts of nature lying around waiting to be shaped by society or history (Barad 2017). Rather, matter always already dwells in the histories it contains. The bronze of the lions on Trafalgar Square carries a message of a powerful country that could only be expressed in the ancient method of bronze casting, carrying with it a rich association of craftsmanship and wealth. These two associations are two different ways of understanding matter. There is the more scientific way which situated the material in the periodic system, looking at the atomic and molecular properties. These objective properties are measurable, such as durability, usability and their colour. The other way to understand matter is by looking at its qualities. (Ingold 2013, 24-31). The qualities of bronze are its status as one of the oldest materials exploited by humans (with one of the first resources in Cornwall, England) (Historic England 2018). Both are often tightly connected to the subjective ideas people have created over time. Through thinking and acting, we interact with properties and qualities of material we encounter in our surroundings, but often little time is taken to reflect over them. Cloths, technical devices or furniture are measured by functionality or status, and their resources are often taken for granted. We are not, as Ingold states, in correspondence with the materiality of objects any longer (Ingold 2012, 434-435).

This thought has already been proclaimed by Karl Marx in the 19th century. His materialist views focus on the development of society as a result of their material conditions (rather than their ideals). The collective work on nature by the human population, labour as the metabolism of, or with Bateson, communication with nature, is the impetus of their thinking and the development of world's history (Wolf 2021). This ideology hinges on the older (monistic) philosophical movement of materialism. Dating back before Christ, the human mental state was seen as a mere by-product of material processes. It opposes the idealistic idea which holds that action needs an intellect of consciousness a priori (Stoljar 2017). For Marx the material turn investigates (political) ideologies embedded and readable in our material culture. The turn put human labour, human's work on nature, at the centre of our reality (Foster 2000, 5). Although not always considered as such, Marx's theories, based on materialism, bring forth an ecological thinking. His notions on alienation of human labour have always been in relation to an alienation of humans from nature and vice versa (Foster 2000, 9). Humans mould through labour the raw materials of the environment, producing their metabolic relationship with it. In the time of the industrial revolution the mode was rather destructive and arranged society in distinct classes. In order to liberate "mind," Marx called for a revolution to change our collective modes of production. This revolution aimed at dissenting of the exploitation of not only labour but nature as well.

The revolutions were unfortunately followed by a neo liberal mechanical view on material, leaving Marx's theory for many societies in the west as a conceptual alternative. Marxism has a potential which has been overlooked by many current ecological movements, namely, that it puts emphasis on the socio-ecological ways we produce our society. Marx saw the necessary relation between the material conditions to natural history or in other words, "to the materialist conception of nature" (Foster 2000, 19). This misfortune, the overruling neoliberal view that is, is often a consequence of an immaterial gap between the things and ourselves, such as meaning, values or language (Coole and Frost 2010, 2). The call to change the world of production (and exploitation) by revolution (the Marxist tradition) is attended by a relatively new movement. This theoretical turn emerged circa 1990s. Thinkers such as Rosa Braidotti, Jane Bennett, Karan Barad or Elizabeth Grosz scrapped the mind away altogether and have focused on the liveliness in matter. New Materialism is widely supported by an interdisciplinary range of scholars. Braidotti, for example, focuses on post-human theory reframing the human species *en masse* (Braidotti 2012, 25-30). Bennett, on the other hand, grants agency to both organic and non-organic material and traces the political implications. In her reading of material, it is unsound to believe that things appear to us as mere "objects" when they are below the threshold of 'human discernment' (Bennett 2010, 58). With her concept of Vital Materialism, objects are visualized with their own "thing-power" independently of human perception (Bennett 2010, 14). She uses thing-power to turn attention to life within all physiological and organic material. Storms, rain and the red of sunrise are just as alive as humans due to their similarities in little components (minerals, metals etc.). The 'vital' aspect in her philosophy derives from vitalism. This philosophical notion was used in the beginning of the 20th century and argues that life has an inherent tendency to become more complex, maximizing pure difference. Inherent in the sense that life is not reducible to mechanistic concepts nor to mere matter but emerges from within and between matter. Vitalism is critical for New Materialists which distinguishes it from what Bennett calls the "Naive Vitalism" of the soul. The idea of a soul would not fit the contemporary experimental sciences which have been enhancing our knowledge on the liveliness in microcosmoi. Vitalism cannot be seen as a mere flavour as it is an important implication for New Materialism (Remme 2017; Bennett 2012, 48).

To build the framework of New Materialism which distinguishes itself from previous attempts, it is important to understand that many concepts for this movement find their roots in the

theories of Gilles Deleuze⁷ (and Félix Guattari). These French thinkers from the second half of the 20th century are known for their endeavours in metaphysical philosophy. By using the term “puissance” (French for “power” or “influence”), Deleuze provides an image in which everything is affecting and affected, coming together in consistencies or assemblages (Smith and Protevi, 2020). Assemblages are complex arrangements, hard to portray in diagrams as they are open-ended gatherings with no need for brains or human intellect (Bennett 2010, 24; Delanda 2010, 35). Whether we call the forces which generate these complex assemblages “puissance”, “thing-power” or something else, is not in the scope of this thesis, but what can be stated is that New Materialism believes in a force, some of agency, constituting assemblages (Coole and Frost 2010, 7).⁸ Because everything has been granted some sort of agentic capacity the ontological construction of assemblage differs constantly. The gatherings are non-hierarchical, indicating a flat ontology wherein humans are things among things. This ontology does not declare all things similar to each other, but there is no ontological difference between the things (Ingold 2012, Malafouris 2018). In a world where everything is read through material forces, there is no linear line of cause and effect nor binary oppositions. New Materialists are prone to use the concept of “and” - the mind is the body and the body is the mind (Delanda 2012, 44; Dolphijn and Van der Tuin 2012, 98-99).

By acknowledging that our environment has agency and power, life becomes ‘not the unique possession of each individual but rather a vitality flowing across all living bodies’ (Bennett 2010, 55). It is thus an impersonal, interrelation kind of agency. The grass on the plain fields has an agency towards the teeth, stomach and corporeality of the horse, but the forces which create this relationship sits neither only in the horse nor in the grass. When moving over the plains the corporeal schema is responding to and recomposing this relationship. The relationship is thus existing in the intermediary reality which Uexküll called the milieu. The things (read also organisms) can therefore best be conceptualized as a field where agentic powers flow through and across (Coole 2010, 103).

If we couple this with Bateson’s example of the map-territory relation, we will revise our understanding of agency. The agentic capacity of things distinguishes the map from the territory. Put another way, agency is the power to make a difference, to make something mappable. The idea that things have ends-in-themselves is overthrown because everything is recognized with instrumentalizing power. Humans will discern their environment through participation within nature (Bennet 2010, 2; Barad 2012, 108). Things are arranged in an assemblage through, what New Materialists call, the apparatus. The apparatus is also used by Deleuze in his reading of Foucault's disposition and basically stands for the power structure which organizes material (Nikolić 2018). It is an unneutral system which connects and disconnects the elements. It arranges the exclusion and inclusion of elements in an assemblage. It is this later term which accomplishes new readings beyond Bateson’s ecological theory of mind. Where assemblages address the complex ecological processes of ideas and material, it is the apparatus which places Bateson’s Janus-head theory of ecologies within

⁷ Although it is contentious whether Deleuze is a vitalist or constructivist. Yet, this is beyond the scope of this paper and I will merely use the vitalist aspects of his theory to fast forward to contemporary New Materialist thinkers.

⁸ Important to stress is that the conception of agency is a debatable term in New Materialism (Ingold 2013, 95-96). For Bennett for example, agency does not imply any morphological (form) power. ‘Only life can morph: a crystal formation can diminish or increase in mass, but it cannot become qualitatively more complex and it cannot restore itself by replacing or repairing parts such that the “same” whole endures.’ (Bennett 2010, 51). Nevertheless, for Delanda the material processes always indicate an ongoing morphogenesis (DeLanda 2012, 107). Although the conceptualization is not similar many New Materialists reckon a kind of thing-power which creates assemblages

our neoliberalist society and turns the epistemology to something which looks more like an ecology of life. The apparatuses form *systems* of thinking. They bring together spatio-temporal properties and organisms in a specific location - they are set up phenomena (Nikolić 2018). The apparatus grounds Bateson's abstractions⁹ which are mainly readable for those accustomed to the theories. And although the apparatus might raise the same question of readability or capturability, I will explore this by using New Materialist proposal to trace the material - to start mapping. Like Marx's critique we should start the endeavour in our material culture, but - different from Marx - a revolution is not desirable. I believe that this would bring us to the third level of Bateson's learning system.

New materialism aims to produce the correspondence Ingold was talking about. It is a critical political move which tries to find creative forms of problem-solving by looking at micro and macro societal scales. However, until now the new movement uses relatively small things, such as cups, lines, pottery or trash to build their frame of reference. Words such as assemblage, apparatus and agency are not unfamiliar on the scale of urban settings, but so far only marginally used in their full potential (Bloomer 1995, 108). I will risk a try of exhortation. I propose to see the process of building/architecture as open-ended gatherings from material, people and all other kinds of *things*. By using the three terms introduced above I wish to see how to put the endless highways, the small villages on wet peat-land or the crystal-like skyscrapers in an ecology of a material mind. Addressing all of these examples goes beyond the scope of this thesis. Therefore, I will focus on one material usage in the architectural practice, namely the present-day practice of building with earth. By addressing our current environment - a man-made urban fabric - through the ecology of material we allow ourselves to see our (geo)political and economic structure form a new stance (Dolphijn and Van der Tuin 2012, 7).

⁹ In his essay *The Logical Categories of Learning and Communication* (1964), he argues that many theories deriving from a mere logical perspective deal with unrealistic abstractions. A paradox can just be negated with the structure followed by showing the error, 'but in the real world (or at least in our descriptions of it), there is always time, and nothing which has been can ever be totally negated in this way (Bateson 2000, 281).' Although Bateson is critical about his contemporaries, he himself follows the same pitfall of abstraction.

5. Material Gestures

I started this thesis with the attempt to explore Bateson's theory on the ecology of mind by introducing his levelled structure of thinking. The epistemological abstraction on ecologies, expressing the organized learning processes, would make it easier to detect flaws in our human thinking. It would for example help us uncover the double bind - a communicational dilemma - which recurs over and over again (Bateson 2000, 3-8). The dilemma between the two sides of the Janus-head is installed by a certain kind of thinking, a thinking concerning 'the relentless drive toward the New', attempting 'to escape from Materia, the old, generative soil, the origin' (Bloomer 1995, 164). Within this attempt for the New sits the double bind - because whatever is made new, is inevitability at the same time the 'becoming-old (p. 162)'. According to Bloomer, the longing for the new, is akin to longing for the old, as nostalgia. This longing is, according to her, ingrained in matter, the mater, the longing for home (Bloomer 1995, 161 - 163). The initiative Bateson has proposed to at least understand this double bind, might not be in a new cybernetic epistemological reading of Mind, but rather how the mind matters. New Materialism started such a reinterpretation through a material reading of our society. As said, little has been said about our built environment and only marginal accounts are made about the (hi)stories embedded in the topology of the urban fabric. Being trained as an architect myself and interested in how a home can be constructed, I am especially eager to explore these grounds.

Architecture is an ancient practice which brings together both abstract thinking (e.g., diagrams and schemes) and material articulation. It has even been pronounced as the art of articulation. I agree and would like to add that it is a double articulation, similar to the double reading of material we saw from Ingold. At first glance the architectural project articulates a certain style, function or era directly through the shape, colour or building mass (the properties). Secondly, the project realizes an articulation through time and connects with overarching contexts (the qualities). Architecture sits right in the milieu (in the middle) of global assemblages and makes power structures throughout history visible. I will illustrate this with an outlier in the field of global architecture practice of Anna Heringer. She focuses on handmade architecture primarily in impoverished places such as India or Bangladesh. Her school complexes and apartment blocks are made from local materials such as mud or bamboo. By picking these materials she allows local craftsmen to join the construction process as well as provides them with the possibility to maintain the buildings themselves. For her it is important to use a material which can transfer a 'know-how' for the inhabitants/users of the building. The apparatus she installs as an architect enables all participants to correspond to the properties of building and thereby engage not only in the physical construction but also in the construction of the qualities of the building. Although not well known among architects, her approach has been acknowledged by the UN Habitat organisation where she is currently involved in several decisive projects around the globe (image 1). Especially her material choices are antagonising the current global standards of concrete and steel structures. The curvy, wobbly clay surfaces are in stark contrast with the concrete apartment blocks built in all big cities around the globe. Currently in many western architecture schools the practice of mud buildings is insignificantly taught. The primitive connotation is dominating the material courses and the canonical projects which tell mainly stories of concrete, steel, glass and (currently) wooden buildings. By mapping earth, we will investigate the boundaries installed by an apparatus which conveys a longing in the other direction Bloomer proposed.



Image 1: Rammed earthen school complex Anna Heringer, India (Sauer and Carrillo, 2020)

Globalization has spread dominant occidental perspectives on the environment and standard ways of living. We could say that the ecological trajectory of certain ideas has been enlarged. This causes situated assemblages to be disrupted by new apparatuses, putting different agentic forces into play. Ideas of the ‘ever new’ and ‘progress’ installed an apparatus which portrayed earthen buildings as primitive and only for the poor. Concrete, glass and steel became prevailing materials, causing a loss in the know-how of earth architecture. Local societies were induced with the notion that concrete and steel are better, stronger and more aesthetic (Heringer 2018). As many contemporary architects would agree, earth ‘stands in for anything undeveloped, unadvanced, not extruding itself along the exalted line of progress’ (Bloomer 1995, 109). As earth is everywhere around us it is not special or exclusive, causing a loss of agentic capacity in the present dictating apparatus. This consequently discards earth as a building material from the assemblage of building or dwelling.¹⁰

In addition, although Heringer and her colleague Martin Rauch from the prestigious ETH university in Zurich, promote earthen buildings obsessively (read also rammed earth or pisé), their voices are barely heard. The sustainable and durable performances seem to be for many of lesser concern in comparison with the primitive (and cheap) connotation. As said before, the assemblage has yielded insubstantial support in terms of money and time resources to improve the (practical) knowledge of earthen buildings. The apparatus we are currently dealing with, is partly installed by aggressive advertisement of concrete and steel companies operating globally such as TATA Steel, the Netherlands or Holcim, Switzerland. As the scholar Sarah Nichols shows in her reading of the cement industry in Switzerland, concrete came to be perceived as a valuable Swiss export product and has

¹⁰ Anecdotally, at the university where I studied, the TU Delft, the proposal for a workshop with earthen buildings on the terrain around the faculty was declined by the accusative board. The exact reasons are still unclear.

been subsidized accordingly. The industry became so important for the economic growth of Switzerland that its main figures infiltrated the political systems safeguarding their position. This example is not to denigrate the properties of concrete, the impressive dams such as Grande Dixence in the Valais Alps could not be constructed without the properties of concrete, but it demonstrates how money flows and how vested interest drives institutions to define which materials are building materials and which are not. An expansion of a certain building material is often fairly influenced by the qualities assigned to it, rather than the exact properties of a material.¹¹

However, what has been hinted at in this thesis is a rereading/rewriting of the qualities we ascribed to the things in our surrounding. The two sides of Bateson's coin should be brought closer together by unfolding the riddles of places through mapping the materials we find. This might dismantle damaging apparatuses, just like Nichols did, and install new boundaries of the assemblage. On the one hand we could therefore focus more on the materials at hand during the design phase of architecture. It manifests itself that mapping building materials would be a method of finding local histories being caught up in global histories. On the other hand, as addressed above, the institutionalization of material research plays one key role in forming new aesthetics and moral assemblages. Luckily, we can already detect some changes. For example, institutes like ETH Zurich are helping Heringer and Rauch in their research to develop upscaling possibilities for earthen buildings (e.g., big unfired earth bricks). Furthermore, the buildings Rauch designed in Switzerland and Germany seem to alter the primitive connotation (see image 2).



Image 2: Haus Martin Rauch, Switzerland (Sauer and Carrillo, 2020)

¹¹ It has been shown that rammed earth can become as strong as concrete and has a longer durability than the 60 to 80 years of concrete. This has been demonstrated by Roger Bolthausen when researching several old French farm buildings.

New histories are in the making, as the studio of Heringer shows. Histories which are connected to the global assemblage, but nevertheless stay true to local qualities. The earth architecture Heringer asserts is different depending on the locality. For each building you need to know for instance, the right earth mixture for the specific climate you are working in, what kind of molecules are forming the raindrops falling on the structure, or from which side the wind is often blowing. The knowledge has to be gained locally - the area needs to be understood. Moreover, the role of the architect changes along with the material mapping. In the traditional conventions the architect has often the exclusive right to design and build, leaving little room for the future inhabitants (often merely represented in the minds of the architects). Additionally, there are plenty of assertions, such as monetary arguments or international interests, which muddy the waters. Creating a new sample card of materials to choose from would be an enormous adjustment for the architecture practice as a whole, and it would in the case of earth invite locals to be co-designers and co-constructors. New gestures of living are composed of a much richer ecology. The patterns of relationship emerge and construct a tighter *mode* of communication with our environment.

The architecture of Heringer is proclaiming and articulating the idea that our terrestrial dwelling should be with the earth and with its people, contradicting an architectural practice of standardized living. The lectures she gave on her projects narrate a story in which future inhabitants gain ownership and understanding about their future habitats. For her, 'architecture is to move lives' (Heringer 2014). In the same fashion Heringer is using material as an utilizing tool to create local connections crossing through land and communities. The articulations accentuate local history rather than a global one and give agentic power to earth in countries where inhabitants do not thrive well under the neoliberal apparatus.

Interestingly, if we take a look at Bateson's ideas anew he tells us something we could use in our process of material mapping. We have seen that the assemblage, just like ecologies, are constructions of large, entangled meshworks. Trying to control this meshwork in a hierarchical, cause and effect system would have adverse impacts, Bateson states. Every attempt of control is not only difficult and is likely to instigate error, but more importantly the error and imposed structure 'are likely to be ugliness' (Bateson 2000, 268). Bateson believed that the scientific appeal to understand humans and the universe was to generate an ethical and aesthetic picture. A picture that would connect truth to beauty and morality. If humans would then act against the truth of their own nature, it would cause immoral and/or ugly actions. He depicts the mystic as a person who understands morality, aesthetics or both of materiality (Bateson 2000, 265). Although I would agree with most of his argument, Bateson's pitfall occurs in his reading that morality or aesthetics "appear" when the mystic touches the material. In the case of the architect, although forms of the building often seem to "appear" on the paper, the material choices to manifest these forms are conscious and ethical choices. Currently, diagrams ingrained in the design phase depict primarily functions and forces at play, showing little correspondence with matter. Architects are taught to look for beauty, to design something which fits the scenery and has a certain rhythm and flow with the environment. If we follow Bateson's thinking we might find the entanglement of the ethical and aesthetical aspects in the architectural designs. Yet, tracing the ethical pathways of a design is not realized by an ecology of only mind.

I propose a practice more related to the indigenous practice of mapping, one which listens to the storylines of material ecologies. If we understand our built environment not as merely arranged resources, but as performing and generating states of affairs and histories, the assemblage configured will take different shapes. The philosophical questions on materials, engender situated knowledge not only for the architect, but also the inhabitants of the building. In consequence, while moving towards the concluding part, we could already affirm that a mapping of matter would implore an ethico-onto-epistemology (Barad 2012, 52-68).

6. An Ecology of a Material Mind

In his book *Steps to an Ecology of Mind*, Bateson states that the mind is the core for all problems and solutions. When we are able to understand the ecology of mind we can detect flaws and facilitate readjustment. Bateson schematized this in an abstract epistemological trajectory substantiated with diagrams of circles, squares and lines. Nevertheless, this is only one side of the coin he proposed. I emphasized the other side of the coin, namely the material side as this thesis had been a critical reading of his theory in order to answer the question: how can we understand an ecology of a material mind? By extending the mind beyond the skull, directing it into the environment, the boundaries not only dissolved the occidental birthmark of Cartesian mind-body distinction and jeopardized our mechanical idea of nature, but also brought it in contact with the societal and historical context Bateson had neglected. The volatile ecological thought would then be grounded by (hi)stories and structures forming societies. As stated, materials often hold thoughts longer than the longevity of one single brain, it cannot be deemed as inferior (Ingold 2012, 436, 438-439).

I have taken practical examples from indigenous societies as their knowledge is gradually more recognized. By recurrently showing the adaptive capacity their knowledge a compelling coping with environmental crises is illustrated (Chandler and Reid 2019). Besides bringing our conception of “primitive” up for a second thought, their mapping practices appear helpful when we shifted to the philosophical movement of New Materialism. This movement went beyond the polarization - mind and body - which still lingered on in Bateson’s thinking. And a reading of the map-territory relation through a flattened ontology would create a topology with no straight lines and no single causes with effects. New Materialism is a theory of mapping rather than classification. To substantiate this material turn three terms were introduced. From the three terms, assemblage, agency and apparatus, it was the last one which truly amended Bateson’s theory. A foray through the cities and towns we live in, walking the lanes through parks or concrete jungles, would beg for new questions as the apparatus is always visible in our built environment. Essential to New Materialism is the recognition that the emphasis in our daily routines is not on symbols, but one of material expressions.

By following the practice of earth architecture, we saw how architecture cannot be reduced to a single articulation from ideas to form, but that it is a political and moral practice. Global neoliberal apparatuses influence the building construction from the moment the architect puts her/his pen onto paper. When material is taken into account the implications are ethical and aesthetical, but they do not just “appear” as Bateson suggested. Ethics and morality are conscious acts, which require research rather than merely philosophical thoughts as Marx conjectured. Our *mode* of communication would only become more mindful by active participating in the assemblages and the constructions of apparatuses - locally and globally. It would create richer ontologies and put the epistemological questions of levelled learning structures at rest. In a time with huge biodiversity losses and higher temperatures, more ecological perspectives on our work and the way we create (human) homes, seems indispensable. To comprehend seas, quarries or red sunrise as alive events, is a fair ecological thought and would incentivize to get more involved in the materiality of our environment (Bennett 2010, 53). Putting New Materialism into play in the built environment would not only develop a new method of designing, but also a new building/architecture tradition. A tradition that establishes a new understanding of our past, present and future - it would leave nothing intact and would steer us in new directions. It manufactures new conceptual frameworks and new political stances. In the case of architecture, institutes would allocate other materials to be building materials. Although relatively new and still in development, the practice of New Materialism allows for a reflection on our double bind situation in which we long for the ever new, always already-old. In the wake of social and environmental imbalance, this practice expresses the desire to recognize and reclaim matter as an account to find our own finitude.

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