

VITAL ABSTRACTION OR EARTH-LIFE-ART

Earth was thought to have been formed 4004 years BCE. This precise dating matched Western-Christian opinion up until 1785, the year the Scottish physician and farmer James Hutton presented his *THEORY of the EARTH; or an INVESTIGATION of the Laws observable in the Composition, Dissolution, and Restoration of Land upon the Globe*¹ to the Royal Society of Edinburgh.

Today, researchers have calculated that the Earth was formed about 4,500 million years ago.² Hutton's observations of the Earth's movements and sedimentation, and especially the insight that different soils were a composite rather than uniform and eternally immutable, stood in opposition to the idea of the creation of the Earth as a fixed entity. Pressure and heat, water and wind were formative forces, and whatever was deposited on the seafloor was compressed and hurled upwards in violent eruptions – only to decompose again in the oceans around the globe.³ Shortly after Hutton, Novalis, just like Goethe, was fascinated by “knowledge of the Earth”, namely geography. As a scholar in mining sciences, he coined the term “geognostic landscapes”⁴ and the physician and painter Carl Gustav Carus drew up the programme for “Earth-life art”.⁵

At around the same time, between 1828 and 1840, on a different continent, the scientific illustrator Orra White Hitchcock (1796–1863) illustrated her husband's geological research results in wall charts and woodcuts. In the legacy of Hutton and at a time when geology had yet to establish itself as a science, the systematic yet poetic visualisation of geological data she created was to become ambitious teaching material and pure enlightenment. Not only did Orra White Hitchcock draw the Earth's crust layer by layer on canvas in order to convey the distinct composition of stratifications in different geographical locations, but she also reconstructed dinosaurs from fossil finds, thereby revealing her clear understanding of the Earth's ages in relation to transformations in fauna and flora; in addition, she had a passion for fungal species. Fungi, in turn, play a significant role in the current neo-materialist debate on “entangled life” and the call to abandon the categorical separation of dynamic organic life from dull, dead matter, and to recognise that human and non-human life are related. Accordingly, the biologist and philosopher of science Merlin Sheldrake impressively conveys an idea of cooperation between the decomposition

and composition of organisms under the title *Entangled Life*. Since Kati Gausmann's field research is implicitly connected with geology, Sheldrake's investigation of the relationship between mycobionts and geological material is particularly informative.⁶ Commonly known as lichens, these fungal-algal symbioses act as "go-betweens that inhabit the boundary dividing life and nonlife."⁷ Covering approximately eight per cent of the Earth's surface, they are to be found in the places where the artist works and more specifically on the rocks that she works with (but are not, however, her direct focus); their chemical-physical ability to extract minerals from the rock, thus causing it to weather, defines them as a geological force. In addition, when lichens die, they form a first soil layer in a new ecosystem. Incidentally, most of the minerals in the human metabolism are likely to have previously passed through a lichen.⁸

But while there is a lively exchange of movement between organic and inorganic material *on the surface of* the Earth's crust, the latter is also constantly in motion. As early as the eighteenth and nineteenth centuries, continental drift was being discussed as the gradual shifting, splitting and merging of continents, but it was not until the findings of the German physicist, meteorologist and polar explorer Alfred Wegener (1880–1930) on geodynamic processes that the theory of continental drift was established. This ultimately replaced what was referred to as fixism – the concept of a stable connection between the Earth's crust and its subsurface – with the theory of mobilism and plate tectonics. A supercontinent – Wegener called it Pangea, and it is so far the last, but in historical terms will not necessarily remain the only convergence of all known land masses – broke apart some 417 to 251 million years ago. Since then, the parts that constitute the continents as we know them today keep shifting both away from and towards each other by a few centimetres every year. In Iceland, where Kati Gausmann recurrently practices her art, the Eurasian and American plates are moving apart. And here too, it was recently claimed that a plate subsystem producing its own movement had been discovered within the large continental order. A microplate measuring only about 90 x 90 kilometres, called Hreppar plate, is thought to be responsible for a series of latterday earthquakes in the Icelandic volcanic belt.⁹ Icelandic geophysicist Páll Einarsson writes: "A ridge-jump appears to be in progress in South Iceland, where rifting is occurring in two sub-parallel rift zones, the very active Eastern Volcanic Zone and the less active Western Volcanic Zone. The block between them is seismically and volcanically inert and may be defined as a microplate, the Hreppar Microplate."¹⁰

Kati Gausmann is familiar with these scientific theories and their history: for her large wall drawing *drift (14/27/01)* of 2014, countless fine graphite lines, minimally offset in relation to one another, cause the continents – respectively reconstructed according to their palaeogeographical position over the last 600 million years – appear to quiver. Indeed, the kinds of geological forces that are also apparent in continental drift formed the Earth’s crust way back in time and steadily continue to shape the continental and oceanic crust. Today, earthquakes or volcanic eruptions still not only change topography, but also inevitably reshape the relationship between land and people in a geological dimension well beyond what goes by the name of Anthropocene and entails the (human-made) geological turn in philosophy, cultural studies and the arts.

There is rock and there is the solidified time trapped within it. But there is also the hardly noticeable time that marks terrestrial movements and is difficult to visualise beyond geophysical formulas and models. We are not dealing here with the 24 hours of the day that are roughly synchronous with the rotation of the Earth, but with movements of the Earth in an entirely other time dimension. And even the times of day generate different visibilities at different geographical locations. These phenomena are barely perceptible in everyday life. To lend them visual form, the artist collects data in noteworthy locations: during the period of the midnight sun in northernmost Europe; where tectonic extension has shaped the Earth’s surface as a rift valley or rift zone; or where volcanism is active. There, she interacts with the aim of examining and presenting existing landscapes or such in the making by means of her own geographical-physical position and through the media of photography, chalk, graphite, or latex.

The purpose of this kind of research is not the resulting product – a view or an image of the landscape – but to arrive at a methodical depiction of the course of time. Yes, Kati Gausmann boldly lays artistic claim to the representability of deep-temporal geological processes. Presumption, or call it even presumptiveness, usually understood in the negative sense of overweening infraction, is here a productive stratagem involving size and scale of a person as much in a temporal dimension of motion as in the overall dynamics of life processes.¹¹ We are not dealing with the human body as a “proportion machine” – with which we are familiar as the “measure of all things” particularly through Albrecht Dürer – but far more with the body as a

seismograph. In this sense, for her work *drift (19/150/01)* of 2019, a variously reiterated large-format work in the eponymous series (since 2013), the artist recurs to minimal body movement: standing on one leg, she photographs the same geological fissure in front of her at regular intervals, a formation of the Mid-Atlantic Ridge in Iceland. In the process, her wobbly balance simulates the continental drift in fast motion: by projection of minimally diverging contours over one another, she can outline them on one and the same surface, thereby producing an optical blurring that is perceived as movement. If we consider biologist Lynn Margulis' Gaia hypothesis, a philosophical dimension gives further substance to this artistic device: "The Gaia hypothesis is not, as many claim, that 'the Earth is a single organism.' Yet, the Earth, in a biological sense, has a body sustained by complex physiological processes. Life is a planetary-level phenomenon and Earth's surface has been alive for at least 3,000 million years."¹²

In our context, it is noteworthy to consider that Margulis compares the Gaia theory – which she developed together with James Lovelock – with human sensory organisation: "Proprioception, the perception of movement and spatial orientation arising from stimuli inside the body is a medical concept . . . Our proprioceptors incessantly inform us that we are standing up, inclining our head, squinting our eyes, or clenching our fists. Proprioceptors work as sensory systems not for outside information about others or the environment but inside the body . . . Gaia, the physiologically regulated Earth, enjoyed proprioceptive global communication long before people evolved."¹³ Turning this sense-based self-perception inside out, using one's body as a seismograph and mediator of a drift otherwise imperceptible on a human scale, confers a planetary frame of reference to Kati Gausmann's investigations.

The impressive series of *drift* drawings was preceded by the no less impressive *nordlicht [light from the north]* series (2007–2010). In the small coastal town of Andenes, situated on the 69th parallel in northern Norway, the summer sun doesn't set for two months. The artist used this phenomenon here to explore the possibilities of visualising the Earth's rotation. For this, she set her shadow in relation to the course of the day during the midnight sun.

Whereas the motion of the outlines of objects can be traced at rhythmic intervals over a period of 24 hours – similarly to observing the gnomon of a sundial – this cannot work with one's own shadow since every movement of the body, including that of

drawing, will alter how the shadow falls. In order to make herself experienceable as a living being moved by the Earth therefore involved taking consecutive photographs at regular intervals and from one single standpoint, and then putting the shots together chronologically to form a kind of “wheel of time”. This montage conveys on one and the same surface the rhythms and processes that organise life, Earth life and thus the artist too, through movement: *me moved*, 2010, is appropriately the title of the crucial piece just described.¹⁴

Could any artistic procedure better elucidate the way in which the subject is part of the planetary and geophysical movement embracing all things? This experience – for all the inconspicuousness and ephemerality of the phenomena – incorporates vertiginous deep time, so that *me moved* can also be understood in the affective sense of being emotionally touched. However, most of the pencil drawings in the *nordlicht* series bear factual titles such as the location defined by latitude and longitude, plus date and observation period to the minute in Coordinated Universal Time (UTC), for example *16°7'E 69°22'N 10.08.08 13.50–20.50 UTC+2 (2008)*.

When was the first and when was the last shadow recorded? It is no coincidence that the shadow projections of a safety barrier chain, traced at specific time intervals on one and the same sheet of paper, assume a spiral-like appearance. With Leonardo Fibonacci (c. 1170–1240), the spiral or conchoid line is mathematically defined as a specific form of progress that occurs almost universally, as much in biological-organic and galactic structures as in depictions of growth processes. Here, at any rate, it is not the result of a contrived design, but develops from the interaction of human and non-human vital forces.¹⁵ Without Kati Gausmann’s equally systematic and aesthetically informed documentation we would not be able to discern the fine lines of the patterns woven by time.¹⁶

In his recent book, Bruno Latour asks *Where the hell am I?* and proves to be in league with the Gaia theory. This current “philosophical fable”¹⁷ is the sequel to *Où atterrir?* (2017)¹⁸, literally “Where to land?”, and revises the author’s former perspective. In 2017, the philosopher and science sociologist clarified that he was still thinking from a notion of “above”, a planetary dimension from which a physical and symbolic landing on Earth is conventionally conceived. Now – and this is significant when considering Kati Gausmann’s work of the past fifteen years – the traditional method of depicting landscape has lost relevance since central perspective acts as a system of optical hegemony. Above all, however, in the

question *Where the hell am I?*, the reference to place supersedes any orientation rooted in the subject in notorious confirmation of *who I am*. The title also loosely echoes Lenin's essay of 1902 *What Is to Be Done?*¹⁹ However, militant action is not Latour's point of departure. Instead, he weighs out the notion of territory and calls for consequences in its visualisation. Here, he taps into the symbolic capacity of our imagination to animate the action frozen in representations of landscape, in other words to "thaw" it. In the chapter *The unfreezing of the landscape*²⁰, Latour envisions how depicted elements are no longer approached iconographically, but rather by means of "sensors to spot the vivid passage of all these tangled trajectories"²¹ between human and non-human agents. To put it with a certain pathos: ". . . but what gets recorded this way is not the passage of time by the clock, but the freeze-frames of the decisions made by living things so they can continue being."²² The plea to seek active involvement with all kinds of forces has consequences for other conventional images of thought. Latour also rejects the image of the globe as a clearly outlined stereometric body in favour of the closely woven fabric of Gaia. While it is true that there are striking parallels between Latour's concept of territoriality in connection with location and Kati Gausmann's artistic practice, the artist has been applying her "critical" method for far longer and, as it seems to me, in a refreshingly abstract and less narrative manner. Within the context of the replacement of the vertical dimension by vectors Latour names the subject of this new vector-thinking-feeling-re/acting and speaks of its female agent: "She finds herself balancing on one leg, playing hopscotch, where her fate is decided, between either Earth or Heaven."²³ This attitude being expressed here through a metaphor is realised by Kati Gausmann on a physical-territorial level. And inversely, the standpoint and its ensuing activities can be considered in a figurative and ethical sense, calling attention to terrestrial dimensions of existence, mandating that we must stop ruining EARTH – Latour speaks as if it were a personal name. As previously mentioned, standing on one leg is the technical prerequisite for *drift* (19/150/01), a large-scale graphite wall drawing of 2019. Even when the titles of other works quote geographical coordinates, thus situating them not just anywhere, but in a cartographically clearly defined location, this is not simply about regional identification. In times of "earthly" fragility, the frottage embraces a global dimension – the focus being as much on local material as on the spatial sense of "here below".²⁴ On the one hand, "here below" is understood with reference to the Earth's crust or,

using a neologism derived from the terrestrial dimension, referring to what is earthly, but in a figurative sense essentially to being situated or grounded. “Here below” is soil and stands for those findings and insights that *must become fundamental* in the current social situation in regard to climate technology and socio-politics – and orient themselves towards other life contexts and their diverse and mutual dependencies on animate matter. These grounds are not oriented vertically as in a classical artistic landscape, but horizontally in the sense of territoriality. “While, seen from the wrong way round, a territory is whatever can be located on a map by drawing a circle around it, seen the right way round, a territory will extend *as far* as the list of interactions with those we depend on – but no further.”²⁵ Again, I find this approach in Kati Gausmann’s work, where the scope of the body with dimensions such as “at arm’s length” are an essential disposition.

Let us take a brief look at landscape painting as a genre. The term landscape relates to the Old High German “lantscaf”, signifying a larger settlement area. Since the twelfth century, the word has also referred to the totality of the politically active inhabitants of a country (we can assume that the mention denotes a male population since at that time women were not entitled to act as political subjects), then also to a country’s corporative assembly. Ambrogio Lorenzetti’s *Allegory of Good Government* in the frescoes of the Palazzo Pubblico in Siena (1338–1339) conveyed already over 700 years ago the idea of a harmony between region, agriculture, culture, community and accountability. If we look at Petrarch’s almost contemporaneous account of his technically, but above all morally, extremely hazardous ascent of Mont Ventoux in 1336, it is abundantly clear that the view of a landscape from above was deemed a sacrilege, this being reserved for God alone.²⁶ In the late Middle Ages, a geographical emphasis of the word came to the fore: landscape was hence understood as the entity of a natural environment. Around 1500, landscape was initially employed as a term for a segment of nature depicted in a painting, but soon came to be used in poetry to describe an area as it unfolds to the eye.

In Kati Gausmann’s *mountain print (16/01/01)* (2016; a work from the series of the same name that has been ongoing since 2014), once the thin layer of liquid latex brushed onto a geological structure sets, it turns into an elastic yellowish skin. The artist is thus “painting” a very specific landscape image, which, as a cast, is three-dimensional as well. If the artwork created in this way is then coated with paint and

printed on paper, these analogous processes attain a highly symbolic potential. Initially “painted” onto the rock – as if it were a canvas – the impression itself does not comprise any surface coordinates in a cartographic sense. It is what it is: a flexible membrane which was temporarily the rock’s skin captures the formation in a sculptural relief. Only when coated with stamping ink and put under pressure, as if being vigorously rolled over with a cylinder, does an image emerge. Is pressure not also an effective formative geological force? This sort of landscape is created even more directly in frottage. Here, Kati Gausmann applies a layer of paper onto black and porous, former lava flows at a specific geological location – the residue of comparatively recent geological activity. For example, in Grindavik on the Reykjanes Peninsula in southwest Iceland, where 800 years ago and again only recently volcanic eruptions shaped the landscape. Or she focuses on a location near the famous “bridge between the continents”, a symbol of the encounter of the Eurasian and American tectonic plates. In this zone the artist executes a graphite rubbing on paper, whereby the texture of landscape is created by the variously formed rock surfaces. The ground for these frottages is usually so-called stone paper. Her use of sustainable material is no coincidence: stone paper is manufactured from limestone powder (calcium carbonate) and doesn’t involve any water consumption or wood fibres (and is therefore actually a textile material and not paper). It is important to emphasise that this process does not depict a landscape in the sense of a view from a certain distance, but generates an image in a manual and conceptual manner. Detached from any specific location, dimensions are blurred and the viewer cannot immediately discern whether the piece is a mountain seen from a distance or a close-up detail in original scale.

A connection to the so-called “Critical Zone” is significant. Because “[w]hether you study water, soil, plants, rocks, weather, or animal life, all of those phenomena are confined to a very thin domain when compared to the whole of planet Earth as viewed from outer space. The Critical Zone is just a few kilometers thick. It is the only region of the Earth that has been transformed by life over many eons. It is also the only part of the world that you have any chance to experience directly with your senses. Although human activity is barely visible on the planetary scale – not to mention the scale of the universe – it is hugely disruptive on the scale of this thin, fragile and highly complex Critical Zone”²⁷ – as we can read in the Fieldbook of the

eponymous exhibition and digital project hosted in 2020-2022 by the Zentrum für Kunst und Medien Karlsruhe (ZKM). Admittedly, Kati Gausmann's attentive presence in the eastern fjords of Iceland or in the Spanish High Pyrenees is not directly an ecological activity. In its artistic abstraction and explicit aesthetic (rather than scientific-technological) articulation, her research speaks more of an attitude towards, or a positioning within spatiotemporal dimensions. Kati Gausmann implements her own body scale, taking account of her dependency on what she can physically reach, as a means of relating to deep time. Within these parameters she performs unobtrusive, concentrated actions, thereby vividly conveying her awareness of the discrepancy between earthly traces of time unimaginable and humanity's potentially destructive and mindless treatment of the Critical Zone.

NOTES

1 James Hutton, *THEORY of the EARTH; or an INVESTIGATION of the Laws observable in the Composition, Dissolution, and Restoration of Land upon the Globe*, Transactions of the Royal Society of Edinburgh, Edinburgh: J. Dickson 1788.

2 Cf. Jan Oliver Löffken, *Erdkruste aus der Frühzeit der Erde entdeckt*, 16 March 2017; <https://www.weltderphysik.de/gebiet/erde/nachrichten/2017/erdkruste-aus-der-fruehzeit-der-erde-entdeckt/> (last accessed 14 August 2022).

3 The understanding of "deep time", according to John McPhee the concept for the immeasurable timespan of the Earth's formation, begins with Hutton. Cf. John McPhee, *Basin and Range*, New York City, NY: Farrar, Straus and Giroux 1981; the time reference here is dozens of millions of years.

4 Novalis [Georg Friedrich Philipp Freiherr von Hardenberg, 1772–1801], "Noten zur Kunst", in: idem, "Romantische Noten", in: *Fragmente I*; <https://www.projekt-gutenberg.org/novalis/fragmen1/chap024.html> (last accessed 14 August 2022).

5 Carl Gustav Carus, *Nine Letters on Landscape Painting, Written in the Years 1815–1824*; translated by David Britt, Los Angeles: Getty Publications 2002, p. 119.

6 Cf. Merlin Sheldrake, *Entangled Life: How Fungi Make Our Worlds, Change Our Minds and Shape Our Futures*, New York: Random House 2020. Particularly chapter 3 "The Intimacy of Strangers", EPUB, n. p.

7 Ibid., "The Intimacy of Strangers", n. p.

8 Cf. *ibid.*

9 In 2006, fifteen such microplates were known and more are yet being discovered (cf. Tim Schröder, *Puzzlespiel am Meeresboden. Von Transformstörungen, Spreizungszonen und Mikroplatten*, 28 April 2006; <https://www.scinexx.de/dossierartikel/puzzlespiel-am-meeresboden/> (last accessed 15 August 2022)), among these, 2011, the Tibetan plate on the Tibetan Plateau.

10 Páll Einarsson, *Plate boundaries, rifts and transforms in Iceland*, JÖKULL No. 58, 2008, pp. 35–58, here p. 35.

11 Interestingly, for the past two years Kati Gausmann has been working on a series entitled *small dance*, which is about observing minimal movements inside the body and how they can be represented in drawing. This most recent research of hers goes back to *The Small Dance* (1967), a performance in which the experimental dancer and choreographer Steve Paxton articulated that standing was an activity.

12 Lynn Margulis, *Symbiotic Planet: A New Look at Evolution*, New York: Basic Books 1998, p. 115.

13 Ibid., pp. 113–14.

14 I will not go further into Kati Gausmann's drawing series *flow* (since 2013). Nonetheless, it is worth mentioning this work because of its similar technical basis. The camera's serial mode sequences fleeting movements, primarily of water and wind, in specific geographical locations. The artist then experiments with the translation of time-related processes into two-dimensional settings.

15 The formation of the above-mentioned microplates is also associated with rapid rotation, described as a vortex or spiral pattern. Cf. no author, *Der Tanz der Mikroplatten*, 28 April 2006; <https://www.scinexx.de/dossierartikel/der-tanz-der-mikroplatten/> (last accessed 15 August 2022).

16 With the use of textile metaphors I am alluding to the artist's close association with clothing in relation to the human body. In her diploma thesis (2003), she writes: "The manner, cut and fabric of clothing influences physical awareness in the movements and rhythms of the body; it effects the skin, the organs, the muscles and, through these, human thought, cognition and activity. Skin is the principal sensory organ in our physical experience of clothing and generally plays a significant role in human experience. All our other sensory organs are filtered through our skin. It is also through the skin that human beings can simultaneously perceive and associate different sensory perceptions such as changing time and physical distance." (Kati Gausmann, "identitäten", *KHB-Magazin* #6, text contribution "identitäten", Berlin 2005, pp. 13–14, translated by HA), Even if some twenty years ago proprioception or self-perception was not spoken of as an addition to the classical five senses, but was seen on a sociological level as a formative influence on our psychophysical perception through economic and situational conditions and, in consequence, through clothing, there is yet a connection: On what understanding do we base the idea that the Earth's crust "clothes" planet Earth?

17 Bruno Latour, *After Lockdown. A Metamorphosis*, translated by Julie Rose, Cambridge (UK): Polity Press 2021 (244 pp.), XIV, EPUB, p. 206. Originally published as: *Où suis-je? [Where the hell am I?] Leçons du confinement à l'usage des terrestres*, Paris: Editions La Découverte 2021.

18 "Où atterrir?", the English title reads: Bruno Latour, *Down to Earth. Politics in the New Climatic Regime* (orig. 2017), translated by Catherine Porter, Cambridge (UK): Polity Press 2018.

19 Latour makes a passing reference to it. Latour, *After Lockdown*, XII, EPUB, p. 182.

20 Ibid., IX, pp. 129–147.

21 Ibid., p. 141.

22 Ibid.

23 Cf. *ibid.*, pp. 142–143: "He finds himself hopping around in a game of hopscotch where his fate will be decided, between Earth or Heaven". (Capitalisation by BL.) The French original reads: "Elle se trouve à cloche-pied sur une marelle où son sort se décide, entre Terre ou Ciel." Here, Hanne Loreck requested a translation that employs the gender-specific language used by Latour.

24 Cf. the double meaning of "here below" in Latour, *ibid.*, IX, pp. 129–130.

25 Ibid., IIX, pp. 119–120 (Italics by BL).

26 Cf. Jürgen Goldstein, “Den höchsten Berg dieser Gegend habe ich am heutigen Tage bestiegen. Francesco Petrarca besteigt 1336 den Mont Ventoux” [Today, I climbed the highest mountain in this area. Francesco Petrarch ascends Mont Ventoux in 1336], in: idem, *Die Entdeckung der Natur. Etappen einer Erfahrungsgeschichte*, Berlin: Matthes & Seitz 2013, pp. 27–39.

27 no author [ZKM | Center for Art and Media Karlsruhe (ed.)], *Critical Zones. Observatories for Earthly Politics*; https://zkm.de/media/file/en/cz_fieldbook_digital_en.pdf, n.p. (last accessed 25 January 2023).