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# Time Matters

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# Time Matters\*

## (*an introduction*)

There is no time, right?,  
left.

### Abstract

This issue of APRIA, *Time Matters*, was compiled and edited by the ArtEZ Theory in the Arts professorship. All of these reviewed artistic (research) and academic contributions were created and written specially in response to the four-part seminar *Time Matters* (2019-2020). The aim of the publication and the seminar is to inquire into the changing concepts of time in the arts and other epistemic fields collectively, and to explore and test alternative – past, present and future-oriented – temporalities.

\* We would like to thank all the authors and peer reviewers for their time and efforts on behalf of this special issue on *Time Matters*. *The editorial team*.

### Time issues; time and again.

We all live in coronavirus time now, or perhaps already in post-coronavirus time. Don't we? How come? What time is it? Is time up? Are we passing time to become past time? Are we losing or already lost in time? What is time anyway, what does it do?

Without always being aware of it, time is, at all times and all the time, both present and absent in our daily life; and it will remain so, also when trying to understand it. We attempt to grab it often, but lose it at the same time. As soon as we try to capture its properties, time, at all times, escapes our full understanding. How does time act, and how does it affect us, and does it, really? And what to think about past time, present time and, of course, future time that has come under threat by the past,

current and future climate crises, changing our notion of nature all the time? What remains of time when we want to conceive an image of future times? How long is our future? Just as long as time? Or do we all live in preemptive time, which, according to philosopher and theorist Armen Avanessian and reader in Critical Studies at Goldsmiths Suhail Malik, makes our present before we even have entered it ourselves? Which has lead, for instance, to the new phenomenon of the ‘preemptive personality’:

We know a version of this from Amazon[.com]: its algorithmic procedures give us recommendations for books associated with one’s actual choices but the preemptive personality is one step ahead: you get a product that you actually want. The company’s algorithms know your desires; they know your needs even before you become aware of them yourself.

And next to the *pre-*, the *post-* has also popped up many times in our time:

While the ‘pre-’ indexes a kind of anticipatory deduction of the future that is acting in the present—so that future is already working within the now, again indicating how the present isn’t the primary category but is understood to be organized by the future—what the ‘post-’ marks is how what’s happening now is in relationship to what has happened but is no longer. We are the future of something else. The ‘post-’ is also a mark of the deprioritization of the present.

The present we live in is, in short, no longer self-evident. It is future, it is past, is it not present?

Next to this notion of a *pliable present*, time is also going increasingly faster. Velocity has become crucial in and for modern life. As Hartmut Rosa has analysed in his *Alienation and Acceleration*, modern life (roughly the last two centuries) is a time of

extreme acceleration.<sup>2</sup> Time has become so dominant that space – which was for a long time dominant in our culture – shrank in significance and lost terrain. It does so in many ways for our orientation in the late modern world, Rosa emphasises; deadlines and processes are for instance no longer localised. Real locations such as hotels, banks, universities and industrial complexes have become non-places, i.e. locations without a history, an identity or a connection, as Marc Augé has put forward in his influential book *Non-Places*.<sup>3</sup> Space and place do not remain untouched by the speeding up of time.<sup>4</sup> Although we all have the feeling that time is slipping out of our hands, in particular with the arrival of the internet and other digital means, Paul Virilio, known as the philosophical ‘high priest of speed,’ argued that speeding up is not at all unique to the digital age. The history of modernity is to be seen as ‘a series of innovations in an ever-increasing time compression,’<sup>5</sup> like nineteenth-century transport, which shortened travelling time, and twentieth-century media, such as the telegraph, telephone, radio and computer and satellite communications, which turned succession and duration into simultaneity and instantaneity. All technological innovations enhance the independence of the social relations of time from space and the body. The acceleration therefore in fact ‘transcend(s) humans’ biological capacity.’<sup>6</sup> Technoscience is speeding up the world to such a degree that things, even reality, are starting to disappear. Real space is

finally replaced by real time, and intensity supercedes extensity.

This rather negative evaluation of ICTs (although Virilio is not against technology as such but rather against the fundamentalist, i.e. affirmative, belief in it) is softened by Judy Wajcman's statement – who, as a sociologist of work, researches 'social time' – that the supposed negative influence of ICTs on our personal time, i.e. the blurring of the boundary between work and home and colonising all of our time, is not completely correct. She inquires instead how digital technologies shape people's sense of time and stresses that ICTs are 'fostering new patterns of social contacts, providing a new tool for intimacy,'<sup>7</sup> which is based on her notion that 'Work is done in time, work is a temporal act.'<sup>8</sup> Considering she wrote this before the increased use, or rather, the invasion of digital communications due to Covid-19, we should wonder, however, if she is still right about this 'new tool for intimacy,' because the general complaint, to which we almost all can testify, regards a lack of intimacy and the longing for touch and to be touched. Our current meetings and conversations on Zoom or Teams and the like has made the disappearance of space, in more than one sense, extremely palpable.

Let's return to our time again. What do we mean by the pronoun *our* in 'our time'? This is the how the French philosopher Jean-Luc Nancy in his *The Birth to Presence* (1993) describes it:

'Our time' means precisely, first of all, a certain suspension of time, of time conceived as always flowing. A pure flow of time could not be 'ours.' The appropriation that the 'our' indicates ... is something like an immobilization - or, better, it indicates that some aspect of time, without stopping time, or without stopping to be time, that some aspects of temporality, as *temporality*, becomes something like a certain space, a certain field, which could be for us the domain, in a very strange, uncanny fashion, of property.

And with space, he continues, 'the points of temporality itself, which are nothing but the always becoming and disappearing *presents* of time.'<sup>9</sup>

Between these presents, between the flow and itself 'a happening happens.' Nancy's *our* time is thus time that has been taken in possession by us, that has been halted by us and picked up by us out of the continuous stream of time. In the latter time, all presents follow each other.

Using the word *property*, Nancy does not seem to refer to the contemporary, however, but more to the modernistic attitude of trying to get hold of the present to become possessor of the future. How does this relate to *the contemporary*, which is used today much more often than the word modern or modernistic? The contemporary as a notion – although it is not a recent term, and has already been in use for a long time – came to the fore in the last 30 or 40 years, or so, when we started talking about *contemporary* art, *contemporary* music, *contemporary* theatre, *contemporary* dance, and *contemporary* architecture, instead of *modern* art, etc. Our modern time has, also in general, gradually been taken over by the contemporary. But what does this entail? Art historian Hal Foster says that

[w]hat is new is the sense that, in its very heterogeneity, much present practice seems to float free of historical determination, conceptual definition, and critical judgment. Such paradigms as 'the neo-avant-garde' and 'postmodernism,' which once oriented some art and theory, have run into the sand, and, arguably, no models of much explanatory reach or intellectual force have risen in their stead.<sup>10</sup>

In short, Foster's time is a time that has left history behind – and in that sense modernism – and thus any kind of ideological framing. Time has become contemporary, which is explicitly not a specific time period or a time moved by an inner urge (whatsoever). In his book *Brouhaha*, Lionel Ruffel emphasises that contemporary 'has only ... very recently ... become a substantive, and, consequently, has increased in substance to become *the* contemporary, charged with multiple meanings. And the more it became *the* contemporary, in the singular, the more those meanings proliferated.'<sup>11</sup> With the expression 'brouhaha,' Ruffel tries to catch 'the messiness that is the contemporary,'<sup>12</sup> which is thus not to be confused with the modern anymore. In his statement that the contemporary is a replacement of the modern, Ruffel tries to avoid at all cost any chronology or analysis that might be seen as a modernist approach that neatly tries to box everything in...

[W]e clearly don't live in a modernist, future-orientated society anymore, but in a contemporary one that is chaotic and messy in its multiplicity, being multidisciplinary<sup>13</sup> and thus undisciplined, but therefore also extremely rich.

The idea of a linear *internal* development of time, which came to expression in, for instance, different historical domains/sciences that were developed in the nineteenth century, like the history of music,

the history of art, et cetera (seconded by a constantly disciplining of and objectifying of the other) seems to have departed. We are now left with another *our* time, the contemporary, which is a rich, but unordered, chaotic and multifaceted muddle. Expressions like chaos, mess and muddle reminds us of the idea of the ‘thick present,’ which Donna Haraway has put forward in her *Staying with the Trouble*, which indicates exactly the mess that we have to stay with and not flee from (anymore): a mess that excludes the former future-oriented characteristic of modernism that presumed a hidden teleological drive.

Contemporariness, our time, is thus connected to a specific relationship to history in its appearance as a future driven force. Philosopher Giorgio Agamben has proposed, inspired by Nietzsche, that contemporariness is

a singular relationship with one’s own time, which adheres to it and, at the same time, keeps a distance from it. More precisely, it is that relationship with time that adheres to it through a disjunction and an anachronism. Those who coincide too well with the epoch, those who are perfectly tied to it in every respect, are not contemporaries, precisely because they do not manage to see it; they are not able to firmly hold their gaze on it.<sup>14</sup>

Being *of* your time is thus being able to not only be *in* your time. Agamben also articulates the notion that the contemporary is an ahistorical concept, and thus not a label of periodisation; it should be seen as an ‘existential marker.’ The second definition he gives of the contemporary is more personalised, it is

he who firmly holds his gaze on his own time so as to perceive not its light, but rather its darkness. All eras, for those who experience contemporariness, are obscure[,] ... as something that concerns him, as something that never ceases to engage him[,] ... struck by the beam of darkness that comes from his own time.

He compares this with the blackness that surrounds all our stars and milky ways. The black, he stresses here, is not the absence of light but is the light that stars that are flying away from us cannot give anymore because their speed is too high for their light to arrive to us. Through this analogue, Agamben arrives at a new description of the contemporary, now formulated as a verb: 'To perceive, in the darkness of the present, this light that strives to reach us but cannot – this is what it means to be contemporary[:] ... it is being on time for an appointment that one cannot but miss.'<sup>16</sup> In this sense, contemporariness becomes a kind of timelessness. It does not take place within chronological time, he concludes, but 'is something that, working within chronological time, urges, presses, and transforms it.'<sup>17</sup>

For us, the question of how to pierce this unapproachable darkness of the now remains, or, should we rather, instead, follow Édouard Glissant, and start *producing* opacity and preventing transparency, for opacity is a category 'of active visualization, of a visualization however, that is rendered unintelligible, beyond understanding.'<sup>18</sup> And what to think about another neologism that had recently been forged by Timothy Morton, the hyperobject, which represents an unreachable phenomenon as well, such as climate change, which is too big and

stretches out too far through time for us to see and understand?

For me, the earlier references to mess and trouble are better and nearer and more touchable metaphors for taking a critical look at our present, our contemporary, than the darkness of fading and escaping light. To be living in a thick present, stuffed with more than one temporality and many layers of the past contains more (future) possibilities, and offers the possibility to dig deeper in its past and forgotten potentialities, such as are made apparent in the recent archival turn in the arts, which has also made its way to postcolonial archives: ‘...visual artists and writers across geographic locations have looked to alternative ways of representing past and present events by imagining the events and stories that were once silenced in those archives.’<sup>19</sup> The thick present also applies to these ‘thick’ archives, now used by ‘visual artists and writers [to develop] modes of archiving ‘counter-memory,’ that is, memory that contradicts or revises official history, offered as a result a critical reflection upon the limitations encountered in colonial and post-colonial archives.’<sup>20</sup> The future of our present will change because of these findings, making new futures possible by passing different pasts into the present. A thick present thus also feels literal, and is arguably more touchable and, in a way, at the same time even obscure in an *Agambian* way, because that which had not been documented within archival matter is also part of it in its absence.

The past looks like a malleable part of the thick present, which also applies to the distant past, the past of Earth itself. Our relation to the latter has become acute, culminating in the newly forged notion of the Anthropocene, which has revealed and exposed our vulnerable ecological relationship with the Earth, or even more generally, with the non-human. For not only geology refers to a non-human time: our other non-human ‘counterparts’ also have their own temporalities, which do not match our human understanding as well. Humans and non-humans are contemporary but do not coincide. Our time has dominated for a long time, but is slowly losing its grip, and it should to make other relationships in and with the world possible.

This APRIA issue, *Time Matters*, with seventeen contributions by artists and scholars is the outcome of a four-part seminar with the same name, which was organised in 2019-2020, by researchers of the professorship in Theory in the Arts (ArtEZ University of the Arts).<sup>21</sup> We inquired into and discussed all kinds of questions, suggestions, topics and issues concerning time. One of the goals was to discuss the topic of time with participants from different fields, i.e. from the arts, sciences and humanities, thereby emphasising that theoretical issues move along all kinds of research domains, including the arts.

The first seminar put forward the idea of *Casting Futures in the Thick Present*.<sup>22</sup> It inquired into what Helga Nowotny identified in 1989 as the tensions

arising between a ‘...subjective local time that sees itself confronted with a public world time.’<sup>23</sup> We seem to be moving towards an unbearable pressure on our being-in-the-present. The complex industrial and technological systems that have been set in motion – economic, energy extraction, agricultural, mobility, connectivity – have extended, sending their fibres beyond our current time position and wrapping back toward us, determining our imminent responsiveness in an ever-accelerating need for pre-emptive action to avoid negative future probabilities. Caught up in this system, an individual can easily feel there is no stopping or diverting these networked, vast and embedded machinic systems, rising up like a deterministic wave to crash back at us, swallowing our futures. We are surviving, but how? From Haraway we learn to remain tenaciously enmeshed in our mutual living and dying on a damaged earth:

In urgent times, many of us are tempted to address trouble in terms of making an imagined future safe, of stopping something from happening that looms in the future, of clearing away the present and the past in order to make futures for coming generations. Staying with the trouble does not require such a relationship to times called the future. In fact, staying with the trouble requires learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad<sup>24</sup> unfinished configurations of places, times, matters, meanings.

Through new stories, stories of our past and stories by means of which we give shape to possible futures, we can start practices of casting futures in a thick present. Imminent and embedded futures. The short way forwards, backwards, and in-between.

In the second seminar, we focussed on *Deep Surface, Geological and Atmospheric Time*.<sup>25</sup> The twentieth century was the century of space. Before the last war, we saw three-dimensional Cartesian space as the condition for a rationalistic aesthetic organisation of life. In architecture, the vertical city showed itself to be the outcome of scientifically steered zoning and planning processes. After the war, a more phenomenologically tainted approach took over, in a humanistic effort to concretise space as unfolding from place: the work of art as the generative power creating surroundings for the participation of creative man. In the last decades, a new form of space has announced itself: shallow space (Collin Rowe), shallow depth (Gilles Deleuze) or deep surface (Lars Spuybroek). It is the skin or bas-relief in which the forces of formation, persistence and deformation are inscribed in the surface, resulting in textures, relief, rustication, tectonics, posture and gesture. Stressing the still unfulfilled powers of materials, the artist challenges their possibilities in stretching and deforming their properties. Materials behave like Protean matter, full of images. The artist becomes a 'cosmic artisan':<sup>26</sup> a virtuoso evocating and celebrating the creative powers of the Earth. In the modern interior (Frank Lloyd Wright, Carlo Scarpa, Marcel Wanders, Peter Zumthor) we live in a mannerist grotto, atmospherically participating in this geological time.

Another aspect that was addressed was the relation between nature and culture. We increasingly

realise that we cannot separate culture from nature anymore. Mehdi Belhaj Kacem's statement, 'I can't even eat any more without confusing myself with the very substance of the food'<sup>27</sup> makes this quite apparent. Nature and culture do mix, as certain 'natural works of art' show. In artistic research practices, theory and practice are no longer strictly separated, as shown by works of art in which text disintegrates.

Seminar III focussed on *Ecological Time*<sup>28</sup> and started with the following quote, by Michel Serres: 'Above all, we surely don't know how to think the relations between time and weather, *temps* and *temps*: a single French word for two seemingly disparate realities.'<sup>29</sup> In times of ecological crisis, time itself seems to be out of joint. What could once be thought of as a linear concept, aimed at ever-accelerating speed towards growth and progress, now seems to curl and twist into strangely interacting cycles and ever more complex feedback loops. Facing the slow violence of environmental catastrophe, contemporary art and philosophy re-think the traditional temporal categories of past, present and future. In addition, artists and thinkers imagine profoundly different temporalities than the human-scale ones we are used to. More than ever, reality appears as a vast timescape, in which things and species have their own time in a multi-temporality mesh. Is art, including music, capable of fostering a deeply felt experience of ecological time?

And what about time in artistic activities that no longer concentrate on the work but on process?

The fourth and last Seminar, *Ecological Time: Natures that Matter in Activism and Art*,<sup>30</sup> concentrated on the meaning of nature in different discourses. At a time when ecological catastrophes are becoming ever more manifest, and the term Anthropocene connects the symptoms of this crisis, as we have seen, it has become clear that modern culture has only ostensibly been cut off from the multifarious web of intimate relations we call nature. Perception is changed by knowledge and art, shifting what and how things touch and move us. Art makes sensible that the way we treat nature is also the way we treat each other, and subversively practices and presents different perspectives and relations, by interrupting conventionalised routines and tempos in order to attune to other lifeforms. Likewise, art relates to knowledge to evoke actions, alternatives and care.

## Fin

The issue contains contributions from speakers at the seminars and other invitees to further elaborate their view on 'time matters.' The contributions are woven into the text and can be read randomly. There is no linear sequence. Although we still do not know what time is, the issue offers instances of many of its workings and re-workings. We see how art(ists) react to it, how scholars deal with it and how we, personally or collectively, could relate

to it. Time is not over, but it's about time to take our time seriously and treat it as an urgent matter, which includes many temporalities. It has also become time to develop 'long-termism,' to save the Earth and future generations from our (nuclear and petrocapiatlist) behaviour; we need a new history of the future. We now know scarcely anything about the future, and we are not at all experienced in long-term thinking, but

timespans ranging from a few months to a few years determine most formal planning and decision-making - by corporations, governments ... quarterly reporting by companies[,] ... planning horizons of one to five years[,] ... these are the usual temporal boundaries of our hot, crowded, and flattened little world[:] ... short-termism,

as Vincent Ialenti describes our time planning experience. He therefore stresses the need to get away from short-term thinking and acting. We should become 'a time-literate society' in which one asks oneself, 'How can I be a good ancestor?'<sup>31</sup>

Time is time, it is urgent.

#### Peter Sonderen

Peter Sonderen is Professor of Theory in the Arts at ArtEZ University of the Arts, Arnhem, and head of the Honours Lab. His PhD research on sculptural thinking (University of Amsterdam, 2000) foreshadows the focus of his current research, namely the relationships between theory, art practices and research in the arts, aesthetics, performativity, ecology, time and the new materialisms. His publications include *Denken in Kunst* (with Henk Borgdorff, Leiden University Press 2012), *The Non-Urban Garden* (AFdH, 2014), *Unpacking Performativity* (with Gaby Allard, ArtEZ Press, 2016), *Theory*

*Arts Practices* (with Marijn de Langen, ArtEZ Press, 2017). In 2019, he opened the interactive platform *Let's Talk about (Artistic) Research* (with João da Silva) and published *The Entanglement of Theory and Practices in the Arts* (ArtEZ Press, 2019). His introductory chapter, "Hemsterhuis' Art and Aesthetics: Theories in the Making," will appear in *François Hemsterhuis: Philosophical Works* (Edinburgh University Press, forthcoming 2021).

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Footnotes

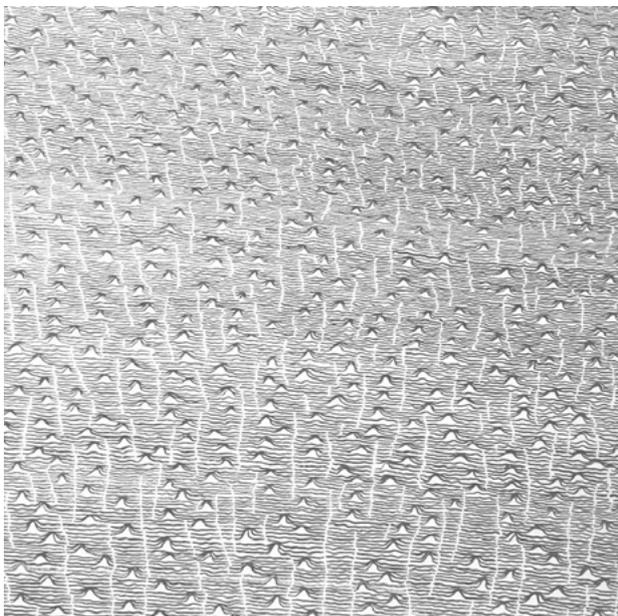
- 1 Armen Avanessian and Suhail Malik, 'The Speculative Time Complex,' *The Time Complex: Post-Contemporary* (Miami, FL: [NAME] Publications, 2016), p. 11.
- 2 Hartmut Rosa, *Leven in tijden van versnelling: Een pleidooi voor resonantie* (Amsterdam: Boom, 2016), passim.
- 3 Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity*, trans. John Howe (London: Verso, 1995).
- 4 Cf. Zygmunt Bauman's *Liquid Modernity* (Cambridge and Malden, MA: Polity Press, 2000), p. 9: 'Thanks to its newly acquired flexibility and expansiveness, modern time has become, first and foremost, the weapon in the conquest of space. In the modern struggle between time and space, space was the solid and stolid, unwieldy and inert side, capable of waging only a defensive, trench war - being an obstacle to the resilient advances of time. Time was the active and dynamic side in the battle, the side always on the offensive: the invading, conquering and colonizing force. Velocity of movement and access to faster means of mobility steadily rose in modern times to the position of the principal tool of power and domination.'
- 5 Judy Wajcman, 'Life in the Fast Lane? Towards a Sociology of Technology and Time,' *The British Journal of Sociology* 59 (March 2008): p. 59-

77. <https://doi.org/10.1111/j.1468-4446.2007.00182.x>.
- 6 Ibid.
- 7 Marli Huijer, review of *Pressed for Time: The Acceleration of Life in Digital Capitalism*, by Judy Wajcman, *Time & Society* 28, no. 3 (2019), pp. 1-4.
- 8 Judy Wajcman, 'Keynote Capture All\_Work,' keynote lecture, Haus der Kunst, video, 29:31 (29 January 2015), <https://youtu.be/Q0FVbHwonLI>.
- 9 Jean-Luc Nancy, *The Birth of Presence* (Stanford: Stanford University Press, 1993), p. 150 ff.
- 10 Hal Foster, 'Questionnaire on 'The Contemporary,' *October* 130 (Autumn 2009), p. 3. <https://www.jstor.org/stable/40368571>.
- 11 Lionel Ruffel, *Brouhaha: Worlds of the Contemporary* (London and Minneapolis: University of Minnesota Press, 2018), p. 3 ff.
- 12 Edith Doove, Review of *Brouhaha: Worlds of the Contemporary*, by Lionel Ruffel, *Leonardo* 52, no. 2 (2019), pp. 197-198, <https://muse.jhu.edu/article/721929>.
- 13 Ibid.
- 14 Giorgio Agamben, *What is an Apparatus? And Other Essays*, trans. David Kishik and Stefan Pedatella (Stanford: Stanford University Press, 2009), p. 41 ff.
- 15 Ibid.
- 16 Ibid.
- 17 Ibid.
- 18 Renate Lorenz, 'Introduction,' in *Not Now! Now!: Chronopolitics, Art & Research*, ed. Renate Lorenz, Publication Series of the Academy of Fine Arts Vienna, vol. 15 (Vienna: Sternberg Press, 2014), p. 17.
- 19 See for instance Marta Fernandez Campa's dissertation: *Fragmented Memories: The Archival Turn in Contemporary Caribbean Literature and Visual Culture* (PhD Diss., University of Miami, 2013), [https://scholarship.miami.edu/discovery/fulldisplay/alma991031447241002976/01UOML\\_INST:ResearchRepository](https://scholarship.miami.edu/discovery/fulldisplay/alma991031447241002976/01UOML_INST:ResearchRepository).
- 20 Ibid.
- 21 See <https://timematters.artez.nl>.
- 22 Organised by Sharon Stewart and Peter Sonderen. Contributors: Eric Kluitenberg, Ximena Alarcón-Díaz, Peter Sonderen and Sharon Stewart.
- 23 Helga Nowotny, *Time: The Modern and Postmodern Experience* (Cambridge: Polity Press, 1994), p. 18-19.
- 24 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham and London: Duke University Press, 2016), p. 1.
- 25 Organised by Marieke de Jong, Saskia Korsten and Frans Sturkenboom. Contributors: Semâ Bekirović, Sjoerd van Tuinen, Korsten&DeJong and Frans Sturkenboom.
- 26 'Deleuze & Guattari,' see <https://timematters.artez.nl>
- 27 Medhi Belhaj Kacem, '1993 (extrait/excerpt),' *Sites: Contemporary French and Francophone Studies* 2, no. 1 (1998), p. 205, <https://doi.org/10.1080/10260219808455937>, my translation.
- 28 Organised by Joep Christenhusz. Contributors: Claudia Molitor, Rick Dolphijn, Joep Christenhusz.
- 29 <https://timematters.artez.nl>
- 30 Organised by Monique Peperkamp. Speakers: Daniela Paes Leão, Terike Haapoja, Monique Peperkamp.
- 31 Vincent Ialenti, *Deep Time Reckoning: How Future Thinking Can Help Earth Now* (Cambridge, MA: MIT Press, 2020), p. 150. Cf. Roman Krznaric, *The Good Ancestor: How to Think Long Term in a Short Term World* (London: WH Allen, 2020).

**Abstract**

Since the invention of the atomic clock, one could say time has been perceived as a resource which can be divided, controlled and 'owned.' While it is evident that today's modes of production are not sustainable, there is no clear pathway to a more sustainable future. In six episodes, *Something Temporary* examines different perceptions and forms (sustainable, circular) of time through interviews, field recordings, music and exercises in experiencing time: from the pace of the Rotterdam harbour and high-frequency trading to circadian rhythms and non-human notions of time.

The first episode, *Time = Experience*, examines how we experience time as human beings, the circadian rhythm and how it relates to rhythms of society and different approaches to time, informed by the fields of chronobiology and philosophy, with contributions by philosopher and writer Joke Hermsen, professor of neurophysiology Joke Meijer, and music by LY Foulidis.

Laurie Hermans, Katia Truijen

Laurie Hermans (1988) is a cultural anthropologist and surfer, and conducts research on sustainability and behaviour at TNO. A firm believer in the myriad aspects of creativity and intelligence, Laurie is always looking for ways to connect science and the arts. In this podcast, Laurie hopes to find useful answers for a sustainable future.

Katia Truijen (1990) is a media theorist and musician, and works as senior researcher at Het Nieuwe Instituut for architecture, design and digital culture in Rotterdam. Katia is fascinated by the ways in which we experience and are subjected to all kinds of time regimes, and how artists and researchers propose alternative, non-linear, non-human and more sustainable perspectives on time, while developing tools and instruments to listen to different timescales and dimensions.

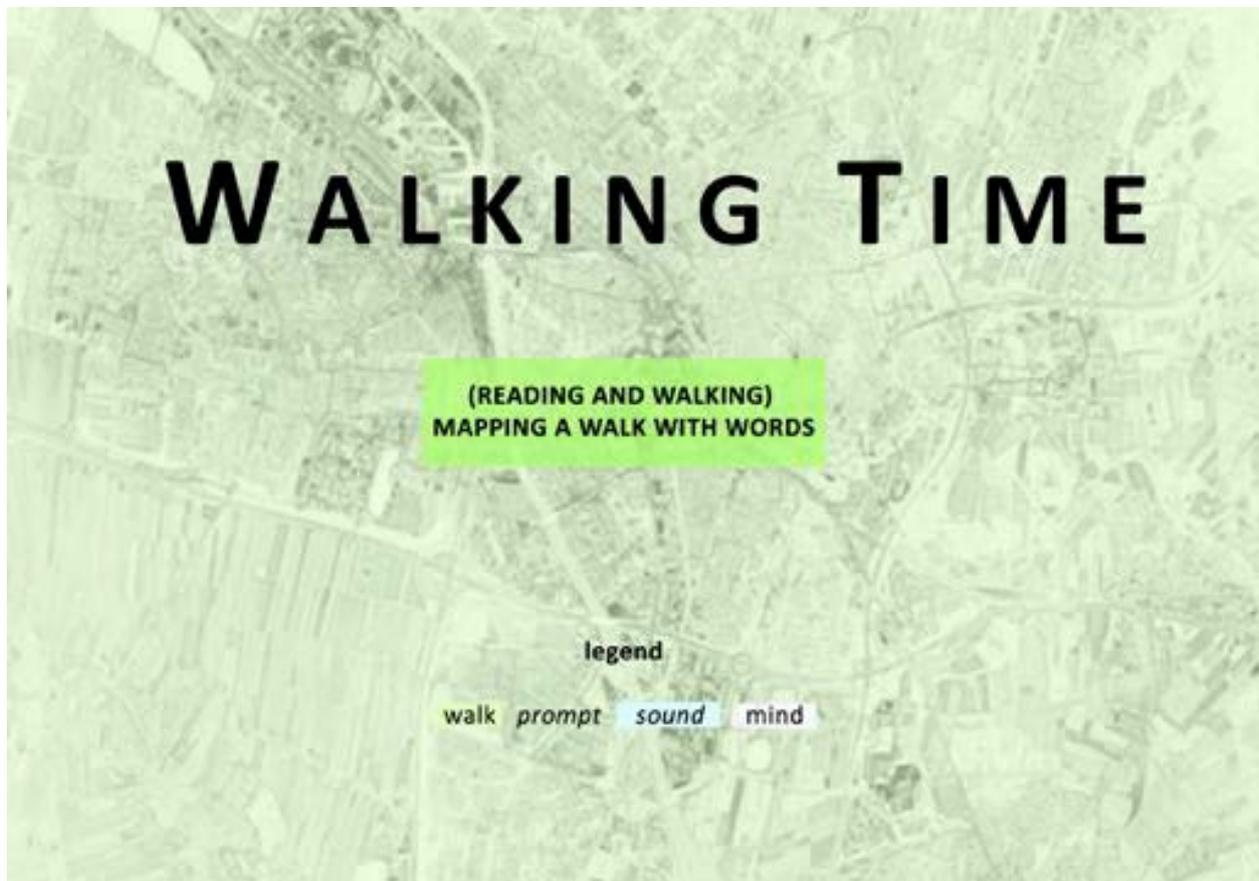
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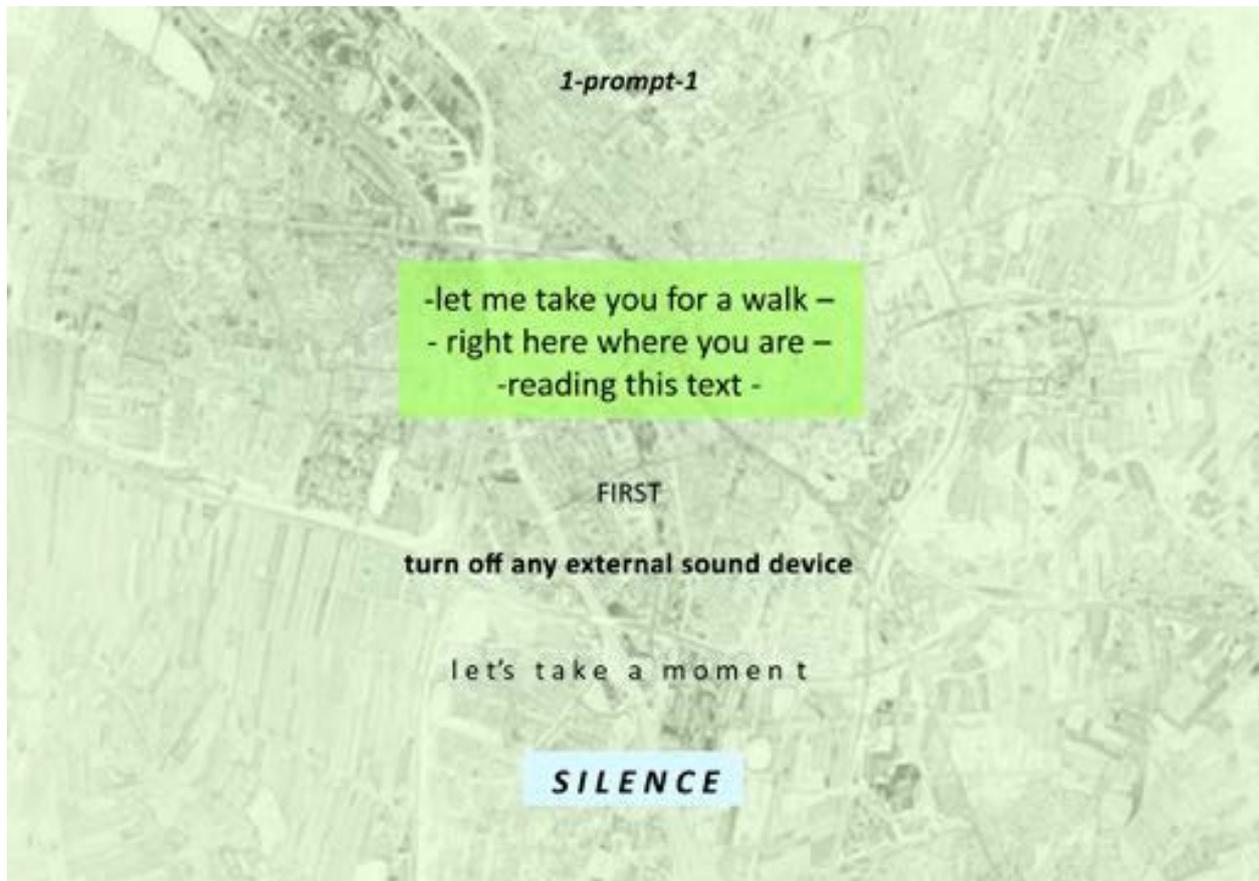
- Joke Hermsen, writer and philosopher, see website: <http://www.jokehermsen.nl/>
- Joke Meijer, professor neurophysiology, see website: <https://www.johannahmeijer.com/>
- LY Foulidis, music from Hoekhuis: <https://obusrecords.bandcamp.com/album/hoekhuis>

# *Walking Time*

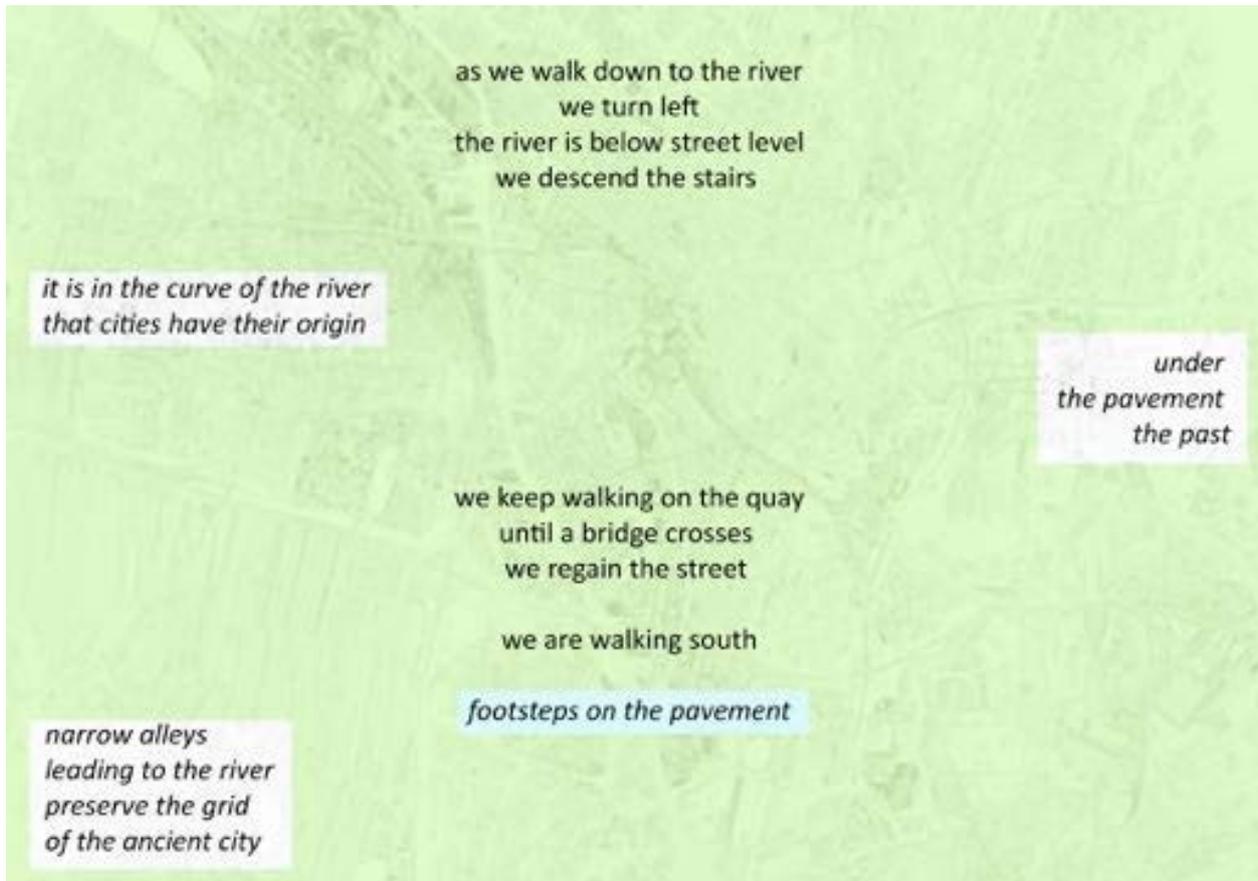
## **Abstract**

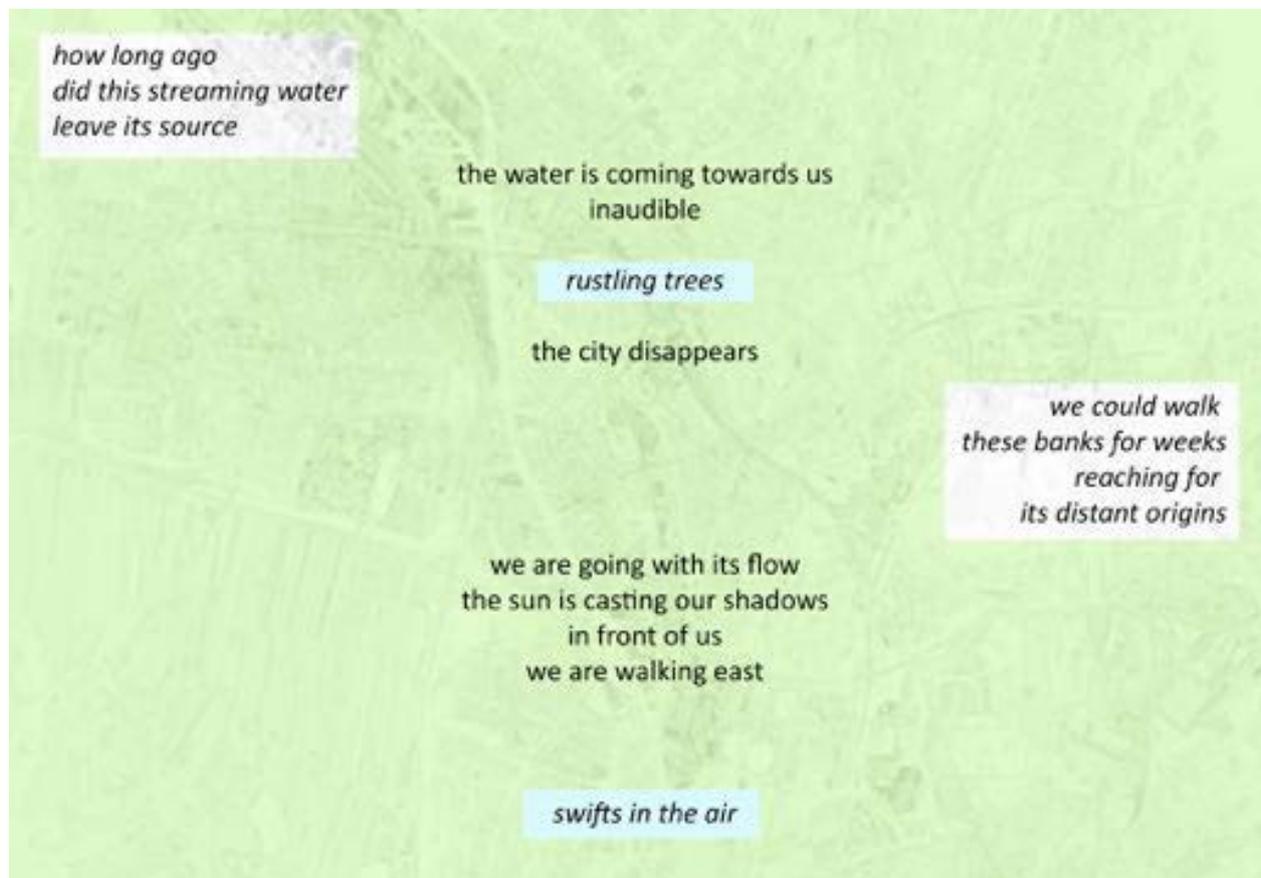
*Walking Time* is a hybrid attempt to go for walk while reading. It is a description of an actual walk as well as a prompt. It is a visual approach to a text containing memories evoked by walking and an invitation to the sensorial presence of the reader.

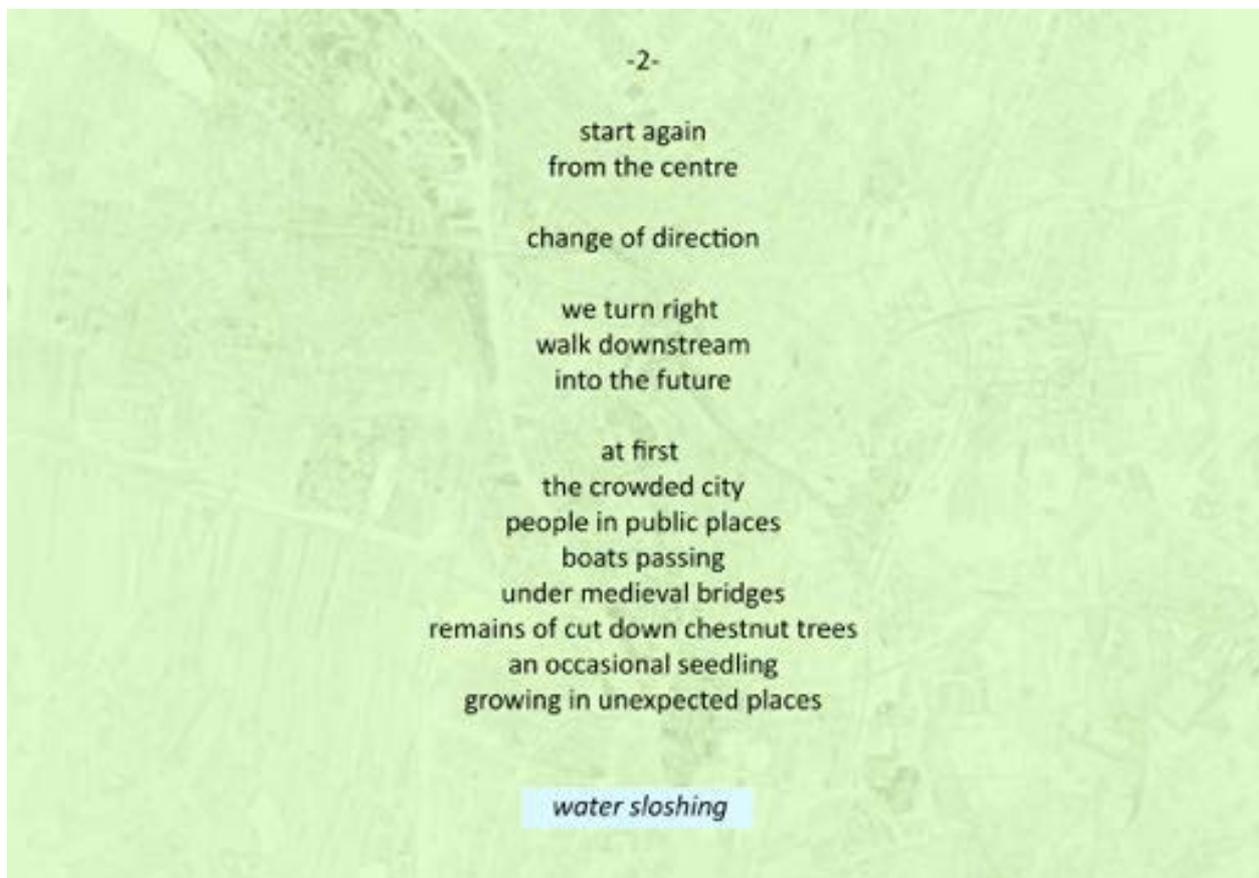


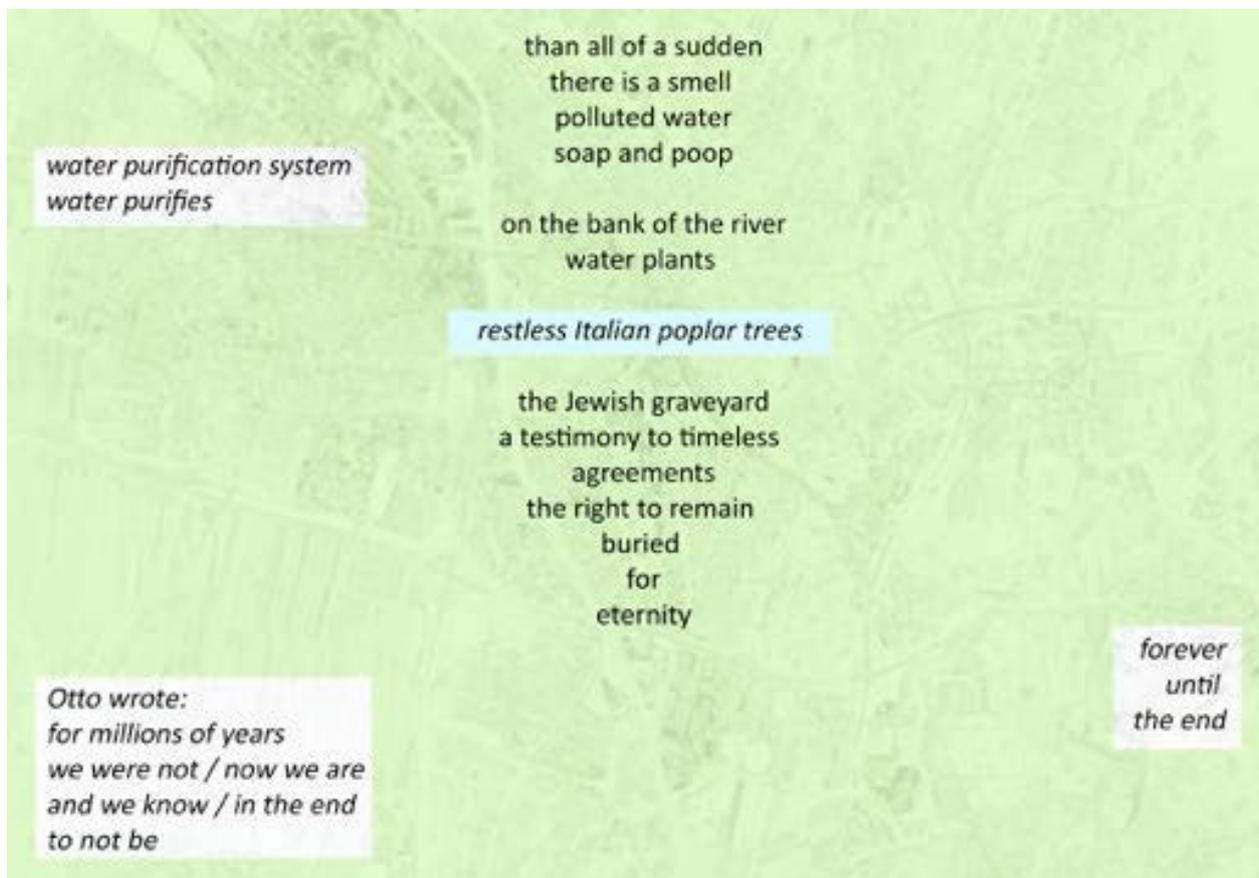






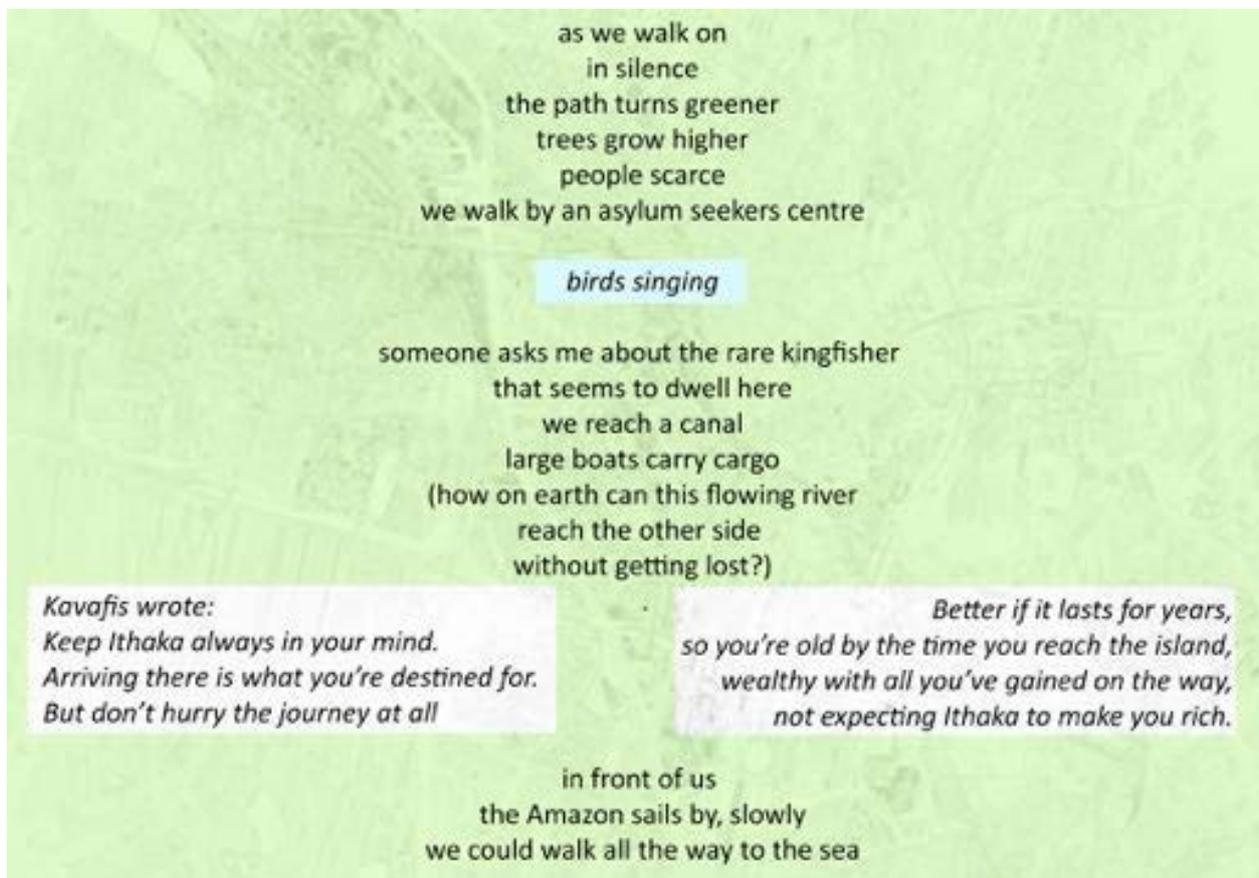


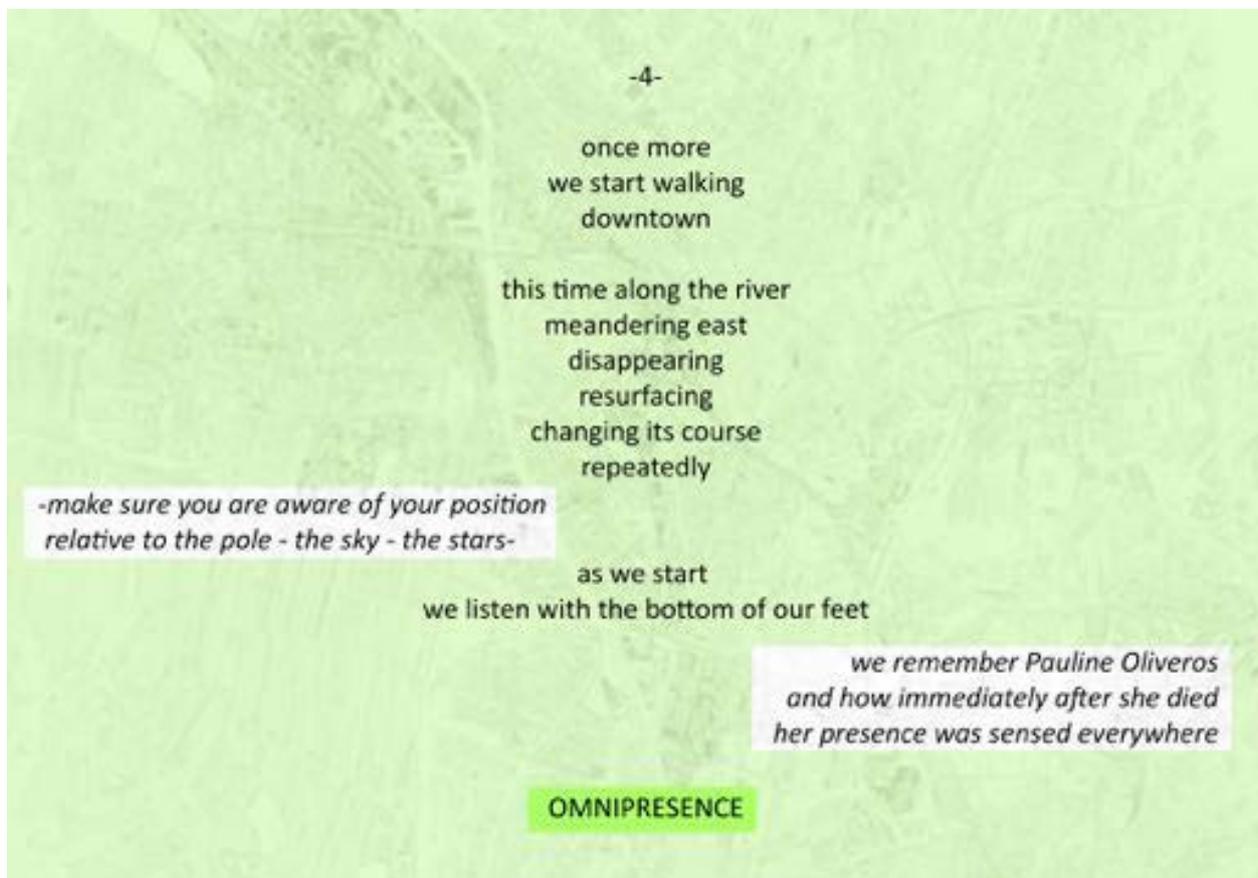
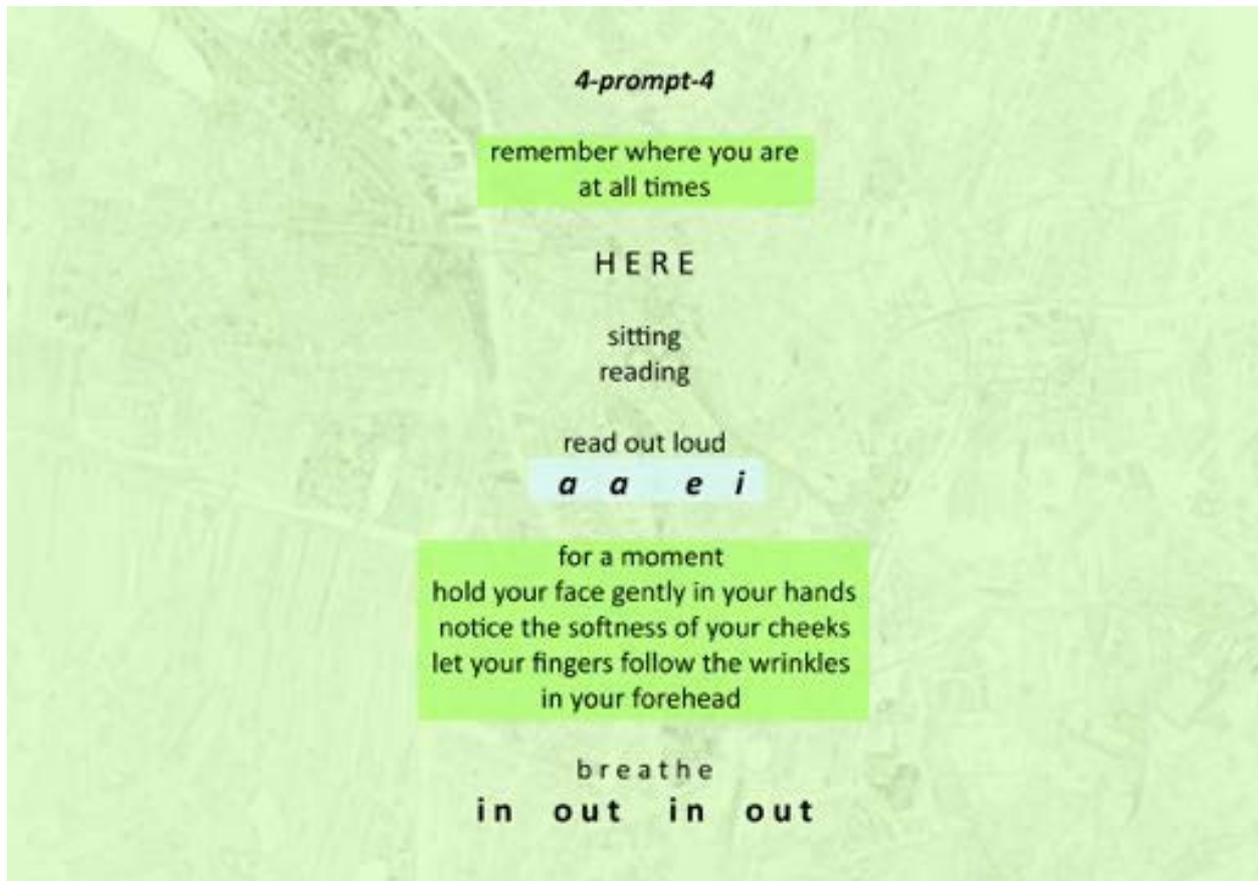
















### Ienke Kastelein

Ienke Kastelein is an internationally renowned artist interested in perception and the senses. She is engaged in context and habitat. Hence *walking* and *sitting* have become essential research methods as well as performance practices. Her approach can be perceived as scenography of space. Ienke Kastelein holds a BA in History of Art (Utrecht University) and studied photography. Her work is shown and performed internationally from New York, to Athens, Strasbourg and Berlin. She is a guest lecturer at Master of Scenography (Utrecht NL), Master CorpoReal at ArtEZ Academy (Zwolle, NL) and Art Academy Minerva (Groningen, NL).

# Through the Time Barrier: *Art and Design in the Digital Age*

## Abstract

During the past decade, computers have broken through the barrier of human time. Today, computers can process data in milli-, micro- and even nanoseconds and can (inter)act autonomously in time frames that exceed our capacity to perceive and respond to. This produces a fundamental problem – a gap between human time and the time of computers – and raises important questions: how do big data and fast computation affect our experience and understanding of time? If a computer is able to deal with the world faster than we can, are we doomed to live forever in the past, however near the present? Or are we dealing with a technological extension of the present, and how might we be able to understand and experience this? By analysing theory and works of art, this text examines how to deal with the shock produced by microtemporal technologies.

## Introduction

The Flash Crash of 2010 marked an important moment in how we think about, experience and rely on time. On Thursday May 6 2010, at 14:42:44 and 75 milliseconds, the New York Stock Exchange registered a rapid and dramatic fall of its most prominent indexes without any apparent cause. The stocks rebounded quickly to roughly their previous states over the course of minutes. In this short period of time, however, a trillion dollar of stock value evaporated. It is generally assumed that the cause of these flash crashes is a combination of algorithmic and high-frequency trading, which displaces a human trader by complex mathematical formulae that are automatically executed by a high-speed computer program. The time

frame in which these algorithms operate (i.e. buy and sell in reaction to the activity of others) is in the range of milli- and even microseconds, which amounts to one millionth of a second or 0.000001 second. The discrepancy between the incredibly high speed of computer activity and the relatively slow pace of human sensorial perception seems to leave us in a strange place. As we automate and outsource more and more of our activity to computers acting at higher speeds than we can possibly perceive and therefore react to, we run the risk of falling out of the loop, of always running behind, arriving after the fact – as continues to happen with each flash crash.

In 1994, the French philosopher Paul Virilio already argued how the speed of computers has replaced our natural division of time in past, present and future with two different forms of time: real time and delayed time.<sup>1</sup> In his book *The Vision Machine*, Virilio explains how ‘extensive’ time – the long and slow time of human perception and history – has given way to ‘intensive’ time – the ultrafast microscopic time of computer technologies. Because of these technologies, Virilio writes, we increasingly find ourselves in a situation where ‘*what is perceived is already finished*,’<sup>2</sup> which is why we urgently need to evaluate reality in terms of intensity and speed.<sup>3</sup>

In his book *Feed Forward: On the Future of Twenty-First-Century Media* (2015), media theorist and philosopher Mark B.N. Hansen examines how microtemporal computational media produce a digitally mediated and

digitally enhanced experience ‘that cannot be “had” by a “you” *at the moment of its occurrence*, but that can only be reappropriated by the “you” (by human perceptual consciousness) after the fact.’<sup>4</sup> In other words, because machines (like high-frequency trading algorithms) are able to sense and act at extremely high speeds, there is no need – or possibility – for conscious experience and evaluation by humans, at least not at the moment when the machine’s actions take place.

A good example that shows this is the interactive documentary *Money & Speed: Inside the Black Box* (2011) produced by VPRO Tegenlicht and designed by Daniel Gross and Joris Maltha of design studio Catalogtree. In *Money & Speed*, dynamic infographics and data visualisations provide insight into the microtemporal world of high-frequency trading (Fig. 1 and 2). By interpreting and bringing together different data and timescales, the designers were able to reconstruct events related to the flash crash of 2010 which at the moment of their occurrence were imperceptible and incomprehensible to humans. These data visualisations therefore reveal processes and forces that are otherwise invisible and out of our reach – albeit with a significant delay.

Recent flash crashes and *Money & Speed* illustrate how technology puts pressure on our understanding and experience of time. We find ourselves in a new situation in which the power of computational time affects our perception, consciousness and agency in profound ways. This observation evokes a number of questions: what happens to our experience of and interaction with the world when machines can gather data on smaller and smaller scales, when the density of data increases and the speed at which data can be gathered and processed accelerates? How do we balance slow human perception with high-speed computation? Can we still understand the world as a division between

past, present and future, or are we dealing with a technological extension of the present? If so, (how) can we experience this expanded present? Or are we doomed to live forever in the past, however near the present? Like media theorist Marshall McLuhan, I believe that analysing our contemporary technology through works of art and design can help us reflect on the shock of this moment and get a grip on the ungraspable.<sup>5</sup>



Figure 1 VPRO and Catalogtree, *Money & Speed: Inside the Black Box*, 2011. Still from a dynamic data visualization in the interactive iPad documentary.



Figure 2 VPRO and Catalogtree, *Money & Speed: Inside the Black Box*, 2011. Still from a dynamic data visualization in the interactive iPad documentary.

### Big Data, Speed and the Sublime

It is not surprising that our contemporary digital technology, which is often hard to grasp, invites sublime responses. The speed with which enormous amounts of data can be processed exceeds our human capacity

and confronts us with our own limitations. As philosopher Jos de Mul makes clear, the computer discloses a whole new range of sublime experiences, because it relies on databases that are astonishing in both magnitude and scope.<sup>6</sup> For example, Google's aim to archive and disclose the immense, seemingly infinite amount of information available on the Web is monumental, but also a myth, because, as author Alex Wright states, 'there is simply no way for any search engine – no matter how powerful – to sift through every possible combination of data on the fly.'<sup>7</sup> For that reason, media theorist Rowan Wilken sees Google Search as an attempt to 'represent the unrepresentable' – a description that captures the very essence of the sublime.<sup>8</sup>

A particular form of the sublime that is often connected to computer technologies is the mathematical sublime. The mathematical sublime is a concept developed by philosopher Immanuel Kant in his *Critique of Judgement* to describe encounters with extreme magnitude or vastness and 'the estimation of magnitude by means of concepts of number.'<sup>9</sup> For Kant, the experience of the mathematical sublime lies not in the object, but in our mental inability to comprehend its magnitude. While we might be able to apprehend its scope through reason and calculation, Wilken makes clear, we are unable to sense or imagine it, because, as Kant writes, '[t]his excess for the imagination [...] is like an abyss in which it fears to lose itself.'<sup>10</sup> It is not hard to connect the experience of the mathematical sublime to digital technologies that excel in gathering enormous amounts of data.

The artwork *God's Browser* (2010) by Dutch media artist Geert Mul sheds light on how vast digital databases can evoke an experience that can be called mathematically sublime. *God's Browser* is an interactive installation that, through the use of a theremin

(electronic instrument), produces a stop-motion-like film with atonal music generated live from a database of 1.5 million images taken from the internet between 2008 and 2010 (Fig. 3). Depending on the distance of the viewer's hand to the theremin, the film runs faster, displaying more images, or slower, displaying fewer images. Visually similar images are put in succession, producing a visual flow, whose sequence, speed and level of detail can be manipulated by the user. The visual flow is made possible by image recognition software that automatically compares each image with every other image in the database, resulting in a total of 225 trillion comparisons.<sup>11</sup>



Figure 3 Geert Mul, *God's Browser*, 2010. Interactive audiovisual installation, Custom image analyses software, computer, theremin, video-projection. Software Carlo Prelz. Courtesy gallery Ron Mandos Amsterdam.

In *God's Browser* it is not just the amount of data, but also the speed with which this data is processed that evokes a sublime experience. This is manifested in the relative speed of the images that flicker across the screen and their accompanying sound pattern. The closer the viewer's hand moves to the theremin, the faster the images and sounds flow – almost becoming one indistinguishable blur of images and sounds, but not quite. In this sense, the work operates at the boundary of

human perception, in a time frame that only just allows its users to register the individual images and tones.<sup>12</sup> Like *God's Browser*, the speed of our contemporary technology is not only testing the limits of our perception, it is also challenging our cognitive abilities. Much of our experience of the world today is shaped by the mental and physical activity of sifting through huge amounts of data at an ever-increasing pace. Mul's work can be seen as a reflection on this by using a specific method to move through his database of images. Inspired by philosopher Guy Debord and the Situationist method of the *dérive* (literally 'drift'), Mul calls his approach 'data drift': a 'walk' through the data that is both arbitrary (a random starting point) and highly structured (following a predetermined pattern).<sup>13</sup>

The fast, semi-random succession of countless images together with the title *God's Browser* creates the impression that the work functions as a magical interface to the otherworldly, almost divine realm of the internet: 'a repository of innumerable terabytes of information, [...] of users' knowledge, thoughts, daily experiences, desires and fears.'<sup>14</sup> The work presents itself as an oracle that produces a puzzling, incomprehensible answer. This view of the work fits in a broader tendency to attribute magical or mystical qualities to technology. As philosopher Haroon Sheikh explains, technology that is based on complex mathematics and big data can lead to superstition when we don't understand how the connections between the data are made.<sup>15</sup> This is enhanced by the fact that, '[s]ince the number of image combinations or sequences that these works allow for is pretty much infinite,' as Mul explains, 'the movements or choices made may even result in combinations that have never occurred before, and most likely won't occur again.'<sup>16</sup> Another artist whose work focuses on vast amounts of digitally generated images is

the Italian artist Maurizio Bolognini. Already in 1988, Bolognini started a series of works called *Programmed Machines*, in which ultimately hundreds of computers were programmed to jointly generate a stream of continuously expanding graphic structures – and were left to run indefinitely. As Bolognini writes about his work:

I do not consider myself an artist who creates certain images, and I am not merely a conceptual artist. I am one whose machines have actually traced more lines than anyone else, covering boundless surfaces. I am not interested in the formal quality of the images produced by my installations but rather in their flow, *their limitlessness in space and time*, and the possibility of creating parallel universes of information made up of kilometres of images and *infinite trajectories*. My installations serve to generate *out-of-control infinities*.<sup>17</sup>



Figure 4 Maurizio Bolognini, *Sealed Computers*, Museo Laboratorio di Arte Contemporanea, Roma, 2003.

In 1992, Bolognini began to 'seal' his machines by filling the monitor buses with wax, thereby disabling graphic output so that the machines continued to produce images – images, however, that no one would

ever see. In these *Sealed Computers* installations, the viewer encounters a series of grey 1990s desktop computers without monitors, distributed randomly on the floor of the exhibition space, connected to the electricity grid and networked together with Ethernet cables (Fig. 4). '[T]he humming and switching of ventilators and clicking hard drives are clearly audible,' art historian Andreas Broeckmann writes, 'giving the impression that some sort of calculation and exchange is going on in and between the terminals, but it is impossible for the visitor to know what the content of the computations might be.'<sup>18</sup> This notion of invisibility connects back to Kant's definition of the sublime:

For the sublime, in the strict sense of the word, cannot be contained in any sensuous form, but rather concerns ideas of reason, which although no adequate presentation of them is possible, may be excited and called into the mind by that very inadequacy itself which does admit of sensuous presentation.<sup>19</sup>

Bolognini's *Sealed Computers* can be seen as an expression of this: the viewer is conscious that there is a command that has set off a process, yet (besides humming, switching and clicking sounds) neither the process nor its results can be perceived. The viewer can try to imagine the virtuality<sup>20</sup> of all the possible images that are – and will be – generated by the computers, but will inevitably fail. Nonetheless, it is the inadequacy of her imagination that is triggered by – and thus takes form in – the presentation of *Sealed Computers*. This inadequacy of the imagination also relates to Lyotard's view of the sublime as something unrepresentable in sensible presentation. Following Kant and Burke, Lyotard argues that negative presentation or even non-presentation (when optical pleasure is reduced to near nothingness and a fear

of privation or emptiness arises) is what promotes an infinite contemplation of infinity.<sup>21</sup>

While the negative presentation of Bolognini's *Sealed Computers* can be seen as a trigger for a sublime experience, Lyotard fundamentally questioned whether new technologies can evoke sublime experiences. In a 1988 interview with *Kunstforum*, Lyotard explained that new technologies are characterised by determinedness and control: technological images emerge from a fully mediated relation; they are the result of codes and concepts inherent in systems of electronic (re)production. Since these technologies can never escape this fundamental determinedness, Lyotard argued, they are very unlikely to become sources of the sublime. In addition, the fear that new technologies often inspire has little to do with the fear that characterises the sublime, because it is a form of narcissism and stems from a coping mechanism.<sup>22</sup>

Although I agree with Lyotard that digital technologies are at their base always determined, I do not think this inhibits a sublime experience. On the contrary, I think the sublime lies precisely in the clash between our ability to understand the fundamental determinedness of digital technology on the one hand and our inability to sense or grasp (the totality of) every possible variation or recombination generated (but not necessarily visualised)<sup>23</sup> by computers on the other hand. Moreover, today's technological sublime is not just theoretical, but practical too. While our fear may stem from a narcissistic coping mechanism (the inability to deal with the products of our own making), this fear is no less real or terrifying.<sup>24</sup> Complex contemporary technologies like high-frequency trading algorithms, lethal autonomous weapons systems and biotechnology become harder and harder to understand and control, and can pose actual threats to society.<sup>25</sup>

For an artist like Bolognini, the technological sublime resides predominantly in the field of info art and generative software, because these technologies produce something that is as much determined by the artist as it is under and beyond his control. In a sense, these technologies level the position of the artist and the viewer, who are both challenged by the force and scope of computation. ‘Computer-based technologies make available something which moves in the direction of transcending the artist,’ Bolognini writes, ‘creating a discrepancy and a disproportion between the artist and his/her work.’<sup>26</sup> In sum, *Sealed Computers* reflects on the fact that contemporary digital technology can evoke a sublime experience precisely because of its inherent lack or dispensability of visual representation. This is underlined by the observation that contemporary technologies are designed not to signify, but to disappear into functionality.<sup>27</sup> That is why the technological sublime is characterised by ‘blank and static activity,’ critic Jeremy Gilbert-Rolfe writes, ‘intelligence without gestural expression, encoding without inflection or irregularity, pure measurement, and pure power. It is found in machines which resist personification but nonetheless interact with the human.’<sup>28</sup>

### Trapped in Cycles of Machine Activity

In ‘Video Games and the Technological Sublime,’ artist and writer Eugénie Shinkle argues how our everyday non-descript machines and unobtrusive interfaces shift a sublime experience characterised by elevation to one characterised by banality. Because digital technology is also a consumer product embedded in daily life, she observes, it becomes as resistant to meaning as any other mass-produced artefact. Hence, its ‘sublime experience is emptied of the transcendence that the term originally comprised: the initial glimpse of

technology-as-other is followed by nothing more elevating than frustration,’ Shinkle writes. ‘Frustration [...] that is born out of the tedium of the everyday; it signals a kind of brute return to a world where bodies and artefacts share in a mute and mundane – but fundamentally dissimilar – materiality.’<sup>29</sup>

This aspect of digital technology as a shockingly banal product of consumption points to another effect that digital technology has on our experience of time: a demand for 24/7 interaction with our devices that blends consumption with production and traps us in recurring cycles of activity. The artistic ‘clock’ *All the Minutes* (2014), programmed by Jonathan Puckey at Dutch design studio Moniker, shows how time is increasingly marked – and marketed – through social media. The website *allthemminutes.com* continuously displays tweets from all over the world about the current hour and minute of the day (Fig. 5).

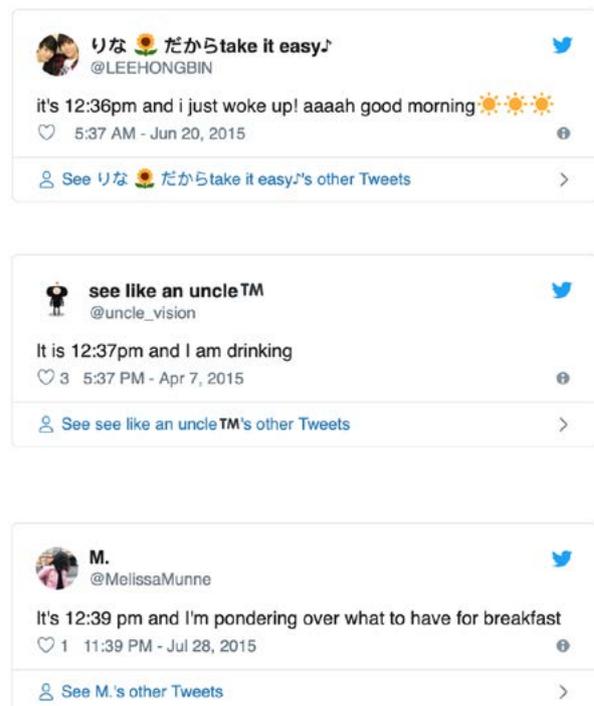


Figure 5 Moniker, *All the Minutes*, 2014. Screenshots of the browser-based clock.

It provides the viewer a minute by minute glimpse of what people are, but mostly *were*, doing at that particular time – which mainly turns out to be the not so elevated activity of lying in bed at inappropriate hours, being hungry, tired or drunk.

In his book *Present Shock: When Everything Happens Now* (2013), media theorist Douglas Rushkoff explains how social media are increasingly used to shape personal histories and create a sense of narrative. In Moniker's online clock, we can see how people use Twitter to both communicate and establish their identity. What is interesting, Puckey notes, is that 'these days people choose to speak about exact minutes in relation to their lives – almost as if they could be doing something different every minute.'<sup>30</sup> This illustrates Rushkoff's theory that we have imposed industrial time on the digital universe. In the industrial age, the division of labour and the introduction of factory clocks caused people to sell their time rather than their products. Efficiency and speed became dominant values. But the computer is an asynchronous technology, Rushkoff argues, which should have allowed us to offload time-intensive tasks to our devices and to become less focused on time as *the* defining socio-economic value.<sup>31</sup> As a result, we are always on and measure progress in terabytes of data, whose value is dependent on increasingly smaller units of time. Consequently, Rushkoff argues, 'time becomes just another form of information – another commodity – to be processed.'<sup>32</sup>

Published in the same year, *24/7: Late Capitalism and the Ends of Sleep* by art historian Jonathan Crary critically examines how the development from the industrial age to today's network society involved the relentless incursion of the non-time of a 24/7 marketplace into every aspect of our daily lives. More than an empty catchphrase, for

Crary, 24/7 means a denial of the rhythmic and periodic textures of human life and stands for a non-social model of machinic performance. This culminates in 'the modeling of one's personal and social identity, [which] has been reorganized to conform to the uninterrupted operation of markets, information networks, and other systems,' he writes.<sup>33</sup> According to Crary (who builds on Boltanski and Chiapello's analysis of contemporary capitalism),<sup>34</sup> these market forces promote an individual who is constantly engaged, interfacing, interacting, communicating, responding, or processing within a telematic environment.

In this context, *All the Minutes* can be considered a clock on multiple levels: it does not just tell you the time, it also shows you how people have been *spending* that time. This involves not just what they have been buying, but also what they have been doing with their time – every single minute of it. And since information is money, the more information – about smaller units of time – is produced, the more valuable it becomes.<sup>35</sup> In this sense, *All the Minutes* can also be seen as a reflection on our times, which are characterised by dissolving borders between private and professional time, between work and consumption, and place high emphasis on activity for its own sake. Moniker's Twitter clock shows us the planet 'as a non-stop work site or an always open shopping mall of infinite choices, tasks, selections, and digressions,' to use Crary's words.<sup>36</sup>

However, as both Rushkoff and Crary point out with their books, the promised compatibility or even harmonisation between human time and the temporalities of digital networked systems remains unfulfilled. Instead, the results are disjunctions, fractures and continual disequilibrium – what Rushkoff calls 'digiphrenia' (digital + disordered condition of mental activity).<sup>37</sup> Watching *All the Minutes* for a longer time,

this sensation becomes palpable. Not only does it not make sense to watch everything that has been said on Twitter at some minute overlapping point in time (which is like watching live streaming stock quotes from yesterday), but it also quickly turns into a cacophony. Rushkoff compares this overwhelming amount of information to a ‘chaotic screech’ that is the result of a system that generates faster and faster feedback,<sup>38</sup> while Crary calls it a ‘white-out condition,’ since our inability to discern recurring patterns results in a lack of perceptual distinction and orientation.<sup>39</sup>

### Time = Data at the Speed of Processing

Another artistic clock, entitled *Zero Noon* (2013) and designed by Mexican-Canadian artist Rafael Lozano-Hemmer, sheds light on the relative nature of time in our high-speed digital universe. *Zero Noon* is a digital clock that shows the current time in relation to hundreds of different real-time statistics scraped from the internet (Fig. 6). The clock’s statistics (which come from government data, *Harper’s Magazine*, NGO’s, academic studies, financial institutions and other sources) are synchronised so that at noon they all start counting from zero. However, the statistics on each subject – ranging from the number of animal species that become extinct per day to the average number of daily financial transactions in Brazil – varies greatly. Consequently, Lozano-Hemmer’s clock runs at different speeds, depending on the particular data that is selected. This variation of the clock’s speed is shown by a number on the centre of the display, a clock handle that turns and a faint ‘ticking’ sound that can be heard every time the handle passes noon.<sup>40</sup> Sometimes the number hardly increases and the clock’s handle passes very slowly; other times the number increases rapidly and is accompanied



Figure 6 Rafael Lozano-Hemmer, *Zero Noon*, 2013. Photos by Antimodular Research

by a frantically rotating handle and a fast succession of ticking sounds. The clock's 'eccentric metrics,' as Lozano-Hemmer calls it, reflects on how time is measured and expressed today: in data and the speed at which that data (and the speed itself) changes. *Zero Noon* still references an analogue clock – with its hours, clock handle and ticking sound – but in fact all of this information could have been left out. These visual cues function as a bridge; to understand the transformation of one type of time measurement to another. Today, time is measured through derivatives:<sup>41</sup> by the type and amount of data that can be collected and processed by computers at a particular moment. Not only does Lozano-Hemmer's clock reflect on how time is measured today, it also reflects on how we increasingly experience time: not as a passing of time, but as statistics – how much data is there at a certain moment compared to another moment?<sup>42</sup>

In addition, *Zero Noon* reveals the relativity of time that is the result of computers gathering and processing data. Depending on the density of data, time speeds up or slows down. Time is therefore no longer absolute<sup>43</sup> in the sense that it is bound to the movement of the sun or the mechanics of (atomic) clocks, but is relative to the amount of processable data, which is constantly changing. Moreover, like digital media networks, Lozano-Hemmer's clock operates through the constant accumulation of data and cycles of repetition: every time the clock is used (the user can select a particular data-set to represent the time) specific statistics are pulled from online data-gathering sources, and at noon the clock resets and starts counting from zero again.

### The Expanded Present

The work *TimeMaps* (2011) by Dutch graphic designer Vincent Meertens also shows how the relative nature of time is affected, or

even increased, by our technology. *TimeMaps* is a map of the Netherlands based on the time it takes to get around by train rather than the actual distance. Meertens map is live and interactive: it changes throughout the day, depending on your location and current travel times (including delays due to rush hour, bad weather conditions or malfunctioning). Generally speaking, this means that the map grows at night, when trains run infrequently or not at all, and shrinks during the day, when trains run on a regular, fast schedule.<sup>44</sup> The map is plotted on a series of coloured rings that each represent 30 minutes of travel time. When generated from Amsterdam at 12:00 PM, the map resembles the geography of the Netherlands and displays only nine rings, which means that it takes a maximum of 4.5 hours to reach the far ends of the country (Fig. 7). However, when the map is generated from the same location at 12:00 AM, the country's geography becomes unrecognisable: spread across 21 rings, it will take up to eleven hours to travel to the most remote locations (Fig. 8).



Figure 7 Vincent Meertens, *TimeMaps*, 2011. Amsterdam at 12:00 PM



Figure 8 Vincent Meertens, *TimeMaps*, 2011. Amsterdam at 12:00 AM

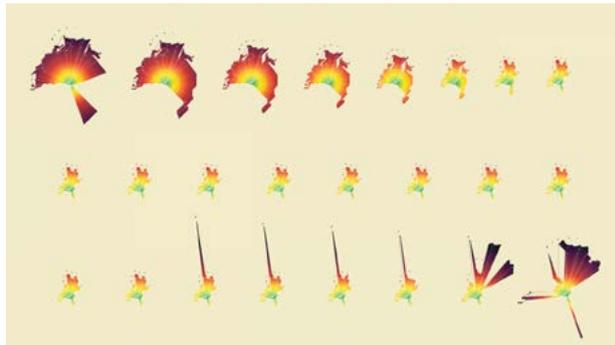


Figure 9 Vincent Meertens, *TimeMaps*, 2011. Different versions of the map seen from Eindhoven.

An overview of different versions of the map as seen from Eindhoven shows that the shape of the country varies greatly depending on your position in time and space (Fig. 9). As Meertens writes, ‘current maps, as we know them today, are obsolete. Thinking in time affects a map and hence the shape of the Netherlands also depending on the perspective from which we look.’<sup>45</sup> This connects to the observation made by physicist Carlo Rovelli in his book *The Order of Time* (2018) that there is no such thing as real time.

To ask, for example, which of Meertens’ time maps of the Netherlands displays the real time is meaningless, just as it is meaningless to ask which time is real: the time of humans or the time of computers. According to Rovelli, there is a vast multitude of times that are all relative to each other. Moreover, each time acts according to its own rhythm, according to place and according to speed, so time does not pass uniformly everywhere.<sup>46</sup>

In this sense, we should think of our present as a bubble that surrounds us, Rovelli explains. The extension of this bubble (our present) depends on the precision with which we determine time. Measured in nanoseconds, the present is defined only over a few metres. Measured in milliseconds, it is defined over thousands of kilometres.<sup>47</sup> But, as Rovelli notes, because humans can distinguish tenths of a second only with great difficulty, ‘we can easily consider our entire planet to be like a single bubble where we can speak of the present as if it were an instant shared by us all.’<sup>48</sup> While this is true on the level of human communication, the advent of high-speed computing (for example high-frequency trading) significantly affects our bubble, or what we consider to be the present.

The problem is, as Rovelli observes, that ‘we do not perceive the discrepancies between the different proper times of different clocks, and the differences in speed at which time passes at different distances’<sup>49</sup> and so ‘[w]e do not have a grammar adapted to say that an event “has been” in relation to me but “is” in relation to you.’<sup>50</sup> Perhaps precise time measurement technology in combination with data visualizations like Catalogtree’s *Money & Speed*, Lozano-Hemmer’s *Zero Noon* and Meertens’ *TimeMaps* allow us to get some sense of what is (or was) happening in time frames smaller than our own, which may cause us to reconsider the extent of our

present. Perhaps, as Rovelli suggests and Lozano-Hemmer's statistical clock shows, the time variable is not even required. 'What is required,' Rovelli writes, 'are variables that actually describe it: quantities that we can perceive, observe and eventually measure. [...] Quantities and properties that we see continuously *changing*. [...] it needs to tell us only how the things that we see in the world vary with respect to each other.'<sup>51</sup>

### Conclusion

Artworks like Mul's *God's Browser* and Bolognini's *Sealed Computers* induce reflection on the shocking moments that are part of our contemporary technology. The vast amount of visual information that underlies both works, the speed with which the images are generated, and the seemingly infinite variations and endless connections of images escape our control, resist our comprehension and transform our experience of time. While the speed of our contemporary technology can evoke a sublime experience, there is also a risk that we fall into the deep black hole of our digitally sublime time and lose ourselves in the expanded present.<sup>52</sup>

This expanded present is characterised by a complex layering of temporalities, with multiple forms and scales of time; from human time to microtemporal computation. More than simply focusing on the now or collapsing past and future into a smooth and unified present, our digital technologies do the opposite: they expand the scale of time measurement, increase and speed up the amount of data that can be processed, but also allow past data to circulate and become new again. In other words, through digital technology, the present fans out into a range of different temporalities. Our extended present is therefore not a smooth uniform whole, but rather an uneven non-simultaneous now.

Consequently, there are many different ways to measure time that do not themselves align and any visualisation of the activity of computers in milliseconds, microseconds or even nanoseconds will always be design after-the-fact.<sup>53</sup> Yet designing 'real-time' (or better still: 'microtime') visualisations has never been more important. It enables us to perceive and understand – albeit with a significant delay – what is happening in the parallel world of high-speed computing. What any such microtime visualisation should take into consideration is the diversity of time scales that coexist in – and the complex layering of temporalities that make up – our expanded present. Artworks and designs like Mul's *God's Browser*, Catalogtree's *Money & Speed*, Lozano-Hemmer's *Zero Noon*, Moniker's *All the Minutes* and Meertens' *TimeMaps* can offer insight into the different scales, rhythms and speeds that influence our experience of time. In addition, it becomes important to try to conceive of a time frame that cannot only be experienced individually, but that can also be shared collectively.

While the increased relativity of time as a result of variations in the density and speed of data can be considered a hindrance, visualizing this relativity is also essential for understanding differences and relations. Lozano-Hemmer's *Zero Noon* and Meertens' *TimeMaps* show that time does not pass uniformly everywhere and hence make us aware of our own (limited) bubble. Ultimately, it is up to us to examine how (far) we want to extend that bubble and what we consider to be part of our present. One thing we should not forget is that *we* are the ones living in time.<sup>54</sup> While it is far from easy, we have to determine the balance and decide how we want to design for, with or against our microtemporal technologies.

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## Footnotes

- 1 Paul Virilio, *The Vision Machine* (Bloomington: Indiana University Press, 1994), p. 66.
- 2 Ibid., pp. 69-70. Italics original.
- 3 Ibid., pp. 73-74.
- 4 Emphasis original. Mark B. N. Hansen, *Feed-Forward: On the Future of Twenty-First-Century Media* (Chicago: The University of Chicago Press, 2015), pp. 138-139.
- 5 In his book *Understanding Media: The Extensions of Man* (1964), Marshall McLuhan explained how '[t]he effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without resistance. The serious artist is the only person able to encounter technology with impunity [freedom],' he writes, 'because he is an expert aware of the changes in sense perception.' Art offers indispensable perceptual

- training and judgement, McLuhan states, and is therefore of the utmost importance to the study and development of media. Marshall McLuhan, *Understanding Media: The Extensions of Man* (Berkeley: Ginko Press, 1964), p. 31.
- 6 Jos de Mul, 'The (Bio) Technological Sublime,' *Diogenes*, No. 59 (2012), p. 36.
- 7 Alex Wright, 'Exploring a 'Deep Web' that Google Can't Grasp', *New York Times*, 23 February 2010, <https://www.nytimes.com/2009/02/23/technology/23iht-23search.20357326.html>.
- 8 Rowan Wilken, 'Unthinkable Complexity': The Internet and the Mathematical Sublime,' in *The Sublime Today: Contemporary Readings in the Aesthetic*, ed. Gillian B. Pierce (Newcastle upon Tyne: Cambridge Scholars Publishing, 2012), p. 206.
- 9 Immanuel Kant, *Critique of Judgement* (Oxford: Oxford University Press, 2007), p. 81.
- 10 Ibid., p 88; Wilken, 'Unthinkable Complexity', p. 194.
- 11 'Case study - Geert Mul, 'God's Browser' (2010),' LIMA, accessed 28 November 2018, <http://www.lima.nl/site/article/case-study-geert-mul-god's-browser-2010>.
- 12 In this way, Mul's work resembles Ryoji Ikeda's work *Test Pattern* (2008-present), which also operates at the boundary of human perception. As Ikeda writes: 'This audiovisual work [*Test Pattern*] presents intense flickering black and white imagery [...] The velocity of the moving images is ultra-fast, some hundreds of frames per second, so that the work provides a performance test for the audio and visual devices, as well as a response test for the audience's perceptions.' Ryoji Ikeda, 'ryoji ikeda | test pattern,' accessed 18 December 2018, <http://www.ryojiikeda.com/project/testpattern/>.
- 13 Geert Mul and Eef Masson, 'Data-Based Art, Algorithmic Poetry: Geert Mul in Conversation with Eef Masson,' *TMG - Journal for Media History* 21, no. 2 (2018), pp. 170-186.
- 14 'God's Browser,' V2\_ Lab for the Unstable Media, accessed 24 November 2018, <http://v2.nl/archive/works/gods-browser>.
- 15 Haroon Sheikh, 'Algoritmen kunnen toveren,' *NRC*, 23 November 2018.
- 16 Mul and Masson, 'Data-Based Art,' p. 180.
- 17 Maurizio Bolognini, *Machines: Conversations on Art & Technology* (Milan: Postmedia Books, 2012), p. 10 (emphasis mine).
- 18 Andreas Broeckmann, *Machine Art in the Twentieth Century* (Cambridge, MA: MIT Press, 2016), p. 115.
- 19 Quoted in De Mul, '(Bio) Technological Sublime,' p. 34.
- 20 I use the term 'virtuality' like Jos de Mul to refer to the potential or the possible. This is not to say that the virtual is therefore unreal. It points to the vast number of possible states of which some might have been realised. Bolognini himself does not favour the term 'virtual,' because it is often used synonymously with unreal, fictitious, merely potential, without any concrete existence. Yet his *Programmed Machines* produce actual images, despite the fact that in *Sealed Computers* they can't be seen. '[T]he flow of images produced by these machines are 'real' in the sense that they go beyond the pure intellectual stimulation and have an existence independent of the observer [...] the work of the machines tends effectively to construct parallel universes which are non-material but real.' Bolognini, *Machines*, p. 26.
- 21 Jean-François Lyotard, 'The Sublime and the Avant-Garde,' in *The Bloomsbury Anthology of Aesthetics*, ed. Joseph Tanke and Colin McQuillan (New York: Bloomsbury, 2012), p. 537.
- 22 Jean-François Lyotard, 'Die Erhabenheit ist das Unkonsumierbare: Ein Gespräch mit Christine Pries,' Interview by Christine Pries, *Kunstforum*, Bd. 100 Kunst und Philosophie (1988), <https://www.kunstforum.de/artikel/die-erhabenheit-ist-das-unkonsumierbare/>.
- 23 Lyotard argued that the sublime is not present in technology, because everything happens on a screen, but both *God's Browser* and *Sealed Computers* point to what is off-

- screen, to the processes that occur 'below' or beyond the screen, in the invisible realm. In that sense - and in contrast to Lyotard's view - this kind of digital art is very much about the inconsumable. Lyotard, 'Die Erhabenheit.'
- 24 According to Lyotard, 'das Erhabene kann als Gefühl nur gefühlt werden, weil das Subjekt gleichzeitig ohnmächtig vor dieser Unordnung steht. Doch wenn man die Unordnungen der Natur mit diesem enormen Speicherungsapparat ins Innere eines Kontrollsystems interiorisiert, dann sind wir überhaupt nicht ohnmächtig, ganz im Gegenteil. Denn dieser enorme Bearbeitungsapparat bietet die Möglichkeit, passend auf die Unordnung der Natur zu reagieren, die er gewissermaßen schon antizipiert hat.' Lyotard, 'Die Erhabenheit.' However, while technology may indeed prepare us for natural disasters, this does not necessarily mean that nature can no longer evoke a sublime experience, nor that the technology will prepare us for events caused by the technology itself (like a flash crash), which can leave us utterly powerless too.
- 25 Lyotard's scepticism about the technological sublime is understandable, since the sublime was theorised as technological only from 1994 onwards. In *American Technological Sublime* (1994), historian David Nye explores for the first time how the experience of the sublime has gradually shifted from nature to technology. David Nye, *American Technological Sublime* (Cambridge, MA: MIT Press, 1994). Later, authors like Mario Costa, Vincent Mosco, Rowan Wilken and Jos de Mul also engage with the sublime experience evoked by technology through concepts like the 'digital sublime,' 'mathematical sublime' and 'biotechnological sublime.' See Mario Costa, *Il sublime tecnologico* (Rome: Castelvecchi, 1998); Vincent Mosco, *The Digital Sublime* (Cambridge, MA: MIT Press, 2004); de Mul, '(Bio)Technological Sublime'; Wilken, 'Unthinkable Complexity.'
- 26 Maurizio Bolognini, 'Postdigitale - Maurizio Bolognini,' accessed 5 January 2018, [http://www.bolognini.org/bolognini\\_PDIG.htm](http://www.bolognini.org/bolognini_PDIG.htm).
- 27 Eugénie Shinkle, 'Video Games and the Technological Sublime,' *Tate Papers*, no. 14 (Autumn 2010), accessed 25 September 2018, <https://www.tate.org.uk/research/publications/tate-papers/14/video-games-and-the-technological-sublime>.
- 28 Jeremy Gilbert-Rolfe, *Beauty and the Contemporary Sublime* (New York: Allworth Press, 1999), p. 142.
- 29 Shinkle, 'Video Games.'
- 30 Jonathan Puckey, quoted in Tyler Hayes, 'It's 2:40 PM And I'm Drunk': The Strange, Voyeuristic Novel Mined From Twitter,' *Fast Company*, 12 May 2014, accessed 18 December 2018, <https://www.fastcompany.com/3039380/its-240-pm-and-im-drunk-the-strange-voyeuristic-novel-mined-from-twitter>.
- 31 Douglas Rushkoff, *Present Shock: When Everything Happens Now* (New York: Penguin, 2013), pp. 80-82, 93.
- 32 Ibid., p. 86.
- 33 Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2013), p. 9.
- 34 Luc Boltanski and Eve Chiapello, *The New Spirit of Capitalism* (London: Verso, 2005).
- 35 The use or consumption of social media cannot be seen separately from the production of value. Information published on social media is public and therefore available to market researchers that can monitor and predict behaviour using this information, which they can then sell to companies to develop personalised advertisements.
- 36 Crary, *24/7*, p. 17.
- 37 Ibid., p. 31; Rushkoff, *Present Shock*, p. 75.
- 38 Ibid., p. 208-210
- 39 Crary, *24/7*, p. 34
- 40 Rafael Lozano-Hemmer, 'Rafael Lozano-Hemmer, Project 'Zero Noon',' accessed 24 December 2018, [http://www.lozano-hemmer.com/zero\\_noon.php](http://www.lozano-hemmer.com/zero_noon.php).
- 41 Rushkoff, *Present Shock*, p. 86.
- 42 An example of this is the frequently applied indication of the amount of time it takes to read an article on the Web: 'a four-minute read' or 'one-minute read articles.'

- 43 Of course, as Albert Einstein demonstrated with his theory of relativity, time never was absolute.
- 44 Suzanne Labarre, 'Gorgeous Travel Planner Shows Times, Rather Than Distances,' *Fast Company*, 10 November 2011, accessed 12 February 2019, <https://www.fastcompany.com/1665409/gorgeous-travel-planner-shows-times-rather-than-distances>.
- 45 Vincent Meertens, 'TimeMaps,' accessed 12 February 2019, <http://www.vincentmeertens.com/project/timemaps/>.
- 46 Carlo Rovelli, *The Order of Time* (London: Penguin Random House, 2018), pp. 15, 81.
- 47 An example Rovelli uses to explain the relativity (and small bandwidth) of the present is a conversation with a sister: 'The light takes time to reach you, let's say a few nanoseconds - a tiny fraction of a second - therefore, you are not quite seeing what she is doing now but what she was doing a few nanoseconds ago. If she is in New York and you phone her from Liverpool, her voice takes a few milliseconds to reach you, so the most you can claim to know is what your sister was up to a few milliseconds ago. Not a significant difference, perhaps.' Rovelli, *Order of Time*, p. 38. Indeed, this delay is not a significant difference to us, but the delay in perceiving high-frequency algorithmic trading on the stock market is important and can actually become a considerable real-life problem.
- 48 Rovelli, *Order of Time*, p. 40.
- 49 Ibid., p. 171.
- 50 Ibid., p. 99.
- 51 Ibid., pp. 102-103 (emphasis original).
- 52 Which is actually a desired result for many social media companies that aim to attract as many eyeballs as they can and keep them focused on the screen.
- 53 While it would perhaps theoretically be possible to visualise the activity of computers in microseconds (if we had hardware that could display content with the speed of one million frames per second), we would simply not be able to see it, because it would turn into a blur before our eyes.
- 54 As George Dyson, Carlos Rovelli and Douglas Rushkoff also note. See George Dyson, *Turing's Cathedral: The Origins of the Digital Universe* (New York: Pantheon Books, 2012); Rovelli, *Order of Time*; Douglas Rushkoff, *Team Human* (New York: Norton, 2019).

# How Strange, Her Voice: *On Mourning, Language, Texture and Time*

## Abstract

The combination of text and images in *How Strange, Her Voice. The Mourning Diaries* allows for the unfolding of two aspects at play in Jesse Ahler's recent work on colour and mourning. One is a re-organisation of time in a book – created as part of the ongoing work *How Strange, Her Voice* – that attempts to give form to a transformation in and through grief, which defies chronological representation in many ways. Another is the sensation that arises when I think of my parents. Deceased, they are no longer attached to a specific moment in time. Rather, they seem to be everything they ever were – all of it, all at once and all the time – condensations of themselves, which contradicts the idea that they are completely and forever 'gone'. The writing emerged to form a kind of palimpsest with the diary Roland Barthes kept after the death of his mother, and the material processes of dying literally gave colour to this transformative, nonlinear process, as an incongruous, impertinent signifier.

*How Strange, Her Voice: The Mourning Diaries* is a long-term project. Let's say it has various semi-independent forms and it hasn't settled yet. It started with the diary Roland Barthes kept after the death of his mother. I came upon it, in a state of total disorientation, nearly a year after my own mother had died. I circled around the book for some time, before I could bring myself to open it. It was the 26<sup>th</sup> of October, 2015, a few days before her first death anniversary, when I

finally did. Barthes' first note is of his first 'mourning night,' dated October 26<sup>th</sup>, 1977.

In the book Barthes, who as a semiotician was so sharp at localising meaning in text and images, completely seems to be lost for words. Language for its expressive possibilities is defect, meaning suddenly obtuse. A flat condition. No texture, a localised deafness. I very much related to that.

While reading, I began making my own impossible notes on top of the original (although translated) text, turning it into a palimpsest of sorts. I tried to keep up with his frequency of writing, its form its only content, hoping it would somehow force a structure upon my aimlessness and provide me with some kind of narrative, however unhinged. I sometimes ran ahead or lagged behind.

The two time frames of daily notes, taken in different years, different lives, doubled and folded over one another, formed a grid that was strangely out of joint. In those notes, a colour best described as liverish purple surfaced regularly in relation to words describing a sense of formless, nauseous discomfort, desolation or despair. The words themselves, both his and mine, remained hollow and inadequate, and so I started drawing, using a mixture of powder pigments to mark the gradation of that wordless feeling on each page. The book slowly filled up, spilling over even. The pigment smudges, spreads and stains. The book has become illegible, in so many ways.

And the liverish purple eludes me relentlessly. I called it purple mainly for lack

of a better description. I – still – haven't determined its specific hue, which – still – tends to vary.

Still finding myself haunted by that colour, in the spring of 2017, during a natural pigments residency in Puebla, Mexico, I set out to redefine it and recharge it with new meaning. Using local materials and ancient but undiminished recipes, we concocted a purple mixture to match or nearly match the diary entries. I took the thinnest sheets of paper I could find (a type, I later found out, called *papel de china* which is used for various traditional paper cutting art techniques and especially for flags to adorn the altars made for the Day of the Dead), soaked them in the water-based concoction, let all of it dry (it looked like a skin shed by some unknowable creature) to bring it home with me. Dried and powdered then wetted then dried again, remarkably the colour seemed to have and keep a life of its own. I did not have complete control over the way it behaved under my hands, under varying and changing weather conditions, and, of course: time. I witnessed, I see: the phase transitions of hue without me. When I unpacked my suitcase, it simply wildly burst out. Chaotic, erratic. As fresh now as on the first day.

In my studio, it also behaved entirely on its own terms. I simply stood and watched. Initially the skin cast presented itself as a block of ice, stone cold and solid. Eventually, to my advances it did give in. The slightest stir, the faintest of breaths from my side and it came to life, as if breathing with me. Silently it swayed, and catching the sunlight layers of partly soaked up powdery dye showed. Marks and stains like ischemic vessels and capillaries. But it persevered in its peculiar inward pull nonetheless, like a body in deep concentration. Outside of time. Even in the gallery space it remained unaffected by the noise surrounding it.

The colour did seem to pick up various meanings, accumulating, confusing and diffusing them in the course of its action. Perhaps it's what Barthes the semiotician would call an incongruous, impertinent signifier, whose meaning is precisely

not filled out, it retains a permanent state of depletion (a word from linguistics which designates empty, all-purpose verbs, as for example the French word *faire*). We could also say on the contrary – and it would be just as correct – [...] that it maintains a state of perpetual erethism, desire not finding issue in that spasm of the signified which normally brings the subject voluptuously back into the peace of nominations.<sup>1</sup>

Void and excess at once, proffering and deferring a promise of meaning. And although this may seem like an ultimately destructive tendency, it may prove to be a productive, perhaps even transformative force, and thus colour becomes, not simply metaphorically, a strategy. The question is: whose?

For it also seemed to pick up various shades. That is, whereas it first seemed to have settled on one specific hue only affected by the changing light of day, it went all chameleon-like once I touched it again, every attempt of mediation setting it free all over again, handing it back over to its own whimsicality. When people (or things, or ideas if you will) die, they become boundless. Once dead, they are no longer attached to a specific moment in time, and they dissolve into everything they ever were, all of it, at once, and all the time. They are their younger and their older selves, the sad ones and the happy ones, healthy and needy, alive and dead. They are like condensations of themselves, and this is very different from the idea that they are completely and forever 'gone' as we are

inclined to say. There is some consolation there. Alas, the process of dissolving is treacherous matter for the living. In my keeping close to her, in my not letting go and going along as far as I could, I risked dissolving too. But to live is not to be boundless, to live is to be bound to time. And so we need a narrative.

But if they are outside of time, they are also outside of language. In the sentence 'they are like condensations...' to what, to whom does 'they' refer? What does that present tense mean?

Later still, as an effort, I suppose, to recapture the colour, going back to the first book I made a second book. Recovering words, mending sentences and pipetting shades of purple from specific entries after gradually mixing the pigments I used before I went to Mexico with the ones I brought back with me, I took the shifting colour and the folded-over time frames to rework the narrative. A narrative, at last. The colour on the pages shifts from weak to bold and from liverish to a much brighter purple, suggesting, oh yes, a gradual alteration, except that the dates are all messed up.

So, if there is a transformation in grief, it is certainly not pinned to time as we know it. Keeping a diary did not help to structure it; segmenting it made it all the more obvious that a chronological organisation of mourning would undo the alteration altogether. Organised by colour (a chromological organisation if you will), it makes more sense, albeit on its own unfathomable terms. As such, the possible meaning of that transformation can be 'localised' in something other than time, even beyond time. As such, perhaps, it restores something of the broken connection, that dear inflection, that very texture of memory – how strange, her voice.

### Jesse Ahlers

Jesse Ahlers (Amsterdam, 1985) is a visual artist and freelance writer, translator and researcher. She studied Fine Arts at HKU University of the Arts Utrecht and TaiK University of Art & Design in Helsinki, followed by a Master's in Artistic Research at the University of Amsterdam. Recent exhibitions and projects include *Mist & Condensation* with Maud Oonk at NDSM Fuse, Amsterdam, *How Strange, Her Voice part III* at The Orchid and the Wasp Project Space, Amsterdam, *Depth Over Distance*, group show curated by Neil Fortune at Vox-Pop, Amsterdam and *To Contaminate is to Care* with Cecilia Bengtsson and Judith Jansen at puntWG, Amsterdam.

### Bibliography

Barthes, Roland, 'The Third Meaning: Research Notes on Several Eisenstein Stills,' in *The Responsibility of Forms: Critical Essays on Music, Art, and Representation*, translated by Richard Howard (Berkeley: University, 1985): pp. 61-62.

### Footnotes

- 1 Roland Barthes, 'The Third Meaning: Research Notes on Several Eisenstein Stills,' in *The Responsibility of Forms: Critical Essays on Music, Art, and Representation*, trans. Richard Howard (Berkeley: University, 1985): pp. 61-62.

**Abstract**

Henri Bergson introduced me to his two possible concepts of time: time as we actually experience it, and mechanistic time. 'La durée' is what he called the deep, inner experience of time, in which our brain lets go of control, when it doesn't want to separate current and past states. In my films I search for the experience of 'la durée' by using both concepts of time, and turning them around, interrogating and changing them.







Homme Joustra / music: Albert Winters /  
performance and editing: Paula Walta

#### Paula Walta

After a long career as choreographer and artistic leader of the company Beeldend Danstheater Telder, Paula chose to focus on artistic research, performance and deepening her practice. In 2018, Paula obtained a Master of Theatre Practices diploma at ArtEZ University. Paula focusses on issues surrounding time and timelessness, productivity and resisting capitalism. She wants to question the way we perceive reality and searches for ways to stretch her consciousness into the unconscious part of the brain. She is interested in the body as an archive, in which many images, movements and memories are kept.

# Composition as Hyperobject

## Abstract

This article considers compositional practice in relation to Timothy Morton's ideas surrounding the *hyperobject*. The aim is not to analyse compositional practice through the prism of the hyperobject or indeed apply the concept to composition. Rather, I allude to Morton's ideas as a way to think through some aspects of compositional practice. In particular a move away from compositional conventions, such as 'the work' or the 'singular creator,' which will be discussed in relation to two of my recent projects *Auricularis Superior* and *Decay*. Importantly, this approach understands composition as a practice that deals with the situated peculiarity of the human condition, and in a time when our world is changing dramatically, it too, must consider these changes and respond. In their writings, both Donna Haraway and Timothy Ingold propose a greater emphasis on our entanglement with the world as the basis of our sense of self, rather than the petrocapiatist idea of the individual self that is improved by consuming. This shift would allow us to respect and treat others and our environment with more respect and care, but also develop a new understanding of what it is to be a human entity. I propose that compositional practice can be part of this endeavour.

## Composition as Hyperobject

In what follows, I aim to show that all compositional outputs that have ever occurred and will ever occur can be understood as 'feeding into' the hyperobject that is music; that we could regard each composer's compositional practice as a hyperobject, each piece or project a small manifestation of that practice; and that we could also consider a compositional project to be a hyperobject, insofar as a project is constructed from a

variety of ideas, experiences and thoughts at different times and in different spaces.

The strangeness of the tempo-reality in compositional practice has always been a source of fascination to me in the sense that for the most part, the compositional process (writing/creating a piece) bears no temporal relationship to the experience of hearing the outcome of that process, i.e. the finished piece, for example (whether in a concert or gallery setting).<sup>1</sup> This is not the only curious *gap* worth contemplating that exists in the compositional process – when using conventional notation, for example, the moment of communication between the composer and the performer is a visual one. Furthermore, although sound is material (sound waves), our experience of it is sensorial and phenomenal, and its materiality is rarely of concern to us when listening.<sup>2</sup> These *gaps* are invitations to be explored through compositional practice, and this is what I have set out to do in some of my work, to foreground and also delight in this strangeness of the experience of these *gaps*. The strange situation of creating work in a different time-space than the one in which the listener listens to it was directly addressed in *Auricularis Superior*,<sup>3</sup> a 30 minute headphone piece. It was originally written in 2017 for a celebratory event of Pauline Oliveros' work and legacy, *Listening After Pauline Oliveros*, in Leeds (UK). It was subsequently installed at the *ISCM New Music Days 2019* in Tallin (Estonia) and at *Huddersfield Contemporary Music Festival* (UK) in 2019. *Auricularis Superior* was inspired by Oliveros' Deep Listening practice, which she describes as 'a life long practice. [...] Deep Listening involves going below the surface of what is heard, expanding to the whole field of sound while finding focus. This is the way to connect with the acoustic environment, all that inhabits it, and all that there is.'<sup>4</sup> The piece's

themes revolve around the multi-sensory experience of listening and the way it can transport a listener through time and space via their imagination and memory. The point at which this is addressed is during a section that includes a field recording inside the Trümmelbachfäll, a glacial river that runs through a mountain in Switzerland, the only glacial river system that is accessible by walking inside the mountain.

### **Auricularis Superior extract.mp3**

The whole work is available to listened to at <http://www.claudiamolitor.org/#/auricular-superior/>

This *gap* between composing and listening, which can be explored in compositional practice to create unexpected temporal and spatial propositions, prompts me to consider Timothy Morton's *hyperobject* in relation to music and sound. In his introduction to his book *Hyperobjects: Philosophy and Ecology after the End of the World* he defines hyperobjects as follows:

They are *viscous*, which means that they 'stick' to beings that are involved with them. They are *nonlocal*; in other words, any 'local manifestation' of a hyperobject is not directly the hyperobject. They involve profoundly different temporalities than the human-scale ones we are used to.<sup>5</sup>

This describes music, or as Christopher Small would say, *musicking*, perfectly. In his book *Musicking*, Small explains that talking about music is somewhat erroneous, since music is not so much a thing as an activity that involves a great many people: from the musician to the listener, the instrument/technology developer to the architect of the performance space, and of course the cleaners, bar staff, curators, security guards, and

so on, who look after the venue. Hence, he suggests using a verb, *musicking*, rather than the noun, music.<sup>6</sup> Thinking then of composition in terms of the *hyperobject* allows for some interesting contemplations about the compositional process and practice. My aim here is not to analyse compositional practice through the prism of the hyperobject or indeed apply the concept *to* composition; rather, I allude to Morton's ideas as a way to think through some aspects of compositional practice.

One of the questions raised by thinking about hyperobjects in relation to composition is what it might mean for compositional practice to consider itself part of a bigger whole rather than a discrete activity by a singular entity producing seemingly self-contained events. We could consider composition from a collaborative and collective perspective, and as practitioners rethink what the act of composing then comes to mean. In Western traditions, particularly in notated music, composition still follows patriarchal structures in the way it is created, disseminated and even perceived.<sup>7</sup> In the case of composition, the narrative unfolds in the composer who is the singular 'genius' creator of the music. Even today, it is still predominantly a privileged, upper class, white 'he,' and his creation seemingly springs from his mind, untouched by his surroundings or his situation, rarely is there any acknowledgement or even mention of the musicians that played the music, let alone the cleaner or cook that provided the composer with the time to concentrate on writing his work.

The person who decided what music was performed and was financially supported and funded was often an aristocrat and later on a publisher, invariably also a powerful, privileged man. A cultural critic or an academic writer then tells the audience and the wider world how they should listen to

that music, what is important in the music and what it should mean to the listener.

There are efforts to change this situation, to allow more diverse groups of people to work within these structures. But that still means, of course, that the old ways of doing things, the patriarchal structures, are maintained. However, if we begin to rethink what constitutes compositional practice, then there is an opportunity for new stories to be told about the world and the way we live with it. Alternative ways of thinking and creating could then be given a voice, making it more relevant to many artists and audiences alike, and ultimately these structures, that for the most part only benefit a privileged minority could themselves be dismantled.

What is particularly beguiling to me about the un-knowability, the ‘un-experiencability’ of the hyperobject, in the sense that hyperobjects exist beyond individual human experience, both in terms of space and time, is that it not only describes the relationship any artist has to their own output, past and future, but also because it quite beautifully describes how each individual’s practice sits in relation to every musical and non-musical event that ever has happened or will happen – those events we have knowledge of, as well as those we do not – whether that is for temporal or spatial reasons. And of course mainly because each listener, each audience will have completely differing reference points, and will inevitably add, inflect, shape what it is that the composer/artist shares with them.

In my project *Decay*, I explored this idea and created a piece that was both un-knowable and un-experiencable in its entirety. *Decay* is a 50-minute piece that toured around Europe for a year from 2018 to 2019. It included films, pre-recorded materials as well as scored material and improvised material. While I conceived *Decay* myself and created the films and pre-recordings that

went along with the live performances, each performance of the work involved different guest artists<sup>8</sup> who brought their own creative practice to each new iteration, altering its course and leaving a mark on it, which then fed into the next iteration of the piece.

As such, *Decay* starts to dismantle the patriarchal structures mentioned earlier. Its (de-)generative process questions two widely held conventions of compositional practice, that of ‘composer-authorship’ and that of ‘the work.’ By inviting different voices into the compositional process the project challenges any sense of authoritative iteration. And by continually shifting the musical manifestation of the piece at each of its performances it also challenges the idea of the stable, infinitely repeatable ‘work.’ It is unusual that a piece of music changes continuously; after all, art and music are often concerned with *capturing* a moment, freezing it in time, preventing it from changing.

The theme that runs through *Decay* is that of the inevitability and even necessity of decay in ecological terms. After all, without the temporal process of decay, forest floors or meadows would not receive nutrition for fresh growth. Without the process of fermentation, our guts would not benefit from good bacteria and we could not appreciate a glass of wine. Yet the passing of time and the decay that inescapably accompanies it is a frightening experience for us mortal humans, as we realise that our sense of self is only but a tiny moment in time. As I write this at the end of April 2020, in lockdown due to the Covid-19 pandemic, the reality of humanity’s collective recklessness in fuelling environmental collapse – enabled by petrocapiatlist structures that make us believe there is no other sensible way of structuring a society – brings our human dependency on the health of our environment to the forefront of our

consciousness. And of course the poor and disenfranchised suffer first!

I agree with Donna Haraway that we must think about how we live *with* the world, not simply *in* it, because we are in fact the world; we are not creatures who float around the world and can escape it, we are absolutely and intrinsically linked to the Earth, we breathe and die with it. As she reminds us, ‘we require each other in unexpected collaborations and combinations;’<sup>9</sup> what we need, as she puts it, is a *making-with*. We could also understand ourselves, as Tim Ingold does, not as individual blobs with defined borders, but as collections of lines and threads that connect and re-connect to others and our environment:

[I]f life is not enclosed within a boundary, neither can it be surrounded. [...] For inhabitants [...] the environment does not consist of the surroundings of a bounded place but of a zone in which their several pathways are thoroughly entangled. In this zone of entanglement – this meshwork of interwoven lines – there are no insides or outsides, only openings and ways through. An ecology of life, in short, must be one of threads and traces, not of nodes and connectors. And its subject of inquiry must consist not of the relations between organisms and their external environments but of the relations along their severally enmeshed ways of life. Ecology, in short, is the study of the life of lines.<sup>10</sup>

In both these thinkers’ writings, it is clear that we are ourselves assemblages of relationships. And if we were to put more emphasis on these relationships as the basis of our sense of self, rather than the petrocapi- talist idea of the individual self that is improved with consumption; when we realise that we are as much a part of our ecology

as anything else within it, then maybe we will start not only to respect and treat others and our environment with more respect and care, but also develop a new understanding of what it is to be a human entity.

At this point, it is worth being reminded of the pitfall of conflating the passing of time with the notion of progress, or indeed the petrocapi- talist obsession with growth. It is becoming ever clearer that this is an unsustainable and dangerous fantasy that ignores the reality of the world, which is that there is no such thing as linear tempo- ral progress in which we simply leave past experiences and deeds behind. Rather, these experiences and deeds will haunt our present and future by continually returning us to our past actions. We can observe this all around us, whether through the cyclical nature of Earth’s seasons or even the repetitive market crashes in petrocapi- talist societies. And I would argue that the way in which we construct music is an indicator that we humans intrinsically understand this cyclical nature of being; after all, returning is one of music’s basic structuring systems, whether it is the return to the chorus in a three-minute pop song, the return to a tonic in a classical symphony, the looped samples in a DJ set or the return of a sonic event in a sound installation.

*Decay* not only took as its theme the notion of decay and return, but the whole structure of the project was one that attempted to rethink compositional practice, echoing Haraway’s call for the need to rethink the way we live *with* our world, which requires a more collective and collaborative approach to our actions within this world. What thinking of composition as hyperob- ject also requires from the artist, then, is to acknowledge that being involved in compo- sitional practice is to be involved in worlding, and this in turn implicates it in the concerns and realities that we find ourselves in at any

given moment. In that sense, we are beholden as artists to respond to, or at the very least acknowledge, the world around us.

The tour of *Decay* was a kind of hyperobject, in the sense that the whole piece was not known or experienced by any one person. Initially, I had conceived that Tullis Rennie (trombone) and myself (piano) would be the constants in the project, carrying the experience of performing with each guest artist to the next performance with another guest artist. However, due to the somewhat impenetrable visa requirements of the current US government, we were not able to travel to Austin, Texas, to perform with the percussion trio *line upon line*. So Tullis and I made some extra film in Hackney Marches, London, with some additional pre-recorded material, in order for the performances to go ahead with us virtually performing alongside the trio. Inadvertently, this unreasonable restriction against artistic collaboration actually amplified the hyperobjectiveness of the project, as now no single performer was present at all performances of *Decay*.

#### **Decay film extract.m4v**

As part of this project we also created a vinyl release. This recording is another kind of hyperobject in itself. Including improvisations from all collaborators, each performer individually recorded their own response to the materials (scores/films/pre-recordings) of *Decay* before they had performed it. They had no knowledge of how anyone else was responding, as they did this. Moreover, they each recorded themselves at different times, in different places, with different technologies, and only in the editing suite did the collective sound emerge.

#### **Decay vinyl extract.mp3**

The album can be bought from <https://www.nmcrec.co.uk/multimodal/decay>

To summarise so far, all compositional outputs that have ever occurred and will ever occur can be understood as ‘feeding into’ the hyperobject that is music. We could also regard each composer’s compositional practice as a hyperobject, each piece or project a small manifestation of that practice. But we could also consider a compositional project to be a hyperobject, insofar as a project is constructed from a variety of ideas, experiences and thoughts at different times and in different spaces.

Timothy Morton reminds us that the only perspective we can take is a situated one, and that ‘there is no outside, no metalanguage.’<sup>11</sup> And maybe, the act of working with sound, compositional practice, is a good example of grappling with this impossibility of a metalanguage. Sound is messy, it is ungraspable, slippery and certainly does not behave itself. Although there are some that would argue that sound can exist in and of itself, I find such a standpoint difficult to follow when confronted by the experience of sound. Even if we put our doubts aside and for a moment accept the idea that sound exists in and of itself, as soon as we think or listen to it, we ‘contaminate’<sup>12</sup> it with our thinking and listening. We cannot speak of sound without speaking of listening and we cannot speak of listening without speaking of sound. I am not arguing here that sound does not exist outside human experience, of course it does, but how could we possibly talk about that from anything but a situated position?

Composition is an exercise in entangling oneself in the messy waters of sound, of becoming entangled with the phenomenon *and* the thing, without the need to understand, or maybe better put, *with* acknowledging the impossibility of understanding either aspect fully. As Morton says about hyperobjects, ‘Thinking them is intrinsically tricky.’<sup>13</sup> Compositions, sonic

experiences over time, are similarly tricky to think of. It is no surprise that composers have created or used systems such as functional harmony, serialism, scientific models or chance processes to create their work. By doing so, a useful illusion of understanding the whole of a piece of music is created. This is because we can then retrospectively analyse it, break it down into neatly packaged elements and make sense of it.

This analysing does, of course, tell a story, but only part of the story, and from a particular perspective, because the experience of listening is far more complex, and we know this from personal experience, since hearing the same thing, even at the same time, in the same space, despite all the socio-cultural conventions of engaging with music that are so deeply embodied within us, will never be the same for any two people. Trying to grasp what a sound or a composition means is impossible if we want to extract generalities, but we can think of it in a situated way; we can think of what it means at a particular time, in a particular space, to a particular listener.

In essence, compositional practice deals with the situated peculiarity of the human condition, creates moments of framed time through sound. Its core material, that of sound, is an unfathomable hyperobject, made up of human, non-human, animate and inanimate utterances that have existed and will continue to exist beyond human existence. In working with sound, one is both engaged with the very physicality and reality of sound, whilst one is at the same time acutely aware of the very many conceptual layers humans have encased it in. Sound is not relative, it is made relative by our listening and the stories we tell ourselves about it. Composition walks the tightrope between material/object reality and human conceptualism/experience and it tells its stories in that *gap*.

And the reason I believe this storytelling is important in terms of human and earth ecology is that the sonic is often the first indication that something is wrong or amiss. Think of the scream or cry of another human, or the opposite, the cessation of breathing sounds – the silence before the devastation – the lack of birdsong or insect buzzing that comes long before most of us notice there is an environmental problem. So if we listen intently, we might hear the quieter stories that need telling. And these stories matter, particularly in a time where many of the old stories, for instance, stories that perpetuate patriarchal and petrocapi-talist structures, have been and *are* getting us into terrible trouble. Donna Haraway poignantly explains the urgent need to tell new stories about the world:

So much of Earth history has been told in the thrall of the fantasy of the first beautiful words and weapons, of the first beautiful weapons *as* words and vice versa. Tool, weapon, word: that is the word made flesh in the image of the sky god; that is the Anthropos. In a tragic story with only one real actor, one real world-maker, the hero, this is the Man-making tale of the hunter on a quest to kill and bring back the terrible bounty. This is the cutting, sharp, combative tale of action that defers the suffering of glutinous, Earth-rotten passivity beyond bearing. All others in the prick tale are props, ground, plot space, or prey. They don't matter; their job is to be in the way, to be overcome, to be the road, the conduit, but not the traveller, not the begetter.<sup>14</sup>

This sentiment of Haraway's, as well as Morton's argument about hyperobjects, in which he contends that hyperobjects make hierarchies of reality, i.e. something that is

more real than something else impossible,<sup>15</sup> both resonate with what I hope to achieve in my compositional practice. That is, I intend to tell stories that undermine perceived hierarchies in order to tell new stories. And as Haraway reminds us in her writing, it matters what stories we tell.

#### Claudia Molitor

Claudia Molitor is a composer, artist and improviser whose work hovers between music and sound art, extending across contemporary art practices, including video and installation. Embracing collaboration as compositional practice is central to much of her practice. Recent larger scale work includes *Sonorama*, a work for a train journey, with Electra Productions and Turner Contemporary, which received a British Composer Award in 2016; *The Singing Bridge*, installed at Somerset House during Totally Thames festival; and *Walking with Partch* for Ensemble MusikFabric at hcmf//. She is the co-founder/director of multi-modal records and Senior Lecturer at City, University of London. [www.claudiamolitor.org](http://www.claudiamolitor.org)

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#### Footnotes

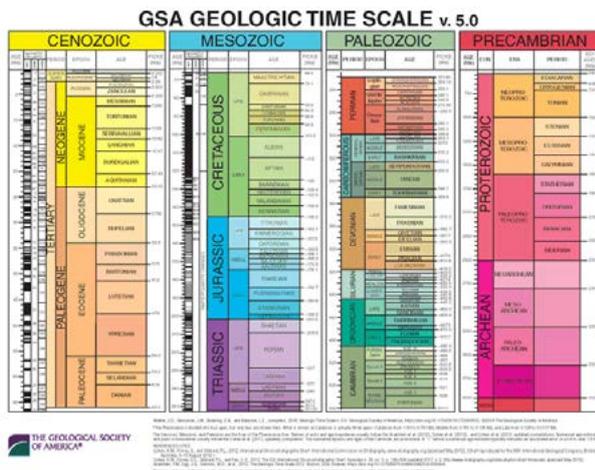
- 1 An exception to this is live-coding, for example, where the sonic event is concurrent with the coding process.
- 2 Exceptions to this can be found in some sound art works, where the materiality of sound becomes the focus of the work.
- 3 Auricularis Superior is one of the three muscles around the ear that in humans no longer use, as our ears are fixed to the side of our skull (not like cats' ears for example). Our brain, however, still sends signals to these muscles to move in reaction to sounds we hear.
- 4 Pauline Oliveros, 'Deep Listening - The Center for Deep Listening,' accessed 1 September 2020, <https://www.deeplisting.rpi.edu/deep-listening/>.
- 5 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), p.1.
- 6 Christopher Small, *Musicking: The Meaning of Performing and Listening* (Middletown, CT: Wesleyan University Press, 1998).
- 7 The definition of patriarchy I am using here is a society within which social structures benefit certain human attributes, these are mostly maleness, whiteness, able-bodiedness, neuro-normative-ness, upper and middle class-ness and so on.
- 8 *Decay* performances included Tullis Rennie (trombone), myself (piano) and Kelly Jane Jones at hcmf// 2018, John Butcher and Alison Blunt at IKLECTIK (London), percussion trio *line upon line* in Austin (US), Gerrit Valckenaers at Transit (Belgium), Sanne Rambags at November Music (the Netherlands), Peter Stollery at Sound (Scotland), Alison Blunt and John Butcher at hcmf// 2019, and George Kentros at Sound of Stockholm (Sweden).
- 9 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham & London: Duke University Press, 2016), p. 4.
- 10 Tim Ingold, *Lines: A Brief History* (London: Routledge, 2007), p. 103.

- 11 Morton, *Hyperobjects*, p. 5.
- 12 Contamination in Anna Tsing's sense of 'transformation through encounter,' Anna Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton & Oxford: Princeton University Press, 2017), p. 28.
- 13 Morton, *Hyperobjects*, p. 4.
- 14 Haraway, *Staying with the Trouble*, p. 39.
- 15 Morton, *Hyperobjects*, p. 19.

# (non)human histories: *rock reading and remembering as strategies of telling time*

## Abstract

‘(non)human histories: rock reading and remembering as strategies of telling time’ takes as its starting point the otherworldliness of the geologic time scale. In search of a more entangled, (non)human imaginary of time, it interweaves the geologic understanding of time with understandings of time formed through remembering and (hi)storytelling.



The geologic time scale according to the GSA (Geological Society of America)

As a non-geologist, this picture of the geologic timescale overwhelms me with a feeling of incomprehension and a good dose of science fiction vibes.<sup>1</sup> The Paleozoic Permian Lopingian Changhsingian age? Or the Silurian Llandovery Sheinwoodian one? Did that actually occur on this Earth, the one we live on today? Not to mention the measuring units I have never heard of, like Ma or eon (a quick search in an online dictionary tells me an eon is ‘an indefinitely long period of time; ... the largest division of geologic time, ... [and] one billion years’).<sup>2</sup>

Looking at the chart, and thinking about the time spans it seems to portray, it feels ‘out of

this world.’ Out of the world that I am sitting in right now, behind the table in my living room. Here I am enveloped by things, sounds, feelings. But when I look at the chart and its time spans, I am not part of it, I cannot place myself. I know that I, along with the rest of humanity, must be somewhere at the top left corner of the chart. Somewhere at the top, in the light pink yellowish section, where the Ma age goes down to zero (for now), in the age that has not been given a name (yet). The dot where I imagine myself to be right now is incomprehensibly tiny. The chart portrays something beyond myself, and even beyond humanity as a whole. It is portraying something Other, something with another age, another rhythm, another span of life.

Although the timescale of the Earth seems incomprehensible to an individual, geologists are making it possible. By measuring and interpreting the layers of rock that are present still today, geologists are trying to understand the historical conditions of our Earth. This information is used to make graphs, maps and scales like the time scale above. This study of rock layers and their formation is called stratigraphy.

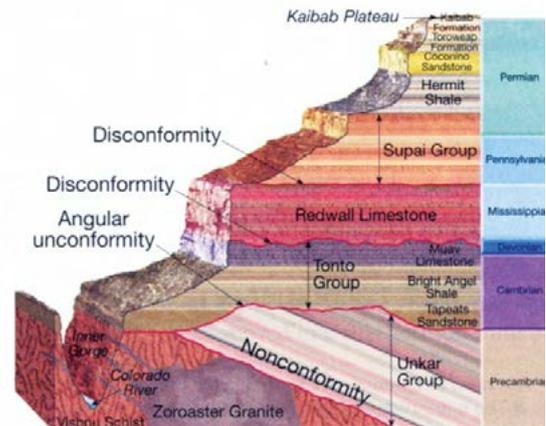
But not only geologists are in the business of charting time. We all deal with charting and comprehending the workings of time on a daily basis. We have an idea of what happened an hour ago, last week, and when we were little. We use the measuring units of the clock and the calendar, the seasons, and if we are talking about longer periods, our own bodies and experiences (such as ‘when I was small’ or ‘when I was in college’). By remembering events and telling them to ourselves and each other, we create

histories of the self. These histories are inevitably intertwined with collective histories, as we link our personal experiences to events that happen on larger scales, spanning multiple lifetimes before our own and multiple lives besides our own. Remembering is a day-to-day practice of making history, forming stories that create viewpoints into the past and future.

I wonder what would emerge if one conceived of remembering and (hi)storytelling through the logics of stratigraphy? And what more is there to learn from the geologic time scale when it is considered as a cultural object, a representation narrating the history of the Earth? In what follows, I will be grappling with stratigraphy and remembering as ways of narrating history, exchanging the vocabularies and imaginaries these methodologies carry. By thinking about the processes of memory and history-making through the metaphors of stratigraphy and by looking at the geologic time scale as a cultural object, I entangle the concepts and therefore the imaginaries they produce. Through this interchanging, I hope to open up space for images and words that can conceive of human time and earth time together.

### **Practising stratigraphy (or: how geologists remember)**

To imagine the Earth's vast history, geologists base their observations on what remains today: layers of rock in the Earth's crust. They use various methods, such as sketching, measuring, and feeling the stone, to make interpretations about its type and age. This allows them to distinguish layers of rock from each other and make a diagram like the one below.<sup>5</sup>



Grand Canyon rock layers

These are the rock layers as found in the Grand Canyon. Each type of rock is related to a different geologic period, each of which had its own environmental characteristics. In the right column, you can see how these periods are linked to the types of rock. These are the periods that make up the GSA, the geologic time scale.

During a period spent collaborating with a geologist, I became fascinated with the extensive methods geologists use to interpret stone. They sketch it, they measure it, they hammer it, they even *lick* the stone in order to understand it better. Whereas the geologic time scale does not show the human at all, the practice behind it is a very human undertaking. As a close collaboration between humans, tools and stones, the stratigraphic practice seems to be a translation of stone into diagrams and words. It is here, in the understanding of stratigraphy as translation, that I started to notice a first link with my own human way of dealing with time. It is the organisational logic that goes into the making of a representation, the logic of interpreting, of recording, of narrating. It is the braiding of events, one after the other, the layers of rock, one after the other, that makes me understand stratigraphy as the creation of a story.

### Emerging formations

The most simple principle on which stratigraphy is based may be that new rock accumulates on top of the old. New geological strata are distinguished because of new environmental conditions and therefore new geological characteristics, forming on top of previous geological strata and their characteristics. The conception of time that follows from this is one of layers, connecting layers of rock to layers of time. Layers, however, have not always been the mode of classification for geologists:

It was around the turn of the 19th C – the time of Foucault’s transition from classical to modern epistemes – that geologists underwent a shift from classifying rocks as ‘natural kinds’ to categorizing them on the account of the processes of historical formation they shared. What mattered, proposed German geologist Abraham Gottlob Werner, was ‘mode and time of formation,’ a distinction for which he introduced the term *Gebirgformation* – ‘rock formation.’<sup>4</sup>

Thinking about rock in terms of layered time is thus a culturally specific phenomenon, written in connection with a certain conception of history.

Working with this specific layered conception of time, considered in terms of formation, Kathryn Yusoff and Nigel Clark make the effort of trying to think about the formation of social worlds and geological ones together.<sup>5</sup> In the picture they sketch, geological and human history are not two separate entities, but part of the same layering where larger and smaller timespans co-exist. From the slowest geological processes to the microhistories of everyday life, the number of possible timespans is endless. The older, longer timespans that continue

underlie and form the basis of the newer, shorter ones. Histories are multiple and all work within a system of imposition where the older, slower processes carry the new.

The conception of time as a layered formation makes it possible to think about the past within the present. This is reminiscent of the concept of the cultural archive, zooming in on the development of cultural history.<sup>6</sup> The concept coined by Edward Said explains how past social practices and ideas form the basis of the ones that can form today. It shows how people work, think and feel from a ‘repository of memory,’ which contains practices and ideas from before. Thus, historical principles and practices form the base for future principles to unfold. Although re-shaped, they are still very much current in the present time. This does not mean these principles are not dynamic and cannot change, but rather that they form a certain logic for thoughts, practices and feelings to emerge. This movement of social development as happening from a repository of memory is a stark reminder of the layering of rocks, where the old ones form the base for the new. Not only is the Earth in continuous formation, culture can also be seen as continuously forming itself through a logic of imposition.

By thinking about cultural formation within this framework, the present becomes extremely rich in terms of possibility for change. Since the past is somehow still alive in the present moment, the present moment functions as an entrance point for working with the past, providing opportunities to reshuffle the historical narrative. It provides opportunities to story ourselves into a different now, and perhaps even a different future.

### More gaps than record

Stone accumulates (a geologist told me I cannot say it grows) very, very slowly. It depends on the place and the type of stone,

but we are talking about only millimetres per thousands of years. When examining layers of stone, however, the known rate of growth never conforms with the thickness of a layer and its age. It is less thick than it should be according to its age and rate of accumulation. Geologists describe this as 'breaks' in sedimentation. This can be due to various reasons, such as erosion and changing environmental conditions. According to geologist Derek Ager, such gaps in layers of rock can also occur due to non-deposition. This is simply when no rock formation takes place. With this assertion, he critiques the frequent assumption that stone accumulates continuously, which is why it is seen as such an exact record of the Earth's history. Ager, however, argues that there are huge gaps in this record, or as he himself says: 'The stratigraphical whole is a lot of holes tied together with sediment. One long gap with only very occasional sedimentation.'<sup>7</sup> The geologic time scale is therefore based on evidence that is full of gaps. This again draws attention to the storytelling processes that are part of stratigraphy, filling the gaps with human interpretation in order to form a neat scale of time.

What would happen if one did not try to fix the gaps, but instead emphasized them? What can the unseen, the untold, the left-out tell us? In the case of the geologic time scale, as I have already observed, a big thing that seems to be missing is a connection to the human senses. The scale seems almost otherworldly, a world full of foreign rates and dimensions, imperceptible to the human body. It is trying to portray something else, something distinct from the human, as if its very existence is not tied to its relation to the human. Human, sensory bodies have written that story. They have felt those rocks on their hands. They have looked with amazement at enormous mountain ranges, felt small in between their slopes, and big on

top of their summits. They have tried to look closer, taste better, understand their colours and shapes. They have invoked the help of tools and technologies to see differently, to see more, to see details and measures and relations. That is how this scale came into being, not at a distance, but in dialogue.

The idea that a history writer is never neutral and should show their opinion in their writing is something already firmly set in place in the sphere of cultural historical narration. Being explicit about your positioning is central to telling an objective story, as it puts emphasis on where you come from and where you don't.<sup>8</sup> Therefore, this practice of situating yourself places an emphasis on the gaps in your story, instead of hiding them away. Practices of narrating history in other domains should follow this lead, critically examining their constructed narratives and images.

Partial and incomplete storytelling happens on the timescales of the Earth's and society's history, but surely also when considering a smaller timescale, that of personal, day-to-day remembering. In the act of thinking back, a complex situation emerges where the actual meets the imaginary, the present day the past, the known the unknown. One builds a partial account of what has happened, weaving in only the elements that fit into the already accumulating story of the self and the world.

On your own, it is quite easy to keep such a story of past and present clear and consistent. This story is only challenged when you critically examine your own thoughts, or when you are confronted with radically opposing evidence. We are also quite good at weaving our stories together with others, informing each other of events and agreeing on how things took place. When someone else is involved in the act of remembering, however, it can become more complicated. I recently had a remembering

experience with my best friend, whom I have already known since high school. We sat together on her terrace after dinner, and started telling her roommate the story of how we became friends. This resulted in us thinking back on everything that happened during our time at secondary school together. Without fully apprehending the precariousness of the situation, we found ourselves reliving old childhood traumas, in which we were entangled differently. Re-telling what had happened, our differently told stories confronted each other. Suddenly the knots of identity that were formed back then started to loosen, showing what strands of meaning I had woven together to create a layer in my story of myself. Disentangling that layer with somebody else, somebody whose perspective I could not ignore, shook the foundations of this self-story. In the fluid unknown we found ourselves in, we tried to grasp some thin strands of memory, in order to carefully re-place our sense of time. Discussing what had happened confronted us with the impossibility of knowing the true story. After all, it happened a long time ago; we did not know the details anymore. We could try and fill them in based on the abstract drawings we had kept, but in all honesty, we did not know.

**Rock reading of the mind:  
uniformitarianism versus  
catastrophism**

In geoscience, there have been two dominant theories explaining changes in the Earth's condition. The first was catastrophism, which argues that catastrophes such as volcanic eruptions and large tidal waves have changed environments drastically and have caused the extinction of whole species. That theory was countered successfully by geologist Charles Lyell in 1830, in his theory of uniformitarianism.<sup>9</sup> Uniformitarianism, as opposed to catastrophism, pictures gradual

changes that slowly but surely alter the Earth's shape. The story of the Earth is narrated very differently according to these two theories. In the case of uniformitarianism, the evolution of the Earth is caused by ongoing natural processes. It presupposes that one can look at the past through the lens of the present, as the same processes are still going on today.

When I apply these theories to another timescale, the one of personal evolutions and their self-stories, interesting questions arise. Replacing the 'Earth' with the 'self,' can we know our past human selves from the perspective of our present selves? Are we continuously evolving, following the same principles, only changing gradually? Or can we experience mental catastrophes, floods and breakdowns, that crush the sense of self in such a way that it changes in a radical manner?

I think back. I take a photograph from the album, and see myself being another being. A young girl, around six years old, holding her naked body while sitting on a rock, gazing at the stream of water below. Dark blue water in the foreground, dark green forest in the background. I wonder how it felt to be that person. I know the stories. I know what kind of person my mother and father saw me as at that time. I know the name of the place in the picture, although I do not know how it felt to be there. I look at the photograph and see the way I hold my body, still unaware of shame or looks. I wonder what that body knows that I do not.

Thinking of a past self is always done from within a present self, and this is never neutral. As Valeria Luiselli writes,

Beginnings, middles, and ends are only a matter of hindsight. If we are forced to produce a story in retrospect, our narrative wraps itself selectively around

the elements that seem relevant, bypassing all the others.<sup>10</sup>

Whether the processes of today were already going on in the past or not, one is bound to look from your contemporary self-formation. Whether you narrate in gradual processes or catastrophic events, that is a matter of the present you, and how you decide to write your self-story.

### Strata stories

Looking at representations of time in the geologic, cultural and personal domain, I notice the richness of the imagery at hand. Time in layers, time in process, time in story. Strata as stories. Culture as strata. Diagrams as translations and selves as formations. By thinking about cultural and personal storytelling through the language of stratigraphical processes, a layered understanding of selfhood and culture starts to form. Layers of time hold (cultural) identities as processes in formation. Thinking about the geological time scale as a history, in turn, provides new insights into its partiality and its form as a specific story. The classification of geology in time is a result of historical formation being deemed an important criterion. Also, it is a specific and partial story, as it leaves out the human interpretation and sensorial information that were part of its making. These earth and human stories are constructed in their own disciplines, leaving out many possibilities. Blending their languages and images constructs new narratives of thinking history and time. These connective stories are urgently needed, as humans are actively destroying themselves, thinking they are destroying something else. Retelling the story of the Earth and its humans is urgently necessary and a joyful task, so let's continue to write it into being.

With many thanks to Jasper Hupkes for his patience and generosity in showing me the practice of geology, and the KAMEN Art residency for the facilitation of our research. This essay was also published in Gaia's Machine's publication *Into Territories Unknown*, published by the HKU Professorship for Performative Processes.

### Liza Rinkema

Liza Rinkema is a writer, dramaturg and artistic researcher. Her recent work developed within the artistic research collective Gaia's Machine, with whom she researches and develops collaborative methodologies to work and think through ecological issues. Their recent works include the polyphonic publication 'Into Territories Unknown' and 'You are my Lifeline, in this Lifetime,' a collaborative manifesto writing workshop focusing on the climate crisis. Liza also has a background in dramaturgy and performance practice and currently studies at the DAI (Dutch Art Institute).

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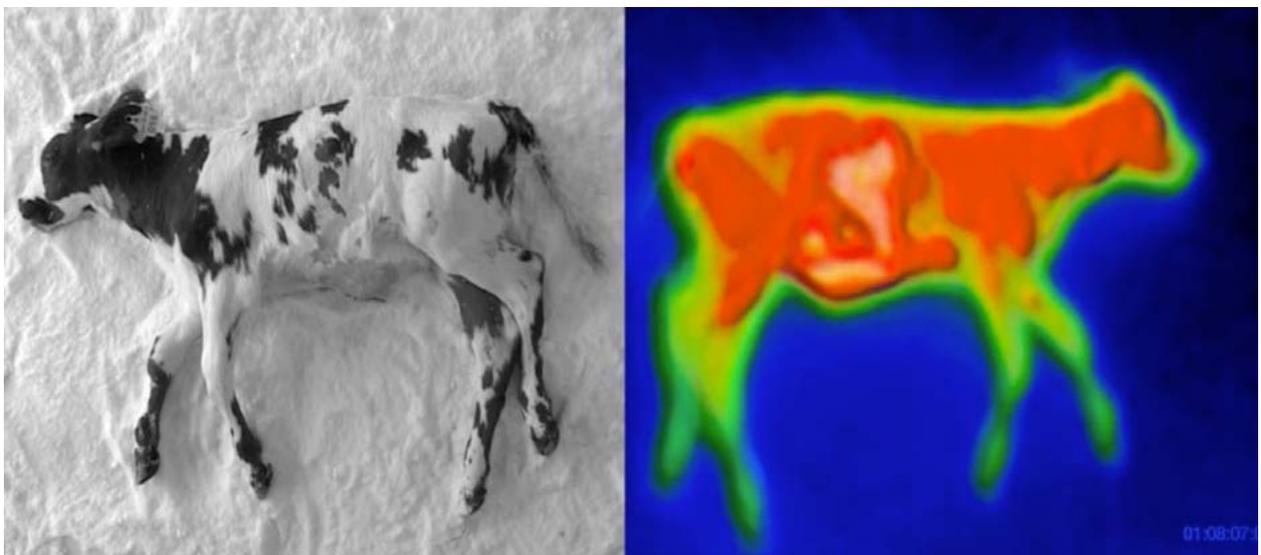
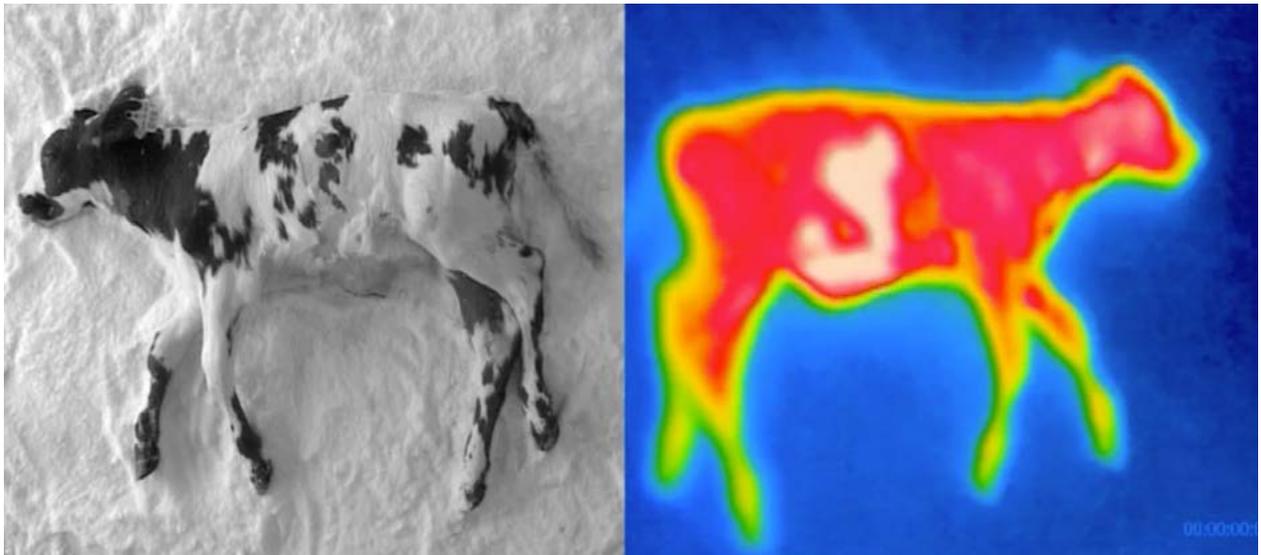
#### Footnotes

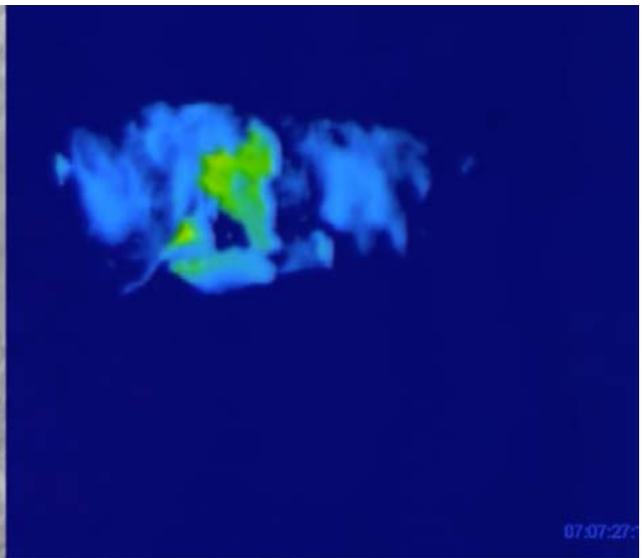
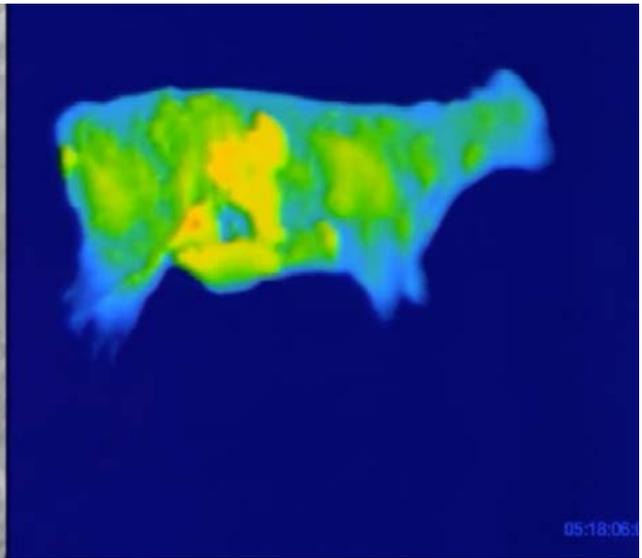
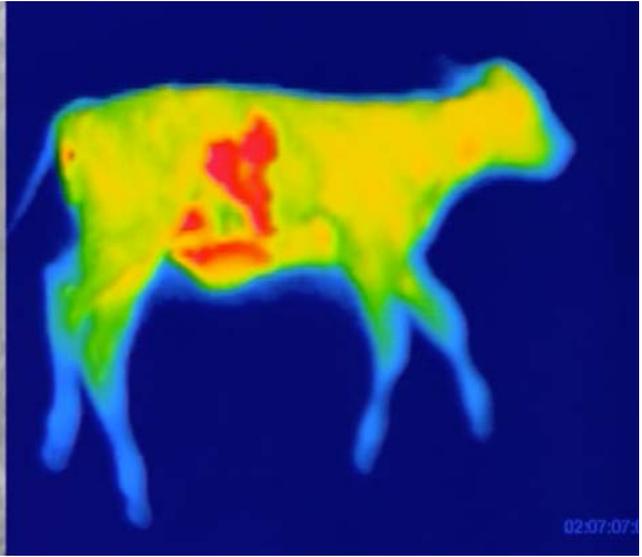
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**Abstract**

The video diptych *In and Out of Time* portrays a calf that has just passed away. The image on the left shows a recording of the calf as seen with an ordinary video camera. The image on the right shows the same calf, as seen through an infrared camera. The videos are in synchrony: as the body of the calf cools down, its image slowly vanishes from the infrared image. The original recording time of seven hours and 30 minutes is visible as a time code in lower right corner of the video.







### Terike Haapoja

Terike Haapoja is a visual artist based in New York. Haapoja's large-scale installation work, writing and political projects investigate the mechanics of othering with a specific focus on issues arising from the anthropocentric worldview of Western modernism. The question of animality and the possibility of a community of difference are recurring themes in Haapoja's work. Haapoja represented Finland in the 55th Venice Biennale with a solo show in the Nordic Pavilion, and her work has been awarded with the ANTI prize for Live Art

(2016), the Dukaatti prize (2008), an Ars Fennica prize nomination, a Finnish State Media art award (2016) and the Kiila prize (2013). Haapoja's work has been exhibited widely in solo and group shows internationally, including the Taipei Biennale, the Momentum Biennale, the Museum of Modern Art in China, Chronus Art Center Shanghai, ISCP New York, House of Electronic Arts Basel and ZKM, Germany. Terike Haapoja is an adjunct professor at NYU, New York.

# Othering Time: *Strategies of attunement to non-human temporalities*

## Abstract

In her article 'Othering Time: Strategies of Attunement to Non-Human Temporalities,' art curator and researcher in the field of art and ecology Alice Smits delves into artistic practices that tune into deep time and non-human time zones. Starting from the viewpoint that our current ecological crisis is in need of developing an ethics of care towards generations far into the future and life forms extremely different to ours, she discusses art and aesthetic knowledge as particularly well suited for experimentation with new stories and sensibilities about our place in time. Making use of geologist Marcia Bjornerud's concept of 'timefulness,' the article focuses on several art projects by Rachel Sussman, Katie Paterson and Špela Petrič, whose works engage in developing a more time-literate sensibility that aims to understand how our everyday lives are shaped by processes that vastly predate us. Underlining changing ways of understanding of time and space by opening up to what is referred to in the title as 'othering time,' art opens up as a discourse in its own right that can interrogate the sciences as a specific epistemological framework that is in need of revision. The author concludes with a few references to how these artistic practices change her own curatorial practice.

Every era experiences and understands time differently. Let's travel quickly. During the time of Newton and his contemporaries of the seventeenth century, the Earth was thought to be only 6,000 years old, according to biblical analysis. By late eighteenth century, the idea took hold that the Earth might

be much older, and speculation about its age became fashionable in intellectual circles. By the nineteenth century, geologists were estimating its age at millions of years, and at the turn of the twentieth century, the realisation came that the Earth had been around for billions of years. On a spatial level, the same happened when humans started travelling the Earth by increasingly faster means, so that by mid-twentieth century, the 'world making' of the Earth had turned it into the global village we know today, and where it was once thought to occupy the centre of the universe, it is now a planet amidst billions of other planets and galaxies. And the counting continues...

In a relatively short time, we have come to inhabit a temporal and spatial order that is so vast and abstract compared to human experience that it surpasses the powers of our imagination. But while humans have long seemed to believe that earth and its atmosphere and depths were so large that human actions could not have any effect on it, we now all know that there is a limit to growth – as the Club of Rome concluded in 1972, giving rise to a global environmental consciousness but unfortunately not to the required change in course of action. We now know that we are depleting the resources of Earth: the only planet, as far as we know, that can sustain our life form, and that we as a species are effecting a geological and climatological transformation of earth that is detrimental to life itself, including ours.

So let's consider time. From a human perspective, a mountain may seem permanent, but within geological time, it is a mere fleeting characteristic of the landscape. Or

take a tree, which humans consider static and incapable of movement, barely living, and yet it experiences a drama of life unfolding over a timespan that is simply imperceptible to the human eye. A writer who describes these many different temporalities that exists in the world beautifully is Michel Serres. In the first pages of *The Incandescent*, a grand narrative on humanity's coevolution with nature, Serres moves back and forth between anthropocentric and geological time, the seemingly stable space-time of human life giving sway to an unstable world – time disappearing into space and back again into time: 'You see space less than time. You see objects arranged in a familiar expanse (rivers, rocks, summits or sun) less than the different rhythms of a flowing (ephemeral works, hundred year old houses, thousand year old riverbanks, million-year-old rocks, billion-year-old stars).' He goes on, 'For space then, appears as a mosaic of time, with different rhythms and tempos.'<sup>1</sup>

For a long time in human history, we probably had no need to relate to more than what was immediately present for our survival. But now we do. Today we no longer live in a world of local cause and effect, but the greatest threats to civilisation are happening on timescales of hundreds and thousands of years. We now have to take account of the fact that we are living in the Anthropocene – as some have, misguidedly in my opinion, called our current geological age – the age in which humanity has unrecognisably changed our planet and is effecting changes in the geology of the Earth itself. We have buried chemical and nuclear waste deposits far under the ground, accompanied by maintenance regulations addressed 'for eternity,' passing our waste from one generation to the next, into a future world we cannot even imagine. If we continue our current ways of production and consumption, we are heading towards a world that

will be warmer than it has been since homo sapiens first walked on this planet, forcing us to learn lessons from an era millions of years before us. The geological, once a marginal science only practiced by a few, is now influencing our daily life, as we witness almost daily on the news, with earthquakes, volcanic eruptions and floods reshaping contemporary life in dramatic ways. At this point in time, attuning our (technological) cultures to geological time could be a necessary skill for survival.

This act of attunement demands both a process of relearning and reskilling our senses and sensitivities, placing knowledge production back within the physical body as we move within our environments, redefining our concept of rationality itself, in what philosopher Isabelle Stengers has called 'an ecology of practices.'<sup>2</sup> To learn to listen to the Earth again and understand our entanglements with everything around us, we need to engage with different temporalities. Although he is often credited with the idea of giving a voice to objects, animals, plants and natural phenomena, the anthropologist and philosopher Bruno Latour, who has come forward as one of the spokespersons of our era, has rightly argued that it is not up to us as humans to extend our discourse of rights to non-human entities. Whereas the story often goes that after women and slaves, it is now time for animals, plants and objects to be given a political voice, he reminds us that it was not that enlightened people granted them rights, but that their resistance became impossible to ignore. And so it is today: our oceans, rivers, glaciers, animal and vegetable beings demand that we hear them, simply because our lives depend on it. No longer the backdrop of our human drama, a lifeless decor waiting to be exploited, nature is making itself heard and acts among us.

So rather than continue to follow and expand upon the linear time vector of

emancipatory modernity, we have encountered a radical paradigm shift. What began as a project of human emancipation has led to environmental destruction, moving us into a post-human framework. The enlightenment concept of humanity sees as its core objective to emancipate humankind of its earthly bondage, treating the Earth like a stage – literally sealing it as a hard border – for human endeavours alone. But the word human, as we are often reminded these days, comes from the soil: humus. To the soil we return, and here lies our biggest challenge, how to find our way back to the soil within our current technological societies, without giving sway to what might seem to be an impossible dichotomy between global neoliberalism and a localised national politics. Whereas technology is in many ways found guilty of environmental destruction, the evil is never in the thing itself, but in the way it is used and the epistemological culture it operates in. It is because of earth science that we are able to detect and understand changes in earth's system. Technology and science offer us enormous new possibilities to notice and listen to the Earth, zooming in on the smallest creatures that our eyes can't see, entering into the deep oceans or in deep time and space, hearing the rumblings of the Earth itself.

A renewed exploration of our position in time and space, then, is a direct effect of our anthropogenic condition. Not only does our new epoch demand from us an understanding of deep time and future, but also of non-human time zones and rhythms. It is time we develop strategies to tune in to all these different rhythms and tempos which compose our environment, this 'mosaic of time,' as Serres refers to it. Connecting ourselves to different temporalities means paradoxically rooting ourselves more profoundly in the thickness of the present, from where we can begin the manifold

relationships with the life surrounding us. It demands that we integrate our sciences with human narratives to retell the story of earth and man together. This poses a huge challenge, given the often remarked upon fact that humans have a hard time thinking much further than their grandparents and grandchildren, if at all. This might explain why the environmental catastrophe facing us today is treated with so little urgency, while a single virus that affects human life and death directly has been able to transform whole societies and economies in an instant. If Covid-19 has shown us anything, it is that politics is capable of immediate change if there is a crisis that calls for this. But the climate crisis is no longer a fact of the future, but a condition of the present.

So how do we cultivate care beyond our own lifetimes or human framework? Humans as a species are not well adapted to deal with long-term visions and consequences, but we are wired for storytelling and interweaving facts with emotional attachment. A reorientation in time and space demands new images and new languages, a new kind of storytelling of where we come from, who we are as a species and where we want to go. This requires seeking the new in the old, instead of only seeking the old in the new, if we want to allow for the radical change we seek in the present. What has predominantly guided us in the last few hundred years is a specific kind of scientific story that we have come to understand as only one kind of story about life. It is a story that has led us into a situation that is not sustainable for humanity and the millions of other life forms on this planet, and that signals that it is time to start telling other stories about mankind and the Earth. In short, we need nothing less than a new cosmology.

This is why the current ecological crisis is primarily a cultural, and not a technological problem, first of all demanding

a change of mentality rather than only a change of tools while we continue to operate within a misguided eco-modernist capitalist framework. Asking ourselves what kind of technologies we want to design for what kind of future remains the most urgent question. Since it is primarily a cultural problem, art seems especially well-placed for experimenting with and telling new stories, which is the reason why many philosophers of the Anthropocene, such as Bruno Latour, Donna Haraway and Timothy Morton, place aesthetic practice at the centre of their discourse.

Moving through the geological, technological, biological and cosmic, artists today work towards notions of othering time and a rescaling of human time. There is a growing body of art that locates us in the geological history of the universe. These works intend to stretch our time frames in order to develop what geologist Marcia Bjornerud has called ‘timefulness,’<sup>3</sup> the ability to locate ourselves within eras and eons rather than weeks and months, by offering us hooks for an emphatic connection to life thousands of years in the past and future. What happens when you begin to realise we all breathe and consist of the same atoms? Developing a more time-literate society means understanding how our everyday lives are shaped by processes that vastly predate us and that our actions have consequences which will outlast us for many generations, in order to reconnect our roots in the Earth’s history. Artists working on these issues seem to agree with Bjornerud’s argument that understanding time the way a geologist does offers the perspective we need to imagine a more sustainable future, by making these abstract timescales experiential, ultimately enabling us to make decisions in accordance with multigenerational timescales.

Rachel Sussman is an artist who does just this. For more than a decade, from 2004 to

2014, she worked on an ongoing project, *The Oldest Living Things in the World*, which straddles the borders between art, science and philosophy and was represented in travelling exhibitions and finally a book. For this research project, she travelled all over the world, working together with scientists to photograph living things that are at least 2,000 years old. The project looks at time from beyond a single human lifespan, putting human experience into a larger context than we naturally feel at home in. Deep time is not, like geological periodisation, a precise demarcation. It is a concept which allows us to consider timescales that are too great for our own physical experience and too abstract for our brains to grasp in any meaningful way. Sussman wonders, ‘How can we connect with a timescale beyond several human generations in a way that is a meaningful illustration of our personal time in the vast continuum of life on Earth?’<sup>4</sup> *The Oldest Living Things* is an eccentric photographic archive and time capsule, including:

- 3.5-billion-year-old stromalites from Western Australia,
- an 8,000-year-old box of huckleberries in Pennsylvania,
- 5,500-year-old moss in Antarctica,
- a 2,000-year-old brain coral in Tobago,
- an 80,000-year-old Aspen colony in Utah,
- a 2,000-year-old primitive *Welwitschia* in Namibia,
- a 9,550-year-old spruce tree on a high mountain plateau in Sweden
- a 43,600-year-old shrub in Tasmania (the last of its kind on the planet)

Exploring more than 2,000-year-old life forms forced the artist to wander outside the lines of traditional scientific methodology, crossing boundaries between species and

disciplines. It also broke down our conception of what an individual life form, and thus life itself means, when considering the clonal growth of species that continue to initiate new growth without using external genetical material. With this project, Sussman proposes that our understanding of time need not be restricted by, as she puts it, 'the shallowness of human timekeeping and the blink that is a human lifespan.'<sup>5</sup> Describing the goal of her project she writes on her website:

Deep time is like deep water: We are constantly brought back to the surface, pulled by the wants and needs of the moment. But like exercising any sort of muscle, the more we access deep time, the more easily accessible it becomes, and the more likely we are to engage in long-term thinking. The more we embrace long-term thinking, the more ethical our decision-making becomes.<sup>6</sup>

Sussman deliberately approaches her subjects as individuals of whom she makes portraits, in order to facilitate an anthropomorphic connection to a deep timescale which is otherwise too challenging for our brain to internalise. In this way, she allows viewers to forge a personal connection to these creatures, in order to experience this sense of 'timefulness.'

After 2014, Sussman started developing installations to deeper her explorations of personal and cosmic time. I encountered her (Selected) History of the Spacetime Continuum at the 2018 Taipei Biennial, which focused on Post-Nature. It consists of a site-specific, hand-written timeline of the universe (in this case a large mural), beginning before the Big Bang and extending 100 billion years into the future. Weaving together astrophysics, geology, biology, mathematics, archaeology, history and chronocriticism, it can be seen as a study

of time itself. Handwritten and with a dose of humour (in my opinion an often lacking and yet essential component of our efforts to tune into non-human species and time zones), it highlights the individual, human attempt to make sense of our time and place in the universe. As a study of time and space it makes a plea for transversal knowledge, linking the long separated realms of human, biological and geological history, allowing the viewer/reader to zoom in and out from small human stories to large scientific facts.

Katie Paterson is an artist who uses quite a different strategy to collapse distances of time in her work. Like Sussman, she collaborates with scientists and researchers across the world on projects which reconsider our place on Earth in the context of geological time and change, involving an act of care. She has broadcasted the sounds of a melting glacier live, mapped all the dead stars, compiled a slide archive of darkness from the depths of the universe, and sent a recast meteorite back into space. Worth mentioning here in particular is Future Library 2014-2114, a one-hundred-year artwork, for which she planted thousand Norwegian spruce trees in Nordmarka, a forest just outside of Oslo. The trees will supply paper for a special anthology of books to be printed in one hundred years' time. Between now and then, each year one writer will contribute a text, and the writings will be held in trust until the year 2114. Tending the forest and ensuring its preservation for the one-hundred-year duration of the artwork resonates with the invitation extended to each writer – Margaret Atwood was the first writer to contribute to the project – to create a text which might find a receptive reader in an unknown future beyond our own lifespan. This project forces us to think beyond the immediate gratification of success and reward, considering what it means

to care for and take care of a time that comes after us, yet is affected by and linked to us.

The current ecological crisis does not only require us to connect to deep time, as the artists described in the previous examples set out to do, but also to alien temporalities and rhythms of other life forms we co-inhabit our planet with. For centuries, human exemplarism was built around the conviction that only humans are in possession of emotions, language, creativity, and that animals do not. A shift in focus in science is now revealing – as has always been apparent to anyone who has lived with a member of another species – that we are not as special as we thought, and that animals also possess all of these capacities. Now that other life forms are no longer the backdrop of our actions but have entered the stage as co-actors in our human drama, it is time to get to know these species with whom we share this stage, our planet and in some cases even out bodies, in more intimate ways. Of course, we can never truly leave our own anthropocentric condition behind, but we can certainly open ourselves up to what Jakob von Uexküll called ‘Umwelten,’<sup>7</sup> theorising that organisms, even though they share the same environment, experience it differently through their own unique sensorial capacities. This also involves a different way of navigating and experiencing time and space. Artists now are developing various imaginations and forms by which to imagine and tune into these different ‘umwelts,’ including variations in temporalities.

Špela Petrič, a bio-artist with a PhD in biology, explores the relationship between humans and plants in a series of works entitled *Encountering Vegetal Otherness*. Of all living things, plants are the most alien to our life form, to such an extent that we often don’t think of them as alive but as motionless and static, hence our expression ‘a vegetative state.’ In a performative work

titled *Skotopoiesis*, Petrič stood in front of a bed of cress for sixteen hours with a light behind her, finally casting an imprint in the discoloration of the cress where her shadow had fallen. For me, this work is a powerful reminder that we do not need to try to be ecological, as so many seem to think these days, but that we are deeply ecological by nature, always having an effect on our environment through the simple fact of our being, our living and dying, in the world. In her current research, Petrič wonders whether perhaps a machine is better able to form a relationship with a plant than a human, as machine time can adjust itself far more easily to the slowed-down timescale of a plant and thus mediate between the human and plant experience of time. *PLAI* is a work that is part of the Plant-Machine Project, which explores whether plants can be represented by AI and become ecological agents within computational systems. It examines the potential of machine learning, thereby questioning the dominant cultural models most machine learning is based on, by proposing an entirely different model of plant being. The Plant-Machine project is part of a two-year research programme *Smart Hybrid Forms: Addressing ecological challenges by blurring the lines between biology and technology*, a collaboration between the Biophysics Department at VU Amsterdam, the Rietveld Academy, de Waag Society, V2 and Zone2Source, hiring an interdisciplinary team of artists (Špela Petrič and Christiaan Zwanikken) to work at the VU Smart Hybrid Lab together with scientists, researchers (including myself, focussing on art-science practices and their cultural and philosophical implications) and programmers, towards making a machine that thinks itself a plant. While plants are usually considered living material, this project considers plants’ potential as active agents represented within the digital realm,

exploring the interaction between plants and machines as a two-way exchange.

PLAI opens up ‘radical interspecies play in a game of tag between a cucumber plant and a robot moving at a plant’s pace,’ as Petrič describes her work. While humans, with their limited perceptual timescale, can never engage in an active relationship with plants, a self-learning computer algorithm with robotic appendages acting as a human prosthesis can. Focussing on an element of play – which is constitutive of the development of culture according to Johan Huizinga’s *Homo Ludens* – as a form of interaction which can only occur between two active agents, the work explicitly emphasises a non-utilitarian, non-instrumental and non-linguistic AI. The computer moves at a plant’s speed, trying to predict the future position of the plant, aiming to touch it and retracting before the tendril grabs onto it. If the plant succeeds in grabbing the appendage, then the AI remains still. Entering plant time, it develops the more sensitive outlook of climbing plants, considering them in their own ‘umwelt’ as active sensing and desiring creatures. The project is inspired by much contemporary research, revealing plants capacity to support, defend, learn, communicate, and care for others. While in ‘real time,’ neither machine nor plant look like they are moving, through time-lapse video recordings, the visitor can witness a normally imperceptible drama linked to the specificity of a plant’s existence in the world. PLAI thus offers a scenario in which we can start identifying with plants as actors in their own right, who, just like us, are trying to make sense of and negotiate their environment. Writing algorithms which interact with plants demands a thorough investigation of plants and our relationship to them. It suggests a completely different epistemology and politics – focussing on plants’ distributed rather than centralised existence

in the world – which points towards a very different way of knowing and being that is perhaps a better model for earthly survival than the ones we are familiar with. And, as Petrič provocatively suggests here, perhaps plants are better suited to negotiating our needs within algorithmic representation.

This play beyond the human time scale – as different from games with fixed rules and objectives – explores the limits and workings of artificial intelligence as an open process, for whom we all might be part of what she has called in another work ‘the vegetariate’ (*Vegetariat Rising: Plants of Instagram Perform Ecosystem Services*) a term which describes both human and non-human bodies as seen by the algorithm. As a work PLAI is not a simple statement but can only be grasped and reflected on, as much by the makers as the audiences, through the process of time in order to get a glimpse of non human time scales of both plant and machine.

Part of the Smart Hybrid Forms programme is the collaboration of academic and cultural institutions, developing a diverse test ground for interaction between the Plant-Machine with audiences, both offline and online, within expert meetings (at de Waag and V2) and within the public space of a city park or a zoo (*Zone2Source*). Art that sets out to engage people in a different sensory and temporal relation, beyond the human scale, does challenge thinking about curatorial approaches as well. As part of my curatorial research, I am exploring how art can form a crucial contribution to the enormous cultural shifts we as a society and species need to make in order to change our dominant modes of thinking and framing. In confronting our current ecological crisis, new artistic practices are being developed outside regular institutions, as a kind of training ground for an age that needs more complex sensory capacities and embodied forms of knowledge, so that we can finally

begin to grasp our entanglements with life around us – ‘staying with the trouble,’ as Donna Haraway puts it so aptly in the title of her book.<sup>8</sup> For the last decade, more and more artists have been working together with scientists, joining them in laboratories and on field trips, like the artists described in this text, not for sake of validation of the sciences, but as a critical interrogation of the cultural, ethical and philosophical implications of scientific knowledge and applications.

Art can cut through disciplines and categories, making connections and linking the humanities and the natural sciences, to locate us again in the thickness of the present and the depths of time, from where we can retell our histories from the perspective of man and earth together. Art does not oppose science here, as the irrational versus the rational, but rather, it is engaged in exploring another definition of rationality: one that is engaged in and comes from our being in the world. This already starts with asking different questions coming from an othering position, connecting dots that remain unconnected with specialized disciplines, connecting human (hi)stories and experiences to large and abstract issues, developing collaborative work methods in transdisciplinary teams and finding new forms for public engagement.

I am interested in this role where art asserts itself increasingly as a form of alternative learning – or unlearning – ground dedicated to experimenting with new knowledge and training of sensory skills needed for earthly survival. As a curator in the field of art and ecology at Zone2Source – working in a public park as a site for experimentation, using its gardens and the network of knowledge it generates – I am interested in developing diverse public formats together with artists, which take people along on artistic explorations, showing them tactics

that work towards new imaginations and experiences of environment. Currently, I am involved in developing a School for Interspecies Knowledges as an alternative learning environment in which we want to explore, together with people from a wide range of disciplines, what all this new ecological thinking is actually contributing to our ways of knowing and sharing, focussing on tactics and methodologies for tuning ourselves differently. The project is also itself an experiment that aims not only to reflect but also to work through issues more deeply – beyond the short workshop or debate format – for instance, about what an interspecies community actually is, what it means for how we live and work together. Starting from a mapping practice of different rhythms and scales, both temporal and spatial, which focuses on the relational rather than separate entities, we set out to develop alternative public formats and maybe even invent new rituals and vocabularies to engage people on different levels and encourage them to explore their environment anew, rethinking their own position within it. Such complex cultural strategies, which bring sites, research, art and audiences together in new imaginative spaces, work as experiments to create alternative meanings for the present, creating a present ‘timefulness’ which can communicate across long time frames, across generations and species.

#### Alice Smits

Alice Smits is the initiator and artistic director of Zone2Source ([www.zone2source.net](http://www.zone2source.net)), a platform for art, nature and technology at the Amstelpark in Amsterdam. International artists are invited for regular exhibitions, talks, workshops and excursions where which new imaginations on nature-culture relations are developed at the park’s pavilion and outdoor spaces. With Zone2Source, she also organizes longer term transdisciplinary collaborative

research programmes, such as Machine Wilderness (together with FoAM), with a series of artist residencies at Artis Zoo. She is currently a researcher at the Institute for Art and Public Space at the Rietveld Academy, on contemporary land art practices and theories of the Anthropocene, as well as a researcher for the Smart Hybrid Forms project, supported by an NWO Smart Culture Grant. She writes regularly as a freelance art critic for art magazines such as *Metropolis M*. She is also a guitarist in the free improvisation band Oorbeek.

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#### Footnotes

- 1 Michel Serres, *The Incandescent*, trans. Randolph Burks (London: Bloomsbury Academic 2018), p. 5.
- 2 Isabelle Stengers, 'Introductory Notes on an Ecology of Practices,' *Cultural Studies Review* 11, no. 1 (2005), pp. 183-196. <https://doi.org/10.5130/csr.v11i1.3459>.
- 3 Marcia Bjornerud, *Timefulness: How Thinking Like a Geologist Can Help Save the World* (Princeton and Oxford: Princeton University Press, 2018).
- 4 Rachel Sussman, 'Writing,' accessed 29 January 2021, <https://www.rachelsussman.com/writing>.
- 5 Rachel Sussman, 'Nautilus: What a 9,000-Year-Old Spruce Tree Taught Me,' <https://www.rachelsussman.com/nautiluspruce>.
- 6 Ibid.
- 7 Jakob von Uexküll, *Umwelt und Innenwelt der Tiere* (Berlin and Heidelberg: Springer, 2014).
- 8 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016).

# A Call to Recognise and to Imagine: *Amitav Ghosh, and Others, on Writing the Earth Differently*

## Abstract

The crises of the contemporary are severe, especially if we are unable to recognise how and when we went wrong. Amitav Ghosh teaches us about recognition, about the dangers of modernity, and the way our blindness has been institutionalised in the petrocapi- talist narratives that dominate scientific analysis and many forms of knowledge important to our times. Discussing the way petrocapi- talism frames current issues like air pollution and the Fukushima disaster, this text highlights the art of recognising the state of the Earth. Together with the arts (primarily literature, as Ghosh also suggests), the aim of this text is then to place a greater emphasis on imagining the Earth otherwise, or, recognising a different earth. This way we do not so much critique modernity, or the petrocapi- talist forms of science, but rather, *affirmatively*, search for an alternative, a more inclusive and less human-centred way to deal with the crises of the contemporary.

## Deranging times

In his book *The Great Derangement*, writer Amitav Ghosh looks at climate change and the unthinkable, and starts by saying that taking the current ecological crises seriously, as a writer of non-fiction *and* of fiction, requires us to *recognise* the changes that the Earth is undergoing, or to *recognise the processes of change* that are reshaping the Earth as we live it. Calling upon the responsibility of his fellow writers in particular, he emphasises ‘recognition’ because he feels it is key to writing the Earth differently. It is what we have ‘forgotten’ especially in the

twentieth century, when the novel, guided by Modernism, as he refers to it, was reduced to an ‘unreal’ anthropology, a play between humans, not situated on our Earth. Between ignorance and knowledge, recognition, he claims, asks us to re-member, which means to think and evaluate the ‘earthly conditions for truth,’ as we live and practice them.

Ghosh makes a strong plea, calling on his fellow writers from all over the world, to break with this Modernist humanism, and to imagine earthly life in all of its possibilities/impossibilities. Only in this way can we open ourselves up to the realities that can disqualify the truths we have accepted for so long. Recognising these unknown processes of change that underlie our lives today, he continues, will come (directly or indirectly) from the mapping of the petrocapi- talist ideologies and their impossible relationships to the Earth, *id est*, to the financial flows (of oil, of currency, of data) that freely roam the Earth today. Revealing their impotence, and, at the same time, their ability to somehow persevere in being, and grow even stronger, is, according to Ghosh, the greatest responsibility of contemporary authorship. But of course, to recognise that the Earth we live on has, by now, been deeply wounded because of these Modernist flows, is not an easy process.

Ghosh gives us some striking examples of the sudden and unforeseen way in which these unknown realities can reveal themselves. Observing everyday life in cities like modern-day New Delhi or Beijing, he stresses that in these places, ‘the air too can come to life with sudden and deadly violence.’<sup>1</sup>

David Wallace-Wells<sup>2</sup> (2019, 100-9) already gave us a crystal-clear analysis of how fragile our atmosphere is and how quickly the rise of CO<sub>2</sub> levels (for instance in our closed-off classrooms) makes our cognitive ability drop dramatically. More dramatically even, he claims that today, one in every six deaths is already caused by air pollution globally. Why is this danger *still* not recognised; why have literary authors in particular, even in the past decades, paid so little attention to these non-human dangers? Of course, writing novels for a living, Ghosh is not asking his fellow authors to include figures like those from Wallace-Wells in their writings. But to have an eye for today's crises as they have such an impact on the everyday life of cities like New Delhi and Beijing also means that 'air' should play a more prominent role in all of our writings, including our novels. Something we would have considered 'unimaginable' not too long ago *needs* to be explored and experimented with in all of our thoughts. And Ghosh reminds us that not too long ago, in the first part of the nineteenth century, in fact, both in fiction and in non-fiction, and in the many different mixtures of the two which were, back then, still highly appreciated, writing was much more concerned with an exploration of the Earth. Think, for instance, of how both Charles Darwin and Alfred Russel Wallace are known in large part for their non-academic diaries, in which not just animals and plants, but in fact the Earth in its totality played a much more vibrant role.

Ghosh is not overreacting when he stresses that we do not recognise the dangers of the air, for instance. I myself was, until recently, not aware of (or 'blind to') how serious an enemy 'air' has turned out to be. Growing up in Western Europe, I've always lived close to the sea, where the wind usually comes from. The polluting industries that dominate the economy here, such as

agriculture and the petrochemical industries in the harbour, have definitely had a detrimental effect on my environment: polluting, exhausting, suffocating both the Earth and the air. But the wind and the water have, until now, been able to wash much of this pollution away (as in, it transported it to less fortunate places) – at least, from our human perspective. We are experiencing more dry periods, more wet periods, and we are being told that biodiversity (insect life in particular) is under pressure, especially in and around the farmlands. But apart from that, we seem to think here that climate change happens in other parts of the world. Living seven metres below sea level, even flooding is not supposed to happen here, but in less fortunate parts of the globe, where water management is poorly developed, places like Dhaka and Jakarta.

Over the past years, I was invited to talk in Beijing several times, where I quickly found out that the whims of rainfall we struggle with in the Netherlands do not come close to how sudden clouds of air pollution define the wellbeing of the whole city of Beijing (with its 20 million human inhabitants). Within a matter of hours, the Air Quality Index (AQI) could go from OK to terrible (meaning over 500 micrograms of pollution per cubic metre). Heavily polluted air has a severe impact on everyone's health and wellbeing, and in a much more persistent way than a heatwave or a heavy storm. Probably because severe air pollution quickly 'becomes a part of you,' traverses you, it is almost impossible to 'keep it out.' It is something I never experienced at home in Europe, and more importantly, I could not even have imagined that the air we breathe on an everyday basis could turn so lethal, so suddenly. (I am not talking about clouds of poison or any other accidental situation.)

The moment one starts thinking about 'what air can do,' one realises that there is

no 'within and without,' that the distinction between using and being used is becoming blurry, if not completely senseless, at least when it comes to air. Ghosh analyses this kind of sudden and deadly violence air can bring, as it comes from directions one could not have imagined, and as it overwhelms us, not gradually but immediately, and situates us in a wholly other Earth. And he concludes that these 'are moments of recognition, in which it dawns on us that the energy that surrounds us, flowing under our feet and through wires in our walls, animating our vehicles and illuminating our rooms, is an all-encompassing presence that may have its own purposes about which we know nothing.'<sup>3</sup>

Isn't it interesting, that it is in fact *not* sameness which is recognised, according to Ghosh? Rather, it is *in recognition* that difference occurs, that difference intervenes. Difference is a moment when the purpose of everything that surrounds us does not so much suddenly reveal itself or make itself knowable. Rather, as the writer recognises, it is difference which gives us an idea of this all-encompassing presence of which we know nothing. What we do understand, in recognition, is the sheer fact that this great derangement can happen any time. Or, it is better to say, it is already taking place.

So, I should write down that the weather changed. The temperature was not rising; the rain was not increasing. What changed was that all of a sudden, I had situated myself in an environment where people were discussing the weather according to the Air Quality Index. How's the PM10? How's the NO2? How's the O3?

### **The Objects, Space and Time**

Again, is the way the artist approaches the Earth so very different from how the scientist does? In the first Turner Lectures, delivered at Trinity College, Cambridge, in

November 1919, mathematician and philosopher Alfred North Whitehead said he would practice a philosophy of science by studying, as Mr Edward Turner would have wanted it, how science takes nature as its subject matter.<sup>4</sup> In the seventh lecture, Whitehead offers us two terms which are elementary to his take on how science works. The lecture proposes a theory of objects, and he defines them as follows: 'Objects are elements in nature which do not pass. The awareness of an object as some factor not sharing in the passage of nature is what I call "recognition".'<sup>5</sup> Like Ghosh, Whitehead understands that recognition is key to understanding how the Earth matters otherwise. Between ignorance and knowledge, something recurs. This is by no means a 'thing' in the pseudo-materialist sense of the word. Whatever recurs, whatever is recognised, whatever, in the end, *vaguely* stands out, he calls an object, or an object of analysis (if we insist on taking the science perspective).

I sense an interesting resonance in how Amitav Ghosh and Alfred North Whitehead talk about recognition. Whitehead introduces the term 'object' to identify what is recognised, and stresses that this object does not share the passage of nature. Its 'outstandingness,' rather, is picked up by our senses.

The other term that Whitehead discusses in these lectures, and which he is more famous for, in fact, is 'event.' Earlier he related the event to the object and introduced us to a neologism which gives us more to think about, especially on how the arts and the sciences work jointly with an idea of time. He states, 'Events are only comparable because they body forth permanences. We are comparing objects in events whenever we can say "There it is again." Objects are the elements in nature which can "be again."<sup>6</sup> Whitehead is telling us that every day, when we wake up, the new day could introduce us to what he calls an event, a chaotic amalgam

of happenings in which these objects or permanences recur. Not so much 'in themselves' but in how a series of objects (always more than one), in its togetherness, is again.

Recognition now seems to realise a double extension. Or at least, and this is of course a crucial addition, *in* recognition a double extension occurs *to us*. Objects, on the one hand, unfold the *space* of the event ('*There* it is again'); they realise nature (their landscape), since the resonances that bind them give form to the face of the Earth. Yet objects, immediately, offer us a sense of *time* ('*There* it is *again*'), as in order to body forth, they have to be re-recognised; they have to function with particular memories. They situate these memories in the present, perhaps even propelling them into a possible future ('and this is what may happen now') and thus also expand through time. The 'present' is an interesting concept here, as it combines the three phenomena discussed: space, time, and above all, the object, as it was given to us by the event (and which we were expecting to receive). In the process, in the presenting, furthermore, the present actualises a fourth phenomenon, that being the subject.

### Modernity

It is no coincidence that both Ghosh and Whitehead reject the Cartesian idea that all forms of knowledge find their origin in human subjectivity (the 'I think'), but instead, consider knowledge a consequence of the process of recognition. For both of them, recognition is not about setting up a humanist politics of space and time; it is not even about realising a sociology. When Ghosh talks of air and Whitehead talks of the industrialisation of the English landscape he loved so much, they are both seeing recognition as an eco-philosophy, a starting point of a philosophy of nature.

The start of any new day can be considered an event, a chaotic amalgam in which

a series of objects reveals itself. We wake up, we switch off the alarm, and look at our mobile phones to see what the wind is bringing us today. What's the AQI now, and how will it evolve during rush hour? Should I cover my mouth? Is it OK to stay outside for a longer period of time? Or at least, if we are in Beijing, or New Delhi for that matter, this is our way of objectifying the situation. It is very different from how, in the Netherlands, for instance, a day happens. In the northwest of Europe, the objectification of the energy that surrounds me happens in a very different way.

If the ongoing ecological crises that have dominated the twenty-first century until now are teaching us anything about ourselves, it should be that over the past two centuries, packed with 'revolutions' in art and 'discoveries' in science, the advances of modernity have made us so self-confident, so completely trusting in efficiency and profit, that we find it unimaginable or unthinkable that the Earth might very well, all of a sudden, act very differently from how we imagined it would. This blindness would have started in the early nineteenth century, the time when modernity radically renewed our ideas of science, technology and art. All three fields of study were occupied by a narrative of progress, which came with alienation and abstraction, meaning an *unearthing*, as that still dominates the narratives of science, technology and art, to a large extent. Michel Serres summarises beautifully how this new narrative rephrased the relationship between science, nature and society:

Nature lies outside of the collectivity, which is why the state of nature remains incomprehensible to the language invented in and by society – or that invents social man. Science enacts laws without subject in this world

without men: its laws are different from legal laws.

And he continues:

Natural law is dying because science has conquered its space. Science plays the role, now, of our Last Judgement. Henceforth law and science are opposed as the man-made and the natural once were, always to the benefit of the natural.<sup>7</sup>

Yet the well-known series of petrocapi- talist processes that fuelled the Modernist idea of nature (introducing the wider tendency to- wards industrialisation, the dependence on fossil fuels, the need to increase profit maxi- misation) were never unique to the West but had been at work all over the world. Ghosh is right to stress that throughout the popu- lous parts of Asia (the Indian subcontinent, China) there are dozens of examples of places where we find that the characteristics of pet- rocapi- talism have a much longer history. The oil intensive economies of Burma (such as Yenangyuang, a name that even refers to the smell of oil) and the coal and gas intensive economies of pre-industrial China show that the technologies of modernity were not 'new.' Leibniz's calculations were perhaps preceded by the Kerala school of Mathematics, and the ideas of Descartes were translated into Persian (by Francois Bernier) within ten years after his death, which, Ghosh claims, also shows that there was nothing exclusive about modern Europe in terms of ideas. Pet- rocapi- talism was, in a way, a global destiny, which had been explored in many parts of the world before it became the leading social system in nineteenth-century England.

What was different in nine- teenth-century England, of course, was that petrocapi- talism functioned as a totality there; its technologies and ideas, *all together* set up a condition for truth which, headed

by science and technology, together with the arts, sped up the whole European continent, and its ambition to expand, rapidly. It meant that the laws of Galileo became the laws for the whole of Europe. And not just in theory; in a most practical way, modernity defined what was true (science), what was good (not the church but the increase of profit) and what was beautiful (modern art). Together, they realised the objects that practiced mo- dernity, and consequently, the subjectivities that followed.

### **'Do not build your homes below this point!'**

This threefold condition for the true, the good and the beautiful, became the domi- nant narrative of the West which, through imperialism, was imposed upon the rest of the world. Ghosh gives us a recent example which shows how the new narrative of mo- dernity, in the end, 'overcoded' society as a whole. This time we find ourselves at the coast near Fukushima, where stone tablets from the middle ages warn future genera- tions about possible tsunamis. 'Do not build your homes below this point!,' these tablets said<sup>8</sup>. We all know what happened next: not only did the twentieth-century versions of petrocapi- talism decide that it was perfectly fine to build homes there, but exactly in the spot where our ancestors told us *not* to build, they constructed a nuclear power plant. Yes, this was the power plant that was destroyed by a tsunami in 2011, triggering a meltdown, only 40 years after it opened.

Isn't it ridiculous how petrocapi- talism soothes, alienates and 'un-earths' us with the scientific data, the figures, and the abstract objects *we ourselves* produced? Why do we have such faith in them; why do we consider them so trustworthy that we follow them blindly? Even after serious warnings from our ancestors, we built a nuclear power plant on dangerous ground. What makes us so

confident that we *collectively* choose to ignore their knowledge? What makes us so confident that we collectively choose to ignore what the indigenous peoples of Australia are saying in respect to seasonal fires, what the people of the Amazon are saying about deforestation? Worse even, in all these cases (and not in the least place in Fukushima), the data, the figures, the objects we blindly accepted were not given to us by science (or scientific research), but simply spoke the language of science. Fukushima Daiichi I was the first nuclear power plant to be realised (designed, constructed and run) by the Tokyo Electric Power Company (TEPCO) (with some input from General Electric).

It's interesting – in a sad way of course – that the stone tables from the middle ages sent us messages that were no longer recognised in our present-day context. These messages from our ancestors did not match with the conditions for truth that define the real today. These conditions, which are, by now, transmitted to us by neoliberal firms like TEPCO, made it all so true that in the end, not just policy makers and greedy managers, but *the entire population* was okay with the idea of building a power plant on this dangerous coast. A language very familiar to them (the same characters) with all too clear warnings, which *still* was not recognised? The warnings did not matter. TEPCO, the company responsible for building the nuclear power plant, was blind to what the tablets were telling us since they did not see scientific proof or recognise the narrative. The majority of the population was, for obvious reasons, not taken into account, but they also did not (strongly) reject this 'overcoding.' Raised within petrocapi-talism, they too did not recognise the claims.

Concerning the aftermath of the Fukushima Daiichi catastrophe, Angela Melitopoulos and Maurizio Lazarato created an installation called *Assemblages: The Life of*

*Particles*.<sup>9</sup> It included a long interview with the photographer and anthropologist Chihiro Minato, who minutely explains how the commercial owner of the whole site, TESCO, worked closely together with the scientists responsible for measuring the effects of the catastrophe, for instance by strategically placing the measuring points for radiation emittance, which caused the test results to be less dramatic (a lower exceedance of the norms), which significantly lowered the compensation demanded through insurance companies. Minato also discusses how the newspapers might have presented the information differently, but by using different scales, they appealed to common expectations and fears of their readership; local newspapers zoomed in on the meltdown, suggesting it was a Fukushima problem and rest of the Japan had little to worry about, while international newspapers showed the whole of Japan, suggesting this was a Japanese problem and the rest of world had nothing to worry about.

Minato, in the end, also concludes that alienation from nature is key here; the limited methods of institutionalised science offer us, intentionally, a biased and coloured (i.e. petrocapi-talist) narrative: 'We cannot resolve the problem of radioactivity with this relationship between nature and culture. In Japan after Fukushima, geography is psychology. The atmosphere does not move geometrically. We adapt not only to our environment but also to our psychosis.'<sup>10</sup>

### **Imagine the Earth Otherwise**

These days, we have great difficulty recognising the unthinkable, as Ghosh already said. This is what needs to be cultivated again, what needs to free itself again from our thinking: to imagine another Earth. It is not about *knowing* the alternative, it is about *recognising* that another earth is possible! And of course, we need to be willing, to be

bold enough, to open ourselves up to the unknown, to the powers in the interstices of all the data and the figures we use today, and to those far outside of it.

I understand that this is not an easy assignment, but it does seem very necessary and urgent: instead of saying ‘there it is again,’ could we instead search for those moments where we could say ‘there it is *otherwise*?’ Can we at least try *not* to fall into the traps of the present, not to accept the authority of the state blindly, the analyses of petrocapiatist science, not to accept blindly the objects that have been produced to stop time, objects that have been produced to prevent the revolution from happening? Not to recognise but to imagine all those other voices, voices from the deep that we do not know (anymore) but that somehow *still* have the power to make us change our mind, to make us look in a different way and to make us realise that so many of the objects we had seen before were actually illusions, wrong, mischievous. Like so many of the stars that populate the skies every evening, the objects that surround us are all too often long gone, ‘alive’ only in the light they *still* reflect, in the ‘information’ that is somehow mirrored back to us.

Ghosh ends his book by making a strong plea for imagination, claiming that the writers in our times should also be more creative in imagining the Earth differently, in taking fiction writing seriously instead of limiting themselves to what is nowadays considered to be sincere and authentic in writing. He critiques Karl Ove Knausgård, who told himself he was ‘sick of fiction,’ and, ‘As opposed to the “falsity” of fiction, [...] “set out to write exclusively from his own life”.’<sup>11</sup> In his magnum opus, the six-volume autobiography called *My Struggle*, he indeed seems to spend all of the 3,600 pages on non-fiction, on writing ‘himself.’ But as anyone who read this hallucinatory, Proustian journey, will

attest to, it is actually one of the best examples of what the imagination has to offer us. As if he, like Proust, took a bite from a *madeleine*, which immediately brought him back to all of the possible childhood memories and made him explore the minute details of all that he could have experienced, in a flash of the eye. Isn’t that exactly what imagination is all about, to experience the virtual as it is real, in all of its consequences, as it is not so much present and synchronized with the objects that claim to surround you, but by all means alive and empowered?

Of course, for all of us, there are many new childhoods to discover, many non-carnal births. But in order to realise this we must radically rethink our environment, and to stop saying ‘there it is again,’ which is not an easy task... it is definitely dangerous, because it asks us to put things at stake, to think creatively about another Earth. It makes an appeal to the art of paying attention, as Stengers calls it.<sup>12</sup>

It calls for the art of hearing, and feeling, and seeing the Earth otherwise.

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- 1 Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: Chicago University Press, 2016), p. 5.
- 2 David Wallace-Wells, *The Uninhabitable Earth: A Story of the Future* (New York: Crown Publishing Group, 2019), p. 100-109.
- 3 Ghosh, *The Great Derangement*, p. 5.
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- 5 Ibid., p. 118.
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- 10 Ibid.
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## *moonsong* (I have dwelt upon the moon)

### Abstract

The initial aim of this project was to take a time-based, repetitive sonic practice, timed with the movements of the moon, and investigate this practice in relation to memory, process and meaning. The attendant goal was to see if I could, through contemplating on and adapting this practice, relay – through the sound of a sonic work – part of the notion of the ‘thick present’ as conveyed through the writings of Donna Haraway in *Staying with the Trouble: Making Kin in in the Chthulucene* (2016). Could I create a sonic work within the conventions of an online journal platform that conveys both the passage of time enfolded into its creation, punctuated by the process of following the moon, as well as one that – through its own sounding – says something about my journey toward a more *sympoietic* making process? What follows constitutes a thinking between practice and theoretical writings that develops through an iterative practice: initial process (born of a time-related artistic process curiosity) returns to theoretical investigation, returns to process, which in turn returns to theoretical reflection and assessment. This text has been co-composed with the sonic work *moonsong* and is meant to be read alongside – co-listened to with – the sonic work. Excerpts taken from emails, sent to friends and artists almost daily during the initial 30-day process of recording and journaling, called moonsong writings, are included throughout this article, with links. The ‘Appendix: Artistic process of *moon-song*’ contains a more technical and detailed overview of the process, equipment, and recording acts involved.

my fingers halt and scamper over the keys  
 your eyes stutter and jerk over the page  
     saccades  
     fixations  
     regressions  
     .....  
 we dance among these words together  
     we move together  
     endlessly  
     we sing together  
     endlessly



*Waxing Gibbous Moon*, two days before 100% illumination, as seen from Arnhem, the Netherlands, through a Swarovsky 20-60x Spotting Scope and Samsung Galaxy S7 smartphone. Photo taken by Sharon Stewart on 5 May 2020 with a Samsung Galaxy S7 smartphone through a Swarovski 20-60x Spotting Scope.

## Theoretical context for moonsong

### Sounding theory, touching on the semiotics of sound

A sonic work – in the contemporary sense of the term, but this is certainly evolving – does its doing, the unfolding of itself, most often in intimate relationship with the (human) listener’s experience of it over time. Its form, internal tonal and structural relationships are distinguished and related to each other as they are presented and modulated over time and according to the particular training or experience of both the creator and listener. In general, this temporal aspect is intrinsic within every interaction with a sonic work. In a counterpoint development, through the evolution of recording devices within consumer-driven capitalist musical practices, it has become easier to create the musical ‘object’ in the material form of a phonograph cylinder, vinyl, or CD as well as in the digital form of sound file, web player playlist, or shareable SoundCloud or Bandcamp link.<sup>1</sup> The time it takes to engage with such a musical performance or object intersects with the life of the listener in a multitude of ways. A work might be designed for focused public listening, as with a concert performance or museum sound installation; intense private listening, as with an alternative ballad pumped through one’s headphones while curled up in bed; or devised as a catalyst for other work, sport, relaxation or commercial activities, supported by the gentle pulse of Muzak (now Mood:Media) or an ambient café vibe offered by *Coffitivity*, for example. And, of course, listeners can now mix up all of the above through online access and portable acoustic transmission devices.

‘It is 6:30 and I sense the inexorable climb of the moon toward the horizon.

I suddenly “know” (in an embodied sense) motion=time.’

*23 April – moonsong writings*

What I would like to call attention to with this is that in the development of *moonsong*, I have considered the interplay between the time taken to make a work and its re-iterations according to the demands of working toward a particular theoretical aim, the internal sonic connections of the work as specifically related to the passage of time, and the way that this work might be reacted to in the life of the listener as part of their movement through time. These reactions might include attentive, disinterested, meditative, repulsed, or distracted engagement with this uncommonly long work that operates outside of traditional harmonies and in-between the human, non-human, and machine. I also understand that this practice arose and is offered within a specific Western, avantgarde musical and academic practice.

‘As I re-enter the light sleep of morning, a hypnopompic image of a map appears, a green field, with the words “South Africa.”’

*24 April – moonsong writings*

I will be asking many questions in the following text that I, as maker, cannot resolve. What I can do is invite you, my potential listener, to stop reading now and start playing one of the iterations or layers of sonic processes that I have provided – either as a background listening experience while continuing to read this text, or as a focused listening experience while resting. I am obviously offering you an experience, but it is not my intention to control that experience or determine the outcome. I only know that your reading of the theoretical

considerations I have implemented in order to derive the developing iterations of this work, over time, will inevitably influence how you hear these iterations. And listening to the work as you read these theoretical considerations will affect how you interpret the text, through a sonic thinking. And that is OK, because this is, concurrently, a sonic work and a textual work.

‘8:05 Today was rather difficult and easy at the same time, the singing of this simple, repetitive pattern. The sound wanted to be small, so small, and still there was the phlegm, holding me hostage.’

25 April – moonsong writings

I am continually questioning whether and how sound – as composed material – works in terms of conveying something like semi-otic meaning: ideas, contexts, places, things, data, cultural developments, or history. In the first part of *Listening Through the Noise: The Aesthetics of Experimental Electronic Music*, Joanna Demers addresses the shift away from a Western classical music syntax toward and through the development of post-Schaefferian electroacoustic music, which often cuts itself loose from the parameters of tonality or defined rhythms, and thus away from the signifying codes that listeners depended on to classify a musical work or follow its internal logic, even if primarily in a formal way.<sup>2</sup> Demers points out that the rise of electronic music and electroacoustic music from the 1930s on has also generated an unparalleled ‘amount of theoretical literature concerning the act of listening’ which ‘argues over the extent to which composers, materials, and listeners themselves can control the listening process’ and which ‘is concerned with the signifying properties of sound: whether sound can be heard separately from any social, cultural, natural, or historical associations.’<sup>3</sup>

‘She releases her (beloved) snake toward me. The face of the snake is approaching mine, right at eye-level, as if it is floating over a table through the air.’

26 April – moonsong writings

Can a listener move beyond the shock of listening to totally unrecognisable sounds woven into an atypical form – through the intentional compositional act of *poiesis* – and be open to receiving a contingent sonic message – through the interpretational act of *esthesis*?<sup>4</sup> And would this contingent sonic message always be arbitrary, the sonic material operating as a signifier with an arbitrary relationship to the signified (extra-)musical idea?<sup>5</sup> I cannot fully go into the rich material that Demers offers. However, I agree, along with most of the composers and theorists she mentions,<sup>6</sup> that the idea of a Schaefferian ‘reduced listening’ – in which the listener is asked and trained to listen exclusively to the intrinsic characteristics of the sound, attempting to ignore its source in a rarefied as well as quite material and embodied listening strategy – has taken hold of many composers of electronic or electroacoustic music but is not really practiced by a majority of listeners.

‘I suddenly cannot stop feeling that my open mouth with the deep sounds is a prehistoric cave, through which vibrations find their form, while these same vibrations also give it form.’

27 April – moonsong writings

Thus, I am also aware that it is – perhaps especially – the inclusion of field recordings<sup>7</sup> that can trigger the question: What is this supposed to mean? or What am I listening to? If the listener is only partially practicing a Schaefferian ‘reduced listening,’ while primarily turning toward what Michel Chion terms ‘causal listening’ (a listening in order to actually gather more information as to its

source), or a 'semantic listening' (with the purpose of interpreting a linguistic message or code),<sup>8</sup> or even a more technical analytical listening popular among composers or sound designers (listening with the objective of hearing which software, effects, techniques have been used in the making process), then how might other overarching theoretical or abstract ideas be introduced into a sonic work? In the work presented here, I noticed, looking back, that I have played with all three modes of listening and electronic manipulation in what I understand now as an attempt to have the listener question the stability of each mode as well as, ideally, to stimulate a questioning of time and process (see section 'Layering' in 'Appendix: Artistic process of *moonsong*.')

'Humans are, in general, not designed to remember things exactly.

We re-member things.

We put events back together in a way that suits us.'

[I do not remember writing the above and need to look online to see if it wasn't actually a quote from an article I had referenced.]

28 April – *moonsong writings*

Of significant importance to me<sup>9</sup> is the phenomenological approach toward understanding the sonic experience, one aspect of which is detailed exquisitely in Salomé Voegelin's unfolding of Maurice Merleau-Ponty's 'being-honeyed' (from his 1948 audio-lectures on the French National radio), thought through in the first chapter of *Listening to Noise and Silence* and returned to in her subsequent books. 'Being honeyed expresses the reciprocity of his phenomenological intersubjectivity. The honey can only be felt through my stickiness. It cannot be grasped as a remote object but comes to being in my honeyed-hands as a complex phenomenon of no certain shape but a demanding nature.'<sup>10</sup>

We become honeyed with sound through the physiological effects of sound on the body as well as a complex working of memory, material force, involuntary response, and training, all of which are embedded in layers of personal, educational, social and cultural interaction and conditioning.

A sonic work can make you feel aroused, uncomfortable, entranced, mesmerised, dizzy, floating, nauseated, hyper, disembodied, tingling, pulsing, sleepy, weepy, irritated, but these are words. There is also the qualia of the listening response, apprehended by direct experience, uncommunicable, innately subjective, a *raw feel*. Are these physiological responses, the qualia of the personal listening response, also part of the way a sonic work generates knowledge or meaning? Can I guess at an average physiological response, and what responsibility do I have toward the listener in mitigating negative responses, even if I deem them necessary in pursuit of my theoretical intent? How might the consciousness and intentionality of returning to a sonic work through a practice of creating, recording, and working with materials create layers of mind-body-generated, non-semantic meaning that might be accessed by the listener? Can we become honeyed together in this listening process?

(10:43) The sky is hanging, thick with white clouds.

There is a softness and a coolness that is permeating my body with a need for deep rest.'

29 April – *moonsong writings*

In the following theoretical section, I explore Haraway's 'thick present' – supported and augmented by thoughts of Erin Manning and Brian Massumi, Jane Bennett and Matthew Fuller – and how these thoughts were applied to an iterative process of co-composition.

### The notion of a 'thick present'

While preparing the first seminar for the Theory in the Arts Professorship's series *Time Matters*, 'I - Casting Futures in the Thick Present,' I was inspired to think with Donna Haraway's 'thick present,' which led to the questions: How might I work with Donna Haraway's notion of a 'thick present' within a time-based compositional project, and what parts of this notion might be hearable within a sonic work?

'To look at a Lukasa memory board is to look at a sacred object and event.

Memory, relationships, morals, community, history, ancestry, lawmaking, virtue and ethical fibre and more and more are all inscribed in ways that go beyond my understanding.'

*30 April – moonsong writings*

First of all, as I read *Staying with the Trouble*, I became acutely aware that Haraway has a PhD in Biology, which is not a trivial observation. As she writes, inspired by Marilyn Strathern, 'It matters what thoughts think thoughts. It matters what knowledges know knowledges.' When approaching the various aspects of the 'thick present' that reveal themselves in her writing, I became aware that I grasp concepts such as *autopoiesis* and *sympoiesis* on a superficial level. I can read and re-read the definitions, but I must deepen the well of interactions with these words from which I can draw upon an understanding, and thus an application, to my own work.

What does Haraway actually write about the 'thick present'?

The task is to make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present. [...] In fact,

staying with the trouble requires learning to be truly present [...] as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings.<sup>11</sup>

And

*Kainos* means now, a time of beginnings, a time for ongoing, for freshness. Nothing in *kainos* must mean conventional pasts, presents, or futures. There is nothing in times of beginnings that insists on wiping out what has come before, or, indeed, wiping out what comes after. *Kainos* can be full of inheritances, of remembering, and full of comings, of nurturing what might still be. I hear *kainos* in the sense of thick, ongoing presence, with hyphae infusing all sorts of temporalities and materialities.<sup>12</sup>

And

We become-with each other or not at all. That kind of material semiotics is always situated, someplace and not noplacement, entangled and worldly. [...] Neither despair nor hope is tuned to the senses, to mindful matter, to material semiotics, to mortal earthlings in thick copresence.<sup>13</sup>

And

But coral and lichen symbionts also bring us richly into the storied tissues of the thickly present Chthulucene, where it remains possible—just barely—to play a much better sf game, in nonarrogant collaboration with all those in the muddle. We are all lichens; so we can be scraped off the rocks by the Furies, who still erupt to avenge crimes against the Earth. Alternatively, we can join in the metabolic transformations between and among rocks and critters for living and dying well.<sup>14</sup>

‘The Big Splash or Theia impact are ways to refer to the hypothesis that Luna formed around 4.5 billion Earth years ago from the ejecta of a collision between the proto-Earth and a Mars-sized planetesimal. [...]

I would see the Earth in the same spot in the sky, rotating approximately 29.5 times during my Lunar day, which would last, on average, 29 Earth days, 12 Earth hours, 44 Earth minutes and 3 Earth seconds.’

1 May – moonsong writings

Reading further – and being introduced to examples of staying with the trouble within threatened worlds – a ‘thick present’ invokes non-innocent, committed involvement in one others’ lives, the making-with of *sympoiesis*, multi-species becoming-with and living-with, in particular places, often damaged lands, that are ‘worth fighting for.’<sup>15</sup> While my project might not be able to embody the ‘multispecies sympoietic, symbiogenetic, and symanimagenic’<sup>16</sup> nature of the ‘science art activist worldings’<sup>17</sup> described in Haraway’s chapter ‘Sympoiesis,’ I discover in this chapter a concept that, in combination with the words of other thinkers, particularly leads me as I continue to re-approach *moonsong*.

### **Auto- and sympoiesis, entrainment and entertainment, thing-power and media ecologies**

Haraway begins the chapter ‘Tentacular Thinking’ with another refrain of: what happens when a certain mode of thinking becomes unthinkable? ‘Seriously unthinkable: not available to think with.’<sup>18</sup> Here she is referring to the biological conceptualisation of ‘bounded individuals plus contexts,’ ‘organisms plus environments,’ or ‘genes plus whatever they need.’<sup>19</sup> The concept of *autopoiesis* was introduced in the 1970s by the biologists Humberto Maturana and

Francisco Varela and was transferred to the field of the social sciences in the late 1980s by Niklas Luhmann. Characteristics of an *autopoietic* system are that it is somehow self-contained, organised into bounded structures, and able to (re)produce and maintain itself through internal operations.<sup>20</sup> Haraway makes abundantly clear that, while ‘[a]utopoietic systems are hugely interesting [...]; [...] they are not good models for living and dying worlds and their critters.’<sup>21</sup> Offering M. Beth Dempster’s term *sympoiesis*, Haraway clarifies that ‘[p]oiesis is symchthonic, sympoietic, always partnered all the way down, with no starting and subsequently interacting ‘units.’<sup>22</sup> There is always a paradoxical opening to the closed system, an innate we-ness to any individual.

‘my dreams were of a woman leaning against the soft, silky arm of someone dressed up as an elephant in a big, green, diamond-printed puffy soft suit.’

2 May – moonsong writings

The question that came up in relation to these concepts and my first iteration of the artistic process, which I will address in more detail in the following section, was how I might better break open the initial (closed) system of this composition so that the process becomes – audibly – less *autopoietic* and more *sympoietic*. Additionally, how might I relinquish more control of this sonic environment I am creating so that my voice becomes just one of many relational *objectiles* within a dynamic field of emergence?

With this last sentence I have already turned to the thinking of Erin Manning and Brian Massumi in *Thought in the Act: Passages in the Ecology of Experience*. This book was written to ‘challenge philosophy to compose with concepts already on their way in another mode [...] to ask ourselves what writing can do to make thought-felt what art can do,

with philosophy,' from the understanding that 'the practice that is philosophy has no exclusive claim to thought or the composition of concepts. [...] Every practice is a mode of thought, already in the act.'<sup>23</sup>

'The cosmos has taught us math,  
and time is high-level math.  
[...]

From my ears I know immediately the animal is smaller than me and cannot kill me.'

3 May – moonsong writings

Of particular interest to me here is the first chapter, 'Coming Alive in a World of Texture: For Neurodiversity.' This chapter linguistically unfolds a way of approaching the experiential world within the neurodiversity of autism. Through the poetic expression of Tito Mukhopadhyay, interwoven with the wording-around of the authors, the reader is introduced to another possibility, of an intensely lived co-presence within a textured world of patterned environmental immediacies. The brain might relent from imposing its highly-trained ability to read patterns and organise them into a foreground and a background; it might defer for a moment in prioritising human sounds, smells, needs, bodies and faces. This dance of attention might attend to a field of interacting *objectives*, with their innate tendency toward expression, without needing them to bud into objects.<sup>24</sup> 'A dance of attention is the holding pattern of an immersive, almost unidentifiable set of forces that modulate the event in the immediateness of its coming to expression. Attention not to, but with and toward, in and around. Undecomposably.'<sup>25</sup>

'Yet, listening to animals closely, even when their lifespan is much shorter than a human, can feel like listening to the stream of life in its entirety.'

4-5 May – moonsong writings

Drawing upon the philosopher Alfred North Whitehead, Manning and Massumi offer an *environmental mode of awareness* as mode in which *entertainment* 'captivation in a dance of attention'<sup>26</sup> can exist without necessarily, inevitably, or predominantly leading toward *entrainment*, in which the brain singles things out from the environment as particular affordances.<sup>27</sup> As a child, the demands of school and my need to extract myself from a boring or overly-stimulating environment trained me to focus on reading a book, for example, to the point of no longer hearing or feeling the environment I was in. It has been more recently – through my work with sound and movement improvisation – that I have an embodied recognition, a lived knowing of this passage by Mukhopadhyay:

there may be a sudden sound of laughter that can dissolve the stories told by the reflections and the sullen silence of the chair's shadow with its demanding noise, making you wonder which part of the funny story from Jack's voice you missed listening to while you were watching the giant blades of the fan pushing out every story and sound away from it with air.<sup>28</sup>

Improvisation provided my neurotypical mind with the openness to become aware of the virtuality of this mode of awareness: the multiplicity of motion and sensation that each aspect of the environment can provide when the brain is allowed to relax its habits of entrainment.

'Every breath of the moonsong was about connecting to this reality tonight.  
But the moon shone on with her cool light,  
and I cannot cry.'

6 May – moonsong writings

How does the sonic environment of *moon-song* facilitate entertainment in a dance of attention within this work? Can the listener attend to the field of flowers through which I have strolled, each casting a different shadow with me in the moment of our co-presence, or do I offer the listener a bouquet of neatly clipped and carefully arranged wild flowers, to be placed in the vase of a tidy sonic work, bounded by its internal time structures?

I will close this section with the notions of vibrant matter as proposed by Jane Bennett and a brief consideration of media ecologies as offered by Matthew Fuller. Jane Bennett opens Chapter one of *Vibrant Matter: A Political Ecology* with a few sentences upon which the faint scent of a manifesto lingers:

And, instead of focusing on collectives conceived primarily as conglomerates of human designs and practices ('discourse'), I will highlight the active role of nonhuman materials in public life. In short, I will try to give voice to a thing-power.<sup>29</sup>

'Tonight we reached the apex as well as the turning point of my 30 days.

It is day 15, and I have sung with the rising of the late full moon and will also sing tomorrow morning with its setting, approximately 9h23m later.'

7 May – moonsong writings

Bennett's book has been instrumental in helping me become aware of how powerfully the things around me get me to do the things I do. In terms of sonic exploration, two examples come to mind. The first derives from around 2008, the first time that I got my home studio going with a good studio mic and interface. Like every Narcissus, I was immediately entranced with the closed, tight, intimate, membranic mirror of mouth to microphone membrane to headphone

speaker membrane to tympanic membrane. I could suddenly hear in minute detail every watery smack of my lips and tongue, every sigh of my breath and stroke of the glottis. So much was possible, yet so completely overwhelming in the intimacy. Inspired by feminist, philosopher, and psycholinguist Luce Irigaray and the concept of *motherese*, I engaged in sensual, nonverbal dialogues with other female artists. The mouth-in-the-ear aspect of this material led me to explore my voice in ways I would have probably never done without the companionship of this equipment.

'My moonsong has now been placed in reverse, an attempt at sonic symmetry.

So, while I was singing "m m i o o o o o o o o" for the rising late full moon, now I was singing "o o o o o o o i i m m" for the setting late full moon.

Both seemed to make sense to me.

They meant well.'

8 May – moonsong writings

The second experience was more confining than freeing. Upon entering the working space of Ableton Live, I was confounded by its stereo-normative and 4/4 locked-beat-driven working environment. It took me months to find a way to spatialise material or produce sounds that broke free from the iron grip of what seemed to keep leading me to the production of pop tunes, in some hybrid and mutilated form. In other words, Bennett did help me develop 'a vocabulary and syntax for, and thus a better discernment of, the active powers issuing from nonsubjects[, ...] the material agency or effectivity of nonhuman or not-quite-human things'<sup>30</sup> in my work. Through her work I have become more fully aware that the materials I use in the studio are shaping me and the work I am doing more than I am shaping them.

The doing flows equally and distributively through the vessel of both of us.

‘we have spent time together,  
me and the garden,  
and we have mutually woven ourselves,  
our beings, together.  
perhaps there is a word for it: timebeing’

*9-10 May – moonsong writings*

This leads me to perhaps the most challenging voice as I work within the now well-known, oft-trodden paths of my working space. In his introduction to *Media Ecologies: Materialist Energies in Art and Technoculture*, Fuller writes, and I believe it is worth quoting extensively:

First, the only way to find things out about what happens when complex objects such as media systems interact is to carry out such interactions—it has to be done live, with no control sample. Objects here should also be understood to mean processes embodied as objects, as elements in a composition. Every element is an explosion, a passion or capacity settled temporarily into what passes for a stable state. [...]

It is one of the powers of art or of invention more generally to cross the planned relations of dimensionality—the modes or dynamics that *properly* form or make sensible an object or a process. As it does so, other worlds gently slip into, swell across, or mutate those we are apparently content that we live in.<sup>31</sup>

‘i have a very old second screen and two pair of closed headphones on a cheap IKEA desk.  
i have a studio that keeps everything dry and at a rather constant temperature.  
this is sustained by a myriad of complex systems.

i have email, facebook, a smartphone with apps, a yoga ball to sit on...  
the media ecology far surpasses me.  
i give my time to this ecology.  
i tend to it.’

*11 May – moonsong writings*

While he is obviously talking here about more complex, interlaced media systems – such as the focus of his first chapter: contemporary London-based pirate radio, high- and low-tech media systems, and its networks – I find it compelling to consider what other systems, what other worlds might enter into a future articulation of the process. How might *moonsong* expand into other territories, collaborations, through other media, spaces, spatialisation, etc., perhaps morphing into a completely unrecognisable form?

### **Reflecting on the process of co-composing with theory**

Before I reflect on the above in terms of process and products, I would like to tell a story. When I was in seventh grade, around twelve years old, I embarked on a writing project during our daily writing sessions in English class: a science fiction story. This is when I first remember confronting my mind with the challenge to think of a never-before-encountered life form, one that operates according to completely different sensory inputs and communicates in ways that are unimaginable. While this story turned out to be quite conventional, it is the moments spent pondering, trying to think outside of my brain, outside of my lived experience, outside of my own sensory perception that remains with me.

‘the circle is in some ways numerically impossible to pin down. a circle exists. you can draw it, see it, build a house with it, use an exact length of string to create it. but any

calculation includes  $\pi$ , of course, so in the end it is defined by an irrational number.  
[...]

although the hand of a clock moves around exactly the same loop, we understand that the displacement of this exactness comes through an addition of the parameter of time.

3am is not 3pm;

3pm on monday is not the same as 3pm  
on tuesday;

3pm on monday in april is not the same as  
3pm on monday in june;

3pm on monday in april in 2020 is not the  
same as 3pm on monday in april in 1947.'

*12-13 May – moonsong writings*

This leads back to classic phenomenological paradigms and questions. Pauline Oliveros said, in her kōan-like poem on listening: 'I could listen to me listening.'<sup>32</sup> One is always listening, with more or less awareness, to one's own listening. One is always touching touch. Listening is a self-reflexive act. One listens through the listening sense that is available to you, and one cannot listen outside of that sense. In Jean-Luc Nancy's treatise *Listening*, he writes, in an obliquely positive sense, that musical listening is

like the permission, the elaboration, and the intensification of the keenest disposition of the 'auditory sense.' (Musical listening means, in the end, music itself, the music that, above all, *is listened to* [s'écoute], whether it is written down or not, and when it is written, from its composition all the way to its execution. It *is listened to* according to the different possible inflections of expression: it is made to be listened to, but it is first of all, in itself, the listening of self.)<sup>33</sup>

'I think I've done something in-between literal and figurative sonification.'

*14 May – moonsong writings*

To bring this back to the cultural act of composing, what I would like to suggest is that the experience of touching your own sense of touch can be applied, metaphorically, in wider and wider circles of interaction. As I try to compose differently, working with the tools I have, differently, all I seem to be doing in the beginning is touching the barriers of what is habitual: composing my composing habits, which are held in place by all the customs and mechanisms that define what composing is, defining what a sonic work and its possible means of reception are. On a societal level, as we notice that we are rapidly heading toward global destabilisation and the annihilation of many habitats and their lifeforms, all that Western culture seems able to do is to keep thinking our Western habitual thought patterns and reproducing their emergent systems: extraction of material and labour resources to create surplus capital, often motivated by a compulsory and uncritical prioritisation of human convenience, which is not the same as human wellbeing and which is often in opposition to planetary wellbeing.

'she awakened with a throbbing in her underbelly. she listened.

the aching continued as if the reserves in the womb were gathering for some kind of explosion or implosion.

the longing rose warmly, swirled around her heart.

her breathing quickened, and she listened again.'

*15 May – moonsong writings*

What Haraway offers, through her descriptions of acts of multi-species becoming-with and the concept of string figures 'tying

together human and nonhuman ecologies, evolution, development, history, affects, performances, technologies, and more' in a 'New New Synthesis'<sup>34</sup> is not the need to escape this humanness, with all its sensory organs, sensing itself, but to move forward toward a more aware sensing-with, becoming-with, figuring out how we can live and die response-ably and committed and involved with each other.<sup>35</sup>

'saturday she rose at 4:03am and set at 14:29  
today she rose at 4:20 and set at 15:37  
moving from about 25% to 20% illumination.'  
*16-17 May – moonsong writings*

Listening to my first iteration of moon-song, completed at the beginning of June 2020, I immediately hear that my processes, my assumptions, my way of working, are deeply embedded in Western-centred, human-centered, technology- and digital-information-reliant practices. I have not yet composed outside of my compositional habits, of the context in which I have studied and in which I produce. In the initial process, there has been too much rational control, linearity and bounded systems, and not enough sympoiesis. There has been much Anthropos, the 'upward looking one'<sup>36</sup> who has found her quiet solitude in a cool, easy companionship with the regular and silent moon and not enough time spent composting with the Earthy chthonic ones and their tentacular thinking.

'of course, repetition is never the same thing  
once or even twice.

it may even take four or ten times to turn  
one thing into something else completely.  
like the greeting to your neighbor, made one  
day before and one day after her partner of  
63 years dies.'

*18 May – moonsong writings*

This means that, besides my untrained voice, the roughness of each take, the first process creates, to my ears, a closed system that can still be teased open much more, and I set out to do this through three different approaches that led to two consecutive iterations.

- In order to give other lifeforms more of a voice, I turned to the field recordings of animal sounds and choruses that I had instinctively been making since the process began. (See 'Field Recordings' in 'Appendix: Artistic process of *moonsong*.')
- The second iteration involved taking these recordings and treating them further in order to blend them with my voice and create a hybrid voice. To accomplish this, I turned to the vocoder. (See 'Vocoder' in 'Appendix: Artistic process of *moonsong*.')
- The final approach involved creating a series of field recordings at the time of the moon culmination from waxing half-moon (25 August) to waning half-moon (10 September) to create one dusk-to-dawn recording that can be loosely compared to a time-lapse video.

A strong argument against considering the above as an act of multispecies *sympoiesis*, worlding practices, or a sonic expression of the 'thick present' would be the obvious and innate humanness embedded in every single act, from conception to delivery. Even the timing, while it was dependent on the moon, could definitely be considered a choice that was made by me, similar to the way in which the throw of the dice is a fractional, perhaps insignificant, part of an aleatoric work.

‘There are not only circadian rhythms, but also circalunar rhythms, ways that life on Earth has adapted to dynamically respond to the cycles of the moon.’

*19 May – moonsong writings*

Those who hear the work and its process as a sonic expression of the ‘thick present’ would hear how almost every recording act was controlled by the timing of the moon; how my voice occupies its own niche in the ecosystem of our house and front and back garden, with the animals certainly dominating the sonic field outside the home for a vast majority of the time each day; and, if you also consider tentacular media ecosystems, how this entire project is controlled and curated by the coding of my computer, interface, microphones, and software and the way they afford the production of sonic materials. This work would, of course, not exist in any form without the machines. But, while it speaks of the time of its making and sings with non-human sounding, this project is certainly not a ‘science art worlding,’ ‘in which scientists, artists, ordinary members of communities, and nonhuman beings become enfolded in each other’s projects, in each other’s lives,’ coming ‘to need each other in diverse, passionate, corporeal, meaningful ways,’ ‘sympoietic, symbiogenetic, and sym-animagenic.’<sup>37</sup> Could a sonic project exist as such? I would love to explore this.

‘but this whole stress of timing and not liking the temporary solution put a whole new dimension into my approach to the moonsong, and i was irritated and frustrated and grumpy.

so, that was part of the moonsong today.’

*20 May – moonsong writings*

As regards the question: how might other overarching theoretical or abstract ideas be introduced into a sonic work?, I only

know that the theoretical implications have been interpreted by me, the maker, into a functional utterance, a gesture. I have done something with them that might be considered a translation from idea into material process into sonic output. I do not assume they will be hearable to the listener without this text. Therefore this text has been co-composed with the sonic work and is meant to be read alongside – co-listened to with – the sonic work.

As regards the questions: Are these physiological responses, the qualia of the personal listening response, also part of the way a sonic work generates knowledge or meaning? Can I guess at an average physiological response, and what responsibility do I have toward the listener in mitigating negative responses, even if I deem them necessary in pursuit of my theoretical intent? Since physiological responses to sound connect the everyday life experience of the listener with the world of the sonic work, any physiological responses to sounds would reflect a mutual generation of additional experience at the moment of listening, which could lead toward a construction of meaning or knowledge, through observation or contemplation of this experience. I have listened to this composition many times, and sometimes it grates terribly on my nerves, while at other times I am mesmerised by its tranquil essence. As a composer, I feel myself to be first and foremost dedicated to a process and (theoretical) intent. I do carry the responsibility to warn the listener as to possible adverse reactions in the case of extreme volume or low frequency (infrasound) resonance, neither of which are applied in this work. I do have the responsibility to consider the sensibilities of certain audiences if the work is presented in a public, or in any way nonvoluntary, listening environment.

‘Attention as frail as eternity  
is woven into the sound of  
that next possible breath  
that next failing breath

As I hold you  
As you hold me, living  
Dying

In the palm of your hand

Time never ...’  
21 May – moonsong writings

How might I work with Donna Haraway’s notion of a ‘thick present’ within a time-based compositional project, and what parts of this notion might be hearable within a sonic work?

‘And now, the moon cycle has both ended and begun anew.

And the time of this moonsong has both ended the first phase and moved into the second.

blessings for you in every cycle of  
the moon....’

22 May – moonsong writings

Thus, this process has gone through what I perceived as an initial failure and has ended with something that I think is passable as a sonic consideration of the passage of time, a self-reflective artistic process that has not yet truly turned into research. However, a true engagement with Haraway’s concept – in line with the four ‘science art worldings’<sup>38</sup> that she describes in her book – would require time, resources, and strategies of engagement that exceed this project. It is exactly this process, and this failure, that has strengthened my belief that the concept of a ‘thick present’ can be a useful one for artists as we continually seek relevance and meaningful engagement with this planet and all the beings that we share life with.

I conclude with a series of questions for you and a return to the ‘thick present’ as a refrain.

Does this sonic work make hearable the time of its making, the durational aspect of its process, within the bounded confines of its digital walls, its enfolding within the package of transferable and consumable sonic product?

Does this sonic work allow the formalized time of the finished work to remain one of many relational objectiles with a dynamic field of emergence that is the time of the creating itself?

### The refrain, a rhythmic operation

What does Haraway actually write about the ‘thick present’?

The task is to make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present. [...] In fact, staying with the trouble requires learning to be truly present [...] as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings.<sup>39</sup>

And

*Kainos* means now, a time of beginnings, a time for ongoing, for freshness. Nothing in *kainos* must mean conventional pasts, presents, or futures. There is nothing in times of beginnings that insists on wiping out what has come before, or, indeed, wiping out what comes after. *Kainos* can be full of inheritances, of remembering, and full of comings, of nurturing what might still be. I hear *kainos* in the sense of thick, ongoing presence, with hyphae infusing all sorts of temporalities and materialities.<sup>40</sup>

And

We become-with each other or not at all. That kind of material semiotics is always situated, someplace and not

noplace, entangled and worldly. [...] Neither despair nor hope is tuned to the senses, to mindful matter, to material semiotics, to mortal earthlings in thick copresence.<sup>41</sup>

And

But coral and lichen symbionts also bring us richly into the storied tissues of the thickly present Chthulucene, where it remains possible—just barely—to play a much better sf game, in nonarrogant collaboration with all those in the muddle. We are all lichens; so we can be scraped off the rocks by the Furies, who still erupt to avenge crimes against the Earth. Alternatively, we can join in the metabolic transformations between and among rocks and critters for living and dying well.<sup>42</sup>

#### Sharon Stewart

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Practices by Pauline Oliveros, Pussy Riot, and Goodiepal,' in *The Bloomsbury Handbook of Sound Art*, edited by Sanne Krogh Groth & Holger Schulze (New York: Bloomsbury Academic, 2020), pp. 237-259.

—, 'Listening to Deep Listening. Reflection on the 1988 Recording and the Lifework of Pauline Oliveros,' *Journal of Sonic Studies* 2 (2012), n.p. <https://www.researchcatalogue.net/view/261881/261882/0/0>.

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#### Footnotes

- 1 I pondered this extensively while writing about the artistic phenomenon Goodiepal, who turned away from computer music altogether and started a 'brick-based compositional language' (p. 254) that made fun of the 'stupidity of modern computer music and media-based art' (p. 255) in my chapter 'Inquiring into the Hack: New Sonic and Institutional Practices by Pauline Oliveros, Pussy Riot, and Goodiepal,' in *The Bloomsbury Handbook of Sound Art*, ed. Sanne Krogh Groth & Holger Schulze (New York: Bloomsbury Academic, 2020), pp. 237-259.
- 2 Joanna Demers, *Listening Through the Noise: The Aesthetics of Experimental Electronic Music* (Oxford: Oxford University Press, 2010), p. 13.
- 3 Ibid., p. 22.
- 4 Demers offers the reader a brief introduction to these terms, central to Jean-Jacques Nattiez's foundational work on music semiotics, *Music and Discourse* (p. 88).
- 5 Demers, *Listening Through the Noise*, p. 25.
- 6 Demers traces the concepts and research that has gone into trying to understand how music and sound might refer to something outside of itself, moving from the absolute and programmatic camps of European concert music, through the introduction of methodologies

from literary criticism, semiotic approaches, hermeneutics and cultural studies, and offering an overview of the contributions of research institutions like the Groupe de Recherches Musicales (GRM), composers, and theorists. This point of view is also supported by the composer James Andean in his article 'Sound and Narrative: Acousmatic Composition as Artistic Research,' in which he writes, 'the composer's poetic intentions often blind them to the narrative impact the work will eventually have on a majority of listeners, whose responses in such instances can sometimes take the composer by surprise upon initial public presentations.' James Andean, 'Sound and Narrative: Acousmatic composition as artistic research,' *Journal of Sonic Studies* 7 (2014), n.p.

Developments within practices of field recordings and music sampling have also further augmented music's ability to create sonic cross-references, as specific recordings can travel from one mix to another, gathering layers of societal meaning, like a meme, at every turn. In 'The Poetics and Politics of Pygmy Pop,' Steven Feld introduces the phrase 'schizophonic mimesis': 'a broad spectrum of interactive and extractive practices,' asking 'how sound recordings, split from their source through the chain of audio production, circulation, and consumption, stimulate and license renegotiations of identity' (Steven Feld, 'The Poetics and Politics of Pygmy Pop,' in *Western Music and Its Others: Difference, Representation, and Appropriation in Music*, ed. Georgina Born & David Hesmondhalgh (Berkeley: University of California Press, 2000), pp. p. 263). On the one hand, recordings 'retain a certain indexical relationship to the place and people they both contain and circulate,' while '[a]t the same time their material and commodity conditions create new possibilities whereby a place and people can be recontextualised, rematerialised, and thus thoroughly reinvented' (ibid., p. 263).

- 8 Michel Chion, 'The Three Listening Modes,' in *Audio-Vision: Sound on Screen*, trans. Claudia Gorbman (New York: Columbia University Press, 1994), pp. 25-28.
- 9 Sharon Stewart, 'Listening to Deep Listening: Reflection on the 1988 Recording and the Lifework of Pauline Oliveros,' *Journal of Sonic Studies* 2 (2012), n.p.
- 10 Salomé Voegelín, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (New York: Continuum, 2010), p. 9.
- 11 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016), p. 10.
- 12 Ibid., p. 2.
- 13 Ibid., p. 4.
- 14 Ibid., p. 56.
- 15 Ibid., pp. 96-97.
- 16 Ibid., p. 98.
- 17 Ibid., p. 71.
- 18 Ibid., p. 30.
- 19 Ibid., p. 30.
- 20 In a selection of extractions from the 2001 *International Encyclopedia of the Social & Behavioral Sciences* offered on the website ScienceDirect on the topic Autopoiesis, you can read that a widely accepted definition is that *autopoietic* systems 'are defined as unities and as networks of production of components that recursively, through their interactions, generate and realize the network that produces them and constitute, in the space in which they exist, the boundaries of the network as components that participate in the realisation of the network' (Maturana 1981, p. 21). Ralf Rogowski, 'Law, Autopoiesis in,' in *International Encyclopedia of the Social & Behavioral Sciences*, ed. Neil J. Smelser & Paul B. Baltes (Elsevier, 2001), pp. 8500-8502, <https://www.sciencedirect.com/referencework/9780080430768/international-encyclopedia-of-the-social-and-behavioral-sciences>. See also Felix Geyer, 'Sociocybernetics,' pp. 14549-14554.
- 21 Haraway, *Staying with the Trouble*, p. 33.
- 22 Ibid., p. 33.
- 23 Erin Manning & Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience* (Minneapolis: University of Minnesota Press, 2014), p. vii.
- 24 Ibid., p. 5.
- 25 Ibid., p. 4.
- 26 Ibid., p. 8.
- 27 Ibid., p. 7.
- 28 Ibid., p. 53.
- 29 Jane Bennett, *Vibrant Matter: A Political Ecology* (Durham: Duke University Press, 2010), p. 1-2.
- 30 Ibid., p. ix.
- 31 Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge, MA: MIT Press, 2005), p. 1-2.
- 32 Pauline Oliveros, *The Roots of the Moment* (New York: Drogue Press, 1998), p. 27.
- 33 Jean-Luc Nancy, *Listening*, trans. Charlotte Mandell (New York: Fordham University Press, 2007), p. 27.
- 34 Haraway, *Staying with the Trouble*, p. 63.
- 35 There is a difference between commitment to and a desire for. Steve Paulson interviews Donna Haraway:
- '[SP] Did you ever feel like you really got to know what Cayenne [Haraway's dog] was thinking – her subjective experience?
- [DH] No, I certainly don't think I ever reached any seriously deep understanding, although I knew more than I did before. Some of it is research-based and some of it is interaction- and play-based. But I didn't lose any sleep over that question. At the end of the day, it's who you live with and care about. It's about mutually felt and lived connection, and we had that, even in all of our ignorance.
- [...]
- [SP] So there's an ethics to honoring unknowability?
- [DH] And otherness. If you take anybody seriously, one of the things you learn is not knowing. That's one thing I learned from Cayenne and my other dogs. Not knowing is a quasi-Buddhist value. And the appreciation of not knowing and letting that be is something you learn in a serious relationship. It's a kind of letting go. Not knowing and being with each other not knowing.
- [SP] That's so hard!
- [DH] It's very hard. But that kind of relationship is also deeply joyful.

It takes a lot of restraint, and  
it takes forgiving each other.  
It takes forgiving yourself for  
imposing yourself on the other, for  
thinking you knew when you didn't,  
for not paying enough attention  
to know when you could have.'

Steve Paulson, 'Making Kin: An Interview  
with Donna Haraway,' *Los Angeles  
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36 Haraway, *Staying with  
the Trouble*, p. 183.

37 Ibid., pp. 71-72.

38 Ibid., p. 71.

39 Ibid., p. 10.

40 Ibid., p. 2.

41 Ibid., p. 4.

42 Ibid., p. 56.

# Time in the Work of Frank Lloyd Wright

## Abstract

This paper contains a first exploration of the question of time in the work of the American architect Frank Lloyd Wright.<sup>1</sup> By way of introduction I will start by going back to the treatise of the Roman architect Vitruvius to find a first formulation of the importance of time in architecture in the form of the Latin *tempus*, meaning time of the day and time of the season. I will then expand on the entanglement of the concepts of *templum* and *tempus*, both related to the founding rites of the antique city. Finally, I will make the jump to modernity to see how these concepts still persist in the work of Wright, ending up in the Janus face of a geological and an atmospheric time of architecture.

Time has always been an important issue in architecture. This might sound remarkable after a century in which space seemed to be the only matter relevant for architects. If we reread Vitruvius, however, we might become aware of the central place time occupies in the profession of the architect. Vitruvius tells us that the founding of a city begins with the erection of a *gnomon*. The *gnomon* takes on different functions. In the first place, it enables the architect to determine the different orientations by constructing the perpendicular two axes, the *decumanus* (east-west) and the *cardo* (north-south). They direct the grid of the city. For Vitruvius, this procedure serves to achieve the construction of a healthy city. The cross of the *cardo* and *decumanus* is immediately transformed into a diagram of the winds. It functions as a compass. When founding a city, the grid must be oriented in such a way that favourable winds are used to clean the streets of bad air, while heavy or warm winds are kept out because

they might hinder or even endanger the lives of the inhabitants.

The *gnomon*, however, is also used to construct a real sundial that gives us the hours of the day. Vitruvius recapitulates the geometrical knowledge necessary to make an *analemma*. The *analemma* will allow us to define the summer and winter solstices and the equinoxes, it gives us the seasons. The moving shadow of the *gnomon*, with its varying length corresponding to the time of the day and the time of the year, installs the different rhythms of a chronological order of time. This order becomes the base of the social machine of the city. It is so important that the architect is supposed to provide alternative clocks for the periods when the sun hides. For that reason, Vitruvius describes the working of water clocks. Among them we find an anaphoric one, which even reckons with the length of the days during the journey of the sun through the signs of the Zodiac, and which also gives the month and even the days of the year: a complex mechanism, a real-time calendar. Reading the ninth of Vitruvius's *Ten Books on Architecture*, which teaches the architect how to synchronise life in the city with all the cosmological cycles, we sometimes get the impression that the architect is nothing more than a clockmaker.<sup>2</sup>

The heavens are overwhelmingly present in Vitruvius' treatise, but this presence is a technical one, allowing us to take possession of our lives, to regulate and direct our existence. From many points of view, Vitruvius' books must be seen as a proto-functionalist treatise, honouring *utilitas*. The *gnomon* splits into a clock and a wind-rose, both crucial for life in the city. We find deliberations of time at the very origins of urbanism and architecture. And

when we say time, we immediately think of the fate of the Latin word *tempus* that in so many Romanic languages has assumed the double meaning of both time and the weather.<sup>3</sup>

There are only a few places where Vitruvius relates *tempus* to life inside the house. He mentions the late rays of the sun penetrating the bathroom and the library, in both cases warming the rooms and, if necessary, chasing out moisture and damp. Almost touching on aspects of sphere and an affective constellation in the house, even here atmospheric aspects remain functional, a question of *sanitas*. The *tempus* does not become a temper; the house is not tuned to the temperaments of the weather, possibly resonating with a mood implied in our activities.

Joseph Rykwert tells us that proto-functionalist deliberations were quite common in Vitruvius' time, but they were little used in the practice of building cities.<sup>4</sup> Obviously, it must have been a bridge too far to violate the *cardo-decumanus* principle by freely turning the grid to adapt it to a favourable direction on the wind-rose. Initially, the *gnomon* was not the turning point of a compass; the spot of its erection marked the *umbilicus mundi*; it was the centre of an inauguration rite. That rite marked the very beginning of time, the time of a community of settlers and their colony. The instalment of a new clock coincided with the inauguration of a new world. Certainly orientation was a major issue in the rite but not directly for functionalist purposes.

It is said that before Vitruvius took his functionalist path, the *gnomon*, or its mobile version, the *sciotherum*, was derived from the staff of the augur. Beginning the founding ritual, he inscribed a cross and a circle in the soil in order to determine the direction of the divination rite. What part of the heavens should be taken into consideration?

He then contemplated the sky. In fact this *con-templation* was a gathering of the four *templa*, the regions of the sky, in one *templum*. The four *templa*, determined by a cross in the sky, roughly marked sunrise as the morning, sunset as the evening, midday as the summit of the orbit of the sun, and the night. They marked the *tempus* of a day. In this way the *templum* framed the *tempus*, and language sealed this relation in their etymological bond.<sup>5</sup>

The celestial *templum* was a vague area marked by words of incantation spoken by the augur, facing south.<sup>6</sup> He indicated certain objects in the surroundings and recapitulated his words in the gesture of a comprising figure, a rough circle or half circle, or even a square. This figure functioned as a window in the sky; those attending the ritual waited for the signs of the gods to appear there. During the divination rite, it was not the augur himself who watched the sky; he was often blindfolded. There was a surveyor standing next to him. The surveyor gazed into the *templum*, registering certain celestial phenomena described by the augur, for example the flight of vultures or the movement of clouds.<sup>7</sup> In the founding rite of Rome, it was Romulus who was the surveyor.<sup>8</sup> The observations of the surveyor, in turn, had to be interpreted by the augur. If the signs were found to be favourable, the founding ritual could proceed. The surveyor, now the name-giver of the city, could extend the original circle and cross, which the augur had inscribed in the soil as the *umbilicus mundi*, to a real terrestrial *templum*, a sacred domain severed from the profane world. This terrestrial *templum* could pertain to the area of a city as well as to a temple in the strict sense of the word. The surveyor was the one who marked the boundaries. The Greek word *templum* is etymologically related to the Proto-Indo-European root *tem*: to

cut, to sever. The temple severs the sacred from the profane.

What happened in this rite was not only the installation of a sacred space, a *temenos*. This space was founded in the time of the sacred divination rite: a time of suspense, of waiting. From the moment of inauguration, that suspended time would regularly interrupt the daily life of the settlers. In their celebrations, they remembered this original awaiting, this surrender to the temper of the gods, which was rewarded by the inclusion of their phenomenological world into the noumenal or numinous one.<sup>9</sup> The new world of the settler became stabilised in this answer from the human to the divine, the correspondence of the terrestrial and the celestial temple. We have a double movement here: the envelopment of earthly life in the *tempus* of the sky and the development of that cosmological, noumenal *tempus* in the terrestrial city. It may not be surprising that many of the Greek temples, certainly those devoted to the gods of the weather, were partly or completely uncovered, *hypoethral*. The temple inscribed the terrestrial *templum* in the open domain of the celestial *templum*, thus turning human time into a borrowed *tempus*. Another crucial element is the double definition of the *templum* as a severing in the circumference and a gathering together in the cross. We still find these elements in the philosophy of Martin Heidegger. The famous *Geviert* is a crossing, gathering the mortals and the divinities, the Earth and the sky. The idea of the enclosure, the space left free within its perimeter and brought to peace (*gefreit* as *zum Frieden gebracht*) repeats the idea of the severing. In the severing, the *templum* is completed, closed up; in the gathering, it is open beyond the perimeter. Or as Heidegger puts it, the *peras* is not where something ends but where its essence begins.<sup>10</sup> We can see this double aspect in the Greek temple. The *megaron* or the *cella* (from the Latin

*celare*, to conceal) is the closed sacred space, the abode of the divinity, while the perimeter remains open in the dashed lines of the *peristylia*, the colonnades surrounding the *cella*. The *intercolumnia* rhythmically connect to the landscape in which the voices of the gods insist. In the journal of his *Griechenlandreisen*, we read how Heidegger imagined hearing these voices and how he relived the time of these foundational bonds.<sup>11</sup>

With the division of the four *templa* and the corresponding times of the day, we get a first glimpse of the birth of the *tempus* from the *templum*. Of course this *tempus* can be read in the Vitruvian way, giving birth to a chronological time. But we may not forget that the founding of the terrestrial *templum*, the severing of an inside and an outside of whatever kind, entails the installation of a spherical time and an immunological space, to use the terms Sloterdijk develops in his *Spheres* trilogy.<sup>12</sup> This safe space implies an atmospheric time, the mood of a community that started in the *tempestus*, the last or the right moment to take the omens. The establishment of such a safe space, the closing of the interior, is a real *Ereignis*,<sup>13</sup> the formation of a new self, the appropriation of something all its own and as such, the beginning of a world and a history. The wall as the instrument of the *templum* includes but also excludes; it severs the proper and the appropriate from the improper or inappropriate, the solipse from the 'difficult' world outside. This was the case for the Roman city wall, the *murus*, which served to protect the Roman community of settlers from a possible enemy, but we also see it in Wright's work, where every wall means a protective measure against the city. The Proto-Indo-European root *mey* means protecting, building walls. The immunised community pertains quite literally to the event of immuring and commuring, sharing the protective wall. We meet such walls in

Wright's Johnson Wax Company building and the Unity Temple, both in their own ways *hypaethral*, and both enveloping a community in a unique atmosphere.

For a house, the severing also pertains to the roof. The *Ereignis* historically following that of the wall is that of the shield under which to hide from the gaze of the gods.<sup>14</sup> As soon as our bond has been instituted and the gods have sanctioned our laws, we want to have a private life; we want to make our own decisions, and we can only do so by cutting ourselves loose from the heavens. Private indeed means being *privatum*, deprived of that authority and thus also at least partly freed from the laws of the community guaranteed by the gods. For that reason, the house is a secret place.<sup>15</sup>

The saved space of a *mundus* has a special clock. Where in chronological time and its 'order of the day' we are synchronised with the cosmic clock, the time of a *mundus* is accumulative. It is the time of memory that is measured by the clock of remembrance. This remembrance may take the time of a repeated rite. In the founding ritual of the Roman settlers a hole was made at the original crossing of the *umbilicus mundi*, and some clods of soil of their native town were thrown in. Three times a year, the *lapis nigris* sealing that hole was removed, and the spirits of the ancestors dwelled among the living. The original severing was undone and some chaos was let in: *mundus patet*.<sup>16</sup>

After this introduction to the concepts of the *templum* and the *templa* and their bind with the *tempus*, we can ask ourselves: did architects ever stop to reinvent the *templum*? Is not every frame, every line drawn by the architect marked by that past of a rite in which an inside is sundered from an outside in order to establish a safe and sacred domain? An identifiable place, the place of something indivisible, something whole? Is

not Sloterdijk's concept of an immunological space a new version of that past? In the plan and in the section we see an inner space closing up.

On the other hand, does not every window open up again to the celestial *templum*?<sup>17</sup> Does it not open the house for the unforeseen, the *tempus-tempestas*, which was never erased by the original *templum*? Deleuze and Guattari still remember that bond when they state that twentieth-century painting opened the house to let in the forces of the cosmos.<sup>18</sup> Of course we do not think explicitly of that past when standing in front of the window and gazing out. But it is for sure that, musing by the window sill, just waiting for nothing in a Bachelardian reverie, we recover something of that past. We repeat the suspended time of gazing into the *templum*. It is in this posture, which we meet in more than one pre-Raphaelite painting, that someone is struck by a magic light that paints her face, like in John Everett Millais' *Mariana*. Waiting for the *tempestus*, the right or the last moment to receive new omens for a new world? Suspended. Indeed, the window sill and all its substitutes like the desk before the window, the table top, and maybe even the floor, they are the true altars of the house. As *templa* they receive the light of the original *tempus*. How often do we return to that place at the window?

In order to become more concrete and see how these temporal relations still organise architecture today, we will now analyse the way in which the American architect Frank Lloyd Wright constructed and renewed the *templa*. We will begin by recalling the different kinds of frames we meet in his work. We will concentrate on the houses. However, some incidental references to the city cannot be avoided, because all Wright's houses embody a flight from the city, and for that very reason remain marked by that origin.<sup>19</sup>

In the first place, in the horizontal section, we see that the terrestrial *templum* of the plan creates an interior space centred on the hearth, with its perimeter closed towards the city and opened up towards nature. In the early Prairie houses, many of them based on a Greek or Latin cross, the hearth is quite literally situated on the crossing of the axes of the four arms, just like an altar in a church, or the *umbilicus mundi* in the founding ritual of the city.<sup>20</sup> In later works, the constellation becomes less formal, but the principles of gathering, closure and extension remain the same. The immunising, closed wall, typical for many of Wright's city buildings, often returns in the suburbs because each house has a public side, the side turned towards the city as the entrance side. The convex wall of the Llewelyn Wright house with its donjon, the streamline of the batten and board walls of many Usonian homes, the fortifying earthen wall of the Jacobs-II House, but even the closed north elevation of Fallingwater: they all testify to a defensive reflex against the city. In the Prairie houses, we see a movement of retreat from the public realm, a stepping back beneath the cantilevering roofs or behind the parapet, like in the Robie House. All houses 'begin' with an immunising gesture.<sup>21</sup>

We find the first opening up of this closed part of the *templum* in the entrance, which is often hidden, never representative, but not informal either. Entering the building entails a true ritualistic passage, finding a password to open up the *cella* of the interior: 'seven times to the left, to the right...'<sup>22</sup> In the house, in any building, we hide from the city. This hiding is an act of severing that promises us a new community, a new whole, the whole that can also be understood in its etymological entanglement with the wholesome and the holy, the uninjured. In the case of Wright, however, that whole is immediately

broken up for a larger community, the communion with nature.

For this reason, the second opening of the hard perimeter is located on the other side, a side that usually corresponds to a more manifest presence of the horizon. This is the side that corresponds to Wright's famous 'destruction of the box,' the box being the closed interior of the Victorian house. The 'destruction of the box' means opening up the rooms inside the house to each other, room becoming fluid space continuing across the transparent perimeter. This opening up corresponds to two sorts of open frames: the multiplied glass door to the terrace or balcony and the horizontal band of multiplied casement windows. We should not mistake this opening up for the view, which has often been done. The horizontal windows give the feeling of being surrounded by, not of looking *at* or *on* nature.

The gestures are very precise here. If we look at the terrace doors of the Robie House, we see that the upper parts are filled in with stained glass, dispersing the glance, while the view through the lower part is obstructed by the parapets of the balcony: there is no view. Certainly: the view is not impossible but it is broken up, it partakes in a general orientation. There is no confrontation, no view from a subject objectifying nature or the Earth outside into an image, turning it into a landscape, a picture, like the Renaissance window did. The horizontal band of windows corroborates this idea by consistently going around the corner, turning the entire house into a bay window, protruding into the surroundings.

The built-in seats, which we often see in Wright's work, repeat this 'not-looking at.'<sup>23</sup> Their backs are turned towards the window because we are gathering around the hearth, the *umbilicus mundi* in the centre of the house. This 'inversed' position, where nature outside is nothing more than a vague

image at the back of our minds, allows that same outside to come close, to 'near,' to use Heidegger's words. It draws its imprint on the façade outside. In the Robie House, the prairie flowers from the surrounding fields engrave their image in the stained glass. The horizon touches the house in the repeated horizontal of the stressed eaves and window-sills, and the deepened horizontal joints in the masonry. We recognize Wright's signature: the horizon as a tattoo on the body of the house. The distance implied in the view is annihilated, the far inscribed in the near.

If we want a view, we have to go outside. The repeated terrace or balcony door pointedly invites us to go outside. Going outside, however, we enter a new frame, directed upwards because the parapets of the balcony are closed: unconsciously we repeat the act of the augur, placing ourselves in the great cosmic outside, looking up to gather the *templa*. The edge of the parapet becomes the terrestrial boundary of a celestial *templum*, marked by some signs in the surroundings, but from there on going up into the sky. We become part of a meteorological *tempus*. *Meta-orizein* signifies the movement of going up in the sky, of leaving the *orizein*, the horizon, to re-enter the celestial *templum*.

Wright's balconies are often suspended between the Earth and the sky. In late works, they often cantilever. In some drawings with a mole's eye perspective, such as the one for the first design of the Oboler House – Eagle-feather – they give the impression of pateras: our time on the balcony, leisure time, is a time of offering: we are lifted into the original *templum*, delivered to the temperaments of the weather gods.<sup>24</sup>

Before going outside, onto the balcony, we must complete our investigation of the interior *templa*. The horizontal window is marked by a diastole, the expanding force of going outwards, counterbalanced by the

systole of the contracting, gathering force of the hearth as the *umbilicus mundi*. Circling in and circling out. In the ground swell of this spatial dynamics, of room gathering and space extending, there is a need to draw new *templa* to save our souls. Hence, the character of Wright's furniture: the smallest *templum*, the last frame, defining a new interior, a new sacred space. Look at that beautiful dining table in the Robie House, with tall legs crossing the table top and crowned by four lamps. A new place of celebration, for eating-consuming the Earth, like the fire in the hearth. The chairs with their heightened backs install a new *temenos*. Saved again. Gestures of holding, of making room within space. The gestures of the famous sofa are striking too. Its back folds to become a flank holding the body. At the same time, an excessively large cantilevering upper rail, continuing in the arm layers, functions as a collar, folding the back horizontally. It stretches out to go with the centrifugal flow. Finally, the heightened ceiling marks a containing, a moment of suspense in the flow; the repeated lamps, defining a sort of halo, hallow that sacred, uninjured place, holding in the play of spatial forces.

In many of Wright's houses, this halo finds its architectural translation in the clerestory window, the old church window, corresponding to a heightened part of the ceiling. This ring of light again gathers the *templa*. In some prairie houses such as the Dana house, the high windows are again partly filled with stained glass. Wright uses earthly colours. Ochres, light browns, sienna, moss greens. In its contrast, the transparent glazing tends to emit a white light. This division between transparent and coloured parts corresponds to a transition of the celestial *templa* to the terrestrial *templum*, breaking the cosmic fire into a terrestrial multiplicity of colours. However, the white light never becomes abstract. It remains bound to

atmospheric aspects, to the hours of the day, the temper of the weather, and the seasons of the year. The earthly colours seem to be offerings, little bits of earth burning in that light. The clerestory windows function as an atmospheric clock, placing the house in the long temporal cycles of the *tempus*, the circles of the days and the seasons, and the short turbulent ones of the *tempestas*.

The ring of high windows allows the house, as the earthly temple, to become tuned, '*Gestimmt*,' to the celestial one. In the later Usonian homes, where the stained glass is left out, the atmospheric clock becomes even stronger: we meet low bands of clerestory windows, going around corners and covering most parts of the regions of the sky.<sup>25</sup> The glass is often set in wooden panels with cut-out patterns, the somewhat capricious contour eating the vibrating light, and as such, making the same connection between the earthly *templum* and the heavenly *templa*.

A last frame must be mentioned: that of the 'skylight.' Although there are very few real skylights in Wright's houses, we find many substitutes in the form of built-in lighting fixtures with panels of leaded glass.<sup>26</sup> This electrical 'skylight' corresponds to the idea that a house does not merely find a place under the sky but must also be considered to be a 'receiver' in an electrified ether, in which man opens up to a modern world. We sometimes find such 'skylights' in front of the fireplace and its chimney, but because of the leaded coloured glass, we cannot see the chimney going up as a vertical structure, an axis marking the centre of the house.<sup>27</sup> If there is an axis mundi, it is surely not a patent one. The hearth is marked by the same horizontality as the rest of the masonry, contributing to the floating character of the interior. The electric 'skylight' bathes the interior in a weak and artificial light. It often

'drifts off' from the chimney to find a place above the dinner table or any other spot, becoming a new, more mundane focus in the interior.<sup>28</sup> The house, centred around the hearth as the crossing marking the *umbilicus mundi*, is decentred in the 'electrical skylight' as a second crossing.

The first time we met the *templum*, it was that vague area marked by the gestures of the augur, inaugurating the area of divination. But Hermann Usener reminds us that in Greek texts, including Homer, we find the same word, signifying a crossing of beams in the construction of the roof,<sup>29</sup> gathering the directions of the spans. We may be sure, then, that it is no coincidence that many of the electrical 'skylights' in the Prairie Houses bear the pattern of a cross or of a regular or irregular fourfold, a *templum* gathering 'ether frequencies,' the regions of an electrified world. Both meanings of the *templum* coincide here. If the electrical 'skylight' embodies a special crossing in the roof, repeating the celestial *templum* in a material, constructed one, the heavenly span in an architectural one, it is at the same time marked by a displacement vis-à-vis the terrestrial crossing with the hearth at its centre. The terrestrial and the celestial *templum* do not coincide spatially.

This shift, or even fracture, in which the virtual vertical axis is dislocated or doubled, gives us the beginning of a movement, a drifting away from the hearth. This rupture corresponds to the possibility of turning away from the fire and leaving the community for 'the great outdoors.' It opens the possibility of a second focus, of a first 'and,' a 'many' resisting the unifying force of the *umbilicus mundi* of the hearth. In the interior we act like the vestals, devoting our lives to maintaining the fire, consecrating place as the centre of a communal life. The life around the hearth is sacred, the circle magic. From Bachelard's psychoanalysis of fire, we

know the flame to be the very image of interiority, the heart of life.<sup>30</sup> However it is the fire itself that pulls us in ever wider circles of distraction corresponding to Bachelard's reveries. We drift away. From the 1930s on, even the chimney itself is fractured, broken as a geological or tectonic relief continuing in the walls and so multiplying the verticals. The multiple doors also define multiple ways out. In Fallingwater, the balconies are multiplied to accommodate that 'many'; they all frame their own part of the sky. Going outside, we become the many.

We are on the balcony again. We look up, like the augur or his surveyor. Suppose it is night this time. The fourth side. The nocturnal side, the northern side of the *templum*. Taking over the other sides. We might find some phase of the moon, a first clock ticking. Some figures from Vitruvius' Zodiac maybe, giving us a second cycle of nocturnal time. The stars are also the very image of a multiplicity, a multiplicity of universes even, according to Vitruvius' peer Lucretius and his later descendant, Whitehead, Wright's contemporary. A multiplicity of times, ours only being a local one? A multiplicity of ages certainly. Time of times. Gathered together on the balcony. In Heidegger's first *Feldweggespräch* (cart-track-collocation), his essay on the 'Umgebung' (surroundings/environment), we find a beautiful image of the night being the 'Näherin,' both the needlewoman and the one that 'nears,' who makes all things near each other. It is the veritable image of a sewing together of the different times of the stars, the ages of the universe or the universes.<sup>31</sup> The night is the patchwork of eternities.

Of course we could ask ourselves if this gathering of a multiplicity of times happens solely on Wright's balcony. Does it not happen on every balcony or terrace, or in fact, at every spot where we gaze into the fathomless depth of a clear night, like on Heidegger's

*Feldweg*? Sure. But it only becomes architecture when that instant is framed and when the frame itself is struck by that multiplication. When that multiplicity of *tempi* is captured by a multiplicity of *templa*. In short, when a building *explicitly* bears the sign of a multiplicity.

This is exactly what happens in Wright's architecture. It is even one of the main developments in Wright's oeuvre. From the original crossing and its simple fourfold of squares or rectangles, we go to a constellation of overlapping and interfering frames drifting around multiple centres in the plan.<sup>32</sup> It happens in the later work such as the Usonian homes. If we look at the house Wright designed for his son Llewellyn, we see a set of circles or circle fragments and lens-shaped figures resulting from overlapping circles. These lens-form figures alone already tell so many stories. The first one is that of the hull of the house, constituted by the overlap of two large circles, with their epicentres far outside the house: the first one referring to the city, the other to the landscape. The house becomes a lens through which the city sees nature. This is a clear sign that every inhabitant of a Wright house, even if prepared to undo the original severing of man from nature, still always remains a citizen bound up with city life. Paradoxically enough it is exactly the closed front wall that corroborates that fact. This wall, with its donjon, is a city wall, and by passing it, we re-enact ourselves as beings 'of the border.' In the first scheme of the house, we see the carport extending from the wall and harbouring the cars of the commuter, showing the house as an annex of the city. But on the other hand the wall also protects, immures-immunizes the house from the city, inaugurating a 'natural habitat.' In its functional organisation, the house certainly belongs to the city, with its chronological clock, every day punctually sending back the

citizen-inhabitant to the great city-machine with its ruthless rhythms. Even our sleeping and resting time is measured by that clock. But somewhere in the house, approaching the doors of the balcony, we change roles and become the augur again, this time inaugurating an atmospheric, 'older' time in which we celebrate our membership of the larger community of natural life. The two circular *templa* and their corresponding communities alternate and interfere in the house.

All the lens-shaped elements in some way refer to this double. Sitting on the poufs, little boats, we shuttle between the interfering circles of a family-meeting around the hearth and of a bubble of some wandering life in the wilderness. Finally, at the edge of the balcony, we see a lens-shaped pond, cut out by the intersecting circles of the balcony-parapet and an unidentified perimeter finding its centre in ... we do not know, maybe in some tree on the wooded slope. The pond is filled with lilies. Overlapping sets of time. All lenses together a set. A set of sets of circles. All frames bear the mark of diversified times: times profane and times sacred, urban and private times, times of *negotium* and of *otium*, artificial clockwise times and atmospheric times, times materialized in heavy earthly masses and times framed by light wooden hulls, times of caves and times of tents.

This multiplicity finds its most explicit sign in the pied carpet. It appears as a pattern of circles of which the overlaps change colour. The circular patch, with its centre in the hearth, immediately doubles in a larger one, which gives birth to many smaller, contained ones, but also larger, intersecting ones. The carpet gives us the fundamental break, the decision of the doubling centre, giving birth to a multiplicity in a veritable foam of colour patches. A fragment of the iris of the Earth Ruskin wrote about.

This brings us to our last considerations concerning time in the work of Wright. We know that Wright considered the Earth to be a building in the verbal sense of the word. Something built, still building and forever so. Man adds only one layer. Man, when building, contracts a past, the past of life forms building their homes in the crust of the Earth. The river and its canyon, the tortois and its shield, the tree finding its cantilevering principle. These are all techniques or styles that may become examples in building a new building. Millions of crustaceans buried at the bottom of the sea, crushed into layers, tectonically reappearing as limestone.<sup>33</sup> All past lives, *genii loci*, spirits of place will inhabit in the human house. Designing for Wright meant plumbing the strata, fathoming the temporal layers of the Earth. The textures, patterns, and forms of local flora and fauna and the materials of the crust of the Earth had to be sampled and reshuffled in the design. He abstracted the patterns of the barrel and the staghorn cactus to make them the ornaments of a desert house.<sup>34</sup> The rustic masonry of the wall echoes the layered textures of the sandstone. He made the house a true *Lied von der Erde*.<sup>35</sup>

Wright loved to work with local materials. He dug out the sandstone on the spot, or from neighbouring quarries. He piled it up in the heavy walls of his houses. He took up the boulders from the desert and put them in the formwork to pour cement over them, and so produced 'desert concrete.' In passing these walls, which frame the time of our own lives, we feel lithic ages passing us.<sup>36</sup> In their geological substance, these walls frame millions of years. We become geological fossils ourselves, found in some layer. If nature is the unconscious poetry of the spirit, like Schelling says, or a multiplicity of spirits, which he sometimes seems to point to,<sup>37</sup> it is the task of architecture to convoke these spirits. The *genii loci* building the

Earth.<sup>38</sup> Architecture becomes the framing of geological times. That is what happens in Wright's interiors. When we gather around the hearth, we do not only look into the fire consuming our own time as the time of a human *oikoumenos*. We also look at the stones of the hearth and the sandstone surrounding us; we also see nature constellated in some ornamental pattern, and we are held safe by its techniques. We descend into time and become part of a larger *oecumene*. We meet the tree as our forebear constructor, who teaches us the principles of cantilevering beams. We meet the tortoise, who teaches us to decorate our shields. We learn to capture and to pattern light from crystals. We meet our ancestors by descending the life-lines of evolutionary time, sympathising and empathising with creative evolution.

#### Frans Sturkenboom

Frans Sturkenboom is an architect and a lecturer at the Academy of Architecture in Arnhem and the Academy of Architecture in Amsterdam. He teaches architectural theory and history. He is also a researcher for the Professorship in Theory in the Arts at ArtEZ University of the Arts in Arnhem. His publications include essays on Frank Lloyd Wright, Carlo Scarpa, Francesco Borromini, and Aldo Rossi. He has just published a book on gesture in architecture, *De Gestiek van de architectuur* (Arnhem, ArtEZ Press, 2017) in which he analyses the late twentieth-century shift from an architecture of space to an architecture of (deep) surface. He is currently doing a PhD ('Time in the Work of Frank Lloyd Wright') at Delft University of Technology.

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 —, 'Bauen, Wohnen, Denken,' in *Vorträge und Aufsätze*, Frankfurt am Main: Neske: 1978 [1954], pp 139-156.  
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- 8 According to some stories there was a competition between Romulus and Remus, with Romulus standing on the Palatinus, Remus on the Aventinus. Romulus won because he saw more vultures. Livius, *Zonen van Mars: De Geschiedenis van Rome I-X*, trans. F. H. van Katwijk-Knapp (Amsterdam: Atheneum, Polak & van Gennep, 1997), p. 30.
- 9 Mircea Eliade, *The Sacred and the Profane* (New York: Brace and World, 1963 [1957]), pp. 73-74
- 10 Martin Heidegger, 'Bauen, Wohnen, Denken,' in *Vorträge und Aufsätze* (Frankfurt am Main: Neske, 1978 [1954]), p. 149, my translation. 'Ein Raum ist etwas Eingeräumtes, Freigegebenes, nämlich in eine Grenze, griechisch *peras*. Die Grenze ist nicht das, wobei etwas aufhört, sondern, wir die Griechen es erkannten, die Grenze ist jenes, von woher etwas sein Wesen beginnt.'
- 11 Martin Heidegger, *Aufenthalte* (Frankfurt am Main: Klosterman, 1989).
- 12 Peter Sloterdijk, *Sphären I, II, III* (Frankfurt am Main: Suhrkamp, 1998-2004).
- 13 The word *Ereignis* is used by Heidegger to mark an event that really changes something. This means both a disappropriation (*Ent-eignung*) of who we are and an appropriation (*Er-eignung*) of who we become. But we can only become who we are. The true *Ereignis* is a contraction-expansion, a heartbeat of Being. In: Martin Heidegger, *Beiträge zur Philosophie, Vom Ereignis* (Frankfurt am Main: Vittorio Klosterman, 1994 [1989]).
- 14 Rykwert, *The Idea of a Town*, p. 100: 'The *conrectio* of the town, the division into four regions, presumably placed it under the tutelage of the law-guaranteeing sky.'
- 15 Vilem Flusser, 'Durchlöchert wie ein Emmentaler,' in *Vom Stand der Dinge* (Göttingen: Steidl, 1993), p. 79: '... und die Mauer hat das Geheimnis von dem Unheimlichen zu schützen.' ('... and the wall has to guard the secret from the uncanny,' my translation)
- 16 Michel Serres, *Biogea*, trans. Randolph Burks (Minneapolis: Univocal Publishing, 2012 [2010]), 'Gaping Mouth' chapter, Kobo.

#### Footnotes

- 1 I am currently writing a dissertation on this topic at Delft University of Technology: *Time in the Work of Frank Lloyd Wright: Geology, Geography and Geometry of Architecture*.
- 2 Vitruvius, *The Ten Books on Architecture*, trans. Morris Hicky Morgan (New York: Dover Publications, 1998).
- 3 Aldo Rossi, *A Scientific Autobiography* (Cambridge, MA: MIT Press, 1981), p 1. Rossi speaks of the double meaning of the Italian *tempo*, while Michel Serres regularly returns to the intricacies of the French *temps*, time and weather. Among others: Michel Serres, *The Natural Contract*, trans. Elizabeth MacArthur and William Paulson (Ann Arbor, MI: University of Michigan Press, 1998 [1992]), p. 27.
- 4 Joseph Rykwert, *The Idea of a Town: The Anthropology of Urban Form in Rome, Italy and the Ancient World* (Cambridge, MA: MIT Press, 1988 [1976]), p. 41.
- 5 Hermann Usener, *Götternamen: Versuch einer Lehre von der Religiösen Begriffsbildung* (Bonn: Cohen, 1896), pp. 191-192
- 6 As Reported by Varro. Quoted in Rykwert 1988 [1976]. p 46.
- 7 For all these aspects: Rykwert, *The Idea of a Town*, pp. 41-50.

- 17 Of course this also goes for all the digital windows we open in the house.
- 18 Gilles Deleuze & Felix Guattari, *Qu'est-ce que la philosophie?* (Paris: Minuit, 1991), p. 173, p. 176.
- 19 Cf. James Ackerman, who rightly contends that all Wright's houses must be seen as villas. James Ackerman, *The Villa, Form and Ideology of Country Houses* (London: Thames and Hudson, 1990).
- 20 The first to have noted the importance of the concept of the crossing in Wright's work is Francesco Dal Co. 'Notes Concerning the Phenomenology of the Limit in Architecture,' in *Oppositions* 23 (Winter 1981), pp. 36-51.
- 21 Wright's stance on the city is too complex to detail here, but is often seen as extremely negative. For Wright, the metropolis was the 'Moloch that knows no God but more.' A positive interpretation is, however, not impossible. We can find one in Neil Levine, *The Urbanism of Frank Lloyd Wright* (Princeton: Princeton University Press, 2016).
- 22 As it is said for many cases, among them Unity Temple, the Heurtley and the Robie House. See: Donald Hoffmann, *Frank Lloyd Wright: Architecture and Nature* (New York: Dover Publications, 1986), p. 46.
- 23 Those in the living room of Taliesin North are exemplary.
- 24 The mole's eye perspective for the Huntington Hartford Sports Club and Play Resort is another example, this time in a more public project. The swimming pool becomes a real libation.
- 25 This is the case in the one-storey houses above all, for instance (among many others): Jacobs I (1936), Winckler Goetsch (1939), Lewis (1939), Pope (1939), Rosenbaum (1940), Schwarz (1939), Maxwell Smith (1946).
- 26 As far as we can see, the skylight in the Barnsdall house is the only real one.
- 27 Fallingwater, the Heurtley House, the gallery of the Dana House and many more.
- 28 We find electrical 'skylights' above the dining table in Wright's first home in Oak Park (1898-1895), the Willits House (1901), the Boynton dining area (1908), the Evans House (1908).
- 29 Usener, *Götternamen*, p. 191.
- 30 Gaston Bachelard, *La Psychanalyse du Feu* (Paris: Gallimard, 1949), p. 87.
- 31 Heidegger himself would probably never agree to such an interpretation in terms of a multiplicity of universes. Martin Heidegger, 'Feldweggespräche, Ein Gespräch selbstdritt auf einem Feldweg,' in Martin Heidegger, *Feldweggespräche (1944/45)*, GA, band 77 (Frankfurt am Main: Vittorio Klosterman, 1995), p. 157. 'Die Nacht ist die Näherin, die während näht. Sie arbeitet nur mit Nähe, die das Ferne fernt.'
- 32 Insofar as I can see, Michael Desmond is the first to have remarked on that tendency towards multiplicities in the late work of Wright. Michael Desmond, 'Abstracting the Landscape: Galesburg, Above and Below the Surface,' in *Frank Lloyd Wright: Unpacking the Archive*, ed. Barry Bergdoll and Jennifer Gray (New York: MoMA, 2017), p. 137.
- 33 Jeffrey Jerome Cohen, *Stone: An Ecology of the Inhuman* (Minneapolis: University of Minnesota Press, 2015), p. 20.
- 34 Barry Bergdoll & Jennifer Gray, eds., *Frank Lloyd Wright: Unpacking the Archive* (New York: MoMA, 2017), p. 37.
- 35 'Das Lied von der Erde' (the Song of the Earth) is the title of a famous composition by Mahler. In my dissertation (see footnote 1) I will try to assess the Romantic calibre of Wright's architecture.
- 36 Already very early on, Wright must have been aware of these time scales: in Gannet's *The House Beautiful* - a book graphically redesigned by Wright in 1897, they are part of the considerations in chapter 1. Integral text can be found in: John Lloyd Wright, *My Father, Frank Lloyd Wright* (New York: Dover Publications, 1992 [1946]), pp. 145-166.
- 37 Slavoj Žižek and Friedrich von Schelling, *The Abyss of Freedom / Ages of the World*,

trans. Judith Norman (Ann Arbor: University of Michigan Press, 2009 [1811]), p. 155.

- 38 My idea of a house as harbouring a gathering of past spirits, the *spirits of place* in my case, might be seen as a variation of that theme formulated by Lars Spuybroek, *Grace and Gravity: Architectures of the Figure* (New York: Bloomsbury, 2020). In Gannet's *The House Beautiful*, these spirits are called the 'builders who build not by hand' (Chapter 1).







space either). No time does not mean no movement. Something frozen does not move when time passes. Things happen but not ordered in time (there is no director for the orchestra). Everything that moves can be used as a clock' (Rovelli, 'The Nature of Time'). Great idea for a work in this publication, think about moving things that can work as a clock? To use as a time reference in the times of the virus outbreak or to measure the difference in the experience of time happening simultaneously, living together in a house with four people and having the same amount of time to do homework with children, do your job, your partner does his job, etc., coupled with the feeling of time coming to a halt, everybody inside, fewer cars on the street, no more rushing through the supermarket, etc. Rovelli states that time is relative, how do other things change or move relative to your chosen 'clock'?

Now, in quantum mechanics, scientists are even working on a method to show quantum time dilation by moving one clock as if it were travelling at two different speeds simultaneously: a quantum 'superposition' of speeds (Dartmouth College).

From a phone call between Semâ and Saskia: Semâ is working on a piece about biological time. She asks herself whether we have a time organ, one that creates our sense of time. Every living being, from a human being to a single-celled amoeba, has some sort of internal clock that synchronises with an external clock. For example, our metabolism is a clock because it takes a certain time for us to digest our food, but we cannot separate this mechanism from external data that we process, like the rhythm of the sun, which can seriously mess up our digestive system. In the book *Your Brain is a Time Machine*, Dean Buonomano says that time does not exist but is felt. It remains a philosophical maze, since

you cannot simply prove this, but there is no life without time perception. Rovelli also says that if you move faster, time goes quicker, and if you are lower down (relative to the Earth), time goes quicker than when you are higher up. Everything that has a cycle is a clock; the only difference with a real clock is not the clockwork of the clock, but how it is interpreted.

Saskia Another interesting notion about time is the fact that the Earth's rotation is slowing down ever so slightly, taking a longer time to complete one full turn, gradually making the solar day longer. NASA keeps track of this slowing down, which has led to an extra second, or 'leap' second, added at midnight on June 30, 2012 (Zubritsky).

During the first COVID-19 lockdown around March 2020, scientists found that the reduction of noise (far less heavy traffic, fewer trains, fewer factory engines) has caused a decrease in vibrations of the Earth's crust, resulting in less movement of the Earth (Lin). Would this have an effect on time as well, following NASA or quantum mechanics?

What happens when you take a day off, refusing to move along with the world? Guido van der Werve took this question literally, in his work 'Nummer negen (The day I didn't turn with the world)' (2007), and left for the North Pole, where he spent 24 hours on the axis of the world (see link in bibliography). Since Van der Werve only moved a tiny bit every second, he probably experienced a longer day (according to Rovelli) than others. The axis of the world as a clock...

If we were to make a COVID-19 clock, then what would the variables be? Are we working with seconds, minutes and hours? Or are we, just like in Cage's *4'33"*, actually making a new clockwork with other indicators, such





Saskia Just how will the COVID-19 pandemic affect one's perception of time? When a negative image, let's say an angry face on the screen, gives us a feeling of 'time dragging,' what happens with the negative emotions regarding the uncertainties associated with the pandemic and the restrictions of a lockdown? Will this in fact influence how we perceive time as dragging (Li and Yuen)?

By standing still, staying at home, not seeing people, keeping a safe distance, we refrain from action, since otherwise we would contribute to the spread of the virus. Moving means life for the virus; by standing still, will kill it.

Time, according to Rovelli, does not exist in physics as we humans experience it; it is rather the domain of psychology or neuroscience, for instance (Rovelli, 'The Nature of Time'). He goes on to state that time is relative; it is about how things change or move relative to your chosen 'clock,' and he explains that time has an emotional component. That's why this publication functions as a clock showing how one might experience time during a COVID-19 outbreak. Time seems to slow down during lockdowns when one is confined to the house. Simultaneously, I experience a speeding up of time, looking at the figures in the statistics showing exponential growth in a short period of time. I can almost literally feel the virus approaching quickly while I am keeping as still as possible, moving as little as possible. Time is expanding and contracting at the same time, leaving me to feel confused, dazed, unstable.

Slavoj Žižek on COVID-19 'In the grand order of things, we are just a species without special treatment, we have a personal interest in small fun things, suffering from a blindly replicating virus' (Verschuer).

Semâ Do we host 'aliens' in our bodies? Can code be an alien? An alien without a body? We only differ from other species because of code (DNA/RNA).

Saskia Viruses can't reproduce by themselves. They contain instructions on how to copy themselves but lack the tools and supplies to do it. That's why viruses have two jobs: invade living cells and turn them into virus-making factories.

Semâ Following this line of thought, I came across Marc van Elburg's PARASITE Zine, all about parasitism, and I will quote part of it here: 'We are all symbionts. 56% of our bodies consist of non-human cells, and we have at least 150 times more microbial genes than human genes. Symbiosis is in the nature of the ecosystem and therefore even doing nothing will bring about symbiotic relations. But this project addresses the active agents in the relation, and parasitism is the mark of the activist in any symbiosis. In a parasitic world, a parasite is not an entity with some clearly identifiable properties, but something highly ambiguous that evades any clear-cut definition and attempts at purification. There is a reality to which the word "parasite" refers, but it is not that of a completely independent entity. On the contrary, the concept strongly connects to what comes into existence with its use and to the practice of naming' (Elburg). Inspired by this zine, I gave our document its first name, 'Parasite,' which you started adding 'REs' to, as a kind of parasite of its own.

Saskia What I like about this 'RErERereRE...' is that it is a temporal thing in itself. It displays the time elapsed between two or more responses; it indicates a process rather than a fixed result.













[com/document\\_file/073ca850-lea2-4142-a134-ad2ac593b8ec/ScienceOpen/221\\_Korsten.pdf](https://www.scienceopen.com/document_file/073ca850-lea2-4142-a134-ad2ac593b8ec/ScienceOpen/221_Korsten.pdf).

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#### Footnotes

1 Last visited September 12, 2020 <http://retro.nrc.nl/W2/Lab/Profiel/Lezen/snellezen.html>

2 Last visited September 12, 2020 <<https://coronadashboard.rijksoverheid.nl/>>

3 Quan Wang et al., 'Structural Basis for RNA Replication by the SARS-CoV-2 polymerase,' *Cell*, Volume 182, Issue 2, 23 July 2020, Pages 417-428.e13.

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4 Salvatore De Giorgi et al, 'Evidence for host-dependent NA editing in the transcriptome of SARS-CoV-2,' *Science Advances* 17 Jun 2020: Vol. 6, no. 25, eabb5813. Last visited September 12, 2020 <https://advances.sciencemag.org/content/6/25/eabb5813>

5 Last visited September 12, 2020 <[https://nvc.nl/sites/nvc.l/files/20200424%20IC%20capaciteit%20benodigd%20COVID.pdf?\\_ga=2.209751957.1429723358.1599815178-1913120914.1599815178](https://nvc.nl/sites/nvc.l/files/20200424%20IC%20capaciteit%20benodigd%20COVID.pdf?_ga=2.209751957.1429723358.1599815178-1913120914.1599815178)>

6 Last visited September 12, 2020 <<https://www.statista.com/statistics/1105235/coronavirus-2019ncov-cases-recoveries-deaths-most-affected-countries-worldwide/>>

# Text[ure]

## Abstract

In their 'Performance Paper Text[ure]' Korsten & De Jong build a wall-veil out of the audio of the 'Participatory Performance Text[ure]' and theoretical material (the 'text') from the 'Proposal Text[ure]'. The wall-veil refers to Ruskin's famous example of the Matterhorn, which he uses to explain the wall-veil as symbolic of the relationship between massing and texture through interdependence. Korsten & De Jong's wall-veil is a mutable subject-object-complex with quotes from different theoretic fields, different eras and different theorists, in which positions shift continuously. Time is seen as a form of simultaneity in which layers fuse to form meaning. Korsten & De Jong regard this process of simultaneity as a middle position and seek it as an opportunity to question existing paradigms artistically.

## Prescript

Korsten & De Jong conduct Artistic Research as a duo. In their 'Body of Works' they regard and use theory as material. Every separate 'Body of Work' consists of a 'Proposal' out of which 'Paper Performances,' 'Participatory Performances,' 'Presentations,' 'Performance Papers,' 'Postludes,' and forms of 'Pedagogies' spring and which together come to form a 'Body of Work' under the same title.

## Performance Paper Text[ure]

In their 'Performance Paper Text[ure]' Korsten & De Jong build a wall-veil out of the audio of the 'Participatory Performance Text[ure]' and theoretical material (the 'text') from the 'Proposal Text[ure]'. The wall-veil refers to Ruskin's famous example of the Matterhorn, which he uses to explain the wall-veil as symbolic of the relationship between massing and texture through

interdependence.<sup>1</sup> Korsten & De Jong's wall-veil is a mutable subject-object-complex with quotes from different theoretic fields, different eras and different theorists, in which positions shift continuously. Time is seen as a form of simultaneity in which layers fuse to form meaning. Korsten & De Jong regard this process of simultaneity as a middle position and seek it as an opportunity to question existing paradigms artistically. Writing about literature, Hayden White makes a distinction between the temporality of the active and passive voices and that of the middle voice, where 'actions and their effects are conceived to be simultaneous; past and present are integrated rather than dirempted, and the subject and object of the action are in some way conflated.'<sup>2</sup>

## Navigation Markers

- *Text[ure]* refers to texture being an expression of constitution pushing the skin outwards and as an imprint of erosion working on the skin, continuously constituting its 'now-appearance.'
- *[Ure]* refers to '-ure,' defined as time-space, where the interdependence is what interests us. The suffix – *ure* forms nouns denoting an action, a process, like *pressure* or *closure*; these are words indicating an action taking place now in time and space.
- *[ ]* (square brackets) are often used to point out where material has been omitted and are inserted in a quote to specify where an original text has been modified. In the breach, which the insertion of brackets generates in a text, a bridge is created between the earlier, original author and the later, quoting author in one and



## Participatory Paper Text[ure]

In their Participatory Performance ‘Text[ure]’ for the seminar ‘Time Matters,’ Korsten & De Jong invited the audience to partake in building a wall-veil out of the Proposal for Text[ure]. The Participatory Performance was a re-enactment of Paper Performance Text[ure] executed in 2018. Two performers built a mountain out of rope and held it upright while standing inside it. Meanwhile, the lines of text from the Proposal were remixed via a sample machine. In the Participatory Performance, the participants used their voices to speak the lines they were given. They could alternate the loudness of their voices to build this dynamic audio wall-veil. The audio of the Participatory Performance became part of the building of yet another (textual) wall-veil in Performance Paper Text[ure].

Short instructions for participants:

- *When you feel a tap on your shoulder, please speak your sentence*
- *When Korsten & De Jong raise their arms, please speak your sentence at will*
- *When Korsten & De Jong lower their arms sideways, please be silent*

*The following applies to participants with a corner position:*

- *When you are given the rope, please make sure to keep the rope tense*
- *When Korsten & De Jong lower their arms sideways, please be silent*

## The marked sentences for the participants:

### The two performers

- 001 Text[ure] 002 by Korsten & De Jong

## Participants

- 01 I can’t even eat any more 02 without confusing myself with the very substance of the food. 03 What if we consider ourselves as one of Vilém Flusser’s black boxes 04 so that meaning enters us on one side and exits out the other, 05 while the operation itself – happening inside the ‘black box’ – remains obfuscated? 06 According to Guattari this would necessarily lead us 07 to re-examine the relation between the individual and subjectivity. 08 Heidegger has already argued that 09 an ‘attitude’ is a relation to objects in which the conduct is absorbed. 10 Via Spengler, Heidegger goes on to state that that 11 ‘which disturbs us is the same as that which is disturbed.’ 12 In his famous example of the Matterhorn, Ruskin explains the *wall-veil* as 13 the relationship between massing and texture through interdependence. 14 Forces operate from the inside out, and from the outside in, 15 to press the wall veil out of the mountain so to say. 16 The mountain’s texture is ‘not merely draped but also encrusted, 17 covered with its own material, in a self-draping, a self-adornment.’

## Corner participants

- 18 I can’t even 19 I can’t even eat any more 20 without confusing 21 without confusing myself

## Postlude

Transcription ‘For Publication Text[ure] 12 July 2018’

Korsten & De Jong in the car from Diepenveen to Enschede

Total duration: 00:49:38

1:48

Guattari says: ‘We should perhaps not speak of subjects, but rather of components of subjectification, each of which works more or less on its own account.’<sup>9</sup> That way we might be assemblages of subjectifications and one component of me can have a relation with one component of you.

Yeah

Uhm...

The individual is considered as a terminal by Guattari: ‘The individual would appear in his/her actual position, as a “terminal” for processes involving human groups, socio-economic ensembles, data-processing machines: a terminal through which, of course, not all the vectors of subjectification necessarily pass.’<sup>10</sup> The individual sort of holds all the components in one place... hhm... While Belhaj Kacem drops the idea of the individual and stimulates the disintegration of this terminal, so to speak. He says: ‘I’ve become, in the strictest sense of the world, unlivable. I can no longer live with(in) myself, although this was indeed the original objective of my experiment. I can no longer limit myself to the persona I have been assigned, I feel forced to live in on-going expansion which was my idea in the first place, but still remain trapped in the left-overs of some former Mehdi.’<sup>11</sup>

And: ‘I cannot even escape from my thoughts which bog me down in the muck of these uncontrollable metamorphoses.’<sup>12</sup>

What is it that *we* do, building this temporary man-sized see-through mountain as a rope figure held up by our own bodies inside it? And we drape this mountain with auditory quotes. We are building a temporary terminal for components of theory. We use quotes that belong to certain individuals and

we strip them of their context and even from their ‘owners’ and place parts of the quotes in different positions. This happens either through audio, when we orchestrate persons speaking certain parts of the quotes and let this end in a cacophony, or via sample machines that are programmed to mix elements of text and deform the recorded human voice into different and machinic voices.

Hmm, hhm...

Before we constitute the mountain, the components of text are structured but when the mountain is erect, forces from the outside (the texts being mixed and remixed) operate on it in order to form a crust on the outside. But the texture works at the constitution and makes it fall apart eventually. Paying homage to Belhaj Kacem, filleting his line: ‘I can’t even eat any more without confusing myself with the very substance of the food.’<sup>13</sup>

So, in our case Guattari’s terminal is the mountain?

Yes, but a temporary one.

Guattari goes on to state that ‘[p]rocess, which I here counterpose to system and structure, seeks to grasp existence in the very act of its constitution, definition and deterritorialisation; it is a process of “setting into being”, instituted by sub-sets of expressive ensembles which break with superseding the referential totality from which they emerge, and manifesting themselves finally as their own existential index, processual lines of flight.’<sup>14</sup>

Maybe it is a process then?

Yeah, and a bit before, coming to his notion of process, he spoke about non-reversible duration, which holds a connection to our notion of [-ure] in text[ure].

13:26

Yep.

Nice.

*Silence*

A bit further in his text, Guattari explains a process of creative assemblage which I relate to our way of working. 'But when expressive rupture takes place, repetition becomes a process of creative assemblage, forging new incorporeal objects, abstract machines, and universes of value. At this point, the existential event which gives rise to these new assemblages becomes invisible: they confront us as having been 'always ready' in existence.<sup>15</sup> Is this what we generate? Such an expressive rupture or a creative assemblage? And is this why our remixed text still sounds logical. This is probably the reason why we are able to couple Heidegger to Guattari. Together they become something new.

Well, OK...

17:00

Hmm... On page 143 he explains the difference between empty repetition and living mechanisms. 'By which I mean "living" mechanisms, not mechanisms of empty repetition.<sup>16</sup> When you simply repeat something, it is empty but if something else springs from the repetition, it becomes a living mechanism. And mechanism comes from a term that Deleuze and Guattari came up with together as an amalgam consisting of 'engineering,' 'a machine' and 'matter.'

22:30

Intuitively, I sense that Guattari's ideas on events, processes and subjectifications are somehow related to Heidegger's notion of the theoretical attitude. Heidegger says: 'I

direct myself only to the matter, I focus away from myself toward the matter. With this "attitude" [Einstellung] the living relation to the object of knowledge has "ceased" [eingestellt].<sup>17</sup> Zwier et al. add, 'Here, having ceased means that this relation becomes an attitude in such a way that it is no longer considered as a relation. It becomes, to borrow an example from Aristotle, transparent like water for a fish.'<sup>18</sup>

We might have to read this again... this is about the relationship with the object of knowledge. Of one stands outside of this object and figures that one's own position is considered as something that can be left out of the equation, then the living relationship stops. One sees the object as a fixed entity frozen in time and apart from oneself. But it is actually within a living relationship that the object of knowledge is shaped.

38:11

To conclude... with the theoretical attitude, the process comes to a stop.

It stops time

Just like taking a picture

And this brings us right to Flusser

Flusser states that taking a picture is far from a neutral action...

The camera is an apparatus functioning as a black box, programming us to take pictures the way the apparatus is designed to do it.<sup>19</sup>

Hmm, hmm... I was thinking about something else... Oh, yes, about freezing time. In Text[ure], we actually put the texts in time rather than freezing the quotes in their everlasting same connotation. We use the remixing process to bring the quotes in a new duration. And by placing '-ure' in texture in brackets like [-ure], we refer to rules

in academic writing that allow one to alter parts of a quote, and that mark your own presence within these quotes with these brackets. By adding the process of remixing, we add time into the configured text of the Proposal.

OK, OK, now we are getting close to a Performance Paper...

Uh, no, yes, hmm, there is also an adding of time in a more conceptual sense by bringing these quotes from theorists from different eras into a 'lively' dialogue. We 'make them say' what others have said at completely different times, or will say some years later, by deliberately misplacing parts of quotes to match others.

In our abstract we say, 'What if we consider ourselves as black boxes, to press the wall veil out of the mountain, so to say.' And then: 'This would necessarily lead us to an "attitude" as a relation to objects in which the conduct is absorbed.' That means that we are the black-boxes that push Ruskin's wall-veil out of the mountain. So the wall-veil, the constitution and texture of the mountain in one, come out of a black-box? We also say: 'While the operation itself- happening inside the "black box" – remains obfuscated.' Does this mean that the operation of the co-operation between constitution and texture is obfuscated?

On the contrary, this is probably exactly what is revealed in the transparency of the constitution within the rope figure and the material for texture being auditory.

*The conclusion can be found in a transcription of the conversation we had the night before our drive to the conference.*

Transcription 'Preparation Text[ure] part 3'  
Korsten & De Jong, 25 June 2018

- Diepenveen

Total duration: 00:08:54

6:31

We became like fish for the water?

Or water for the fish?

Whatever, it doesn't matter anymore.

Following Belhaj Kacem it can be both...

Yeah!

One question remains, 'is it still necessary to explain the Wall-Veil?'<sup>20</sup>

Nah, I don't think so. We can do that in our Performance Paper.

Why should we explain it anyway?

We are doing it! It is as we say: '[w]e build a Wall-Veil out of a subject-object-complex with recorded, transcribed, manipulated and performed dialogues in which positions shift continuously. Time is seen as a form of simultaneity in which layers fuse to form meaning.'

Hahaha, we do exactly as we say in our Proposal!

Yep.

Korsten & De Jong

Korsten & De Jong circulate parts of recorded dialogues on theoretical notions and quotes, structured or questioned by artistic form. The tension between theoretical and artistic practices is made productive in the field of artistic research running through their total body of works. They are both independent artists, researchers and employed as lecturers in the art and theory department at ArtEZ, University of the Arts and they participate in the Theory in the Arts Professorship.

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#### Footnotes

- 1 Lars Spuybroek, *The Sympathy of Things: Ruskin and the Ecology of Design* (Rotterdam: V2\_Publishing, 2011), p. 80.
- 2 Hayden White, 'Writing in the Middle Voice,' in *The Fiction of Narrative: Essays on History, Literature, and Theory 1957-2007* (Baltimore: John Hopkins University Press, 2010), pp. 255-62.
- 3 Vilém Flusser, *Een Filosofie van de Fotografie*, trans. Marc Geerards (Utrecht: Uitgeverij IJzer, 2007), p. 16.
- 4 Felix Guattari, 'The Three Ecologies,' trans. Chris Turner, *New Formations*, no. 8 (Summer 1989), p. 131.
- 5 Heidegger, *The Phenomenology of Religious Life*, pp. 32-33.
- 6 Ibid., p. 33.
- 7 Spuybroek, *The Sympathy of Things*, p. 80.
- 8 Mehdi Belhaj Kacem, 1993 (Auch: Tristram, 2007), p. 205.
- 9 Guattari, 'The Three Ecologies,' p. 131.
- 10 Ibid.
- 11 Belhaj Kacem, 1993, p. 205.
- 12 Ibid.
- 13 Ibid.
- 14 Guattari, 'The Three Ecologies,' pp. 135-6.
- 15 Ibid., p. 136.
- 16 Ibid., p. 143.
- 17 Heidegger, *The Phenomenology of Religious Life*, p. 33.
- 18 Jochem Zwier, Vincent Blok and Pieter Lemmens, 'Phenomenology and the Empirical Turn: a Phenomenological Analysis of Postphenomenology,' *Philosophy & Technology* 29 (May 2016), p. 323, <https://doi.org/10.1007/s13347-016-0221-7>.
- 19 Flusser, *Een Filosofie van de Fotografie*, p. 33.
- 20 Spuybroek, *The Sympathy of Things*, p. 80.

# Soundings of Ecological Time in Contemporary Music and Sound Art

## Abstract

In *The Natural Contract*, Michel Serres asks how humanity can ever address the ‘anguishing question’ of climate change as long as we don’t know how to conceive of the relations between time and weather; *temps* et *temps*. This essay aims to find ways in which, through music and sound art, we may be able to attune to temporalities that are less anthropocentric and more ecologically minded. In this investigative essay I will take a closer listen to four works that touch upon this theme of more-than-human time: Jennifer Walshe’s *Time Time Time* (2019), Jem Finer’s *Longplayer* (1999), Felix Hess’ *Air Pressure Fluctuations* (2001) and John Luther Adams’s *The Place Where You Go to Listen* (2004-2006). I aim to enquire how these works offer representations and sonifications of ecological notions of time through sound. Drawing on Elaine Gan’s essay *The Time Travelers*, as well as the vast time-scales of Timothy Morton’s hyperobject and Michel Serres’s ideas on nonlinear, percolating time, I will further frame the notion of ecological time. To explore the correlated question of how the sonic experience manages to render these more-than-human temporalities tangible, I will turn to sound studies by both the American philosopher Christoph Cox and the Swiss sonic theorist Salomé Voegelin.

## Soundings of Ecological Time<sup>1</sup>

A few kilometres off the coast of Southampton lies the Isle of Wight, famous for the flower power festival that hosted stellar line-ups in the late 1960s, including Bob Dylan, Jimi Hendrix, and The Doors. Today the British island mainly appears to attract dino devotees and fossil fanatics. The beaches are excellent places to search for ancient bone

remains and petrified paw prints. The slightly lazier among us can visit the Blackgang Chine theme park where Archie the Argentinosaurus is one of the absolute highlights.

Among the thousands of Isle visitors who submerged themselves in the curious hodgepodge of serious palaeontology and tourist kitsch in 2018 was the Irish composer, vocalist, and video artist Jennifer Walshe (1974). At Whitecliff Bay, she stood face to face with the high chalk cliffs where Mesozoic deposits (145 to 66 million years old) are crammed below Paleogene sediments (up to 23 million years old). It took Walshe an afternoon to be able to imagine anything at all when thinking about these enormous time-spans. Meanwhile, the sun moved along the sky, the tide rose and fell, and she saw distant ferries sail to and fro like clockwork.

Time. ‘If no one asks me, I know,’ Augustine famously wrote in his *Confessions*.<sup>2</sup> But if we have to put time into words, the difficulties start. Suddenly, what we tend to take for granted as the self-explanatory foundation of our existence turns out to be a highly intangible concept. A phenomenon that slows down and speeds up depending on our mood, that extends or contracts under the influence of velocity and gravity. Moreover, time occurs in varying orders of magnitude. From the cosmic time of the universe to the microtime of the millions of firing brain cells in our heads. The Italian physicist Carlo Rovelli put it aptly in his book, *The Order of Time* (2018), ‘There is not one single time; there is a vast multitude of them.’<sup>3</sup>

On the subject of this temporal multiplicity, Walshe created *Time Time Time* (2018), a music theatre piece in the broadest sense

of the word, in which composed music, improvisational sections and voice art are fused with contemplative texts by the British eco-philosopher Timothy Morton, an extensive video part and a sophisticated lighting design.

Musically, *Time Time Time* veers continuously between different notions of time, as Walshe deliberately chose to work with musicians who each followed their own different temporal concepts. At the Dutch premiere during the Sonic Acts festival of 2019, static sound fields by instrument builder Lee Patterson and drone musician Áine O'Dwyer slowly drifted like tectonic plates under a sea of rapidly pulsating sample-collages by M.C. Schmidt, of electroduo Matmos. The Norwegian wind duo Streifenjunko provided slowly transforming sound improvisations, above which so called *black midi* files fired thousands of notes per second from a laptop. 'Time Time Time is a sounding equivalent of the accumulated time layers on Whitecliff Bay,' Walshe told me when I interviewed her in February 2019 for Dutch weekly *De Groene Amsterdammer*.<sup>4</sup>

Walshe's comparison of her music to geological strata is more than just a metaphor. Rather, the notion of layers of sedimented rock and soil that testify to unthinkably vast time scales touches at the conceptual core of a work that emphatically seeks to draw attention to more-than-human temporalities. This becomes all the more apparent if its multidisciplinary components are taken into consideration. The video part shows time lapses of growing plants, wonky stop-motion clips of dinosaurs and trilobite sea life, sped-up footage of a solar eclipse, and an insanely detailed chronological simulation of the Earth's 3.85-billion-year-old tectonic history (render time: roughly two months). For each performance, Walshe tuned the settings of the live electronics according to the current position of the planets in the solar system

- harmony of the spheres 3.0. On the way into the concert hall, you were given a fossilized ammonite. Just think of what you are holding, was the unspoken directive: something that was alive eons ago.

During my *Groene* interview with Walshe, she pointed out that these references to nonhuman time were a method to draw attention to ecological matters: 'I try to make the audience aware of the larger scheme of things. These astronomical and geological time scales put the clocks on our smartphones in a healthy perspective. If anything, they force us to see that our human time frame is but one of many, and that humanity isn't to last forever. We are finite, and from an ecological point of view we currently seem to do everything we can to reach that end as quickly as possible. One of the questions *Time Time Time* poses is: "When are we going to try to relate to the world in a more dignified and loving manner?" I guess you could call that ecological awareness.'<sup>5</sup>

\* \* \*

Walshe's eco-mindedness doesn't stand alone in contemporary music and sound art. As the environmental crises that endanger our planet manifest themselves ever more pressingly, a growing number of composers and sound artists sonically explore time matters that could lend themselves to raising awareness of complex, more-than-human notions of time.

During the last two years alone, several performances around the topic of ecological time premiered at Dutch music festivals. Apart from Walshe's *Time Time Time*, Sonic Acts 2019 hosted the Norwegian art collective Verdensteatret, who presented their installation-performance *HANNAH*, a work that is 'inspired by the gradual unfolding of geological time,'<sup>6</sup> in which visual and sonic materials acted as 'a kind of sedimentation

process, drawing attention to gentle transformations and the way physical objects can affect their surroundings over extremely long time spans.<sup>7</sup> At November Music 2019, the British-German composer Claudia Molitor (a fellow contributor in this *APRIA* issue) gave the Dutch premiere of *Decay* (2018-19), a continuously evolving multi-authored work that contests the idea of linear progressive time in favour of cyclical temporalities, in which death and decay are valued as inevitable processes in the ecological cycle of life on Earth. In June 2020, *Longplayer* (1999), an installation by the English sound artist Jem Finer, was one of the highlights at the Holland Festival. In the Amsterdam Lloyd Hotel, one could witness a twenty-minute snapshot of the thousand-year-long composition, in which the listener is invited to tune in to superhuman timescales.

In this essay, I will take a closer listen to four works that touch upon this theme of more-than-human time. Apart from Walshe's *Time Time Time*, I will zoom in on Finer's *Longplayer* (1999), Felix Hess' *Air Pressure Fluctuations* (2001) and John Luther Adams's *The Place Where You Go to Listen* (2004-2006), and enquire how these works offer representations and sonifications of ecological notions of time through sound. To explore the correlated question of how the sonic experience manages to render these more-than-human temporalities tangible, I will turn to sound studies by both the American philosopher Christoph Cox and the Swiss sound artist and sonic theorist Salomé Voegelin. First, however, I will further frame the notion of ecological time. How does it relate to our everyday experience of time, and according to what concepts can we conceive of it?

\* \* \*

In his book *Hyperobjects, Philosophy and Ecology after the End of the World*, Timothy Morton, the philosopher who collaborated with Walshe on *Time Time Time*, introduces a useful concept to come to grips with the question of ecological time. 'Hyperobjects,' he writes, 'are things that are massively distributed in time and space relative to humans.'<sup>8</sup> Think of nuclear waste that remains active for tens of thousands of years, microplastics that will poison our food for thousands of years to come, or the slow but steady pace of the hyperobject we call global heating.



Jennifer Walshe, *Time Time Time*, Sonic Arts Festival, 2018. Photo by Pieter Kers

A keyword in Morton's definition is 'relative.' It suggests that because of their gigantic temporal proportions, hyperobjects imply a simultaneity of multiple time scales, in which our human time frame is one of many. Hyperobjects therefore force us to realise

that we are part of a complex temporal mesh, in which the shortest moment is inextricably linked to the longest possible era. From an ecological perspective, the small and the gigantic, history, present and future, our own time and other times are always already entangled, Morton points out.

A closely related line of thinking runs through the work of the New York-based artist theorist Elaine Gan, who in her short essay 'The Time Travelers: Ambiguous Returns,' defines ecological time as a similar multiplicity of closely interrelated temporalities. In her text, Gan focuses on the Mekong Delta of South-West Vietnam, a region that for thousands of years has been home to a complex multi-species ecology, closely attuned to the annual Monsoon-driven cycle of wet and dry seasons. In more recent times, however, the biotope has suffered 'wave after wave of human disturbance,'<sup>9</sup> Gan writes. She situates the crucial turning point in the 1960s, when commercial rice cultivation widely switched from traditional deep water rice to quick-growing, high-yield varieties. The pesticides, chemical fertilisers and artificial irrigation systems involved had a disastrous effect on the local ecology, causing the near-extinction of aquatic species such as the giant catfish and a rampant increase of water hyacinths and fresh water snails. Although Gan's essay reads first of all like a poignant report of collapsing biodiversity, on a deeper level it is – as its title clearly suggests – also a text about time. What her writing reveals is a severe temporal incompatibility. On the one hand, it displays a time construct that is all too familiar to western minds: time as a singular linear flow, aimed at progress, ever greater yields and higher profits. On the other, a completely different temporal conception comes to the fore. Here, time is not a line, but branches out in an intricate web, in which the interconnected, multiple rhythms of the seasons, the

elements and living species maintain a rich and dynamic biodiversity.

As shown above, in Walshe's *Time Time Time*, it is precisely this ecological multiplicity of interrelated times that is echoed in its multi-layered musical make-up. By sounding out a vast temporal continuum, ranging from geological deep time (represented by static drones, the animation of the Earth's crust) to the electronic nanotemporal scale (the dense bleeping of the black midi files), Walshe emphasises that our human time frame is but one of many in a complex temporal polyphony. As such, *Time Time Time* aims to subvert any of the anthropocentric, linear notions of time that, as Gan so captivatingly describes, have dire ecological consequences.

\* \* \*

Up to this point I have been exploring how, according to Morton and Gan, ecological time can be thought of as an interrelated mesh of multiple temporalities. However, Morton's definition of the hyperobject ('things that are massively distributed in time and space relative to humans') reveals an additional important feature of ecological time. The word 'massively' is key here, as it is indicative of how the superhuman temporospatial proportions of hyperobjects exceed direct sensorial perception. A fundamental feature of hyperobjects is what Morton calls their 'temporal undulation.'<sup>10</sup> In other words, they unfold in such vast dimensions of time that from our human perspective, they seem to occur infinitely slowly, in minutely accumulating processes of change. As a result, hyperobjects may be experienced fragmentarily, but can never be perceived directly in their full scope. Take one of the most urgent hyperobjects of the moment, climate change. One year you are sneezing with hay fever in January. In another you are watering your garden as early as March. In August, you

sleep terribly badly because of the worst heat wave since the beginning of meteorological measurements. What you are directly experiencing is isolated episodes. And although the monster that lurks behind these loose snapshots may be imagined, plotted or graphed, it cannot be faced head-on.

To grasp the process of climate change in all its dimensions would require the ability to attune our senses to superhuman timescales. Exactly this seems to be the purpose of *Longplayer*, a work by the British Jem Finer (1955), originally a computer-savvy, one-time banjo player for punk-folk band The Pogues, now a composer and sound artist. Finer chose an apt title for his composition, which will take no less than a thousand years to complete. On December 31, 1999, a computer in the lighthouse of London's Trinity Buoy Wharf set the piece in motion. If all goes well, it won't come to an end until 2999. In the meantime, *Longplayer* can be listened to around the world: on location, as well as via an online livestream<sup>11</sup> and an app.



Jem Finer, *Longplayer*, Live performance in San Francisco 2010. Photo by Stephen Hill



Jem Finer, *Longplayer* installation. Photo by James Whitaker

One could think of *Longplayer* as a gigantic loop, biting its own tail once every millennium. The algorithm that gets the job done is as simple as it is ingenious. From a twenty-minute piece of source music, Finer distilled six modules (each with their own tempo and duration) which he set to orbit around each other like planets in a solar system. Only after a thousand years do they regain their mutual starting position.

*Longplayer* could be heard live at the Holland Festival in June 2020. Anyone who visited the wooden tower of the Lloyd Hotel near Amsterdam Central Station was inundated by the ritualistic chiming of 234 sampled singing bowls. Deeply resonating drones, bell-like ringing: music of a meditative slowness that gently coaxed the listener into a mental ritardando. While outside the rhythm of the city thundered tirelessly (trains ran back and forth, cars played stop-motion games at a traffic light) the minutes in the Lloyd tower seemed to be ticking away ever more slowly, as they were consciously perceived as part of a vertiginously vast temporal process. Heard in this way, *Longplayer* is a sonic exercise in ecological thinking. Finer invites his listeners to temporally attune to the hyperobjects we urgently need to face.

\* \* \*

But how do works like *Time Time Time* and *Longplayer* manage to render these hyper-objective, more-than-human temporalities tangible? In other words: what is it in the sonic experience that allows the listener to perceive a glimpse of these timescales that otherwise would remain beyond human experience?

The London-based sound artist, writer and sonic researcher Salomé Voegelin offers the beginning of an answer in her book *Listening to Noise and Silence*. According to Voegelin, our senses are 'always already ideologically and aesthetically determined, bringing their own influence to perception, the perceptual object and the perceptual subject.'<sup>12</sup> Vision by its very nature instantly assumes a distance from the object. 'Seeing always happens in a meta-position, away from the seen, however close. This distance enables a detachment and objectivity that presents itself as truth.'<sup>13</sup> After all, seeing is believing, as the proverb goes.

Our listening sense does not offer such a meta-position, Voegelin continues: 'There is no place where I am not simultaneous with the heard. However far its source, the sound sits in my ear. I cannot hear it if I am not immersed in its auditory object.'<sup>14</sup> To listen means to focus our attention on our sonic environment. But at the same time, this sonic environment focuses itself back on us. Sound waves find their way through the ear canal, via the ear drum, into the inner ear. They seek out the resonance frequencies of our skull, our sinuses and let our intestines vibrate sympathetically. Listening, in other words, is an emphatically embodied way of engaging with the world. It allows us to physically 'share time and space with the object or event under consideration.'<sup>15</sup> Voegelin's notion of sonically sharing the time of an object or event is interesting, as it implies that sound, as a temporal flux of frequencies and intensities, can foster

a sensibility to timescales that otherwise would remain beyond our human time frame. In other words, sound, as a phenomenon that is inherently *felt in time*, allows us to sensorially attune to the multiplicity and vastness of scale that characterises ecological, hyperobjective time. Even if the represented hyperobjects as such remain outside of direct human perception, we do get a sublime sense of their dizzying proportions through the act of listening.

In *Sonic Flux – Sound, Art and Metaphysics*, the American philosopher, critic and sound art curator Christoph Cox explores the matter further by differentiating between two acoustic temporalities. On the one hand Cox marks out a narrative temporal framework of 'beginnings, middles and endings',<sup>16</sup> which he connects to traditional musical composition and performance. It is, in other words, the temporal concept that underlies the ideal, autonomous musical work of European modernity, which attempts to master time's elusive flow by making it a measured, closed entity or time-object that usually follows a climax-driven narrative. As Cox points out, this musical temporality is a thoroughly anthropocentric conception of time: one that accords with the metaphysical and scientific traditions of the West that conceive of time as linear, progressive and aimed at continual growth.

Against this musical conception of time, Cox posits a sonic temporality that he hears at work in contemporary sound art, a practice that in turn is firmly rooted in the American experimental tradition (Cage cum suis). Here time is no longer conceptualised as a linear catenation of sections and instants but as a durational flux: 'As an infinite, open process in which presence and completeness are forever deferred, a boundless flow that engulfs the auditor or spectator in a field that cannot be totalized.'<sup>17</sup>

Cox's idea of time as an open process is based on Bergson's famous notion of duration. In his 1889 doctoral thesis *Time and Free Will*,<sup>18</sup> the French philosopher contrasted two different experiences of time: *le temps* and *la durée*. The first is exemplified by the figure of the clock on which, as Cox beautifully puts it, 'discrete, discontinuous and divisible instants are laid out side by side in spatial succession.'<sup>19</sup> The other is the continuous and endless flow of intensities in which past, present and future are permeable and interpenetrating.

When, in listening to Walshe's *Time Time Time*, we experience time as a multiple flow; when, in visiting Finer's *Longplayer*, we experience a dizzying glimpse of deep time, it is precisely because of their unfolding as durational processes. Both works have a multitemporal make-up, an entanglement of varying speeds and rhythmic cycles that resist any division into distinct instants, any narrational interpretation, or any notion of linear musical form. Considered closely, these works are not about form altogether. If anything, they are about process, multiplicity and scale. The very large scale, that is.

\* \* \*

The idea of scale also features in the work *Air Pressure Fluctuations* by Felix Hess. In September 2000, the Dutch physicist and artist taped two ultra-sensitive microphones to the window of his New York apartment to record the city soundscape for five days straight. His original aim was to sonically reveal the life cycle of his neighbourhood by temporally compressing the recording, so that the urban rhythms of rush hours, airplane traffic, playing school children and the silence of night could acoustically come to the fore.

In the liner notes to the eponymous album (2001), Hess describes how he sped

up the recorded material 360 times, causing one second of CD sound to correspond to six minutes of original time, four minutes to a natural day and night. Hess: 'One hears high-pitched whistles, beeps and insect like buzzes, which come from the deep rumblings of factories, trains and trucks, or even nearby washing machines. The opening and closing of doors give rise to countless tiny clicks, which may add up to form a sound like soft rain on autumn leaves.'<sup>20</sup>

Meanwhile, Hess's approach revealed something else as well. Under the ant-like activity of scratchy micro-noises, there was a deep hum. A sound that originally lay well below the human hearing threshold, but that was lifted into the audible range by the acceleration of the recording. The puzzling murmur turned out to be caused by a high pressure system in the Atlantic Ocean. The great downward pressure from the front pushed up a wall of air at its edges, barely perceptible vibrations that Hess's microphones had registered with great precision.

*Air Pressure Fluctuations* does something pretty remarkable. The piece allows the listener to sensorially perceive a natural phenomenon that would otherwise only have been visible in meteorological tables. In other words, it channels a hyperobject into our human experience, and in doing so makes us receptive to the more-than-human time scales of the weather.

So far, I have distinguished two properties of ecological time – multiplicity and largeness of scale – and investigated how these eco-temporal features resonate in contemporary works by Walshe, Finer and Hess. The latter's sonification of meteorological time elicits a further question: to what extent could the weather as such, as the fickle, dynamic system that is, provide a useful model for the understanding of ecological time?

In his book *The Natural Contract*, French philosopher Michel Serres suggests exactly this, as he points to the fact that in his mother tongue there is a common word for both time and the weather: *le temps*. With good reason, he argues, because in the past, the two were inextricably linked. The farmer, the hunter and the sailor: all three spent their days according to the weather and the seasons. As modern city dwellers we have forgotten how time and weather are related, Serres continues: 'We have unlearned how to think in accordance with its rhythms and its scope.'<sup>21</sup> This has serious consequences for how we relate to the Earth. In an age in which we are increasingly confronted with climate change, we are faced with 'an anguishing question.'<sup>22</sup> The main part of that question is time: more precisely, the close intertwining of *temps* and *temps*.

For Serres, the close similarity between time and the weather is more than an etymological play of words. As he told Bruno Latour in *Conversation on Science, Culture and Time*, he thought of the movement of time as the swirling air masses in a turbulent weather front. For Serres, time is complex, chaotic, full of unpredictable deviations and variations in duration and speed. It does not flow in a linear or laminar way, rather, it 'percolates.'<sup>23</sup> 'This means precisely that it passes and doesn't pass,' Serres explains. 'In Latin the verb *colare*, the origin of the French verb *couler*, "to flow," means "to filter." In a filter one flux passes through, while another does not.'<sup>24</sup>

\* \* \*

Serres' notion of percolating time bears close resemblance to the temporal workings in *The Place Where You Go to Listen* (2004-2006), an installation by the American composer John Luther Adams that is permanently located in the Museum of the North

(Fairbanks, Alaska). On the second floor it occupies a small white room, where on the long wall, five back-lit glass panels slowly change colour during the day, just like the electronically generated clouds of sound that soar out of fourteen speakers located in the walls and the ceiling.

As Adams describes in his book *The Place Where You Go to Listen: In Search of an Ecology of Music*, the title of *The Place* refers to Naalagiagvik, a location on the Arctic coast where, according to legend, an Inupiat woman listened to what the wind, the waves and the rain had to tell her.<sup>25</sup> You could say that Adams' installation also listens to the wind and the rain. Among other things. The installation continuously records the meteorological, atmospheric and geological processes in the Northern landscape. The weather, the seasons, the rhythm of day and night, the magnetic fields of the Aurora Borealis, soil activity; in *The Place* it is all transformed into live sound and light.

'What you notice first is a dense, organ-like sonority, which Adams has named the Day Choir,'<sup>26</sup> wrote *New Yorker* critic Alex Ross when he visited *The Place* in 2008. He continued: 'Its notes follow the contour of the natural harmonic series and have the brightness of music in a major key [...] After the sun goes down, a moodier set of chords, the Night Choir, moves to the forefront. The moon is audible as a narrow sliver of noise. Pulsating patterns in the bass, which Adams calls Earth Drums, are activated by small earthquakes and other seismic events around Alaska.'<sup>27</sup>

Adams himself described *The Place* as 'an ecosystem of sound and light,'<sup>28</sup> as a work of art that is directly connected to the natural world and resonates sympathetically with its material forces. As such, *The Place* 'does not imitate nature in its manner of operation,'<sup>29</sup> as the German media philosopher Bernd Herzogenrath rightfully observes in his essay

‘The ‘Weather of Music.’ Rather it ‘taps directly into nature’s processes.’<sup>30</sup> In a vital way, *The Place* translates the weather itself into sound. It unfolds according to the dynamic fluctuations of a meteorological system, as the data of temperature, humidity and air pressure form multiple strands of sound that can be heard simultaneously. Each of them has its own time: some may change swiftly, filter through – as Serres would say – in a matter of seconds, others in hours or even days.

\* \* \*

In *Conversations on Science, Culture and Time* Michel Serres quotes a line by the French poet Guillaume Apollinaire to illustrate his conception of percolating time: ‘*Sous le Pont Mirabeau coule la Seine*’ [Beneath the Mirabeau Bridge flows the Seine].<sup>31</sup> At first sight, the image of a river – the traditional symbol for the linear flow of time – seems to subvert the dynamic temporality Serres is after. But Apollinaire hadn’t studied the Seine closely enough, Serres argues: ‘[He] hadn’t noticed the countercurrents or the turbulences. Yes, time flows like the Seine, if one observes it well. All the water that passes beneath the Mirabeau Bridge will not necessarily flow out into the English Channel; many little trickles turn back toward Charenton.’<sup>32</sup> Serres’ river metaphor turns out to be well chosen after all, precisely because it brings about this sudden change in temporal perspective. In this respect his method is not unlike Gan’s, who in her aforementioned essay ‘The Time Travelers’ also uses river scenery to contrast the human construct of linear, unidirectional, progressive time with a temporal thinking that does more justice to the ecological reality of things.

In this essay, I enquired how we can think about this notion of ecological time. By exploring concepts by Morton, Gan and Serres, I determined three properties by

which I framed ecological time as multiple, multi-scalar and dynamic or turbulent. I further investigated how these eco-temporal conceptions resonate in contemporary music and sound art, be it as sonic representations (Walshe’s *Time Time Time* and Finer’s *Longplayer*) or as more direct sonifications of natural processes (Hess’ *Air Pressure Fluctuations* and John Luther Adams’ *The Place Where You Go to Listen*). As the environmental crises that endanger our planet manifest themselves ever more pressingly, these sonic resonances of ecological time have never been more important. Since the acoustic experience is, as Voegelin points out, an emphatically embodied way of engaging with the world, these works offer us the opportunity not only to think, but also to attune ourselves sensorially to non-anthropocentric temporalities that otherwise would have remained beyond our human frame of reference.

As Gan arrestingly points out in ‘The Time Travelers,’ it is about time that we broaden our temporal perspective. Our Western notion of linear, ever-progressive time has turned out to be a dangerous, dead-end illusion that provisionally may lead to greater yields and greater profits, but simultaneously comes at an ecological price that, in the end, leaves us empty-handed. To turn the tide, to imagine more sustainable futures, we urgently need to attune to other, more ecological temporalities. May our ears point the way.

Joep Christenhusz

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November Music, he wrote several long-read composer portraits, as well as the extensive essay *Earth Sounds: Ecological Resonances in Contemporary Music and Sound Art*, which was published in November 2020 in collaboration with the Theory in the Arts Professorship. In 2020, Joep contributed a chapter on conceptual music to the book *Een kleine muziekgeschiedenis van hier en nu* (edited by Mark Delaere). In 2016, ArtEZ Press published his essay collection *Componisten van Babel* on the work of ten Dutch and Belgian composers of his own generation. An article about the history of the Holland Festival was included in the book *Van Mengelberg tot meezing-Mattheus* (edited by Emile Wennekes, 2011).

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### Footnotes

- 1 The introductory part of this essay was previously published in Dutch in 'Tijd tijd tijd,' *De Groene Amsterdammer*, 20 February 2019, pp. 50-52.
- 2 Augustine of Hippo, *Confessions*, trans. Albert C. Outler (Hendrickson Christian Classics, 2011), p. 244.
- 3 Carlo Rovelli, *The Order of Time* (Allen Lane, 2018), p. 15.
- 4 Joep Christenhusz, 'Tijd tijd tijd,' *De Groene Amsterdammer*, 20 February 2019, p. 51.
- 5 Ibid., p. 51-2.
- 6 Verdensteatret, *HANNAH*, 2017, accessed November 24th 2020, <http://verdensteatret.com/hannah/>.
- 7 Ibid.
- 8 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis, MN: University of Minnesota Press, 2013), p. 1.
- 9 Elaine Gan, *Engagement* (blog), Anthropology and Environment Society, 7 February 2019, <https://aesengagement.wordpress.com/2019/02/07/the-time-travelers-ambiguous-returns/>.
- 10 Morton, *Hyperobjects*, pp. 55-68.
- 11 Jem Finer, *Longplayer*, 1999-2999, live stream, accessed September

- 6, 2020, <https://longplayer.org/listen/live-stream/>.
- 12 Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (London/New York: Continuum, 2010), p. 3.
- 13 Ibid., p. xi.
- 14 Ibid., p. xii.
- 15 Ibid., p. 3.
- 16 Christoph Cox, *Sonic Flux: Sound, Art and Metaphysics* (Chicago: University of Chicago Press, 2018), p. 139.
- 17 Ibid., p. 152.
- 18 Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness* (London: George Allen & Unwin, 1910).
- 19 Cox, *Sonic Flux*, p. 141.
- 20 Felix Hess, *Air Pressure Fluctuations*, Edition RZ 10014, 2001, compact disc.
- 21 Michel Serres, *The Natural Contract*, trans. Elizabeth MacArthur and William Paulson (Ann Arbor, MI: Michigan University Press, 1995), p. 29.
- 22 Ibid., p. 30.
- 23 Michel Serres and Bruno Latour, *Conversations on Science, Culture and Time*, trans. Roxanne Lapidus (Ann Arbor, MI: Michigan University Press, 1995), p. 58.
- 24 Ibid., p. 58.
- 25 John Luther Adams, *The Place Where You Go to Listen: In Search of an Ecology of Music* (Middletown, CT: Wesleyan University Press, 2009), Part 6, 'An Ecosystem of Sound and Light,' Kobo.
- 26 Alex Ross, *Listen to This* (New York: Farrar, Straus and Giroux, 2010), p. 176.
- 27 Ibid., p. 176.
- 28 Adams, *The Place Where You Go to Listen*, Part 6.
- 29 Bernd Herzogenrath, 'The 'Weather of Music': Sounding Nature in the Twentieth and Twenty-First Centuries,' in *Deleuze/Guattari & Ecology*, ed. Bernd Herzogenrath (Hampshire: Palgrave Macmillan, 2009), p. 223.
- 30 Ibid., p. 223.
- 31 Serres and Latour, *Conversations on Science*, p. 58.
- 32 Ibid., p. 58.

# Overtime

## Abstract

*'At the end I thought, now we can start.'*

On a small Californian beach close to San Diego, one evening in April 1968, the American artist Allan Kaprow<sup>1</sup> gathered a group of his students to participate in his 'happening' called OVERTIME. Following his instructions, the group collectively moved a 200 foot (approximately 60 metre) wooden snow fence<sup>2</sup> one mile westwards at intervals of 200 feet.<sup>3</sup>

Fifty-one years later, on the evening of May 25, 2019, to be precise, nomad artist, researcher and educator Sophie Krier re-staged Kaprow's happening OVERTIME on the Villanderer Alm–Alpe di Villandro in South Tyrol (Upper Adige), in Italy. Again, the goal was to move a 60-metre snow fence 1.6 kilometres along with the collective efforts of 31 'happeners' in the course of one night.

The following text documents a series of exchanges between Sophie Krier and curator and writer Christel Vesters. In these exchanges, they reflected on the different ways in which time is an operative element in artistic practices – both as a prerequisite for the creative process and as a neoliberal entity for measuring productivity; on boundaries and divides and how to bridge these, and on the deep mapping of a place by evoking its lost memories and forgotten knowledges.



OVERTIME RECOLLECTION 08/31 (after OVERTIME, Allan Kaprow, 1968). (Scan of postcard sent to participants exactly a year after the happening). Sophie Krier with Stéphane Verlet-Bottéro, Villanderer Alm - Alpe di Villandro, 2020. Commissioned by Lungomare. Photo Carlos Casas / graphic template Inedition

## PART ONE. TAKING THE LONG ROUTE

### Christel Vesters:

Before we delve into your re-staging of Allan Kaprow's happening OVERTIME on the Villanderer Alm–Alpe di Villandro, I would like to talk about your practice in general, and how you engage with the places and contexts you work in. You describe yourself as a 'nomadic artist, researcher and educator,' and in your career you have developed site-specific projects across the Western hemisphere. But rather than just dropping by like a tourist, you choose to engage with each location for longer periods of time. Can you explain why this longer-term engagement with a place is important to you?

### Sophie Krier:

In addition to having a research-based nomadic practice that makes use of a variety of pedagogical formats, I see myself as a

‘relational artist,’ and in order to establish a relation with a place, a person, or a context, I need time to explore and to invest in that relationship. This is probably one of the reasons why I struggle with the default ‘project framework’ which requires that budgets, deadlines and sometimes even outcomes are set months in advance.

To give an example, in 2010, I was invited to participate in an exhibition in Casablanca, Morocco.<sup>4</sup> We managed to stretch our stay and budget into a four-month residency, which gave me time to really open up to a completely new cultural context and to try to move beyond my ‘First World’ sensibility.

My aim is to get to the core of what a given place is all about, and what I, as an artist, can contribute to its resilience, its livelihood or its conviviality. In the beginning, you run through clichés – and it takes a long time before you encounter the thing that needs to be addressed. And once I have found that, again, it takes a long period to figure out with whom to address these issues, who the local agents and knowledge keepers are with whom I could collaborate. To build a meaningful relationship with a place, you need time.



OVERTIME RECOLLECTION 18/31

### Christel:

I am interested in how you describe that this project-driven model makes you feel confined or ‘limited.’ When I think about my own creative process, I need a sea of time, or at least the idea of an abundance of time, to dwell and wander, and to not feel the pressure of fixed deadlines.

### Sophie:

Yes, I think this psychological boundary is certainly one reason why I have been resisting the term ‘project,’ and why I prefer to call them ‘works.’ You are right; thinking about our practices in terms of projects has become standard. Even a seminar like Time Matters, which I attended last March at ArtEZ, has project-like aspects. For instance, in the way that very urgent issues such as our alienation from natural temporalities and intimate relations with other life forms still needed to be condensed, to be literally framed into keynote templates. Even the term ‘urgent’ implies that time is being compressed...<sup>5</sup> And recently, in an online course I was following, I heard my lecturer repeatedly say: ‘Let us move on, in the interest of time.’ Of course this sentence isn’t actually a plea for time, as in time being an entity ‘needing something.’ But that’s how I interpret it. I confess that I have used that phrase too when I was in a hurry, but speaking to you now, I wonder: What is time’s interest, intrinsically? What if we could think from the perspective of time?

I am currently reading the book *Designs for the Pluriverse: Radical Interdependence, Autonomy and the Making of Worlds* by the Colombian anthropologist Arturo Escobar.<sup>6</sup> In it he talks about the struggle of the indigenous Nasa and Misak people from the Norte del Cauca region in Colombia – their struggle to defend their unique vision and way of life, which in my mind could offer an alternative to our neoliberal discourse around time management and productivity.

Rather than thinking about the organisation of labour in terms of ‘projects,’ the Nasa and Misak people think in *Planes de Vida* (Life Plans). Escobar describes these as ‘strategies of re-localization, that is, strategies for the persistence of the place-based and communal weave of life.’<sup>7</sup>

I see Life Plans as the tracks you make during your life; your practice. They are the long routes, rather than the short sprints taking you to the next biennial or opening. For me, this concept allows me to understand my practice as a longer-term commitment to certain topics or themes, which unfold through different projects. Each project becomes a stepping-stone for the next, and as such, no project ever needs to feel finished or completed.

Another way to describe it is that everything I do is part of an iteration and re-iteration. Each step is an effort to allow knowledge to accumulate or deepen in order to become more precise. What comes to mind is this image of an eagle drawing circles in the sky, big circles at first and then smaller and smaller (although the predator-prey metaphor may not be the best one).

On the outside, my career looks like an eclectic mix of projects. But when I look deeper, I can see that with each project, I am doing the same thing, over and over again: walking in circles, or rather in spirals, inching closer and closer to the core of what it is I am exploring.

One of the reasons why I said yes to working with Lungomare, the cultural foundation in South Tyrol where I conceived the *School of Verticality*, was that their residencies are stretched out over longer periods of time.<sup>8</sup> They didn’t want me to come for two or three months and merely respond to something I noticed in the area, but they urged me to come several times over a longer period. In the end I went about ten times and the residency lasted a year and a half. The

journeying to and from South Tyrol, the back and forth movement, immersing myself and then taking a distance again, was in fact fundamental to the development of my ideas for *School of Verticality*. I think the conditions set by Lungomare are very atypical from ‘conventional’ residencies – the ones that consist of a generic empty room with a desk you can put your laptop on. Instead, Lungomare offered an incredible network of local people, of expertise, of knowledge about the history of the place, the local agriculture, etc.

In the beginning, I wanted to learn everything about everything, and over a period of time, out of this sea of information and possibilities, some things started to surface which triggered my attention and that I wanted to work with, like the garden, the seeds, the traditional bread making, the different kinds of boundaries I sensed in this complex territory, and so on.

#### Christel:

I can relate to what you’re saying. I also see my practice as a curator [/] researcher [/] writer, developing along ‘long routes;’ most of the stuff I am interested in requires longer-term commitments that allow for insights and ideas to unfold and come into sight. But alas, as you mentioned earlier, that’s not how artistic or curatorial work is organised (and managed!) these days. Funding bodies especially demand clearly outlined content, planning, outcomes and results, they even want predictions of the added value of the project. I think it is striking how this neoliberal ideology around time, labour, production and result assessment has been superimposed onto the realm of art, research and creative thinking, which I think are the disciplines that need open-endedness and the freedom to seek out their own rhythm in order to thrive. But somehow, we live in a society where the value of what we do, our work, is measured against the amount of

time we invest, in particular the economic value of our labour. Time is money.

**Sophie:**

Yes, I agree. That's why I prefer to talk about 'works;' not meaning work as in object; but bodies of work; things, questions, intentions I am working on. But let's be honest, my practice runs on projects too – that's what I do; that's how I earn a living as an independent, one-woman company; that's how funding bodies and institutions operate. That's why I like this notion of Life Plan so much, because it offers a different sense of 'finality,' but also because it implies a different value system, a different understanding of what ultimately is the most important thing: the movement of Life.

This different sense of finality, or in my case resisting finality, plays an important role in the development of any of my works. Be it in terms of their concept, their material execution of their public presentation, I try to keep things open for as long as possible. This openness also defines the process of translating the field research into the work, which often becomes a site-specific intervention. Hardly any of the decisions do I make on my own. I always involve others, either because of their specialist expertise, their skills, their local knowledge, or because of they are the spokesperson for communities I work with.

For instance, for the first iteration of *School of Verticality*, called 'Weaving Gardens,'<sup>9</sup> I proposed to introduce a vertical loom in the Orto Semirurali, a communal garden in Bolzano. I assembled a team of people, each with their own specialist knowledge, to help me design and build the loom: a carpenter from Bolzano and one from Calabria, who both are part of Akkrat, a local organisation providing sheltered employment; women from the local intercultural women's organisation Donne Nissà,

and of course, albeit some reluctantly at first, the gardeners themselves. They all became co-creators and simultaneously the public I wanted to address. It took a week to build the loom on site, carefully considering each decision, each option, for example the type and provenance of the wood, the specific location of the loom in the garden.

I need this time to establish a space where encounters can take place, and to allow these to influence the final shape, colour, but also its use. For instance, at first the gardeners of the 'Orto Semirurali' were passive bystanders rather than active participants, but after a couple of days we started talking and it turned out that they were keen to have a construction with a roof where they could hold meetings, garden concerts and take shelter in case of bad weather. So that's when we decided to place a roof over the platform on which the loom was placed.

I wouldn't be comfortable with just stepping into a context and dropping my 'art object' into it. I always aim for my work to be reciprocal, or at least based on dialogue, and I hope that by integrating these multiple functions, the project will live on after I have left.

**Christel:**

So in a way your aim is to conceive, develop and contribute something to a place that starts to trace its own Life Plan, even after you have left...

**Sophie:**

Yes, that is a nice way to put it. But, whilst I am saying that, I must say that I also struggle with this idea of longevity and the eternal. Should we really want things to last forever?

## PART TWO. OVERTIME: WORK IN PROGRESS

### Christel:

Allan Kaprow certainly didn't mean for his happenings to last forever; at least not in a physical way. In the participants' memories, maybe... Was it this kind of temporality that attracted you to the art form of happenings?



OVERTIME RECOLLECTION 27/31

### Sophie:

I first 'discovered' Kaprow and the Fluxus Movement through the work of Robert Filliou, who wrote a book on teaching and learning as art that I love.<sup>10</sup> When I was in Blois, a small town a two hours' drive south of Paris back in 2017, I made it my mission to visit the *Fondation du doute* (the doubt foundation), which is an art centre dedicated to the private collection of French artist Ben and the Fluxus movement. At the museum I encountered some of the posters Kaprow made for his happenings, and I was completely in awe; because of their simple design, the absurd, playful and totally democratic but also poetic phrasing of the announcement and the instructions... It marked the beginning of my fascination with Allan Kaprow and his happenings.

This is also when I first saw the poster he made for OVERTIME and I was immediately hooked by the image of the fence, which

almost becomes a graphic element, like a barcode. OVERTIME has been on my mind ever since, long before I decided to do a re-enactment of the happening in South Tyrol.

### Christel:

Allan Kaprow's instructions were very always precise and to the point, maybe even a bit didactic, like a cooking recipe. Can you elaborate on Kaprow's objective for his happenings?

### Sophie:

In 1966, Kaprow recorded a lecture titled 'How to make a Happening,' in which he explains what a happening is in eleven rules, and one of the rules is that a happening happens with happeners.<sup>11</sup> A happening has no public, and therefore it is not a performance (a performance is still organised following the hierarchy of point to mass-communication, involving senders and receivers, a stage, a clear beginning and end).



OVERTIME RECOLLECTION 12/31

### Christel:

When Allan Kaprow conceived his happening OVERTIME in 1968, he thought of it as a critique of the capitalist organisation of labour and work. How important was this critical message to you when you decided to organise a re-staging of the happening?

**Sophie:**

I don't know if Allan Kaprow was influenced by the late 1950s writings of Hannah Arendt on the subject of what makes a *vita activa*, an active meaningful life, but to me her texts are an important reference, especially the distinction she makes between 'labour' and 'work.'<sup>12</sup> Like the word used for women giving birth, labour according to Arendt is a natural, intrinsic part of life. It is about creating something, engaging with this world, whereas 'work' is related to ambition, success, status, things you (think you) want to achieve.

What I do know is that Kaprow conceived OVERTIME around the same time that he realised another 'wall' happening, called *Sweet Wall*,<sup>13</sup> for which the instructions were to build a wall and to break it down again immediately. For OVERTIME the instructions were to erect a 200-foot snow fence, and to move it, 'maintaining direction,' for one mile, between sunset and sunrise. Both happenings were conceived in 1968, prior to the student protests in Paris, but also in New York. I have been talking a lot with my collaborator Stéphane Verlet-Bottéro about the possible relation between the revolutionary spirit of these protests and the reason why Kaprow choose a wall, and the time frame of the night, as the score for his happenings. But all we know is that Kaprow was looking into different types of walls in the months before and after OVERTIME.<sup>14</sup> In the happening *Fluids* (1967), blocks of ice were stacked forming a wall which would then melt away. *Fluids* is actually quite a famous happening and has been re-enacted a number of times,<sup>15</sup> whereas OVERTIME has only been executed that one time by Kaprow and a group of his students on the beach in San Diego. According to the Allan Kaprow Estate, it has been reinvented only once so far, by us, on the Villanderer Alm–Alpe di Villandro.

But to come back to your question whether OVERTIME is a critique of capitalist labour, for OVERTIME PAPER number one, Stéphane and I interviewed Philip Ursprung, an art historian at the ETH in Zürich who has re-enacted Kaprow's happenings before. His interpretation is that OVERTIME is about 'working after hours, working at night.' He says, with OVERTIME 'you could ask, what is work, what is alienated work? It's obviously useless to do this work, to push this fence towards the sea... I always read Kaprow to issues of economy, human labour and work ... Effectivity, productivity...'<sup>16</sup> To me, OVERTIME has to do with working beyond required hours, as Ursprung mentions, but there are also people who interpret overtime as extra time, free time, bonus time.



OVERTIME RECOLLECTION 07/31

**Christel:**

When Kaprow executed OVERTIME in 1968, he chose a beach close to the San Diego campus – I understand that he initially wanted to stage the happening in New York but needed to postpone the event due to the student protests. You chose a different setting, namely the Villanderer Alm–Alpe di Villandro in South Tyrol (Upper Adige). Why did you choose this particular spot?

**Sophie:**

The name of the place already holds an important clue: Villanderer Alm–Alpe di Villandro. It contains both the German and the Italian parts of this region as equal parts, divided or connected by a long dash, depending on your perspective... It says a lot about one of the borders, or boundaries, which is very tangible in everyday life in South Tyrol and plays an important role in how society and education is structured, that is, the linguistic one.



OVERTIME RECOLLECTION 01/31

It is interesting that in terms of governance South Tyrol is an autonomous region, with its own tax system etc. In my mind, I equate autonomy with a certain harmonious, balanced whole; yet, during my time there I encountered so many different borders and boundaries. Take language; the people of South Tyrol speak fluent Italian and German, but depending on the altitude either one of the two is the dominant language. So in the cities of Bolzano or Merano, which are located in the valleys, you will find that language and culture are more Italian-oriented, while the higher up you go, in the smaller mountain villages, language and cultural habits tend towards the, earlier, Germanic roots. Another very clear border that defines the area are the age-old geological frontiers

formed by the mountains, which shape natural demarcations between different areas. When you arrive in Bolzano by train, you enter a landscape that is literally partitioned by vertical walls. And a less visible geological border is the one between the European and African tectonic plates that have formed the landscape over long, long periods of time (interestingly, there is a so-called ‘window’ in South Tyrol where the African continent can be seen lying on top of the European continent).

So to me, the South Tyrol region is defined by its borders and boundaries: geological, natural, linguistic, cultural. But there are also other borders that were more painful to witness, for instance the immigration border. South Tyrol has become a bottleneck for immigrants from Africa and the Middle East who are trying to get to northern European countries like Germany, Switzerland and the Netherlands. Even if they enter Europe in the south of Italy, they will encounter another border between Italy and Austria at the Brenner–Brennero frontier, which is increasingly militarised and even locked down at times. And last but not least, there is the ecological boundary across nature and culture that is slowly shifting the landscape from a traditional polycultural way of farming to an industrialised monocultural use of the land.

**Christel:**

And this ecological border also demarcates the different economies, the different ideological systems of ‘working the land,’ and of different value systems, maybe...

**Sophie:**

Yes, these ‘value borders’ are very visible in the landscape; the valleys are predominantly taken up for the cultivation of grapes and vines, but higher up, in the mountains, you can still find pastures. In the last century

the *Alms* – which translates as ‘pasture’ in the sense of historical ‘commons,’ used and maintained by a community to herd their sheep and cows – have been pushed to higher grounds in order to make way for industrial systems farming *and* for tourism that are slowly but surely moving up the mountain slopes.



OVERTIME RECOLLECTION 30/31

**Christel:**

So is the Villanderer Alm–Alpe di Villandro where you re-staged OVERTIME still in use as a commons?

**Sophie:**

Yes, in part, but it is also one of the most privatised and commodified places in South Tyrol where the locals go to recreate, hike and bike (on electric bikes!)... The ridge where we executed OVERTIME is the last bit that is actually still a commons. But the farmers’ private fences keep moving up year after year...

**Christel**

What your research, which you shared in the four editions of the OVERTIME PAPERS,<sup>17</sup> shows is that this interplay between visible and invisible borders that is shaping the land, the culture, society and everyday life, is quite a dynamic one, and that borders are not just

fixed spatial or material entities but also have a temporal dimension... they change *over time*.

I think this is something that Kaprow also wanted to bring across through his happening; not just as a visible statement, that is, a fence being moved across one mile, but as an embodied experience: together we (can) move borders, we can shift the landscape, both in a literal and physical sense, but even more so, metaphorically, in a political way. In OVERTIME the long duration of these geological or historical shifts in our natural and social landscape, take place overnight... I would like to talk a bit about this juxtaposition between, on the one hand, the changing borders and boundaries, which are situated on the surface, on a horizontal plane if you like, and on the other hand the changes that take place over time and that can be understood as vertical layers, strata.

**Sophie:**

The reinvention of Kaprow’s happening was the third iteration of *School of Verticality*, the overarching work I developed during my residency at Lungomare. In short, *School of Verticality* is a public programme about listening and learning from embodied, situated forms of knowing. It investigates questions like: Where on Earth do we belong? Which forgotten, deeper nurturing practices can we bring to light and reinvent, together? The programme tried to tie together various biographies (human, animal, territorial) and temporalities (of geology, history, biology, dreams, memory). And Kaprow’s proposal to use a snow fence, so a human-made artefact, operating on the surface of the Earth as a kind of momentary interruption of a much longer and cyclical natural process (snow-fall), was interesting to me in that sense – it points to those coinciding processes, which you could describe as vertical and horizontal, yes.

**Christel:**

So if the moving of the snow fence touches the issue of boundaries in their spatial manifestations, that is, as markers of surfaces and territories, how did you touch on, or mobilise those deeper domains? And what kind of deeper layers did you mobilise?

**Sophie:**

I think the act of erecting a fence is what humans do. It's how we inhabit the Earth, by creating safe enclosures, marking of our territory, protecting our homes and livelihoods. So doing that, redoing that, connected us to ancestral gestures. To answer your question more directly, one of the ways we addressed these 'invisible boundaries' was by bringing together an assembly of people who all represented a different 'body of knowledge' to take part in the re-staging. In the end, the group of 'happeners' we invited was a carefully created constellation, including a local fence builder (Sepp Gasser) who knew the site in a very hands-on way as he has herded cows there (without fences!) for sixteen years; Sepp Kusstatcher, the former mayor of Villanders-Villandro, who knew what the Alm was like before it became a commercialised tourist site filled with signage, roads, summer houses; Robert Gruber, the director of the underground mining museum; Marianne Erlacher, a local architect who strives to bring about more dialogue between the neighbouring valleys and villages; and other participants included a historian, archaeologist and anthropologist who brought a more academic but also intuitive type of knowledge to the event.

The whole idea was to collapse the boundaries between these different forms of knowing through the action of moving the snow fence together. Which I think also really happened, not in the last place because the weather was so bad and everyone got soaking wet in the middle of the night, literally losing their marks because of the

Sophie Krier, Christel Vesters

Overtime

darkness... We were all in it together. It was physically quite intense.

The other way of mobilising and bringing to the surface these deeper layers, deeper divides was through the OVERTIME PAPERS as you said; this was a kind of reader, which we sent by mail to the participants in the weeks leading up to the happening. Each paper focussed on a different theme that we felt was connected to OVERTIME: Deep Time; Shared Time; Political Time and Ancestral Time. On the night itself, an intimate ritual was carried out to invoke the permission of our ancestors – those who walked the ridge before us, and the mountain itself. The ritual took place by an old stonewall. I can recall stepping aside from the action, taking a sip of schnapps, and being asked to give one drop back to the ground. I remember that at that very moment it started to rain. The next day I hiked back to the same spot to document the traces of the happening. And just as I approached, a drizzle started. It opened up something or moved something inside me, which still 'labours on'...



OVERTIME RECOLLECTION 04/31

Maybe Kaprow chose to stage OVERTIME at night because it is one of our last temporal retreats in a 24/7 economy. What I find so nourishing about the night is that masks fall off; roles dissolve. With the tiredness and the dark, everyone becomes deeply, or simply, human. In the eastern spiritual traditions, the night, like the moon and rivers, stands

for feminine energy (yin), for mourning, for remembering. But also for letting go; for allowing ourselves to be supported by what we do not know yet; to go along with that what time makes available for us.



#### OVERTIME RECOLLECTION 13/31

##### Sophie Krier, Christel Vesters

Sophie Krier is a relational artist, researcher, educator and editor. Through her work, she interweaves biographies of beings and places, and conceives of situations for shared narration and introspection. Her practice alternates between long periods of fieldwork, and reflection manifested as books, films, public programmes. Krier leads *Field Essays* (2018-ongoing), a series of hybrid publications channelled by Onomatopee with which she enables listening pauses between practitioners and thinkers across disciplines. She also pursues 'place acupuncture' with the School of Verticality, a programme she developed in 2018-2019 in the context of a research residency hosted by Lungomare. [www.sophiekrier.com](http://www.sophiekrier.com)

Christel Vesters is a curator, writer and teacher based in Amsterdam. She studied Art History and Curating in Amsterdam, New York and London and graduated cum laude from the University of Amsterdam. Christel has curated numerous exhibitions and discursive projects, and regularly publishes on art and design. In 2014, she initiated the long-term research platform *Unfinished Systems of Non-Knowledge*, which investigates art as another mode

of knowing and being (2014-ongoing). She is also the initiator and curator of *Touch/Trace: Researching Histories Through Textiles* (2017-ongoing), a multidisciplinary project, which investigates the intricate connections between textile, history and society from a contemporary art perspective.

<http://www.touch-trace.nl/>  
<http://www.unfinished-systems-of-nonknowledge.org/part2/>

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## Footnotes

- 1 American artist Allan Kaprow (1927-2006) was interested in blurring the boundary between life and art: 'The line between art and life should be kept as fluid, and perhaps indistinct, as possible' ('Allan Kaprow - Artists' Hauser & Wirth, accessed November 13, 2020. <https://www.hauserwirth.com/artists/2811-allan-kaprow>).
- 2 A snow fence is a temporary barrier intended to stop drifting snow from accumulating on a road or other passageway. In line with Kaprow's prompt to think practically, for OVERTIME, Krier and Verlet-Bottéro borrowed a snow fence from the local ski club in Villanderer Alm-Alpe di Villandro. This lightweight variety consisted of a bright orange/pink textile net and stakes at regular intervals. It remains unclear why Kaprow specified the use of a snow fence for this particular happening - perhaps because of the fact that a snow fence stops a natural process (snow) in favour of a cultural one (traffic) fascinated him.
- 3 As Sophie Krier and her collaborator Stéphane Verlet-Bottéro worked out the details of the seemingly straightforward instructions formulated by Kaprow in 1968, they realised: a) that 1 mile = 5280 feet, meaning that covering 1 mile in iterations of 200 feet = 26.4 moves and b) that the fence needed to be displaced 'maintaining direction;' but which direction, they wondered?
- 4 Set up as a residency period in answer to the initial brief for a Dutch Design exhibition by the Dutch consulate of Rabat, 'ICI Casa Ville Inventive' (HERE, Casa Inventive City) produced new work in the space of two months, in collaboration with a local team of designers, students, workers and artisans. The residency resulted in an exhibition structured as a city within a city. A programme of debates about local issues (the unacknowledged value of the *petits métiers* (small jobs); the regeneration issues of the tramway project, and the precarious status of Casa's architectural heritage) connected the exhibition to local stakes. The Dutch design team included Sophie Krier, Bas van Beek, Erik Wong, David van der Veldt, Sjoerd Jonkers, and Dawn Ray. The team was enriched with Khadija Kabbaj, Jamal Abdennasser, and Meryem Aboulouafa as well as artisans and students living in Casa. In total a crew of almost 50 people were involved.
- 5 'Time Matters IV. Ecological Time: Natures that Matter in Activism and Art' (Seminar, ArtEZ, Arnhem, March 12, 2020. <https://timematters.artez.nl/>)
- 6 Arturo Escobar, *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds* (Durham and London: Duke University Press, 2018).
- 7 Ibid., pp. 73-74. The Life Plan of the Misak people is explained in terms of 'the construction and reconstruction of a vital space in which to be born, grow, persist, and flow. The Plan is a narrative of life and survival, the construction of the path that enables the transit through life; it is not a simple planning scheme' (Cabildo, Taitas, y Comisión de Trabajo del Pueblo Guambiano, quoted in Escobar, p. 73).
- 8 <http://www.lungomare.org/project/schoolofverticality/>
- 9 The first episode of *School of Verticality*, 'Weaving Gardens,' was defined in close collaboration with the Donne Nissà association and the gardeners of the Orto Semirurali garden of Bolzano. Together with social association Akkrat, Sophie Krier installed a vertical loom in the garden, with the intention to create a collective fabric that would depict the cultural stories and memories of the garden.
- 10 Robert Filliou, *Teaching And Learning As Performing Arts* (United Kingdom: Occasional Papers, 1970 / 2014). 'A 'work in continuous progress,' as Filliou called it, *Teaching and Learning* remains an essential primer on the artist's still radical ideas on participatory art making and teaching' ('Robert Filliou: Teaching and Learning as Performing Arts,' Occasional Papers, accessed 10 December 2020, <https://occasionalpapers.org/>)

- product/teaching-and-learning-as-performing-arts/). Robert Filliou's (1926-1987) 'artistic oeuvre also includes film-making, 'action poetry,' and sculpture, fittingly placing him amidst the burgeoning Fluxus movement' ('Robert Filliou,' Widewalls, accessed 10 December 2020, <https://www.widewalls.ch/artists/robert-filliou>).
- 11 Allan Kaprow, 'How to Make a Happening' (side 1), 1966, Mass Art Inc., MP3 audio, 12:09, <https://primaryinformation.org/product/allan-kaprow/>. Rule number 5 states: 'Break up your time and let it be real time. Real time is found when things are going on in real places. It has nothing to do with the single time, the unified time of stage plays or music. It has even less to do with slowing down or speeding up actions because you want to make something expressive or because you want it to work in a compositional way. Whatever happens should happen in its natural time. [...] [Why] not let the amount of time you do something depend on what is practical and convenient for the particular actions in the happening. You can waste an awful lot of time trying to coordinate things.'
- 12 Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958); Hannah Arendt, 'Labor, Work, Action,' in *Amor Mundi: Explorations in the Faith and Thought of Hannah Arendt*, ed. James W. Bernauer, Boston College Studies in Philosophy (Dordrecht: Martinus Nijhoff Publishers, 1987).
- 13 In reality, *Sweet Wall* was carried out in 1970, in Kreuzberg, West Berlin, as a parody of the idea of a wall. It consisted of building and destroying a wall made of mortar bricks, bread and jam, close to the Berlin Wall.
- 14 Happenings conceived by Kaprow and pertaining to walls include *Fluids*, 1967, Pasadena Art Museum, Pasadena, California; OVERTIME, 1968 (April), commissioned by State University of New York, New Paltz (not realized); OVERTIME, 1968 (May), sponsored by University of California San Diego; *Barreling*, 1968 (September), presented for the Sixth Annual New York Avant-Garde Central Park West from 95th to 67th Streets; *Sweet Wall*, West Berlin, 1970.
- 15 Rather than re-enacting, Kaprow refers to 'reinventions': 'I say reinventions, rather than reconstructions, because the works [...] differ markedly from their originals. Intentionally so. As I wrote in notes to one of them, they were planned to change each time they were remade. This decision, made in the late 50s, was the polar opposite of the traditional belief that the physical art object—the painting, photo, music composition, etc.—should be fixed in a permanent form' (Allan Kaprow, from *7 Environments* (1991), p. 23, quoted in 'Allan Kaprow,' accessed 10 December 2020, [http://www.allankaprow.com/about\\_reinvention.html](http://www.allankaprow.com/about_reinvention.html)).
- 16 Sophie Krier and Stéphane Verlet-Bottéro, eds., *Overtime Papers, Bulletin 3: Political Time* (Bolzano: Lungomare, 2019), p. 27.
- 17 The happening was preceded by the OVERTIME PAPERS, a critical reader in four parts that puts Kaprow's work in dialogue with the local context. Gathering photographs, interviews and text excerpts, the OVERTIME PAPERS addressed notions of deep time (geological boundaries), shared time (common boundaries), political time (national boundaries) and ancestral time (transcending boundaries).

# Ecological Time: *Natures that Matter to Activism and Art*

## Abstract

The term ‘Anthropocene’ brings together a range of interrelated ecological catastrophes and relates human history to the time scales of the Earth. While dominant modes of thinking maintain technocratic notions of nature and time, art has (re)presented alternative proposals and practices that radically shift perception. To foreground and strengthen the power of art to challenge core cultural assumptions and motivate change, this text maps out the implications of philosophical positions often referred to by artists. I consider the ideas of Donna Haraway, Bruno Latour, Andreas Malm, Naomi Klein and T. J. Demos, and perform a more in-depth inquiry of the aesthetics proposed by Timothy Morton. Two works of art are at the beginning and at the end of this inquiry: *Progress vs. Regress (Progress II)* and *Nocturnal Gardening*, both by Melanie Bonajo. A material sense of time appears to be pivotal for art as an agent of change.

## Ecological Time: Natures that Matter to Activism and Art

‘Progress is a forward march, drawing other kinds of time into its rhythms. Without that driving beat, we might notice other temporal patterns.’

– Anna Tsing

In this essay, a work of art – *Progress vs. Regress (Progress II)* by Melanie Bonajo – investigates a theoretical inquiry into the way science and philosophy frame and affect the perception of time and art in the context of ecological crises. Turning away from this

specific work,<sup>1</sup> the second section critically positions philosophy and its implicit or explicit aesthetics. The epochal term ‘Anthropocene’ comes to the fore as having strong technocratic implications instrumentalising art, impairing its sometimes insurgent sense of differences and different temporalities. The third and last section returns to art – Bonajo’s *Nocturnal Gardening* – to present critical alternatives to dominant technological time regimes.



Melanie Bonajo, *Progress vs. Regress, (Progress II)*, 2013, Courtesy of the artist and AKINCI.

## 1. Time in a picture of Progress

*A work of art is introduced that attacks the ignorance of (dis)continuity between nature and culture.*

At face value, the photograph *Progress vs. Regress (Progress II)*, 2013 by Dutch artist Melanie Bonajo appears to make a clear and cynical statement. The background of the central scene consists of water. Beneath a band of grey-blue sky, the horizon marks a darker field, filling about four-fifths of the picture with the surface of a darker sea. The waves and the clouds are tranquil. In the centre of the picture, however, a prominent ochre-coloured piece of cardboard with the word 'Progress' written on it is held by two arms sticking out of the water. Except for the vague shape of a knee, there are no other human features. Where the head should be, just beneath the cardboard, a wave is cresting. The wave looks mild, when the viewer counterintuitively first foregrounds the environment and the sea. Meanwhile, it seems to be fatal to the person holding the board. A drowning person is urgently trying to tell us something.

*Progress vs. Regress (Progress II)* – abbreviated as 'Progress' here – can be considered as one of the many possible emblems of Bonajo's work, in which she questions what 'progress' and modernity means. It brings to mind the media reports on refugees drowning at sea. Increasingly, people are fleeing because of related political and environmental threats. In times of rising, broad and worldwide protests against the lack of apt political action regarding the interrelated ecological crises, and foremost against the lack of appropriate actions to reduce global warming, the image's message seems obvious. *Progress* comments on a culture that is obsessed with growth and profit, resulting in rising sea levels. This conclusion is also

evoked by what the observer of *Progress* may already know about the artist.

Personally, I have been familiar with Bonajo's work for a long time, but only slowly felt it increasingly resonate with my own earlier life experiences – as an artist, as politically active and living in 'alternative' communities – and in line with my current PhD research, that has brought back the urge to engage in active resistance to the ongoing ignorance about environmental degradation in our everyday cultural mode. This engagement foregrounds how the personal and the political relate. Bonajo seems to agree with the feminist anarchist Emma Goldman's ideas on this, cogently epitomised as 'If I can't dance, it's not my revolution.'

In interviews, Bonajo has explicitly contextualised her work as a critique on consumerism, capitalism and modernity. Her artistic work, mainly consisting of photos and films, focusses on ways to counter forms of oppression in our personal lives. By foregrounding intimate relations, she reclaims responsibility and possibilities for playful creative strategies against the rule of technological efficiency. Part of her work consists of manipulations and appropriations from the internet, while in settings assembled by Bonajo herself, basic materials and waste are used as props, accessories, and as objects of reverence – past a dualistic idealisation of nature and refusal of technologies, or, more critical in the current context: past a complete naturalisation of technology.

Techno-culture overrules nature, turning 'Progress' into 'Regress.'<sup>2</sup> Dominant technology and science have cultivated a detached perspective,<sup>3</sup> of a universal mankind and its exceptionality. But faith in technological 'solutions' is a pivotal part of the problem itself. Technologies require continuous adaptation to the always new,<sup>4</sup> thereby making us forget that the past is not just the history we choose to remember for a future ideal. In

nature, artefacts, waste and natural processes in which nature and culture are merged, the past is *materially* present. Therefore, *[w]e can never be in the heat of the moment, only in the heat of the ongoing past...* Indeed, the air is heavy with time.<sup>5</sup>

In *Progress*, being in the moment is both enhanced and immediately threatened by the rising sea level. The interrelated processes of nature and human history end human life. Time is lost, both as a tool to get a grip, to measure and master change, and as an idiosyncratic flow. Living in the moment is an ideal of mindfulness as opposed to an instrumental time regime. But it is also a feature of precarity, meaning the incapacity to plan.<sup>6</sup> Precarity is a prime example of unequally distributed property. Even a culture that neglects its dependencies, however, remains inextricably interrelated with and dependent on what we call 'nature.' The article of faith held high in *Progress* prevents the ability to swim; a sign becomes a pressing weight. *Progress* identifies the rising tide with a very material sense of time.

The relatively recent philosophical branch of New Materialism dissolves the dualism between nature and culture, and shares environmentalists' hopes when it assumes that a more vibrant understanding of materiality can help counter environmental neglect.<sup>7</sup> Ignoring the consequences of our actions and cultural habits seems less likely if nature and humans were more intimately understood as consisting of the same substance. If we were above, or outside of it, we would essentially remain unaffected by our environments, like an immaterial spirit, an immortal soul or a 'Spaceship Earth.' There would not really be a problem, only, maybe, a sense of loss of something other than the man-made, of natures living their own time. This feeling of loss itself would be a remnant desire, a redundant nostalgia. In this immaterialising mode, however, environmental

awareness is still thought of as a superiorly modern ethical development, while up-scaling technology is often regarded as the one and only way to respond to ecological problems. Accordingly, the argument goes that the picture taken from the moon was a prerequisite for environmental awareness, ignoring earlier, low-tech and yet successful attempts of amateurs and scientists to alarm wider audiences,<sup>8</sup> and ignoring the knowledge of non-modern cultures. Moderns are always assumed to be ahead of others in time.

## 2. Dissolving dualisms and the notion of nature in the Anthropocene

*The Anthropocene dissolving of the dualism between nature and technology monopolises knowledge and imagination.*

A long tradition in philosophy has occupied itself with the question of why humans are essentially different from (the rest of) nature. Many regard technology as the distinctive feature, and cultures that are technologically more developed have therefore been regarded as superior. *Progress*, however, indicates that modernisation also entailed a loss of perceptions and capacities to respond. Indeed, an increasing amount of data on environmental degradation paralleled the vast proliferation of technologies in the past decades. Meanwhile, generic philosophical rejections of technology turned to differentiating specific human-technology relations, and nature perished from ecology in 'techno-ecologies.' Excitement of imagined possibilities that new technologies incite have also impaired the sense of their interrelated, real and lasting effects on nature.

Technological optimism prevailed on the threshold of the breakthrough of internet in the 1980s, when biologist and feminist philosopher Donna Haraway proposed we should understand ourselves as 'cyborgs.'<sup>9</sup>

Critically appropriating this concept, she did not stress modern and human exceptionalism, but aimed to expand possibilities for new connections and solidarities. Haraway countered the dualism between humans and technology, between nature and culture, as likewise social scientist and philosopher Bruno Latour did.<sup>10</sup> Latour seems to have been more alarmed by the uncontrolled increase of what he called nature-culture hybrids such as global warming. To him these imbrolios implied that we can no longer speak of nature.<sup>11</sup> Accordingly, philosopher Timothy Morton – who is often referred to by artists – has stressed that the notion of nature should dissolve.<sup>12</sup> Now, what does this dissolving mean for art concerned with ecological catastrophe?

### **Anthropocene imagination**

Both Morton and Latour have adopted the term Anthropocene, which foregrounds the fading of the division between nature and culture. The name comes from the Greek word for ‘human’ and urges us to acknowledge the vast and irreversible impact humans are having on the planet – such as the dispersion of nuclear fallout, global warming, the acidification of the oceans, and the loss of biodiversity. According to historian Dipesh Chakrabarty, the Anthropocene requires an ‘Earth perspective,’ as opposed to a human ‘world perspective.’<sup>13</sup> Ending the relatively stable period of the Holocene, the Anthropocene places human history within the timescales of the Earth. Fully understanding what this means would entail a restructuring of politics, and it would entail fundamental cultural changes. Therefore, although apparently ‘merely’ a matter of scientific geological classification, the concept of the Anthropocene has rightfully evoked concerns in the humanities and arts.

Science and environmental historians Christophe Bonneuil and Jean-Baptiste

Fressoz have warned that the Anthropocene introduces a regime of scientists overruling public and democratic consultation.<sup>14</sup> Such a master perspective has indeed been implicated from the beginning, as atmospheric chemist Paul Crutzen shows, who, together with earth scientist Eugene Stoermer, has promoted the term since 2000.<sup>15</sup> Crutzen has pointed out the Anthropocene entails the need for large-scale technological solutions and appurtenant science:

A daunting task lies ahead for scientists and engineers to guide society towards environmentally sustainable management during the era of the Anthropocene. This will require appropriate human behavior at all scales, and may well involve internationally accepted, large-scale geo-engineering projects, for instance to ‘optimize’ climate.<sup>16</sup>

Although international approval is required as Crutzen states, scientists and engineers are attributed with a ‘daunting task’ to guide society.’ Apparently, they are to decide what ‘appropriate human behavior at all scales’ is. What does ‘guiding,’ ‘appropriate’ and ‘optimize’ mean, and what is to be sustained? Who finances these engineers and scientists, who decides, who owns knowledge? What does this imply for those less present in this discourse? The proposed ‘solutions’ will arguably affect everyone, while concerns to attribute to the public an active, informed, emancipating role seems to be an obstruction to the vision of specialists.<sup>17</sup>

While the Anthropocene importantly dissolves the dichotomy between nature and culture, it entails a new, vast scale of domination of nature, and simultaneously cultivates a gap in knowledge, which will become a self-fulfilling prophecy by not engaging those that will be and are severely affected by decisions made. This affirms

the understandable impression that technological developments continue without democratic and public involvement, and that consultation is postponed until there seems to be no choice left.<sup>18</sup> To shape a new imagination for the Anthropocene, art has been seduced to play a prominent and seductive role.<sup>19</sup> This appeals to art's role as modern avant-garde, at the visionary top of the social pyramid, progressing already where others follow later on.<sup>20</sup> But artists and technocrats may have very different ideas about matters of concern and about time. The Anthropocene as a cultural project proposes faith in the progress of science and technology, while its discourse is a secluded one. This is a good time, therefore, to question what assumptions are implied in current expectations of art shaping a new Anthropocene imagination.

### Ecology without nature

'... don't try to find some ideal position from where like Archimedes we can leverage the Earth, the first image of geoengineering. Let's first step down...'  
– Timothy Morton.<sup>21</sup>

As an author often referred to on the subject of the Anthropocene, Timothy Morton has been important for artists and theorists, and for me. In a writing style that challenges disciplinary expectations, he articulates the sense of imminence and fragmentation with which ecological catastrophes seem both distant and nearby, mediated and absent, sometimes shimmering on the edge of perception, or 'too close' and 'under one's skin.'<sup>22</sup> With Morton, environmentalism is opposed to metaphysical ethics that 'elevates the soul.'<sup>23</sup> There is no ground to cultivate a pristine nature defined in opposition to culture and at a distance to ourselves. To consciously

arrive in the Anthropocene, Morton states, the concept of nature should dissolve.

Morton specifies an *Ecology without Nature* in the concept of 'hyperobjects.' These objects are past the division of nature and culture; they can be black holes or global warming, caused by humans or not.<sup>24</sup> Hyperobjects are always there, but they are only partly perceivable sometimes. They are 'non-local' and 'massively distributed in time and space relative to humans.'<sup>25</sup> Both massive and 'under one's skin,' they evoke a sense of uncanny 'magic' that identifies causality with aesthetics.<sup>26</sup> Ecological aesthetics, ambiguously collapsing and maintaining its distance, becomes 'necessarily elemental';<sup>27</sup> a non-anthropocentric phenomenology that *feels* what is (un)known. 'Art, then, must attune itself to the demonic, interobjective space in which causal-aesthetic events float like genies, nymphs, faeries and djinn.'<sup>28</sup> Unsurprisingly, critics have remarked that hyperobjects mystify causalities and interests, and discourage human responsibility.<sup>29</sup> And indeed, according to Morton, this is the ideal moment to 'not act (out).'<sup>30</sup>

Congruent with the Anthropocene discouragement of public involvement and knowledge of politically charged causalities, Anthropocene perception is cut off from practices of active social-ecological concerns. 'Art in these conditions is grief-work,' Morton states.<sup>31</sup> Art is a place to feel, to accept and attune, not to learn, criticise or change. Action and thinking, politics and science are opposed to experiencing and feeling. 'We need art that does not make people think.'<sup>32</sup> The distinction between human caused action and natural phenomena is dissolved in a shift to 'pure' perception in which distinctions between nature and culture, between the sounds of highways or seas, of thunder or bombs, between black holes and global warming don't matter. We may wonder if this dissolving of the notion of nature is

not specifically useful in art when we need to comfort ourselves by indeterminacy and detachment, despite the ever more obvious and ongoing destruction of environments and lives for profit.

This detaching aesthetics may remind us of the sublime. As initially articulated in the eighteenth century by Edmund Burke, the sublime is distinct from the ‘merely’ beautiful, because it stressed the delight of scenes evoking *the idea of pain and danger*.<sup>33</sup> In contrast, Morton has foregrounded that we cannot distance ourselves from our degraded environments and that learning to mourn is crucial. However, feelings of loss and pain become abstract and empty of content by dissolving the distinction between nature and culture and by foregrounding sensation itself; *nothing can be lost when the notion of nature as a sense of otherness is completely dissolved*. Likewise, sublime ecologies without nature discourage active resistance to ecological degradation.<sup>34</sup>

Hyperobjects enhance a sense of incomprehensible and dematerialising abstractions, related to an understanding of aesthetics via Descartes and Kant.<sup>35</sup> To Kant, aesthetic experience is devoid of concepts and judgments.<sup>36</sup> Kant foregrounded the sublime of being overwhelmed by nature, which became tinged with eighteenth century geological knowledge that radically shifted and expanded perception of scales of space and time far beyond previous, biblical and anthropocentric narratives. Geology inspired nineteenth-century evolution theory, placing humans inextricably within nature. But the platonic tradition of Western philosophy glorified detachment from earthly entanglements. From an elevated perspective from ‘nowhere,’ nature is only (part of) a vast and moving universe, of inert matter that had, notably by Descartes, been framed as mechanical and insensitive.<sup>37</sup> A new sense of materiality thus came with an intellectually

challenging loss of grip, for those aware of (the impact of) such knowledge. It thereby enhanced a simultaneous sense of disorientation and newly elevated sovereignty. The sense of humiliation was the flipside of a self-evident anthropocentrism and domination, and it did evidently *not* result in modesty. Instead, the sublime restored the privileged detachment from earthly concerns.

Now, the ‘abysmal distance’ between our ‘tiny Umwelt’ and ‘the range, nature, scale of the phenomena’ that, ironically, has been cultivated in literature and art, and which numbed and thrilled us, has become impossible.<sup>38</sup> ‘The disconnect has shifted so completely that it no longer generates any feeling of the sublime anymore since we are now summoned to feel *responsible*.’<sup>39</sup> Being responsible is opposed to the sensation of the sublime. In the context of the Anthropocene, the sublime would distance scales of place and time and elude grief over the actual kind of nature that can be and has been destroyed. Accordingly, I argue, a phenomenology of an ecology without nature suits the neglect of specific earthly lifeforms made interchangeable, alienated and uprooted in processes of accelerating technologisation. Dissolving the notion of nature suits ever less controlled techno-corporate powers.

‘Nature will take care of itself,’ we say. But this is the platonic Nature of universal and eternal natural laws. This Nature with a capital N does not need nature. Ecology without nature has fully *absorbed* the abstract kind of Nature that, as ecofeminist and philosopher Val Plumwood put it, ‘requires no one’s defense or solidarity, certainly not that of the environmentalist. Its glorification (...) is in fact a glorification of the conquest of nature in its more relevant environmental senses.’<sup>40</sup>

Art that is conscious of its political and cultural implications therefore cannot

cultivate an aesthetics of not-knowing, as *Progress* shows by relating different time scales and evoking the (dis)connections between different kinds of knowledge and experience.<sup>41</sup> Tellingly, Haraway, who countered the dichotomy between humans and technology by appropriating the concept of the cyborg in the late 1980s, as mentioned earlier, understood that it had already lost its critical potential only a decade later.<sup>42</sup> Objecting to alienating Big Science, she promotes 'art science worldings' and learning other languages, for example to recognise 'the art of the redwood' and read 'Eggplant.'<sup>43</sup> Such multispecies understanding composts creative strategies and new stories.<sup>44</sup> Humanities would become 'humusities.'<sup>45</sup>

To seriously understand the shift in perception required, the Anthropocene discourse is in need of nature with a lowercase n, of non-technocratic modes related to down-to-earth social and material relations, of humanities, humusities and art. Aesthetics of a dissolved distinction between nature and culture, experienced as overwhelming phenomenological presence may be shocking and/or soothing, but as such it does nothing to stop ecocide.<sup>46</sup> Insofar as dissolving dualisms promotes a distancing sense of matter and time, it is not the time of art intending to be an 'agent of change.'

### 3. Dualisms of the materially present past

*The need to dissolve ontological dualism does not solve the problem of oppositions required to counter the degradation of life. Art that aims to be an agent of change involves social-ecological knowledge practices.*

Dissolving the notion of nature would implicate the loss of a pivotal tool to counter ongoing ecological destruction.<sup>47</sup> Several authors have argued that the concept of

the Anthropocene obfuscates interests and responsibilities by stressing a technological and economic notion of progress, assuming a collective human 'we,' as if we are all equally responsible. In contrast to Haraway, Latour and Morton, therefore, Naomi Klein, Andreas Malm and T. J. Demos argue for a critical understanding that places social-economical inequalities at the forefront of understanding the ecological crises, which is why they speak of the 'Capitalocene.' Part of a naturalised capitalist business model is the acceptance of both ecological and social degradation for the benefits of some.<sup>48</sup> On the one hand, acknowledging that humans consist of the same stuff, and of the same stuff as non-humans, means we share a problem. On the other hand, proportional responsibilities need to be faced urgently, to stop ongoing extinction.

Paradoxically, to counter dualisms, you need to use them.<sup>49</sup> Blurring contradictions in theory instead suits the ongoing colonisation of nature and of cultures more reciprocally related to nature. Art historian and environmental activist T. J. Demos is an outspoken critic of the Anthropocene and its rhetoric of a collective 'we.' In agreement with activist and journalist Naomi Klein,<sup>50</sup> he attacks the need for large-scale technologies stressed by an ever less controlled techno-corporate elite, and its promotion of a manipulative visual culture.<sup>51</sup> Alternative art and visual culture – importantly including indigenous manifestations and practices – acknowledge relations between scales of place and time from a decidedly down-to-earth perspective of care. These practices show how ecology is economical, mental, social and biological at the same time.<sup>52</sup> They do not cultivate scientific separation of the senses, competition of disciplines, or the contradiction of art as opposed to knowledge.<sup>53</sup> Nor is awareness reduced to a detached eye or mind.

### **Art practices politics and poetics of a relational, not idealised nature**

Ecological awareness fosters connections between personal experiences and the no less locally obtained global, scientifically mediated knowledge.<sup>54</sup> Latour stresses the need to move away from the universal vantage point ‘from nowhere,’ to understand the Earth ‘from up close.’<sup>55</sup> His question ‘where can we land?’ nevertheless shows that his perspective begins from a generalised and elevated position of science.<sup>56</sup> Likewise, Morton proposes we ‘step down.’<sup>57</sup> Very different from a sense of non-local objects of the knowing mind, and more earthly to begin with, philosopher Michael Marder foregrounds the time being of plants.<sup>58</sup> Plant time is a rooted movement persisting in ambulant animals like us. Vegetal being and time itself is vitally disrupted at times, while it subsists in mutual exchanges with/in heterogenic temporalities of its own and of its others, sharply opposed to an extractivist mode. ‘[R]esponsiveness and exposure to the other’ is “the very accomplishment of time” in vegetal being.<sup>59</sup> Still, the very down-to-earth question of if or how this philosophy strengthens active resistance to injustice and ecocide remains as relevant here as it has been for all our interlocutors in this text, and it has not been answered yet. Considering the film *Nocturnal Gardening* by Melanie Bonajo will keep the question in mind and renew it, for now.

Part of the *Night Soil* trilogy of 2016,<sup>60</sup> *Nocturnal Gardening* foregrounds intimate and reciprocal relations to specific environments. The film consists of four separate parts; each part portrays a woman and her world. The women are not introduced by name, which shifts the attention to the ways in which they sustain different relations to their environments, rather than to individual accomplishment. In the voice-over, they reflect on why and how they critically deviate from the standards of profit and

competition, in ways that suit their values.<sup>61</sup> *Nocturnal Gardening* evokes a seemingly anachronistic slowness and attentiveness to things backgrounded and distanced in modern culture, restoring environmental connectedness to others, especially in relation to food.

Care for nourishment is both spiritual and physical in *Nocturnal Gardening*. Detailed observation and knowledge of plants, animals and seasonal changes matter, as well as historical awareness of how our life choices can make a difference within or to society, in everyday practices as well as in moments of rest.<sup>62</sup> The women are filmed in lasting moments of silent alertness. Only hair and grass or leaves move visibly. In this still, ‘vegetal’ mode of being in time, being time this way, others are ‘embraced’ by them.<sup>63</sup> These ways of being are a counterpart to the urgencies of the time of activism. But activism can also be the fruit and seed, the roots or branches of such profound alternatives.

### **Places in time**

In the first part of *Nocturnal Gardening*, an Afro-American woman speaks about the produce farm she runs together with other participants of the *Soul Fire Farm* project. They are aligned with the Black Lives Matter movement, and their growing crops is not oriented towards making profit. The farm is a form of ‘spiritual activism,’ related to the need to heal the negative self-image resulting from a history of slavery and colonialism. Originating from the desire to build a community to care for themselves and for each other, *Soul Fire Farm* is a way of restoring and building a community by reconnecting to the land. Images of hands touching the soil suggest what is gained when technologies are absent.

Likewise stressing the value of physical contact, and countering industrial farming, the second part shows a Dutch woman who

used to work as a communication advisor in a wealthy part of Amsterdam. Critical of bioindustry, she decided, at one point, to make people aware of the culturally legitimated suffering of animals, notably pigs, by starting a farm, which is actually more like an animal resort. We see neatly dressed people kneel in the straw, slowly stroking the pigs with intense devotion. The kind of knowledge the woman shares is about living with the pigs and about, for example, their individually different ‘passionate’ or ‘curious’ characters; promoting the kind of attention that is deemed irrelevant and repelled in upscaled industries.<sup>64</sup> Moments of contemplation and relaxation with the pigs recur in carefully composed mise-en-scènes. This relief of stress depends on a deliberate deviation from efficiency-driven routines, and on deliberately giving time.

The third part of the film shows a woman and her daughter foraging in the woods, somewhere in upstate New York.<sup>65</sup> The surrounding nature is dense and diverse, and they feed themselves with what they find. The girl experientially learns to select food from her mother, who possesses detailed knowledge of nutritional values, changing with the seasons. We observe them walking in the woods, investigating plants, fruit and flowers up close, looking, smelling, reaching for what is beautiful, interesting, edible. We see the woman naked, floating in the water while the camera registers her; she is obviously conscious of its presence and apparently at ease with being looked at this way.<sup>66</sup> She helps others re-connect to the abundance that is still already there, in nature, she says, challenging the self-evidence with which well-being is defined by consumerism.

Equally committed to practices of healing of social, mental, environmental harm, the woman depicted in the fourth part of the film speaks of a painful past. The woman

is Dineh – Navajo – and has been tasked by her ancestors to have people look beyond the ideas that were enforced on them by those aiming to conquer the land, and to bring the indigenous tribes together again. We see her banging a drum or standing still with her arms along her body in clothes expressing her roots, while her gaze is fixed on the camera, looking directly at the viewer. Unlike the woman filmed foraging in the woods, there are traces of anger and hurt in her story and appearance. We see her from behind, in silhouette, her shoulders and her long straight black hair, while she watches the land. This may be felt by the observer as a move away from our gaze, a refusal, an (un)intentional reproach. Another scene shows her sitting against a tree or practicing rituals together with her sisters. The rituals help to heal relations to the Earth and to heal a history of cruel oppression. They cultivate the Native American understanding of all life forms as family. This attitude is strikingly reversed to extractivism and exploitation. She states: ‘We do not own the land,’ ‘the land is our owner.’ She explains how their way of living was, in her words, poor from a Western point of view, but rich according to the land.

*Nocturnal Gardening* demonstrates how histories are present in embodied realities and in alternatives to the hegemonic ‘master perspective’ that marginalises others. This hierarchy of beings relates to the notion of time as accelerating movement of upscaling technologies, which is at the root of the ecological catastrophe.

Interestingly, while several philosophers have proposed that the concept of nature should dissolve, artists have re-charged the term to critically investigate core cultural assumptions. Bonajo has stated she questions ‘our shifting relationship with nature.’<sup>67</sup> Ana María Gómez López placed the word ‘Nature’ prominently on the wall of

an exhibition where she showed how she had let the seed of a plant sprout in the tear duct of her eye.<sup>68</sup> Terike Haapoja characterises her work as having ‘a specific focus in encounters with nature, death and other species.’<sup>69</sup> By defamiliarising our conventional exchanges with nature – in consumption, art, science – they strikingly shift perceptions of other life forms, our notion of nature and the related core cultural ideas about being human. To question and challenge cultural assumptions and dualisms that go unremarked in everyday life, these artists use distinctions in a provocative way. Intensification of non-anthropocentric duration, of being (in) time, is essential to their works and practices. Artistic strategies evoke an experiential and material sense of time, reminding us of what the technological mode cannot perceive as qualities of life.

### Ending to progress

End of life, represented in Melanie Bonajo’s photograph *Progress*, positioned at the beginning of this text, has become a prolific source of transversal inquiries on how time matters, how vested interests seek to shape futures, how histories are present, how experiences relate to knowledge, and how theory and art relate. These questions do not come from nowhere, or from the image itself. *Progress* gathers, connects, proliferates and intensifies them, inviting committed research and articulation. Showing an isolated and static moment that lacks narrative temporal linearity, the photo strikingly (re)presents the very problem of relating to apparent abstractions of, and such as global warming. *Progress* shows human history is *in medias res*, in the middle of a story progressing towards the end, in a moment of unfolding catastrophe. This story is part of another, ongoing story, told by a degraded and backgrounded, but increasingly present environment. Obviously, two time scales – of

geological time scales and the time of world history, divided to avoid conflicting methods and truth claims – are connected.

Opposing the dichotomy of nature and culture, body and mind, *Progress* (re)presents the entanglement of different temporalities as physical processes. Moreover, connecting *Progress* to the film *Nocturnal Gardening*, also by Bonajo, foregrounds the urgent need to counter strategies of the detached mastering mind and technocratic incitement to ‘solve’ ecological problems by naturalizing a complete colonisation of nature, as the concept of the Anthropocene appears to promote. Structures of domination have to be understood and confronted, to motivate more profound and committed practices of ecological care. Art concerned with the ecological crises does not cultivate grief as stasis, although these timely modes are likely to recur. *Progress* and *Nocturnal Gardening* present references to information and histories and evoke storytelling. ‘Storytelling [...] does not aim to convey the pure essence of a thing, like information or a report. It sinks the thing into the life of the storyteller, in order to bring it out of him again.’<sup>70</sup> Sinking ‘the thing into the life of the storyteller’ ‘to bring it out again’ applies to the women portrayed as narrators in *Nocturnal Gardening*, to Bonajo the artist, and to the person drowning in *Progress*. And apparently, the sea too speaks of ‘the thing.’ Such thinking and sinking, feeling and expressing counters the rule of linear time, of a detached mind over discounted matter, and over the kind of nature we ourselves are. Sensations in the art of Bonajo (re)present embodied time. Positioned at the beginning and the end of this text, it presents a sense of knowing and feeling that motivates both artistic and theoretical work. This way too, art as an ecological agent of change presents a material sense of time and contemporaneity.

The question how theory relates to art in the current context of ecological catastrophes has been at the core of this text, engaging with art and supporting its social power. To understand how a concept – the Anthropocene – links science, politics and culture, and affects art, this inquiry has had to connect different fields of knowledge itself. The objections which are sometimes made that theory would overrule and politicize the perception of art this way tend to neglect how art is already framed by interests. Art nevertheless escapes instrumentalisation; theory cannot be a ruler over art. Artists do not need nor claim a final truth about the theories they use, as little as theory grasps the essence of art in a single fixed truth claim. Knowing this is the precondition for mutual, prolific and ongoing interchanges.

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9 Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,' in *Simians, Cyborgs and Women: The Reinvention of Nature* (London: Free Association Books, 1991), pp. 127-148. Written between 1978 and 1989.

10 Latour speaks of nature-culture. Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge, MA: Harvard University Press, 1993), pp. 7, 96, 105-109. First published in French 1991. Likewise, Félix Guattari stated 'nature cannot be separated from culture,' Félix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton (London and New York: Bloomsbury Academic, 2018), p. 28. First published in French 1989.

11 Latour, *Modern*, for example pp. 7, 50.

12 Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge, MA, and London: Harvard University Press, 2009). To Morton, the conceptualisation of nature was a tool to distance nature from culture, which enabled a 'sadistic admiration,' akin to 'the figure of Woman' as objectified within patriarchy. Morton, *Ecology without Nature*, p. 5. Morton, *Dark Ecology*, pp. 5, 55-59. Reversing the identification of the origins of technology with war, he states that the concept of nature is '[t]he slowest and perhaps most effective

### Footnotes

- 1 Sustained and detailed analysis of how art works on concepts in its own way, notably in the work of Melanie Bonajo, will be part of my PhD research (see note 1).
- 2 *Progress* is part of a series that enquires into the idea of modern progress. The photo is an independent work of art, and it is treated as such in this text. The first part of the full title, *Progress vs. Regress*, however, is also the title of a film in which Bonajo highlights the role of technology in the life of young and notably of elderly people. In the context of this film, 'Regress' literally hints at old age and mortality.
- 3 Bruno Latour, *Down to Earth: Politics in the New Climatic Regime*, trans. Catherine Porter (Cambridge: Polity, 2018), pp. 68, 74.
- 4 Bernard Stiegler, interviewed in *The Ister*, directed by David Barison and Daniel Ross (Icarus Films, 2005). DVD.
- 5 Andreas Malm, *The Progress of this Storm: Nature and Society in a Warming World* (London and Brooklyn, NY: Verso, 2020), p. 5.
- 6 Tsing, *Mushroom*, p. 278.
- 7 In this respect I agree with Jane Bennett's New Materialism as explained in *Vibrant Matter*. My position departs from hers regarding the political necessity of responsibility and accountability, see note 50. Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), p. viii.
- 8 A well-known example of modest yet influential scientific research is Rachel Carson, *Silent Spring*,

- weapon of mass destruction yet devised,' Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press, 2016), p. 5.
- 13 Dipesh Chakrabarty, 'Anthropocene Time,' *History and Theory* 57, no.1 (March 2018), pp. 5-32. <https://doi.org/10.1111/hith.12044>.
- 14 Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us*, trans. David Fernbach (London and New York: Verso, 2013).
- 15 Ibid., p. 3. Albert Faber, *De Gemaakte Planeet* (Amsterdam: Amsterdam University Press, 2018), p. 14.
- 16 Paul J. Crutzen, 'Geology of Mankind,' *Nature* 415, no. 23 (January 2002), p. 23. <https://doi.org/10.1038/415023a>.
- 17 Klein, *This Changes Everything*, pp. 260, 256-261. Faber, *Gemaakte Planeet*, pp. 90, 93, 96. Although Faber's argument clearly differs from Klein's, they share concerns in this respect. In response to a plan to disperse sulphur in the atmosphere - which is only one specific example of similar plans that are currently being developed - Faber writes: 'If climate change can only be controlled by a continuous process of dispersion of sulphur in the high atmosphere, then we are living in a world in which a very small number of technicians control the qualities of the world we live in. Life in the Anthropocene becomes a totalitarian project, which puts the fate of humans in the hands of a small technocratic elite' (p. 96, my translation). Referring to atmospheric 'experiments' Klein states: 'We would have a roof, not a sky-a milky, geoengineered ceiling gazing down on a dying, acidified sea.' Klein, *This Changes Everything*, p. 260.
- 18 Klein, *This Changes Everything*, pp. 8-10, 276-78. Klein has written about this strategy as the 'Shock Doctrine.'
- 19 See, for example, Faber, *Gemaakte Planeet*, p. 197.
- 20 A critical note on the avant-garde as related to the incapacity of the modern novel to address global warming is made in Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago and London: University of Chicago Press, 2016), p. 123.
- 21 Morton, *Dark Ecology*, p. 120. In the following section I argue that Morton presents alternatives to a technocratic Anthropocene in art, while he leaves the premisses of domination unchallenged.
- 22 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis, MN and London: University of Minnesota Press, 2013), p. 139. Stacey Alaimo aptly speaks of 'Transcorporeality' to name this interrelatedness. Alaimo, Stacey, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington, IN: Indiana University Press, 2010), pp. 2-4.
- 23 Morton, *Dark Ecology*, p. 96. Morton, *Ecology without Nature*, pp. 40, 79, 127, 135, 203-205. Morton's environmentalism makes you aware of the strangeness of you, yourself, weirdly being part of the *res extensa*. On the relation between phenomenology and cartesianism: 'Descartes himself, from whom phenomenology deviates and to whom it returns...' With Morton, cartesian phenomenology loses its 'intentional transparency.' Morton, *Ecology without Nature*, p. 127. The quoted characterisation of phenomenology in this note is from Guattari, *Three Ecologies*, p. 24.
- 24 Morton, *Hyperobjects*, pp. 1, 48.
- 25 Ibid., p. 1.
- 26 Ibid., pp. 179, 181.
- 27 Morton, *Ecology without Nature*, p. 41. Morton, *Dark Ecology*, pp. 78-79.
- 28 Morton, *Hyperobjects*, p. 176.
- 29 Mark Hansen, 'Media Entangled Phenomenology,' in *Philosophy After Nature*, ed. Rosi Braidotti and Rick Dolphijn (London: Rowman & Littlefield, 2017), pp. 79-83. See also, for example: Morton *Ecology without Nature*, p. 5: 'My readings try to be symptomatic rather than comprehensible.' Morton *Hyperobjects*, pp. 2, 129. 'The hyperobject is not a function of our logic,' p. 2. Morton, *Dark Ecology*, p. 25: 'The Anthropocene ... as a hyperobject that is real yet inaccessible.'
- 30 Morton, *Ecology without Nature*, pp. 28, 198. Morton, *Hyperobjects*,

- pp. 6-7. 'The end of the world has already occurred,' p. 7.
- 31 Morton, *Hyperobjects*, p. 196.
- 32 Ibid., pp. 183, 184. 'We need art that does not make people think (...) but rather that walks them through an inner space that is hard to traverse,' p. 184.
- 33 'The passions which belong to self-preservation turn on pain and danger; they are simply painful when their causes immediately effect us; they are delightful when we have an idea of pain and danger, without actually being in such circumstances ... What ever excites this delight, I call *sublime*.' Edmund Burke quoted in Francis D. Klingender, *Art and the Industrial Revolution* (London: Paladin, 1975), p. 73.
- 34 Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham and London: Duke University Press, 2016), p. 4: 'There is a fine line between acknowledging the extent and seriousness of the troubles and succumbing to abstract futurism and its affects of sublime despair and its politics of sublime indifference.'
- 35 Phenomenology brought Kantian correlationism 'down to Earth,' Morton states. Kantian awareness that knowledge cannot be neutral, complete and encompassing is extended by Morton to include (relations between) non-humans. See, for example: Morton, *Hyperobjects*, pp. 18, 30, 196-197. Morton, *Ecology without Nature*, pp. 25, 28, 113.
- 36 Morton, *Ecology without Nature*, pp. 157, 203. Morton, *Hyperobjects*, pp. 144-145.
- 37 On the cartesian subjugation of nature, see, for example: Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution* (New York: HarperOne, 1989), pp. 125, 188, 192-196, 243, 277; Michel Serres, *Het Contract met de Natuur*, trans. Roel Kaptein (Kampen: Kok Agora, 1992), pp. 53-54, 56; Plumwood, *Feminism*, pp. 109-117, 192; Raj Patel and Jason W. Moore, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (Oakland, CA: University of California Press, 2017), pp. 52-54: 'Descartes' philosophical abstractions were practical instruments of domination.' Morton, *Ecology without Nature*, pp. 105, 176. Morton instead refers critically to widespread anti-Cartesianism in ecological thinking (p. 176).
- 38 Bruno Latour, 'Waiting for Gaia: Composing the Common World through Arts and Politics,' (Lecture, French Institute, London, November 2011). In *What is Cosmopolitical Design?*, ed. Albená Yaneva & Alejandro Zaera-Polo (Farnham: Ashgate, 2015), pp. 2-7. <http://www.bruno-latour.fr/node/446>. '[W]e can still feel the sublime, but only for what is left of nature beyond the Moon and only when we occupy the View from Nowhere. Down below, no longer any sublime.'
- 39 Latour, *Waiting for Gaia*, p. 9.
- 40 Ibid., p. 3. While I'm using Latour's actualisation and problematisation of the sublime, I'm aware that he, like Morton, proposes to dissolve the concept of nature. I critically relate this dissolving to the sublime.
- 41 Val Plumwood, *Feminism and the Mastery of Nature* (London and New York: Routledge, 1993), p. 83. This kind of Nature relates to the currently popularised notion of Deep Time, which was historically related to fossil fuels: 'Beginning in the eighteenth and nineteenth centuries, imperial logics of domination began to contend not just with a New World, but a new Earth, and Earth of fossils and deep time that cared nothing for human well-being,' Cara New Daggett, *The Birth of Energy: Fossil Fuels, Thermodynamics, and the Politics of Work* (Durham and London: Duke University Press, 2019), p. 9.
- 42 Different 'critical and creative' 'modes of examining, looking and narrating' in theory and art 'forge an embodied epistemology' and 'shared ways of knowing.' Imre Szeman and Jeff Diamanti, *Energy Culture: Art and Theory on Oil and Beyond* (Morgantown, WV: West Virginia University Press, 2019), pp. 2, 5.
- 42 The historical context of concepts is crucial for understanding their (initial) agency. Haraway has since

- focused on multispecies coexistence. Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago: Prickly Paradigm Press, 2003), p. 4.
- 43 Haraway, *Staying with the Trouble*, pp. 117, 122. “Do you realize,” the phytolinguist will say to the aesthetic critic, “that they couldn’t even read Eggplant?” - Ursula K. Le Guin, quoted on p. 117.
- 44 Ibid., pp. 67, 101.
- 45 Ibid., pp. 32, 57, 97. Haraway combines ‘humus’ and humanities in ‘humusities.’
- 46 ‘Ecocide’ is a term that has been promoted by environmental barrister Polly Higgins to legally fight crimes against nature.
- 47 Malm, *Progress*, p. 53. Malm argues for ‘substance monism property dualism.’ Dissolving the notion of nature is a new climax in the ongoing domination of nature and people. Especially important for understanding the (implicit) persistence of hierarchic dualisms and its ‘master perspective’ in philosophy and culture, as well as in several environmental movements is Plumwood, *Feminism*. Plumwood has historically traced and contextualised the hierarchical dualism of reason (and its notion of Nature) over nature, in relation to the interests of the elite in possession of the means to understand and control, in the history of Western philosophy beginning with Plato.
- 48 Those benefitting most from ecological degradation make others pay and suffer. See for example Paul Luttikhuis, ‘Het is de rijke minderheid die voor de grootste milieuproblemen zorgt: Interview Johan Rockström hoogleraar duurzame ontwikkeling en watersystemen’ [‘The rich minority causes the bulk of environmental problems: interview Johan Rockström, professor of sustainable development and water systems’], *NRC Handelsblad*, 23 June 2020. Addressing this sense of injustice and proportionality is pivotal to any down-to-earth ecological concern and commitment. I therefore depart from New Materialism as articulated by Jane Bennett, which renders the desire to take responsibility and the political urgency to make accountable powerless: ‘How does recognition of the nonhuman and nonindividuated dimensions of agency alter established notions of moral responsibility and political accountability?’, p. 446; ‘... should we acknowledge the distributive quality of agency in order to address the power of human-nonhuman assemblages and to resist a politics of blame? Or should we persist with a strategic understatement of material agency in the hope of enhancing the accountability of specific humans?’, p. 464. Bennett obviously rejects the latter. Bennett, *Vibrant Matter*, pp. 445-466. See also note 9.
- 49 Malm, *Progress*. The fact that nature and the social merge makes ‘the distinction between the social and the natural more essential than ever,’ according to Andreas Malm, attacking hybridism. Ibid., pp. 44-77 (quote p. 61).
- 50 Klein, *This Changes Everything*, pp. 230-290.
- 51 T. J. Demos, *Decolonising Nature: Contemporary Art and the Politics of Ecology* (Berlin: Sternberg Press, 2016); T. J. Demos, *Against the Anthropocene: Visual Culture and the Environment Today* (Berlin: Sternberg Press, 2017).
- 52 This is a reference to the ‘generalised ecology’ proposed by Félix Guattari, comprising three registers: environmental, social and subjective. I specifically mention economy, and biology as a reference to nature, precisely because the two are faded in his ‘*machinic ecology*.’ While I have taken inspiration from Guattari’s understanding of the role of art as a form of psychiatry, entailing the need for engagement and responsibility, and from his notions of transversality, creative counter-repetition, subjectification and the importance of heterogeneity of various levels of ecological praxis, I question his backgrounding of economics outdating Marx, the dissolving of ‘nature’ and the discounting of ‘the simple defence of nature.’ Predicting and accepting geo-engineering in the 1980s, Guattari criticises

- ‘technocratic state apparatuses’ rather than techno-corporate powers, and insists social struggles should ‘radically decentre.’ Guattari, *Three Ecologies*, pp. 17-18, 21, 24-30, 32-35, 45-47.
- 53 María Puig de la Bellacasa writes about thinking and knowing as care, caring and knowing as touch; about ‘Touching Visions,’ ‘Soil Times’ and making ‘time for care time’ to ‘[foster] alternatives that challenge predominance of antiecological timescapes.’ María Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More Than Human Worlds* (Minneapolis, MN and London: University of Minnesota Press, 2017), pp. 16, 19, 20, 23-24, 95-122, 169-215.
- 54 Latour, *Waiting for Gaia*, p. 5-7.
- 55 Latour, *Down to Earth*, pp. 68, 74.
- 56 ‘Where can we land?’ is a literal translation of the Dutch title of Bruno Latour’s *Down to Earth* (*Waar kunnen we landen?: Politieke oriëntatie in het Nieuwe Klimaatregime*, trans. Rokus Hofstede (Amsterdam: Octavo, 2018). I do not know if Latour agreed with the Dutch title, but the book gives enough reason to assume he would.
- 57 Morton, *Dark Ecology*, p. 120: I’m referring to his quote at the beginning of this chapter here.
- 58 Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (New York: Columbia University Press, 2013), pp. 93-117, 128.
- 59 *Ibid.*, p. 107. Marder’s ideas are akin to Haraway’s understanding of living “as” and “in” the world; in *medias res*, ‘among things.’ Donna Haraway and Thyrza Goodeve, *How Like a Leaf: An Interview with Donna Haraway* (New York: Routledge, 1999), pp. 24-26.
- 60 Daggett, *Birth of Energy*, pp. 5-6. Shown, among other places, at the Foam museum in 2016, at the Bonnefanten museum in 2018, at the Akinci gallery in 2018.
- 61 All four women consciously dismiss the norm of scalable technologies. This norm has stultified low tech, site-specific and small-scale practices. Tsing, *Mushroom*, p. 42. However, ‘Even the UN is now admitting that small-scale organic farming is the only way to go,’ Morton, *Dark Ecology*, p. 141.
- 62 Daggett, *Birth of Energy*, pp. 4-5, 11. A ‘singular logic of energy’ ‘justifies the indexing of human well-being according to the idealization of work and an unquestioned drive to put the Earth’s materials to use for profit.’ ‘The intertwining of energy and the Western ethos of dynamic, productive work was produced as cosmic truth.’ Daggett argues for a ‘post-carbon and feminist post-work politics.’
- 63 Marder speaks of ‘the plantness of time’ and of time as ‘embrace.’ ‘The meaning of vegetal being is time.’ Michael Marder, ‘The Weirdness of Being in Time,’ (lecture, Political Ecologies Seminar 2020-21: The Ecology of Forms, University of Amsterdam, 26 November 2020).
- 64 This knowledge stimulates cautiousness and awareness of their expressions, which compensates to an extent for the fact that the pigs did not themselves decide to be available for humans to be touched. The pigs are not the cuddly things that visual culture has made of them. As the woman states, sometimes ‘They destroy everything you make, and you’re supposed to just keep smiling.’ On animal languages: Eva Meijer, ‘Political Animal Voices,’ (PhD Diss., University of Amsterdam, 2017), <https://hdl.handle.net/11245.1/7c9cfda4-560d-4d67-94ea-7bdda29554c9>.
- 65 The fact that her background is Iranian is not foregrounded in the film; it is mentioned in the exhibition leaflet.
- 66 In *Nocturnal Gardening*, more than in some of her other films, Bonajo is the apparently withdrawn observer. Instead of objectifying, however, a sense of physical closeness and familiarity is thereby enhanced. An embodied sense of intimacy is also elicited through the way Bonajo exhibits photographs and films as part of installations with unconventionally shaped benches and cushions. Inviting the audience to sit or lie down, the desire for physical intimacy with or distance from others becomes a conscious decision expressed without words.

- These artistic strategies are strong reminders of nontechnological sensitivities and values.
- 67 Melanie Bonajo, 'Melanie Bonajo - AKINCI | Digital eco-feminist,' AKINCI, accessed 28 December 2020, <https://akinci.nl/artists/melanie-bonajo/>.
- 68 Ana María Gómez López, *Inoculate*, <https://manual.vision/inoculate-a-florilegium>. The artists mentioned here, and especially maybe Gómez López, do not necessarily or explicitly relate their work to an environmentalist sensitivity.
- 69 Terike Haapoja, 'Terike Haapoja,' Parsons Fine Arts, <http://amt.parsons.edu/finearts/lectures/terike-haapoja/>.
- 70 Walter Benjamin quoted in Guattari, *Three Ecologies*, p. 46: 'When information supplants the old form, storytelling, and when it itself gives way to sensation, this double process reflects an imaginary degradation of experience. Each of these forms is in its own way an offshoot of storytelling. Storytelling [...] does not aim to convey the pure essence of a thing, like information or a report. It sinks the thing into the life of the storyteller, in order to bring it out of him again.' *Progress* can be understood as transversing these layered divisions between storytelling, information and sensation, when sensation is not regarded as a necessarily newer and degraded form compared to storytelling. Information and histories evoke sensations. No less, sensations evoke them.

# Colophon

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