Touch/un-touch

Considerations in-between things

Juliette Brederode

Wherever you go, there you are.
—Buckaroo Banzai/through Timothy Morton (2021)

To make a start,
Put of particulars
And make them general, rolling
Up the sum, by defective means—
        —Say it, no ideas but in things—
—William Carlos Williams / Poem Patterson (1946)

content

plastic containers, nematocysts, thud,
Drosophila, Will Self, pigeons, Remember Nature

Fig. 1: 'The Naked City',
Guy Debord, 1957

Sometimes I walk in the city at night, slowly drifting through the streets, exploring the edges of the city where the light of the city touches the darker surroundings. I like these explorations as night time walking offers a completely different experience from daytime walks. You are encapsulated with darkness, life presents itself muted, and the city seems to take the role of selecting things to show you. The street lights give a left piece of trash centre stage, the sound of traffic in the distance piercing the quiet, the rhythm of darkness and light on the street you are walking. There might be a geometric shape on the pavement from the light out of a single window or a pop of red in a sign that you would otherwise not have noticed. The surroundings change shape and form while traversing them and present themselves in multiple ways. Drifting through these city spaces there is a feeling of adventure and alertness, where I relate differently to what is around me and to who I am in this space. Almost like a game I choose to go left, right, take big or small steps, tilt my head towards a particular smell or sound. I notice the things around me start to speak up and something happens between us. With less of a visual reference I sense, connect and think more intensely as I am between all of these different things. The discarded mouth masks, the humming electricity cables, the wobbly sidewalk beneath my feet, the wind on my face, the graffiti wall I pass, the person approaching; all seems enhanced. I am drawn in through the in-between.

This darkness seems a good departure point to consider the in-between. It is a space of ambiguity, of access and withdrawal, with an uncanny quality if we start to dissect what this space might possibly be. Pieces of trash are of course tangible entities I meet, enlarged by the night, but I am aware that, while finding my path through the city, there is more. I might be a singular thing among things, a human entity roaming the streets, but I am also connected

to an invisible ever present digital realm—Google Maps, WhatsApp, the automatic steps counter on my phone—that monitor and guide me in what I do and am. And while walking, I am aware there are events that have happened before, are happening now and will happen afterwards. With every step a new assemblage is formed and what was before perishes, creating endless new possibilities of connection. This interaction never stops; fluid, changing and ungraspable. Walking I feel is an apt way to physically encounter in-between spaces, where with each step of the walk we create new narratives. To go for a walk is to create, through the interaction, with your body and in space.

Francesco Careri talks of the fluidity of traversing space and the continuous journey in *Walkscapes. Walking as an Aesthetic practice* while describing nomadic versus sedentary practices. Nomads developed the capacity to make their own maps for every occasion and points of arrival and departure were less important than the journey. There are examples of temporary maps in the cave carvings of the Palaeolithic village in the Val Camonica in Italy, made 8000-6000 bc. And more recently in the 1950s Guy Debord and the Situationists made a nomadic phychogeographic map of Paris, cutting up the city in atmospheric unities while walking it. For both the space in-between is a space of going and becoming, where the arrows of direction can be ever changing. At the edges there is a hybrid, porose space, where nomadic and sedentary life meet. A space of trade and connections. Gilles Deleuze and Felix Guettari described this sedentary versus nomadic space as follows: "the sedentary space is striated by walls, enclosures and routes between the enclosures, while the nomadic space is smooth, marked only by strokes that are erased or shift with the journey".[1] The image of strokes touches me, as this nomadic void, seemingly empty but full of direction, presents itself as an journey, a *terrain vague*. It is however

the space of the possible. Let us consider for a moment the nomadic void as the possible space in-between things composed of roads, lines, surfaces, strokes and stories.

From different angles (science, philosophy, art) we seem to have a desire to inhabit these strange nomadic lands in-between things. As ungraspable as it is, we wish to explain, to guide, to fill in and to define, despite its fluidity. Its discourse is continuously in motion in a world where ecological and technological changes accelerate. What does that mean for the space in-between human, non-human, the animate and the inanimate. I consider our position as human entities to be changing and non-human things seem to be speaking up. I need to look much harder to find a colony of bees, and in some parts of the world jellyfish are growing into deadly monsters, with longer and longer venomous tentacles, making it unsafe to swim. Some animals are changing their shape to adjust to changing weather patterns and landscapes are changing form and texture.[2] But the ecological and technological go hand in hand, and in current discourse both are central to the story. Different narratives with an uncanny quality, entanglements and multiples if we start to dissect what this space might be. It just seems off, so how to approach this space?

In his 1979 science fiction movie *Stalker*, Andrei Tarkovsky tells the story of a writer and a professor that are taken into the *zone* by Stalker.[3] The zone is an alienating post- or pre-apocalyptic landscape, a forbidden zone, with strange powers to address what we wish for, or are afraid of. The writer has lost his will to write and is looking for inspiration and the professor is in need of a scientific discovery. This zone leads to a feeling of complete disorientation and both the writer and professor are lost and deeply confused. They are jealous of Stalker, who, with less intellectual capacity, seems to deal with this environment much better. He

accepts the craziness and strangeness of the zone and he leans towards where the zone is taking him, a place where anything might happen. Maybe this Stalker-attitude is a way to approach the in-between and how we can navigate this zone between things with curiosity and wonder. I started this text from an interest in Realist and Materialist thought considering the space in-between things. What am I travelling in-between, what might happen there, what language do we use and what might the artistic implications be? I am well aware of my own limitations, but I try to thread this path with gusto trying to make some sense of this uncanny universe. These chapters are considerations of the space in-between things. I feel this is the space where it happens, whatever 'it' may be. Maybe to consider this text as a explorative walk into the quicksand of the in-between. There are no guarantees.

black ice, Taoudenni 002, Whanganui river,
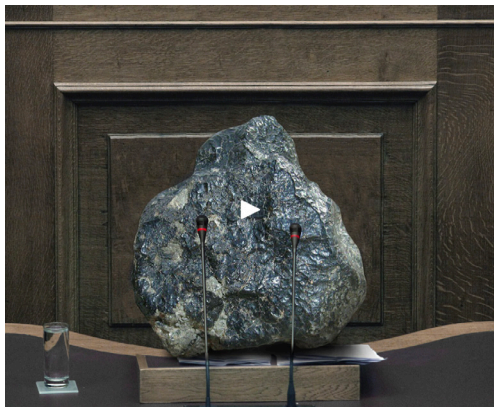Virginia, swamp, Artificial Awakenings

Universal Rights for Mars as a planet is a campaign for planetary personhood by Nonhuman Nonsense, the design driven art studio of Leo Fidjeland and Linnea Våglund. With this multidisciplinary project they propose a universal declaration for Martian rights and recognition for the planet Mars as a whole, without human exploration or interference. They ask us to consider our solidarity with what is already there, the stones, phenomena, matter and moons. On the website Planetary Personhood, they state their case in a light and humorous way. They have requested citizenship for a Martian meteorite, who was found on Antarctica in 1984, to reside on Earth, written a declaration of independence for it and have put a him in front of a microphone to state its case (in seismic Mars language). Its name Allan Hills 84001 refers to a speech of Bill Clinton in 1996 about this meteorite (a possible link to life on Mars). Their work is not to draw conclusions, which is impossible, but to jolt the viewer into thinking for themselves about this. As they state, they wish "to strategically dress nonhumans in an apparatus that we are familiar with in an attempt to avoid interfering, and letting the rock exist on its own terms".[4] Through their projects they move away from the idea that value is only in living things. In the space between themselves and all other things, like stones, Mars and pink chickens, they develop light and playful stories that talk about our relations with non-humans. Can we be kind to a planet, even without *life* is the question they ask. What does it mean to wish to colonise space for humans? And most importantly: what does it mean that humans might not be the defining factor in our current worlds?

So far though, humans seem to play a major role. Our current time is defined as the age of the Anthropocene, roughly starting in 1945. An era where humans are considered the major de-stabilising, geopolitical force on the planet. From the perspective of the history of the earth, it is a grain of

Fig. 2: 'Allan Hills 84001'
(Parliament of Things), 2020

sand in the mountain of time (age of the earth 4543 billion years versus 6 million for the humans) but for now, with climate change and technological advances, we see multiple systems interlocking and new connections being made at ever increasing speed. But what does that mean? My human perspective might be very limited. We live in a world of uncountable little stories and narratives sometimes so large we simply cannot grasp it anymore. Timothy Morton, English professor and philosopher, uses the term *Hyperobject* to identify these things we cannot understand anymore as a single human, because of sheer size (in time and space) and complexity; things like global warming, Styrofoam and radioactive plutonium.[5] I am aware I have been taking humans as point of departure with the access of language, the role of consciousness and the use of thought, but I increasingly feel the non-humans are getting more to say. The world might be slowly shifting, strange but also exciting. To recognise a non-human entity as human equal in a first, pretty magical example is the granting of the same legal rights as human beings to the Whanganui river in New Zealand in 2014. This happened after 140 years of fighting for recognition of this ancestor river by the Maori tribe of the North Island.[6] But this is the only successful example I could find so far. And maybe it is not about granting different rights and *elevating* a river to equal a legal human, but just to think and feel differently as humans about all that is around us.

Not to drift off, let us get back to this space between things. I consider this to be a non-hierarchical space, where things can play equal parts, although of course are not equal in size. With this I mean that a cat is a thing as well as a storm or my iPhone, 9/11 and my mother, but they are simply not the same. It is about the *sense* of a non-hierarchical world, where humans are not the ones at the top, defining the course of everything, but are things, part of networks of

things that are continuously changing. I am at this moment and in this place in a network, that will be different in a split second as my fingers touch different keys on my laptop. A space between collectives of things, ever moving. "How can we do fieldwork in the in-between?", Karen Barad, feminist theorist and philosopher, asks.[7] I like this question. We can assemble, disassemble, reassemble (in) this space and fieldwork will have to take place in a space that is never the same. A constellation of things fluid in our hands, a rhizome, that changes at every moment (like my hands on the keyboard). Within these heterogenous spaces connections are made. Theorising about this space might also be a form of experimenting, trying to be in touch with what it could be. Figuring and reconfiguring as I go.

In that sense philosophy, anthropology, sociology and science are fields of study that touch each other. From different angles all disciplines can ask questions about the way we imagine what happens between things. The questions asked give a framework *what* to study and *where* to navigate but somehow fail to provide a final direction or answer. Sara Walker, an astro-biologist, talks about the importance of the questions for scientific research in her podcast-interview with Lex Fridman. In her research she is fascinated by the origin of life and approaches this desire to search for the essence of life in space from her own specific scientific point of view as an astro-biologist. Physicists, astro-physicists, chemists, biologists and so on all wish to know what the origin of life in the universe is. An impossible task to begin with, Walker argues, because when this question is asked, it is already impossible to answer.[8] As we, as things, will always approach this question from a certain angle, therefore inhabiting the in-between space by limitation. There are no right questions to ask, even with an interdisciplinary approach. We can say the in-between poses an ontological problem with this desire to define it. There are just no set

criteria, no set routes. And this strange void, it is not vacuous. It is a living, breathing indefinity of a non-being, that does invite us to consider it and to try to inhabit it. It offers a realm where I can maybe try to build multiple stories and worlds and consider things as they offer glimpses in the constructions that we take to be real.

drizzle, interface, p $\wedge$ ¬p, inner lands,
Ball Pentell, felt, Maine Coone

At the 2018 Studium Generale lecture at the Rietveld Academie, Yvonne Dröge Wendel presented her *Black Ball* project. 3.5 meters, black and made of felt, it slowly rolled through the auditorium as a big and mystical thing, soft and a little intimidating. It was unclear what it was exactly, but the audience wanted to spontaneously react and interact with it. The object itself, she explained, had no specific meaning or function and was a neutral entity, acting as an interface between people and their environments. The big black ball travelled to a number of countries where it moved through the city, visited people at home, and invited spontaneous interaction as it rolled along, got stuck, was carried and pushed. As an interface, an in-between, it was very present and created a space for story-telling, playfulness and imagination. The potential of the ball as interface was to form a relation with all that was around it, human and non-human. Presented as a neutral entity it felt anything but that. It was present, strong and magical. In her work Dröge Wendel asks the question how we deal with things and the drive behind her work is always to question how things influence human behaviour and what the relationship might be between people and things.

But what is the space in-between things and is this space then a thing too? I need to address first what a *thing* might be. On the one hand there is ambiguity in the term thing as a container for multiple things. Yet it might be a quality very suiting to define the realm of relations between things. This term seems ready to harbour it all, from microbe to the Corona pandemic. In 1962, Martin Heidegger in his book *What is a thing?* emphasizes that this question must be asked again and again, and will never be resolved.[9] A thing is just ambiguous by nature. We can say 'things feel right' or 'good things take time' or 'please get me the thing' and none of it will fit in a tight category. Within the discourse about entities there often seems to be a personal preference of

Fig. 3: Yvonne Dröge Wendel
'Black Ball', 2000

the writer to use the word thing or object (or entity or actor) while talking of similar things. For me the term thing feels most natural. Although I grew up in a family where language and words were important, simultaneously there was a universe of thing-ness in our house. 'Can you get the thing, next to the red thing, to give to thing-y?' would be the way to give instructions, where the space between what was meant and we were supposed to do was not always clear and had to be approached with our own imagination.

Furthermore, we seem to be linguistically conditioned to think of object related to subject as being two separate things. It implies some form of hierarchy or distinction and this I do not feel at all. When I am walking I do really feel among the plastic cups, the buzzing electricity lines, the wind and so on. They meet me, and I them. Heideggers approach was taking things (about things) very seriously and offered a framework to start thinking of things as such, not only connected to a specific place and time, but also wider, referencing to spaces in society, different landscapes and a holistic understanding of what a thing might be. All this still from a very human centric approach. Accepting the thingness of objects will allow—in the words of French philosopher, anthropologist and sociologist Bruno Latour— things to unfold not only in a factor of four but of thousands [10] The opening of worlds of things might be the place where it starts to feel more free, more fluid and entangled. And the term thing seems so much better than any other word for summing up the almost undefinable and ungraspable things we are moving in-between. The term is limitless as Lieselotte Sauma-Jeltz describes in *About the Agency of Things, of Object and Artefacts*; "Thing is far better than any other word at summing up imponderable, slightly creepy what-is-it-ness... the terms randomness informs its illimitability, its oscillation between material, object-hood and supernatural forces....".[11] Some things just ooze a sort of uncanny intimacy.

For now, imagine a meditation garden in the middle of the city, with intertwined trees above your head, and benches, a quiet moment. There is also 54 WIFI connections, invisible access to individuals and families in the buildings around the garden. Who is Ziggo-Amadeusnr3? How many to a WIFI household? Are they happy, sad? A very personal thing a WIFI connection, yet you know nothing about the people behind these combinations of letters and numbers. And what does the tree think of the WIFI? The question whether the tree has any thoughts on the WIFI and what takes place between them brings up whether it is relevant that I observe this happening. There might be countless non-human inter-object interactions taking place that I am not aware of. Does this make them any less real? In the past decade the movement called *Object Oriented Ontology* (OOO) has been gaining recognition, which approaches objects (things..) as really separate entities with a life of their own. These things also exist if I (or any one—human—else) do not see them or catch them in language or consciousness. A conference at Goldsmith College, London, in 2007, coined this line of thought under the term *Speculative Realism* of which Graham Harman can be called the *godfather*. Speculative Realism opposed what only a year before was termed *correlationalism*, which is (in short) the philosophical tendency to consider the world only in relation to humans. Speculative Realism, Harman summarises, is "the view that there is a reality independent of the human mind". [12] It is implied that things have a life of their own that we simply cannot access. The *essence* of the thing (I am also a thing) cannot be known. So that leaves us (human things) in the in-between to give meaning and approach through language what a thing might be. OOO talks of objects or things that are not reducible to anything else, that we cannot make smaller (undermining) nor bigger (overmining). We can never know the *essence* of things since there simply is no *direct* access. But climate change is considered

a thing in itself, as well as a forest and the United Nations, and these also consists of thing-parts, which sometimes feels like a mind-bend. Harman makes the distinction between real objects, that exist beyond me (or anyone), and sensual objects that are seen and experienced by me (or anyone). The sensual object is given qualities through an encounter and I (as human) am at an equal footing with these objects. Every encounter is always defined by a time and place and can never happen again. The idea that the encounter with the WIFI in that meditation garden is only that way at that moment in time, is mysterious. Science expects for the thing you study to perform as the example of its species, but this approach allows for a completely singular experience at all times.

OOO's key inspiration comes from Bruno Latour, who developed the idea of dealing with inanimate reality next to the human sphere, offering a world of *flat ontology* and his Actor-Network Theory (ANT). In *Reassembling the Social. An introduction to Actor-Network Theory* Latour talks of the *agency* of things. Things are actants that act or to which activity is granted, and in that capacity act as intervenors. Within this Actor-Network Theory, things remain in constant motion while making and re-making connections. As Latour says: "Actors do not stand still long enough to take a group photo".[13] In the 18th century Kant was the first to talk about the Thing in Itself (*Ding-an-Sich*) in his treatise *The essence of things* where he argues that we cannot know things, only through a sensorial encounter with its appearance and the way our senses are affected by this unknown something we meet. "What appears that is, but only as it appears" Kant observes.[14] For Kant, the apprehension of reality is always mediated by a set of cognitive structures shared by all human beings. Hence, what we call *the world* is always the world *for-us*.[15] But where I am intrigued by the impossibility to understand the essence of a thing and what happens

in-between things (agency of things) he approaches it as a limitation of the mind. OOO and its fellow travellers believe that things also exist outside of our perception and our mind. And that things are not vague. We might not understand them but they are definitely not vague. As Timothy Morton says: "DNA is a very precise chemical and cats are very precise mammals".[16]

I agree that a cat is a very precise and inaccessible mammal, but when thinking of digital data, the atmosphere or body lotion I do not know if these boundaries are so strict, where a thing is a thing and cannot be anything else beyond its own boundaries. This quarantine feels too confined—thing/in-between/thing and so on—for the way I feel my experience to be. Boundaries might just be more fluid between WIFI, you, tree, traffic, meditation garden as a whole. Ian Bogost, game designer and OOO-philosopher, has a bit lighter approach and thinks it might be ok "to relax the border controls".[17] Who also addresses borders is Jane Bennett, a Vital Materialist, allowing for more porosity between the in-between and things. Vital Materialism is the belief that matter itself has vitality and a life, no matter how lifeless it may appear to be. Bennett talks of *thing power*; the curious ability of inanimate things to animate and to act and inhabit this space in-between. A key encounter she describes in her book *Vibrant Matter* is her encounter with a collection of trash she meets on one of her walks (one large men's black plastic work glove, one dense mat of oak pollen, one unblemished dead rat, one white plastic bottle cap, one smooth stick of wood).[18] With Bennett things can produce effect that is both dramatic and very subtle and allows for more movement and, well, vibration. We might touch and entangle. There is a touch of spirituality around this world of things that is remote from religion but where there is room for wonder, curiousness and exploration. It leaves a door open for what ungraspability might mean. Donna Haraway,

Professor, Ecofeminist scholar and leading thinker in Science
and Technology studies, talks of 'our non-human kin'.[19]

These approaches feel so rich to me. Things exist beyond
human perception and are almost entirely inaccessible
to our understanding. I can describe the garden, but I
can never understand what it *is* exactly. Object Oriented
Ontology, Latour's Actor-Network Theory and Bennett's
Vibrant Materialism offer worlds to explore what happens
between things, what their agency is and how to make
sense of it all. It still is an experiment how to use it exactly,
but maybe I am an explorer with an OOO, ANT, VM attitude
into the space in-between things. It is not real because we
perceive it so. Things are simply mysterious. "If we think we
already know what is out there, we will almost surely miss
much of it", observes Bennett.[20] But if in the space between
things there is opportunity for interpretation, stories and
play, there is also the paradox. I will always remain a human
thing with a human-thing perspective and human thing
power. It will be inevitable that I anthropomorphize things,
as I simply cannot approach an apple as an apple. A human
being will always look, sense and observe as its own entity,
from its own *essence*, and use a form of language to mediate
this experience. And also if we think that a human has no
distinct substance from non-humans there might be a risk
that we objectify or commodify the human as a thing. This
is a risk and has specifically been one of the critiques of
OOO. But positioning humans as things should not be used
for this purpose, but only with the intent to consider the
non-hierarchical position of a human as thing among things.
I think this position suits me and is a launching board to
explore the in-between and see how we might use that space
for the mediating of magic and the opportunity it contains.

Black Cobra, broken mirrors, SARS 2003,
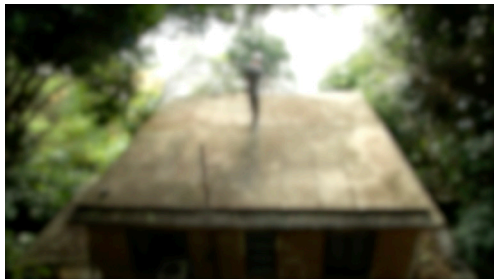Avatars, Object Lessons, E.Coli, ときめく

On October 19, 2020, Francis Alÿs made the video work *Prohibited Steps*. In this video he stands on the roof of an abandoned house on Lamma Island in Hong Kong. The roof is surrounded by thick, luscious, deep green vegetation, the sea is in the distance and the location seems deserted. The first image we see is when he kneels to start filming, and then gets up to walk on the roof. The first part of the video is blurry and we see a lonely figure walking back and forth a little hesitantly, surrounded by the sound of birds. Later you start to understand that he is walking this roof, with its dangerous drop, blindfolded. He is feeling his way with his feet, trying to stay within the boundaries of the roof. The video was made at day 11 of Alÿs' 21-day Covid-quarantine in Hong Kong. Breaching the mandatory quarantine in Hong Kong in 2020 made you liable for a HK$ 25.000 fine or 6 months in prison and these steps really are prohibited, and walking this dangerous roof illegally the visualisation of his confinement. He is also walking between different stories; the requirements for quarantine the Hong Kong government has set, the world-wide corona pandemic, historical context and trauma of the 2003 SARS epidemic in Hong Kong, his acceptance of an invitation for an exhibition at Tai Kwun Contemporary and his translation of all of this into a very real and dangerous game, walking this roof. In this seemingly simple act he traverses between multiple things.

The Belgian artist Francis Alÿs has been living in Mexico for most of his career, but does his projects all over the world, mostly site-specific. His work often has a political or anthropological focus which he translates into works. He engages with the everyday, often with a playful element and simple tools. He uses the things around him to tell stories (a mountain of sand, a green painted line, a stick and a fence and so on).[21] What is mesmerising to me is the use of play and the boundaries that come with it. In the most literal sense he has addressed this in his video exhibition of children

Fig. 4. Francis Alÿs
Video Still 'Prohibited Steps', 2020

playing all over the world, where what they use to play with can be literally anything. Video # 15 Espejos (mirrors) shows children running through abandoned houses in Cuidad Juarez in Mexico, using small broken mirrors to play a simple, cheap but equally exciting version of paintball.[22] The things children use to play tell intricate stories of context and culture. A crucial part of Alÿs' practice is walking to explore his world: "I like to set an idea in motion, to set the parameters for a situation to develop, and then lose control of it...".[23] To him work and play are intertwined as he says in an interview: "Work is play, in the way I conceive it at least...... I don't disassociate the two. Work and play are one same activity to me". [24] This mechanism of articulated and non-articulated rules how to be among things he uses as the setting of the game, the work, and even all that he does. Rules are maybe not unlike quarantines.

But how did we get here? First I need to mention lists. In my search to define the scope of things and the in-between space I have encountered list after list made to order, navigate, explore and explain. Lists seemed to be getting lives of their own. Assemblages of things (human, non-human, animate, inanimate, tangible, intangible etc.) to illustrate a strong connection or to emphasise the randomness of its individual components. It is a particular, strange kind of *in text* poetry but feels to be without the freedom to interpret the space in-between the words. Bruno Latour started using list while explaining his Actor Network Theory to show non-human things are given active agency in networks, in addition to human entities where they co-habit these lists in a non-hierarchical setting (flat ontology). Triggered by these lists, Ian Bogost created a digital tool in 2009 to illustrate the way Latour uses lists and their assumed randomness. The *Latour Litany* Bogost called it. As a game designer he made an algorithm that used Wikipedia's random page API to generate lists of things,

making a new list every time it was used. It was to show that a thing can be anything, human, non-human, animate, inanimate and so on. This app however was soon taken down, because a few elements proved problematic during the launch at a Georgia Tech event in 2010. The random Latour Litany search included the word 'object' and 'thing' or 'stuff' and then selected from Flickr any image that combined these tags. It turned out subsets of these search terms were often images of women, especially one in a bunny suit was considered offensive in a technology conference where women were already underrepresented. The images did not offer a random representation at all and appeared to objectify women. As mentioned earlier still one of the main objections to OOO is that the equalising of things is not aware enough of feminism and diversity. The later adjusted Latour Litanizer offered a pre-selected collection of things, undermining the very idea that all things are equal (albeit not in presence) and can be placed together in any order. As of today the Latour Litanizer is still out-of-order.[25]

The multiple lists however are a constant within the texts of Bruno Latour, Jane Bennett, Timothy Morton and Graham Harman, among others, to show a world of flat ontology, equal in presence, not size (can we maybe talk also of the Morton Meddle, Bogost Boggle or the Jane Juggle?). All the same, see! But these curious lists feel to me like they need to order worlds, by implicating randomness. And the anthropomorphic thing to do is not to feel like a random thing in the list, but to look for connection, wonder about choice and order and find a narrative. It is always a human decision to choose the content of the list. Why combine sandwiches with unicorns and Amelia Earhart? And not French fries, with narwals and Madame Curie? And why would I choose Madame Curie?[26] These combinations seem like a form of *poetics* of things, as something is told to us, or maybe not. An important feature of Latour Litanies is

that they don't use adjectives as adjectives seem to indicate the way one thing accesses another thing. If I talk about a *beautiful* morning or a *soft* pillow, I am appropriating these things to me, while these lists are to show that objects move beyond our appropriation. Nevertheless, these lists here do seem a way to tell a story. An intriguing collection of things joined by the comma, that I can imagine to be related in some way, even if it is only through the writer of the list, inviting me to build a world combined of these random things. Harman does offer some thought in his blog about the use of Latour Litanies and the importance of rhetoric in philosophy. A Latour Litany is a good illustration of a standpoint, he argues, a rhetorical tool to underline the argument, as every philosophical discourse has its own rhetorical devices. And when approached in the sense Aristotle used it, as a noble means to protect the truth, the Latour Litanizer acts as a solid force in the background that motivates our thoughts and illustrates the argument.(27)

Making lists presents itself as a form of mapping a world, where meaning is created by trying to capture the things and their in-between. Tania Rossetto also makes this connection in her book *Object Oriented Cartography* where she considers map-making in our current (post-modern) world a fluid concept, which can be approached from all sides.(28) The map becomes a metaphor needed to give meaning and even then it can only be an interpretation. I was considering the value of facts in historical storytelling. Still in the 90s a historical fact still seemed a given and finding facts something to strive for. From that point of departure history was mostly written. Current historians increasingly focus on the origins and validity of sources (facts?) in relation to other sources to form possible historical narratives, and time changes these narratives continuously. With maps, we also have moved away from the idea that a map represents reality in a similar fashion

that facts constitute the description of a historical event. It is *how* we connect the facts and what we choose to represent. Is it animal populations in a certain area, Asian restaurants, parking garages, oil spills? Latour himself describes his ANT as a kind of cartography, an act of flattening and a presentation of the social landscape as a flat 'network' topography.(29) In a post-representational approach, the task will be for us to explain how the map or thing fulfils a particular role (enabling or disabling, opening up or closing-down) as well as structure and create a new reality, while existing alongside a real environment. In-between the items indicated on the map meaning is made, and I choose things that resonate with me and I compile them into constructions.

So compiling these lists and mapping feel like play to me. I can connect different things, apply my own logic and construct narratives. In search of things, language or visuals to combine, the in-between becomes an area of play. Play implies a certain freedom in what is done, but it might also be considered the setting of boundaries and rules within which things can move around, a system with bits of our own logic to it. Play then presented as a condition of life; a condition of interaction. *Homo Ludens,* the 1949 book by Johan Huizinga, is still considered the handbook on play, in which he describes play as the basic inclination (for humans!) and mentions that "the affinity between play and order is perhaps the reason why play.......seems to lie to such a large extent in the field of aesthetics". (30) Huizinga's approach positions play still as an activity *outside* ordinary, daily life and not serious, but at the same time utterly and intensely absorbing. I would argue that play is a condition of life *included* in ordinary life. As a child you skip tiles, not touching the lines in between, or count cars, or things of the same colour and you continue as an adult, although maybe not so explicitly. You, consciously or subconsciously, choose the parameters of the interpretation of your world. The

Gestalt theory in psychology developed a school of thought in the early 20th century that explains the way we *perceive* the world around us according to a set of principles. We do not focus on every single element we see, but instead our minds perceive things as part of a greater whole and as an element of more complex systems. We do (subconsciously) choose what is in the foreground (maybe a fence) or background (a cow?) and we can flip back and forth with our attention. A bit like a mind game? Is not play then the setting of boundaries and rules, with the impossibility to exactly define what it is, to transfer the ineffable, that what cannot be touched, into something else, a theory, a work of art, an anthropological discourse? It is an open space, not absolute or claimed, this play space. I feel this is where art comes into being. When walking I can choose that I see the discarded mouth mask, the bench with dirt on it, the asymmetrical building, the running dog, and I choose, never random. It can feel I am at play with that what is around me. In his essay *All Art is Ecological* Timothy Morton advocates *playful seriousness,* where you are invested, but leave room for experiments and failure.[31] If you accept the contradictions, of this post-modern world, the Anthropocene, anything might happen.

I reconnected to Marie Kondo, the Japanese tidying consultant (or so she calls herself) through Bogost who considers her approach a way of play. Her books on tidying sold millions of copies worldwide and her documentary *Tidying up with Marie Kondo* was launched in 2019 on Netflix. Her method of organising, or play, is known as the KonMari method, and instructs you to gather together all of your belongings, a category at the time (socks, books, mementos and so on) and then hold on to things that *spark joy.* The term she uses is *tokimeku* (ときめく) which means creating a flutter, describing the way things have the ability to vibrate or tremble and make a connection to you. 'Silent'

things are then removed, creating room in your house to achieve a sense of completeness, according to Kondo. I tried to follow her method but failed miserably, because rolling up t-shirts into perfect round shapes seemed restrictive (to my game), and discarding all broken objects in my home to disrespect what they might have been or could still become. Brian Thill in his essay on waste in the *Object Lessons Series*, describes waste as "every object plus time" so who knows what is still in store for these particular things.[32] Kondo however considers her approach to organising and cleaning as a spiritual practice inspired by the Shinto religion, where key elements are awareness of the energy or divine spirit of things (kami) and the right way to live (kannagara). The KonMari method feels restrictive but two elements of her method I find intriguing. Firstly Kondo gives things human qualities. She talks of things 'getting a rest' and 'having a soul' and gives them an equal status to you (human) in your home. Anthropomorphising objects appears to be key in the KonMari method. And secondly she applies the principle of *Yohaku*, negative white space, to organise a home. Yohaku no bi, the beauty of a white space, is a concept that originates both in Japanese and Chinese art.[33] This negative space between things, gives the observer room and a place to relax before moving on, and helps the eye to shift from one thing to another, traversing the empty, white space of the work (or room). A beautiful example of in-between white space is the huge Pine Trees screen, a folding screen, almost 4 metres wide, consisting of 6 panels by the Japanese Artist Hasegawa Tohaku, made in the late 16th century. The screens picture pine trees in the mist, with two trees clearly visible and the rest obscured. The white space allows for your eyes to wander from the trees to the background, the space in-between feeling equally important. And maybe this empty space between things may be more important than the things themselves. A space to get lost and to investigate. And to play with, be drawn in,

drift, wander and to have an open mind, while aware of the limitations of it. But then, if I am a thing on the list, at play and located on a map, drifting, then what am I (as thing)?

dust, John Nance Garner, coffee cup,
Ma, biomimicry, Google Oculus

In 2018 Miranda July presented her work *I'm the President, Baby* at the Victoria and Albert Museum in London. Her work was part of the exhibition The future start here, where 100 projects were selected representing a landscape of possible realities for the future.[34] A combination of design and technology, ranging from appliances to satellites and the interactive curtains of July's work. Even though some of the projects felt like science fiction, all of them were real, produced by research labs, universities, designers' studios, artists, governments and corporations. The question addressed was how these objects might affect the way you live in the future. In the museum July installed 4 interactive curtains that were linked to the bed and phone of Oumarou Idrissa in the US, an Uber driver, originally from Niger. She met him in Los Angelos while taking an Uber and after sharing his life story they became friends and collaborators. The curtains were linked in real time to the phone and bed of Idrissa, who hardly slept because of his PTSD from hiding from the US immigration. During the sleepless nights, he spent hours on WhatsApp, to be in contact with his 21 sisters and brothers in Niger, and Instagram, posting pictures of his successful life in the US. Sleeping, driving, WhatsApp and Instagram had their own curtain, which opened when activated.[35] Seemingly simple, the work references migration, app-based communication (and realities?), continuous surveillance, ever present social media and the concept of privacy. And to me, it addresses the multiple ways we can be and communicate as things. So connected we are, through technology and trackers, it seems to become a technological mesh with who we are, and what does that mean?

Miranda July is an artist, writer, director, who has used internet and play to address the question what we are and how we represent ourselves in most of her work. She was one of the first artists to get her own website in 1998

Fig. 5. Miranda July
'I'm the President Baby', 2018

(Google launched the same year) and subsequently used the internet for the collaborative project *Learning to Love You More* (LTLYM), where the general public made the work based on assignments given by July. Anyone could send in their work (mostly drawings, photos and letters) and it was then posted online. In total there were 70 assignments to choose from (e.g. present a favourite outfit, write the letter you wished you wrote, take a picture of the space under your bed, catch your parents kissing) and the project ran from 2000-2007, collecting over 10.000 items. There was the element of *things* telling a story, and the digital space in between what we are in real-time and online. For me it was the first time I felt intimate information was given in such a digital collective and large scale setting and where things were telling stories about other things—the humans. It made me wonder about the implication of digitalisation and the deeply personal and what it means. If I can see the other through things, how might other things see me? July seems analogue in her approach, but touches on this space between the digital, the presentation of self and the real in a light way.))<>((is the sign made up by the 5-year old character in her 2005 movie *Me and You and Everyone We Know*, in an early example of catfishing. Made at the start of the internet era, this movie presents the computer as a device where we can find 'Me and You and Everyone We Know'. On the computer the 5-year old boy connects with an adult woman looking for love and what he suggests they will do together is *pooping back and forth* which he illustrates with the following symbol:))<>((.

But what does it mean to be a human thing? Within my thing-attitude it means accepting that you are a thing among things, acting as a human agency. I exist among things, but do not exist equally to the Eiffel Tower, a microbe or data. We all differ in size, scale, temporality and so on. Heidegger describes a thing as a *gathering,* which I think

is an apt description of what a person can be[36] From a OOO perspective it means that a human cannot be reduced from a whole entity to a collection of atoms, but does have different things within the body, some of it non-human. As Morton says "wow, I have microbes in my stomach, these little crustaceans in my eyelashes and this viral DNA; I'm made of other things, like bits of fish".[37] So then I am a collective of different things and one thing, and there is no way to understand the essence of it. And is the essence inside the body or am I outsourcing part of my essence through my digital presence? And what does it mean to be kin to non-human things? The Vital Materialism of Bennett describes the approach of the world as a human thing as follows; "the anthropomorphic element, in perception, can uncover a whole world of resonance and resemblances—sounds and sights that echo and bounce….we at first may see only a world in our image, but what appears next is a swarm of 'talented' and vibrant materialities (including the seeing self)".[38] But if the border is porose, does the in-between start in me, transfer across a space and enter the porose border of something else? And are we then mediators or translators between things, as things?

Maybe to consider yourself as an incomprehensible thing, and never as a singular force, makes sense. The artist Olafur Eliasson describes himself as an onion in an artist talk with Timothy Morton in 2015, where he feels there is entanglement with different layers of himself to the outside world.[39] If you establish yourself as an incomprehensible thing, a multiple, you do have similarities to a lot of other incomprehensible things, because at the same time you are a single thing *and* a part of a species. When does an autumn leave become a heap of leaves? If you take out one is it still a heap of autumn leaves? It could be that the only accessible thing in a situation is yourself, and the access to yourself in any given situation is limited as real

introspection might be impossible. For this thesis, I can indicate that I want to explore and investigate the way I see my world. There is side subjects, main topics, irrelevant drifts but there are limits to time and space and me. You are the opportunity and the limitation in any given situation. Maybe what I do can be considered a form of *participatory research,* where I investigate by submerging and engaging myself, not viewing things and this in-between space as exterior subjects. A walking practice as an artist might be the way to submerge and offers an approach to be in direct collaboration with all that is around, including yourself. Participatory research emerged officially from anthropology and emancipatory philosophy and advocated research informed by, and relevant to, a real-world context. By immersion, this kind of research would give a true platform to those studied rather than seeing them as passive subjects of observation (without voices). It is this form of research that proved easily translatable to non-academic settings, also for its strong focus on qualitative research (storytelling), and not hard quantitative results. The first active application of this kind of research was seen in the 1940s in the USA and in the 70s in Brazil where marginalised groups in society where researched and this research was subsequently used to influence politics and address the oppression of these groups. Paulo Freire with his book *Pedagogy of the Oppressed,* was (and still is) a leading educator and philosopher, who positioned individuals not as objects of inquiry but as participants in the inquiry, trying to determine their real needs. In recent years however there have been calls from the research community to respond not only to the exclusion of human communities but to apply participatory research to include the human *and* the more-than-human. An interdisciplinary research field on the rising where scholars are increasingly employing methods to collaborate with non-human participants.[40)]

But going back to the *human* thing, Thomas Metzinger, a German philosopher, even argues that there is no such thing as selves in this world. You might not even be an incomprehensible, singular thing. All that exists is a phenomenal selve as it appears in a conscious experience as he says that "phenomenological entities like 'the self' are not proper individuals at all: they simply possess no clearly specifiable identifiable identity criteria".[(41)] Metzinger illustrates the distance between the real and imagined self with the rubber hand illusion, an experiment first done in 1998. In this experiment it is possible to convince a person that a rubber hand is their own by putting the rubber hand on the table, and hiding the real hand under the table. Both hands would be stroked and within 60-90 seconds the rubber hand feels as the real hand. By mixing up the senses (touch and sight) you feel the seen touch and the mind is tricked. This can be so extreme that if the rubber hand is hit with a hammer, the person feels the pain in the fake hand. Being yourself then seems to become a fluid phenomenological event. There are boundaries and in-between spaces where a conceived model of the self emerges, always influenced by the senses. In his book *Being No One* Metzinger states that being yourself is simultaneously being yourself and being *not* yourself. How we are is purely defined by a situational external context, which translates into a data structure, a self-model with thoughts, feelings and bodily sensations. In his approach Metzinger uses neuroscientific research to investigate the 'no-self' as does the BeAnotherLab. This art-science research lab creates projects based on neuroscience and the curiosity about what the consequence would be of experiencing yourself as something else (human, non-human). Virtual Reality offers an opportunity for this. *The Machine To Be Another* (TMBA) project, first presented as a prototype in 2012, is an ongoing project. It is VR technology that allows people to experience the world through the eyes

and the body of another person or gender. Through the 3D visuals you start to swap your embodied perspective in real-time as you are filmed making the same movements as 'the other'. Slowly you become you own Avatar. This project of the BeAnotherLab combines virtual reality, cognitive science and performance art. And the opportunities are endless. In summer 2021 the BeAnotherLab did a project in Mexico to research methodologies on plastic embodiment, combining the senses, mimicry and coupling, using VR to create an other than human experience. What does it mean if we can imagine ourselves as plastic, jellyfish or data? Being yourself is already an immersive experience, but this could be next level. The body is context sensitive (here I think again of the self as Heideggers gathering) and what would happen if I could experience as a non-human thing, and with it the implications of the human as actors on the non-human world? Would we be able to be more invested in climate change through feeling the actual implications of pollution? What BeAnotherLab hopes to achieve is to translate the effects of these projects into the possibility of a more positive and empathetic approach to the world around us.

To use this on a grand scale is still the matter of dreams. But to think of VR as an invisible interface, a void, where what we are and how we experience ourselves can be influenced, is intriguing. Here presented is the phenomenology of direct realism, the feeling you have real experiences, but is that so? Metzinger positions us as information processing systems, avatars or ourselves, and through this there is the opportunity to get as close to yourself as it can get. When thinking of the invisible interface, the in-between, we seem to be outsourcing a lot of ourselves already. Most of us have our phone almost attached to our bodies, with connections, directions and all information we need at hand. In recent scientific studies the results show that we are indeed outsourcing some of our brain to our digital devices and

humans are relying more and more on algorithms to make choices for them. In March 2021 the scientific journal *Nature* provided evidence that for intellective tasks, humans are relying on algorithms to do a large part of the job for them. It is indeed right that people "rely so heavily on Google that they treat it as an external memory source, resulting in them being less able to remember searchable information."[42]

The digital part of the self is something Laurie Anderson addresses in her lecture series *Spending the War Without You: Virtual Backgrounds*. Initiated by Harvard's Mahindra Humanities Centre, each year a leading scholar or artist is invited. Anderson gave 6 lectures and in the 4th instalment *The Road* she considers, among other topics, technology, media hypnosis, the digital self and space in a strange, AI inspired, fluid lecture. To me Laurie Anderson is somewhat of an enigma, a combination of avant-garde artist, composer, musician, performance artist, poet and film director, part of the Warhol scene in New York, and always curious how to incorporate technology into her work. She would transform her violins into digital creatures. A first example was her Self-Playing Violin in 1974 that allowed for playing duets with herself. The lecture *The Road* was only available for 24 hours on November 3rd and felt like a mysterious ride. She talks about the way technology affects the sense of self and the curiosity she has to explore this realm and explains how we are becoming more and more like machines and says "there is no just way to stay ahead of things" anymore. [43] Anderson argues we should play with what we have, follow the road, be curious and just accept that access to the essence, either physical or digital, just is a strange and wonderful impossibility. She makes a link to the story of Prince Grigory Aleksandrovich Potemkin, who is travelling with Catherine The Great, empress of Russia in the 18th century, through her own empire. Everywhere she goes there are happy, well-fed citizens in nice clothes waving at

her. Prince Potemkin had dressed up this first row of citizens to hide the harsh reality of their lives and make empress Catherine The Great believe she really lived in a great country. But then what was the message; was it about what was seen or what was hidden from the empress?

The similarity between some of the approaches talked about here (Object Oriented Ontology, Vital Materialism, the non-self) is that we, as human things, simply cannot be fully aware of what we are. This space of unknowing might just be a starting point to travel the void in-between things.

Expedition 56/57, desert, 20.000, cumulus clouds,
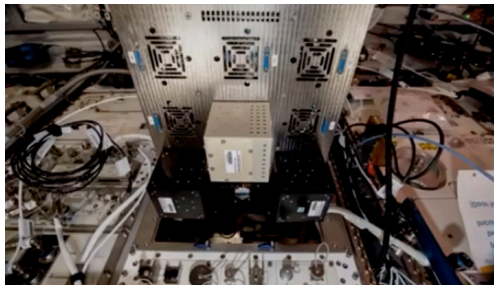shadow game, white sneakers, solastalgia

On June 29, 2018, at Cape Canaveral, the artist Nahum launched an interactive sculpture *The Contour of Presence* into space aboard the SpaceX Falcon 9 rocket, headed for the International Space Station (ISS). After being years in the making, what was brought into space was a box, to be installed in the Columbus Module of the European Science Laboratory by the German astronaut Alexander Gerst, commander of the ISS. This kaleidoscopic box has a direct connection to a touch mirror on earth. When the interactive mirror is touched, the heartbeat of that person is send into outer space and activates the lights and motors of the cube in the space station. The response on earth is a real-time image of the light flashes in space created by the own heart-beat. The physicality of the box comes across as a reminder of the Monolith in the 1968 movie *2001: Space Odyssey* by Stanley Kubrick, where humans and apes touch the mono-lith and thus trigger a signal into space. Mostly the Monolith is interpreted as a representation of the transitions in the history of the human evolution and an artefact of an alien civilisation, and not, as in Nahum's case, a human artist in the 21th century. With this interactive work, Nahum wanted to create an ethereal sculpture about what it means to be here and there and to diminish the feeling of distance through an actual connection across a void to create a sense of intimacy beyond earth. In an interview he describes the work as "the possibility of something" and an "encounter across a void between 2 things".[44] At the launch the first instalment of the 'earth'- mirror was in San Paulo, Brazil. At the moment, the box is still waiting in space to be reactivated but due to the pandemic most exhibitions are still postponed.

Fig. 6. Nahum
The Contour of Presence, ISS,
2018

His first contact with the possibility of art in space was when he acted as head curator of the Shunt Vaults, an underground performance art collective in London around 2008. Literally taking place under the surface in an old underground train station, every night a different collection

of artists would present their work. Nahum was asked whether he would consider to think of art in space. From underground to outer space seemed a logical step to him. Key in his approach is his resistance to the idea that space is a void for humankind to conquer and he feels that artists should be included in how we discuss space exploration. He advocates an interdisciplinary approach that includes artists whose different skills and ways of understanding the world can enrich the conversation. As founding Director of KOSMICA, a global institute established in 2011, he has created a platform for a critical, cultural and poetic discussion about our relationship with outer space and the impact of space activities here on Earth. In 2016 he was invited to officially join the programme at the International Space University in Strasbourg and Haifa.

A first *space* work Nahum made was *The Matters of Gravity*, where he, with a small group of artists travelled to Russia to experience the closest thing to zero gravity on earth. Usually part of astronauts' training and scientific research, the parabolic flight offered a 30-second zero gravity experience. What happened was that while being weightless, the artists experienced loss of contact with their own bodies, but when, in this zero gravity space, they touched the other, they became aware again of their own physicality. Through touch they felt that humans exist only in relation to other things. Both in this work on weightlessness or with sending a heartbeat from earth to space, Nahum deals with the void in-between things and how relations come into being in this space. He does so with a combination of real and imaginary propositions, and with it questions the way we can understand the world through multiple media. His focus is mostly on human to human contact, but I am interested in the question how to traverse this in-between, whether it is close by or maybe as far away as outer space, also involving non-humans. Is this space empty or full? Is this

a space between things, or is the space a thing itself? And where does it start and how to enter it?

Thinking about this space is hard to begin with, as there are no criteria. Rene ten Bos, a Dutch philosopher and professor at the Radboud University, talks in his book *Dwalen in het Anthropoceen* about in-between space. He calls it a zone that has strong influence on everything we do, but also a space that does not allow us to lay a hold on it.[45] We cannot grasp it or describe it exactly and he makes the comparison to a cloud, both real and intangible, without clear borders, static or coherence. The space is a multiplicity. Ten Bos uses the concept of in-between space for the actual moment in time we exist as humans (a long stretch of time—the Anthropocene), but this analogy we can also can apply to the in-between space of things at a very short moment in time and space. Whether we approach this space as having hard borders (OOO) or soft porose borders (Vital Materialism), somewhere there is the transfer to that what is outside. A way to start very close to the body might be to consider here the *inframince* (infra-thin), a term coined by Marcel Duchamp and introduced in the 1930s. He described the inframince as a transferable space, and the fleeting moment where the ephemeral, ultra-thin layer meets, changes and merges with the outside space. To illustrate this by two of Duchamp's own examples: the inframince can be the warmth on your seat left when you get up or the trace of you that is left in the smoke that is exhaled. Maybe it can be considered the space that becomes the in-between, the sound almost heard and the sensation on the verge of being felt. It is not here, nor there and all of that at the same time.

Kenneth Goldsmith, a conceptual poet and teacher at the University of Pennsylvania, has used the concept of the inframince in his creative writing classes already for years. By accessing this world of infra-thins, he feels the world to

his students becomes richer and weirder, and invites them to think about where the outside world starts in different ways. Goldsmith believes that with considering infra-thins the mere act of walking down the street becomes like going to a museum. Whether walking is really the same thing as going to a museum can be contested, but it presents itself as such in Goldsmith' artistic practice. He uses everyday narratives and translates this into a work. He famously read the traffic reports to president Barack Obama at a poetry reading at the White House. His U-Penn teachings on the infra-thin resulted in a 2018 publication of a list of *1000 Infra-thins* he collected with his students. As Goldsmith says "infra-thins are a lot of fun...once you start thinking of the infra-thin it becomes a game".[46] What it shows however is that the concept of Duchamp's inframince seems not have lost relevance in the past 100 years. With our digital world it still seems very up to date and has even added another dimension. In the publication, infra-thin number 56 is "recovered documents in Microsoft Word, both files and not" and number 135 identifies it as "the detailed difference in digital replications".[47] The infra-thin as the margin where it measures two things by the transition into one another. And with our digital world, do not WIFI, the web, apps and so on address this fluidity of an ever changing continuous state?

The idea of an ever changing space feels both logical but it makes me question the way we experience this in-between void. A strange example of the earlier description 'not here or there' is the website called the Wayback Machine, a website that collects all webpages that have been deleted since 1996, an enormous internet archive. By now it holds approximately 475 billion webpages, that do and don't exist at the same time. A cloud-based trashcan where digital information is not really trash. I found a website I made in 2014, that I have deleted since, but could access again through the Wayback Machine.[48] Not as it was, but slightly

altered, with a history of when it was used by internet users and when the Wayback Machine had *crawled it*. The image of the of this machine *crawling* my website, almost felt like an aggressive act in this internet wasteland, this void. The Wayback Machine appears to present itself as a huge undefinable void and can maybe be considered an example of a *Ganzfeld*. Ten Bos describes the experience of the Ganzfeld in his book as a zone where all experiences come together in a form you no longer recognise.[49] The Ganzfeld experiment was first introduced by the German psychologist Wolfgang Metzger in 1930, as part of his Gestalt theory of perception. What Metzger established was that when humans gazed into a featureless field of vision, a black space, with no visual elements they could recognise, the brain starts looking for the missing signals. When the brain is then searching for input it amplifies and starts hallucinating. Examples of an *Umfeld* for a Ganzfeld are when miners were stuck below the ground in the dark or arctic explorers looked into a white, snowy void. Both testified to having hallucinations when exposed to this visual black or white void. Artists James Turrell and Robert Irwin experimented in their work with the principles of the Ganzfeld. In 1968 they collaborated with psychologist Edward Wortz as part of a programme set up by the Los Angelos County Museum and scientists connected to NASA to investigate human perception in controlled environments or conditions of altered perception and what the corresponding effect on humans would be. Both subsequently translated this research into their works applying it in different ways. The first time I saw works of both Turrell and Irwin at the same location was at Villa Panza in Varese. On a very quiet summer day, Irwin's site-specific work *Window Room*, a sterile white room with a window as frame, seemed to hold everything needed of a presented *void*. The work guided me to a perceptual experience of the location, the site, and the continuously changing work, as Irwin defined it: site-

dominated, site-adjusted, site-specific, site-conditioned. Also present in Villa Panza was the first prototype of *Skyspace* by Turrell, installed in 1974, a work he would install in many different locations after that.[50]

The void thus presented as a *possibility space* that offers opportunities for interpretation in so many ways and at the same time being ungraspable and fluid; as a technical entity acting as a history-void (Wayback machine), or literal void (inframince) or a space for imagination and hallucination (Ganzfeld). But to what extent is the space, this void between us, not increasingly a technological space. In his 1954 lecture *The Question Concerning Technology*, Heidegger tries to indicate what the essence of technology might be. He presents technology framing the way we live and an inevitable part of our human existence and defines it's essence under the term *Gestell* (enframing). Gestell as an ordered revealing and unveiling of reality itself (as itself) for human things submerged in this way of ordering lives through technology. The original use of the term Gestell signified a more passive display, but Heideggers' Gestell is a more suitable, still relevant, performative and active *gathering* in this technological space. We are now in a world where technology is an inevitable and defining part of life as we are always embedded in this framework, the essence of which paradoxically dominates humans. Heidegger's approach presented an all-encompassing view on technology as a mode of human existence, almost sterile and remote from the senses. If all things are enflamed with technology, he argues, this is the way reality will start to reveal itself.[51] In 2021 I think we are beyond what we could have imagined in 1954 and are currently moving towards a world where we might become our own device. But a purely technological framing of the in-between might overlook other, maybe sensorial, unreliable elements, at play, both human and non-human.

The notion of technology filling up our world and defining a reality positioned as a contradictory force to what is intangible is addressed by Federico Campagna. In *Technic and Magic* he talks about how both these forces might not be so disconnected, and closer than they appear. In a world where we increasingly think of our technological reality (Technic) as the dominating force (WIFI not wizards) we try to define our reality by language. Campagna offers a poetic alternative idea of reality through the *ineffable*, naming the combination of the Hindu principles of *Atman* (essence beyond possible nomination) and *Brahman* (spirit) as the building blocks of Magic; that which you cannot see nor capture in language. All things do have a linguistic filter but the ineffable does not have recognisable, clear language. We simply cannot define it. The first things you actually see are those things you can say or catch in language, or vice versa, but the in-between we cannot see, cannot catch and might just stand beyond what our linguistic building blocks are of our worlds. The ineffable element of the void, the in-between, whether technological or not, just cannot be captured exactly but *is* part of me and you and everything else (a little like Miranda July's early internet world in her movie), and is also everything (all things) at the same time. What is in-between then is simply magic, he argues, an aesthetic space, a space of wonder, unnameable and will always remain so[52] I agree that the in-between void will not let itself be easily captured and Technic does not provide for a world where there is no more room for the ineffable. Yet, I feel we *have* been trying to capture the void in language and concepts and wish to approach it from all different sides. And even if ultimately deemed to be unsuccessful we keep trying to grab, investigate and consider this space.

So then to describe the in-between as void might be a breach of what it is. It is definitely hard to capture it in language and in our mind but the void is not empty,

as we are always touching something and are parts of assemblages that cross the void. The measure of closeness can be different in size and content as political, social, religious, scientific and cultural narratives try to inhabit this space. Karen Barad here makes a specific link to science. It is also there that we ask questions of touch, of what happens in the in-between, between particles. How do these particles interact and what forces are at play? And if we look at all that, maybe, just maybe, there is a small opportunity to define this space. It will however remain a busy space as "everyone wants to be a guide of this territory" and this vacuum "is flush with yearning, bursting with innumerable imaginings of what could be", Barad says. [53] The void is simply not allowed to be an in-between modest void and increasingly presents itself as a *hijacked battleground*.[54] But however it presents itself, it will be the glue of an assemblage continuously renewing itself. The motion of assemble, disassemble, reassemble, and again at dazzling speed.

13 Lakes, Dogtime 5, Xing Ya, CCTV,
decalcomania, Ocean Park, Wanderlust

Fig. 7. Femke Herregraven
'The All Infrared line', 2012

Starting in 2012 *The All Infrared Line* (TAIL) is an ongoing project from Femke Herregraven. This work explores the history, geography and agency of the infrastructure of networks used by financial markets today. Consisting of different parts it is presented in photography, video, maps, 100-year old Indonesian gutta percha tiles, historical documents and corresponding essays. As a work it continuously mutates as new information comes to light and more locations of submarine fibreglass cables are found (the information is not public and requires extensive research). This global infrastructure of networks finds its origin in 19th century British history when submarine telegraph lines were created that spanned the globe to provide a faster connection to improve control of the vast colonial empire. To avoid going from London to the colonies over territory hostile to the British, a network structure was created at the bottom of the sea. The *All Red Line* was the name for these early underwater telegraph lines. These lines were highly material and the key to build these network lines was gutta percha, a natural rubber found both in Malaysia and Indonesia. A material which proved highly resistant to the salty sea water. The high demand of gutta percha in the 19th century caused an ecological disaster in both Malaysia and Indonesia where millions of trees were killed to get the material and the tree species went extinct. In a sense it has a direct link to the current climate challenges we find ourselves in, where high demands for specific resources cause shortage or extinction of species as well as presents itself as a reason for political conflict. In the 1970s these British telegraph lines were revived to support mobile capital to move around the world, now using optic fibres. The All Infrared Line is an ongoing project, and so far only parts of it have been exhibited. The photos (see example) do not really show anything, it could be a holiday picture, but represent that what actually matters, cannot be seen; an aesthetic filter of reality. I realise that we seem

to be surrounded by metaphors if we talk about global connectivity and finance. And when we talk of the cloud, the reality is that today 95% or data travels at the bottom of the sea. As Herregraven says, "The cloud is more like a never-ending underwater plate of spaghetti".(55)

What preceded *The All infrared Line* was the time Herregraven spent as an artist in residence in the Financial District (Zuidas) of Amsterdam. There was a vision of this area to become a place where the corporate world and residential living would be combined, which is by now, in 2021, a reality. She was asked in 2010 to explore this vision. Starting her research, she wanted to know about the offices and companies located at the Zuidas and met a closed-off world where no-one was willing to give her this information. Because The Netherlands functions as a tax haven, there are a lot of so-called mailbox companies in these buildings and she encountered what she later would call the *Geographies of Avoidance*. In a final publication she mapped the financial structures and collected all the companies per address, which she published under the name the *Zuidas Index*, visualising that what was invisible. Some addresses had indeed one company, others dozens. Subsequently she launched the online game *Taxodus* in 2013, where you could choose a company to play with and try to avoid as much taxes as possible by mapping the locations and status of the company worldwide. It was a visualisation of the geography of tax evasion and the game is based on real data. It seems that if you cut up a company the parts are becoming worth more than the whole. In all her work Herregraven searches for modes to express the themes in which we live. She feels her practice as an artist is connected to that of the scientist, where uncovering data has no value in itself but needs to be processed in order to become actual, understandable information. Both artist and scientist start from an assumption, from imagination, that

both then explore further, as astro-biologist Sara Walker also indicated in the Lex Fridman podcast. Technological relations are now becoming increasingly complex and Herregraven searches for a toolbox to find what is left to say of the future. Her multimedia installations connect a wide variety of seemingly disconnected conceptual and material elements, a very hybrid practice. As such her works present itself as assemblages, that disassemble and reassemble over and over again in time and space as new information comes to light.

Assemblages seem to be constantly put together by the void in-between that acts as the glue. As with a walk, with every step you take, a situation and corresponding world presents itself in a different constellation, whether social, political, ecological or else. In this combination with the elements around, you are always *inside* and not a human gatherer in charge on the outside, looking in. Morton describes it as being mermaids in the water.(56) We, or *any thing*, cannot get out, we are entangled and part of the constellation. Donna Haraway urges us again and again to think of *all* things (human, object, space) in terms of reassembly and disassembly, existing in networks of relationships, entanglements that are changing at every moment.(57) The human thing is a part of this non-hierarchical world, bouncing together with all other things, unable to comprehend the whole. Philosopher and artist Manuel DeLanda argues that defining assemblages is challenging because we need to separate the *concept* from the actual *case*, and we can try to understand a particular group only "one case at the time".(58) Every single one is a space of possibilities composed of singular things (things *in general* are just not part of it) set in motion by the assemblage, which then simultaneously defines the things that are part of it. The concept of the assemblage was first developed by Gilles Deleuze and Felix Guattari in their book *A Thousand Plateaus* in 1980 as a philosophical answer to the question

what a thing is. The trouble with things is that they present a paradox; they are both stable and fluid (a table is a table is a table) but assemblages are continually moving rhizomes. They describe its functionality as follows: "A multiplicity that has neither subject nor object, only determinations, magnitudes, and dimensions that cannot increase in number with the multiplicity changing in nature....".[59] Their theory aimed to give a framework to social complexities through the emphasis on fluidity, inter-changeability and the many functions things can have in an assemblage. Their theory states that, within a body, the relationships of component parts are not stable and fixed, rather, they can be displaced and replaced within and among other bodies with ever changing self-subsistent parts. It is a messy affair and the components are all defined by their relations, our glue!

Considering the inside of assemblages, I am reminded of my visit to the panda sanctuary in Chengdu, China, in 2016. Chengdu is the place in the world where there is an extensive panda breeding programme to save this species from extinction. The park is also a huge tourist attraction and the main exporter of pandas across the world. It is costly as pandas need space and eat around 40 kilos of Bamboo a day. They really are incredibly charming, disarming and funny animals, but also quite lazy. For one, they don't wish to procreate and seem just not interested anymore, and collecting their own food is also not a priority. Standing squeezed between 5000 visitors trying to see the baby pandas, I was wondering how much of directive *agents* of this, or any, constellation we can wish to be. What components do we wish to adjust around us, a constant question. Writer Jeanette Winterson in her book *12 Bytes* asks herself the question to what extent we can consider ourselves to be in control anymore *at all* in an age we go from Sci-Fi to Wi-Fi to My-Wi and where there is less and less reason to believe that who decides will be present in

human form (she does approach this question primarily from a technological standpoint).[60] In any case, there must be an invisible, intangible, mercurial boundary between what we can change and re-align and what not. So how do the elements interact, and how to conceive of this? It might be considering what we literally or conceptually *see*. There are the elements of time, place, causality and resonance. A network of things has properties of its own with varied density, stability and solidarity and there is a sensorial link to make to what is around. Can we apply this to all things? And how tangible are these links? What is the influence of technologization on society, Winterson's deciders in non-human form? And what agency does language have. In words I can address these questions, but can we even really capture what this is about?

I think for now we need to take this back to the human in the assemblage, as a reference point in the story, the non-hierarchical thing in this multiplicity. The use of the words 'take back' are intentional as I would prefer to 'move forward' and take into consideration the viewpoint of non-human things, but for this text I am limited to the approach of the human (for now) element. To consider all actants and their agency, we meet here again the Actor Network Theory of Bruno Latour, with its flat ontology. Latour has been key in the idea to give non-human actants agency in assemblages and changing the way to think about the way things *act*. Non-social entities can make associations to other things and human and non-human agencies should be considered in the same terms. And let us consider the way technology has massively increased the number of actors in any situation. Latour considered his ANT approach as a blueprint for different fields of study. "To describe all entities in the same terms, it traces....as associations through many non-social entities which might become participants later...", Latour says, "...and this tracking may end up in a shared definition of a

common world, what I have called collective. At every corner, science, religion, politics law, economics, organisations etc. offer phenomena that we have to find 'puzzling again".(61) The impression rises that the collectors and collectives are not comprehensive enough and the need for puzzling and play necessary to consider the network of relationships and things we find ourselves in. A situation where things are moving so fast, it is impossible to grasp it, like the cloud of Rene ten Bos, who argues that whatever these times, the Anthropocene, might be, it is not a time where we can expect understandable coherence or cohesion.(62)

Although I am very much drawn towards Object Oriented Ontology and the way the Speculative Realists consider things to be these things in themselves, the borders given to things in the assemblage are still too strict for my liking. Assemblages are formed by relations in-between things, and OOO does give a primary stage to the things as inaccessible entities rather than the relations in-between. The sensuous object, as Harman describes, is the thing experienced by humans and is per definition a sensorial affair. But even if we don't understand what a thing is exactly (again, humans are things), things organise relations and are ever moving. Bruno Latour forcefully insists that non-human animals and things insert themselves into *all* our knowledge of reality and in his account of action-networks, provide connections but no structure: networks have no inside, only radiating lines of linkage. These lines are non-linear (otherwise assemblages would take the form of strict mathematical constructions) and form clusters of things, perpetually unfolding. Thus being is becoming and becoming is being. Although the meaning is created in the configuration of these assemblages, the in-between, we tend to follow the actors, the things, to see their agency. I am aware that if the agency of a thing is not visible, makes no difference or produces no transformation it simply cannot be called an agency in that specific situation. Agency

does things but still remains hard to grasp. Maybe literary theorists are the most free in thinking what the figuration of this agency might be. In these worlds there is room for actants like wands, wizards, dwarfs, elves, Frodo's ring and so on. But even in our daily news we see non-human actants presented: '*The corona-virus causes....The earthquakes shook... The road took....* And as an artist, or scientist or any profession you are free to translate this in-between space. As can be done with the starts of the chapters in this thesis, assemblages of sorts, these Latour litanies.

But then what defines our *vision* of and in the assemblage. In 2015 Icelandic popstar Björk had a retrospective at the MOMA, New York, with a corresponding publication. In this publication there is an email conversation with Timothy Morton, which she starts with the remark: "So I have been doing a little reading and trying to find folks who could help me define what 'ism' I am". I can relate to this question. Trying to define her -ism Morton and Björk find each other in the way they think about non-human things, ecology and art in a 24-part email conversation. Morton addresses the space in-between as a realm where there is something like *electromagnetic tenderness.* "We should listen to the future. What is original does not come from absolute blank nothing. ("oblivion") but from an electromagnetic tenderness—from remembering, not forgetting", he writes.(63) This is the space where all stories and art evolve from. We have seen it is hard to define what happens there exactly but let us consider it a place of energy. Something like the Chinese force *Shi*, as described in Sun Tzu's 5th century treatise *The Art of War.* Shi refers to the force that helps to illuminate something that is usually difficult to capture and is described in chapter number 5 of the 13-part treatise. Originated in Chinese military strategy, Shi is the style or the *energy* inherent to an arrangement of things, the environment of the battle. It is considered the force that comes forward from the way the

configuration presents itself in a particular timeframe and space (horses, warriors, winds, mountains, swords, the land, water). In different interpretations *Shi* energy is referred to as the surroundings, an external present force or the internal structuring that radiates from all things, but it is, as Bennett emphasises, at all times vibratory.[64] It is about the relations in these assemblages as objects of study where we "relate, know, think world, and tell stories through and with other stories, worlds, knowledge, thinking, yearnings", as Haraway call us into action.[65] These are the possibility spaces, the environments tailored to allow each of us the opportunity to play our games and do our work.

154,000 Breaths, Julie's bicycle, non-binaries,
Pearl River, apophenia, aeons, 余白

Twelve large blocks of ice were positioned for a first time at City Hall Square in Copenhagen in 2014. These blocks of ice were harvested from the fjord outside Nuuk, Greenland's small capital, and presented in a clock formation in this public space. This work *Ice Watch* by Olafur Eliasson, in collaboration with geologist Minik Rosing, was to raise awareness about climate change by offering a direct, tangible and sensorial experience of the reality of the melting Arctic. The blocks of ice could be touched, smelled, licked, sat on and experienced as they were slowly disappearing in real time. So far Ice Watch has been installed in three locations. After Copenhagen, a year later in Paris on the occasion of the UN IPCC's Fifth Assessment Report on Climate Change and in 2019 in London leading up to the UN Climate Conference COP21 in Glasgow. Eliasson wanted people to encounter the cold, hard fact of climate change by giving them access to the actual ice of a glacier that is currently melting. The blocks, once part of the Greenland ice sheet, the second largest body of ice in the world after the Antarctic, were harvested in the Kangerlua fjord, where thousand blocks of ice like this break of every second. Hard to imagine what that means, but something Eliasson wants to bring closer, by telling the story with this activist work.

In his work Eliasson often explores the relevance of art at large. His practice is a broad collaboration between craftsmen, architects, geologists, researchers, cooks, programmers and so on, based in Berlin where he moved in 1995 to found his Studio Olafur Eliasson. He has produced an impressive body of work so far, always emphasising the importance of interdisciplinary collaboration to tell the stories he finds relevant. He says about his work: "I see 'why' as the glue between the artwork and the world".[66] His in-between is the space of storytelling and also the space of questions and uncertainty. From 2009 to 2014 he was founding director of the Institute for Spatial Experiments

Fig. 8. Olafur Eliasson
'Ice Watch', London, 2018

(Institut für Raumexperimente), developed out of the Berlin University of the Arts as an experimental educational and research project. The methodology of the Institute was to create learning situations of *uncertain certainty*. This meant creating an interdisciplinary teaching environment with students, guests, practitioners, educators and scientists that would allow for unexpected and surprising ideas to emerge to build alternative, disruptive models of methodology for art education. Eliasson feels that actual touch between things, ever crossing the in-between, is at the core of creating new ideas and stories; when you touch the city, the ground, the buildings, another person and each other's minds. Research within the Institut für Raumexperimente still continues today and still works from Eliasson idea to "....establish a school of questions rather than of answers....it is my firm belief that we can cultivate a relationship with these unstable modes of being, letting questions spawn new questions".[67]

With Ice Watch Eliasson offers us a story (fjord, square, humans, ice, climate change, water etc.) and the possibility of a sensorial encounter with it, to *feel* the narrative. Without access to the things in themselves (the essence), all encounters are translated and played out through metaphorical language where we find the words, images, sounds and smells to our stories. Words that skip around, but never describe what it *is*. The 'middle', the 'void' here in itself a non-object, not a thing (but not nothing!) provides us with a platform. In the interaction with the Ice Watch we might feel *resonance*. Always an individual reaction, resonance emerges as the sensorial reaction through in the in-between space, unexpected and unpredictable in creating our stories. Heidegger describes the moment this happens as the moment something you encounter is malfunctioning. Think of a password. It gives access without thinking if we can remember it, but once forgotten we start to interact, have feelings for this disruptive, irritating

thing. Also Morton describes resonance as something that comes into being when things are slightly off, an area of the uncanny, when it strikes you that your regular world already "was itself a kind of displacement".[68] His main example is the hotel room you enter at the other end of the world after a long flight. Jet-lagged, you try to find your way to the unfamiliar light switch and the bed. It all seems off and enhanced. It is this sensorial touch with things that engages us through a felt sense of causation. We are linked now and touch moves and affects what it effects. I feel that resonance can work in all kinds of ways, from the uncanny or malfunctioning to a place of wonder. Here I consider the Greek term wonder (θαῦμα) which has two meanings. The first is the awe or marvel we can feel for something and the second is wonder as puzzlement or perplexity. The latter would be the kind of wonder I lean towards for the aesthetic space and practice. Filling this space with our narratives is a mapping of sorts, a state of play with what we see and what touches us, what resonates, reverberates and has Morton's electromagnetic tenderness. As Bogost says: "to wonder is to suspend all trust in one's own logics...and to become subsumed entirely in the uniqueness of an object's native logics".[69] Art then as (at)tuning ourselves in this space?

Art *might* be about hoping to create resonance for the other by what they see, hear, smell or feel. To elevate the familiar by making it tangible or by making visible that what is previously *unseen*. As in the art practice of political artist and geographer Trevor Paglen who focuses on presenting the unseen as he uncovers secret governmental locations, hidden implications of data and AI and space, literally. He wishes to bring these stories to our attention. The documentary *Unseen Skies* follows him as he travels for his projects *Orbital Reflector* and *The other night sky*. The latter is a project to photograph classified American satellites in Earth's orbit, a total of 189 secret, unofficial spacecrafts.

With a team of engineers and computer scientists Paglen translated observational data into a usable form to track them. In his pickup truck he then travels with his photography gear to locations with minimal light pollution, often the Nevada desert, and takes long exposure photographs where the secret spacecrafts emerge in the visuals across the night sky. Visuals like omens of a world hard to grasp. Paglen refers to his practice as experimental geography, a term coined by him, providing a new interdisciplinary lens to see how humans interact with land and space and the mapping (serious play) that comes from that. A contemporary of the 'space' artist Nahum, he also asks the question what our story in space should be as we increasingly explore the galaxies. In 2018 he launched an artwork into space, the Orbital Reflector, which would inflate like a balloon that you could see with the naked eye from earth.[70] An artwork without a purpose or job to do, but with it the question if all that we do in space does indeed need to have purpose.

Both Eliasson and Paglen use the power of interdisciplinary collaborations to uncover and explore the stories they find relevant. Art in a format that spans across disciplines using the *thing agency* in the assemblages of these collaborations. These collectives seem to give a continuously bigger platform to art with the 'why' centre stage. Art is often not made to change the world, and does not need to, but it can try (if you want to). Finding and creating narratives while accepting the impossibility of finding definitive answers, accepting the adherence to uncertainty and the possibilities of interdisciplinary thinking, might make us Alice in Wonderlands of sorts continuously playing the children's game of 'I spy'. And the language that comes with it is never enough, but could just be the only passwords the in-between offers to access these encrypted things around us. "The world will emerge in different units of language ad infinitum as we are building worlds", Campagna tells us, "where things

always remain worlds into themselves".[71] It is an inter-objective, subjective space presented here in language (or sound or smell or touch), one of causation between things and it is not candy-coating, it is the real deal. This means as much as that language will probably fail to describe the exact thing-in-itself, the essence, and that the cover might be (in fact) the content.

Filling the space in-between things with stories, happens in Iceland every year when hundreds of tourists arrive to watch the Aurora Borealis, the Northern Lights. As the tourists enter the bus a combination of solar winds and streams of particles charged by sun colliding with earth atmosphere will decide whether the lights are visible that day. There is however no guarantee that anything can be seen. You can travel there and encounter days with clouds and no vision in the appropriately called 'no show' tours. What they have come to see is simply not there. So what to do? The guides stage an atmosphere that plays with the imagination, and invite the tourists to imagine the Northern Lights by walking around in the dark.[72] I like the invitation to imagine realities in the darkness, to find the language, the metaphors, for the things that surround us and that what offers us, unexpected, resonance. This is the darkness I also find comforting in night walking and drifting to find my stories. When, in the 1950s, drifting as activity first emerged with Guy Debord and the Situationists, getting lost in the city was a collective act focused on exploring the zones of the city to question new urban contexts and narratives. Using the imagination was key while exploring and go on adventures and lean into the unexpected, regarding the city as a mutant, changeable thing. It was a very physical interpretation of walking the narrative space, the in-between, using maps merely as expressive tools of the explorations and a prerequisite for (city) play (as Debord's Naked City map from the beginning of this essay). Drifts as

a constructed operations that accept continuous change, narratives and (re) interpretations still seem a good way to explore in current, increasingly complex times.

But then what sort of language is needed to inhabit this aesthetic space of metaphors and world building? Here I return to some who I met along the way while writing this thesis. There seems to be an increasing call for *poetic* language as the way to access things and their agency and use both the limitation of this kind of language as well as the opportunity. Ten Bos advocates the need for poetry in the in-between space, for even language that is linked into sentences that seem to make sense, will never really tell the story. Bogost has designed games he calls poems, which he describes as "being vague but specific, harsh yet beautiful. You see something or have an experience and this line or this theme or this image from a poem kind of rushes back to you and helps you think through this thing you're experiencing".[73] In her essay *On Touching* Karen Barad observes she is increasingly drawn to poetics as a mode of expression while experimenting with different narrative registers "not in order to move away from thinking rigorously, on the contrary, but to lure us toward using the force of imagination" to describe our void.[74] Heidegger notes that "the speech of genuine thinking is by nature poetic" and the design studio Non-Human Nonsense feels the only *real* possible glimpse of any other thing might be through poetic language.[75] In his teachings Kenneth Goldsmith continues to hope that he can convince his students to shake of the addiction to structured narrative and give up the strong headed intent that language must say something meaningful, as they, only then, can open up to a different linguistic experience. And Morton regards poetic language as language that has a not-yet, or almost quality, which gives room to the aesthetic space between things. "What we have is just these words, this lineation, this rhyme, these images,

that rhythm" he says.[76] In Homo Ludens, Huizenga writes the following about poetry and play in 1938: 'All poetry is born of play... how far is the play-quality of poetry preserved when civilization grows more complicated?'.[77] The answer might be that trying to be in our world, the need for poetic play and language in-between things is now more important than ever, while we touch and un-touch all that we are in-between.

All things are (can be) connected

chapter litany terms, to assume randomness
but then I did not choose these terms at random
and/or things (human/non-human) in the text

a chosen selection, not all,
as for some terms the following applies
'a cat is a very precise mammal'

again, all things are (can be) connected

13 Lakes
is a 2004 16mm film by American independent filmmaker James Benning. His works seem assemblages that are slowly changing and are an example of slow cinema. The film is 135 minutes long and consists of 13 ten-minute static shots of lakes from throughout the United States. There is no plot, characters or dialogue. The composition has been described as symmetrical, minimalistic and repetitive, encouraging a sensual encounter.

20.000
is the approximate number pieces of trash in space large enough to be tracked. More than 128 million pieces of debris smaller than 1 cm, 900.000 pieces 1-10 cm and 34.000 larger than 10 cm, still too small to be tracked. Items: derelict spacecraft (non-functional spacecraft and abandoned launch vehicle stages) mission-related debris, fragmentation debris from the breakup of derelict rocket bodies and spacecraft, paint flecks, solid rocket exhaust particles etc.

154.000 breaths
is a work that emerged when artist Kanarinka asked herself the question how to measure fear in a society obsessed with security and preparedness. In her work *It Takes 154,000 Breaths to Evacuate Boston*, she ran all the Boston evacuation routes as a spatial interpretation of the post-9/11 urban condition. 2007. (Experimental Geography)

Aeons
is word is also spelled eon and originally meant 'life', 'vital force' of 'being', 'generation' or 'a period of time'. It is a Latin transliteration from the Greek word ὁ αἰών *(ho aion)*, from the archaic αἰϝών *(aiwon)*. In Astronomy an aeon is defined as a billion years (AE).

Actant,
or actor, is something that acts or to which activity is granted by others. It implies no motivation of human individual actors nor of humans in general. An actant can literally be anything provided it is granted to be the source of action and is can be any entity that does things. Bruno Latour—Actor Network Theory.

Apophenia
is perceived connections between random or unrelated objects, bit like and unlike a Latour Litany.

Artificial Awakenings
was an AI experience at IDFA 2021. It addressed the question whether an entity programmed by humans and created by machines can be called conscious and develop a spiritual consciousness. Artist and Director Jakob la Cour created, in collaboration with a team, an immersive, multi-sensory experience. I was as visitor a 'Seeker of Transcendence" in a ceremony where events were navigated by AI through VR.

Avatar
is a concept within Hinduism and derives from the Sanskrit अवतार (avata-ra), meaning 'decent of a deity from a heaven.' In computer games it is used mostly in online role-playing games. The avatar is a digital 3-d representation of the user through the user's character. In 2-d form it can be a profile picture. First used in 1979

Ball pentel
is the classic green-barrelled pen that launched the afford-able rollerball in 1970. Cushioned nib, smooth writing with a 0.8mm tip and a 0.4mm line. The water-based ink writes up to 2.200 metres. The writing sensation is designed to be able to write at any angle. One of the most distinctive pens on the market, and a design icon, with still over five million produced each year. Used to write almost all notes for this thesis.

Biomimicry
uses models, systems and elements from nature to solve human problems. A first example was to look at birds to understand flight. A recent example is using the structure of a termite mound, capable of keeping itself cool through construction, as example for the building design of the Eastgate Centre in Harare, Zimbabwe. It stays cool via a passive cooling architecture that uses 10 % of the energy compared to a conventional building. (Other examples: bullet train Tokyo—Kingfisher bill, gecko feet—adhesives)

Black ice
is a thin coat of glaze ice on a surface, often on roads, that can be invisible, but a layer that makes it dangerous. In cyberpunk terms, Black Ice refers to any type of malware (viruses, trojans, spyware and so on).

Black Cobra
is a common and very poisonous snake found in Hong Kong, also called the Chinese Cobra, active during daytime. Often found at the location of Francis Alÿs' work Prohibited steps.

Bruno Latour
 (b. 1947) is a French philosopher, anthropologist and sociologist. He is now Emeritus Professor associated with the médialab and the program in political arts (SPEAP) of Sciences Po Paris. In addition to curating Critical Zones in ZKM (2020) he was, together with Martin Guinard, curator of the Taipeh Biennale of Art (2010). Here he collaborated with Femke Herregraven (work: Corrupted Air — Act IV, 2019). Primary developer of the Actor Network Theory

Buckaroo Banzai
is the main character in the 1984 science fiction film *The Adventures of Buckaroo Banzai Across the 8th Dimension.* He needs to save the world by defeating a band of inter-dimensional aliens called Red Lectroids from Planet 10.

CCTV
stands for closed-circuit television and is known as video surveillance. Closed circuit means that the images are transmitted to a limited number of monitors. Used to deter criminal activity, traffic infractions. Originally developed in 1942 by German Scientists to monitor the launch of V2 rockets, then for the testing the atomic bomb by the Americans. Part of the work by Jia Zhang-ke (China, slow cinema), in the end not included in this thesis.

Cumulus clouds
have a flat base and are often described as looking like 'cotton balls' or 'fluffy'. The name comes from the Latin cumulo, which means heap or pile. The glowing clouds that you see in pictures from space are called emission nebulas and they can resemble cumulus clouds. Laurie Anderson talks of cumulus clouds in space she saw while being an artist in Residence at NASA (the first one).

Decalcomania
is the methodological inverse of cartography. One of the six principles Deleuze and Guettari formulated how to make a book out of a rhizome in their book '1000 Plateaus' on assemblages.

Desert
is arid land with usually sparse vegetation especially land having a very warm climate and receiving less than 25 centimetres of sporadic rainfall per year. In Nevada the Mojave Desert occupies more than 65,000 square km and joins the Sonoran, Great Basin, and Chihuahuan deserts in forming the North American Desert. Location of Trevor Paglen's photography.

Donna Haraway
(b. 1944) is an American Professor Emerita in the History of Consciousness Department and Feminist Studies Department at the University of California, Santa Cruz. She studied zoology and philosophy and completed her PhD in Biology at Yale in 1972. Her most famous essay was published in 1985: *The Cyborg Manifesto.* Her work combines science and technology studies, anthropology and animal studies.

Drifting
is an experimental way to explore the conditions of urban society. Revolutionary approach of Guy Debord, member of the Lettrist International, who introduced this in the *Theory of the Dérive* in 1956. Drifting is an unplanned journey through a landscape, usually urban, where the participants respond to the encounters they have to define the journey. Several groups have adopted this approach since a.o. The London Psychogeographical Association.

Drizzle
is a light rain, with drops actually smaller than rain, defined as smaller than 0.5 mm in diameter. Drizzle is normally produced by low clouds. A drizzle still is a good condition for drifting.

Dogtime 5
is a collection of humans set to graduate in 2022. The assemblage has changed every year, as well as during the years.

Drosophila
are fruit flies, considered model organisms, studied to understand other non-human organisms. Also an irritating presence around kitchens in summertime.

Dust
is a fine, dry powder consisting of tiny particles of earth or waste matter lying on the ground or on surfaces or carried in the air." The dust in the crevasses of your keyboard" is #643 in 1000 Infra-thins.

E.Coli
are bacteria found in the environment, foods, intestines of people and animals.

Expedition 56/57
was the number of the expedition to the International Space Station (ISS), which left on June 3, 2018. This expedition took the artist Nahum's work, *The Contour of Presence*, into space. The commander was Alexander Gerst.

Federico Campagna
(b. 1984) is an Italian philosopher and writer based in London since 2007. He spent 20 years in Milan where he was active in anarchist/autonomist networks and co-founded the street poetry collective Eveline. He works as a lecturer and tutor at KABK.

Felt
is a textile material that is produced by matting, condensing and pressing fibres together. Felt can be made of natural fibres such as wool. The Black Ball of Yvonne Dröge Wendel was made of latex, covered in felt. I can remember the touch.

Femke Herregraven
(b. 1982) is a Dutch artist whose work focuses on materials, geographies, value systems, technologies and (financial) infrastructures. Her work varies in forms from digital, self-developing programs, games, drawings, prints, sculp-tures, videos, and installations. She is an alumnus of the Rijksakademie van Beeldende Kunsten in Amsterdam (2017–2018), was nominated for the Prix de Rome and is currently doing a Creator Doctus (practice-based PhD) at Sandberg Instituut (2020–2023).

Francis Alÿs
(b. 1959) is a Belgian-born Mexico-based artist who uses a variety of new and more traditional media to create an often poetic sense of dislocation about social and political issues. Originally trained as an architect, he changed to a fully artistic practice in Mexico. Walking is an essential part of his practice. He will represent Belgium at the 2022 Biennale in Venice.

Francesco Careri
(b. 1966) is an Associate Professor at the Department of Architecture of Roma Tre University. In 1995 he founded the urban art laboratory Stalker/Osservatorio Nomade, and in 2009 Laboratorio Arti Civiche, an interdisciplinary research group focused on walking as a research practice. Since 2006 he runs in the Faculty of Architecture the module Civic Arts, a peripatetic laboratory grounded in the walking exploration of neglected urban areas. He is a tutor at the DAI Roaming Academy (ArtEZ)

Gatherings
are a party, or a meeting when many things (human/non-human, animate /inanimate) come together as a group. Linked to assemblage.

Google Oculus
are VR glasses made by Google. It runs an Android-based operating system which you can use via Oculus Home user experience and app store. Used for games and multimedia apps. See Artificial Awakenings.

Graham Harman
(b. 1968) is an American philosopher. He is Distinguished Professor of Philosophy at the Southern California Institute of Architecture in Los Angelos. His work laid the foundation of Object Oriented Ontology (a godfather of sorts). He is a central figure in Speculative Realism. In brief, Harman's thesis is that all objects exceed every relation in which they exist, as well as the sum of all such relations.

Ian Bogost
(b.1976) is an author and game designer. He is Professor of the Program in Film and Media Studies and Computer Science & Engineering at Washington University in St. Louis. He is founded a game company Persuasive Games. He has developed an 'applied' object - oriented ontology, more focused on the being of objects than the strict foundational principles of OOO.

Immanuel Kant
(1724 - 1804) was a German philosopher and one of the central Enlightenment thinkers. He is one of the most influential figures in modern Western philosophy, and a solid presence in a lot of the books I read. Kant argued that space and time are mere "forms of intuition" which structure all of our experiences, and therefore that while "things-in-themselves" (Ding an Sich) exist and contribute to experience, they are nonetheless distinct from the objects of experience.

Interface
is a connection in-between two pieces of electronic equip-ment, or between a person and a computer. Or between *any* two things.

James Turrell
(b. 1943) is an American artist, a pioneer of Environmental Art and a leading figure of the Southern California Light and Space movement of the 1960s and '70s. For over three decades he has been investigating visual phenomena and perception, becoming a master in the use of pure light as a creative medium. Made a work at Villa Panza.

Johan Huizinga
(1872 - 1945) was a Dutch historian and one of the founders of modern cultural history. He had an aesthetic approach to history, where he found art and spectacle of great importance. His book *Homo Ludens* is an important part of the history of game studies and has influence later scholars of games and play, like Ian Bogost.

John Nance Garner
was an American Democratic politician (1868 - 1967) and lawyer from Texas, nicknamed 'Cactus Jack' who served as Speaker of the House and Vice President under Franklin D. Roosevelt. He is one of the lesser known vice presidents and was not happy with the job. He famously said *'the vice presidency is not worth a bucket of warm piss.'* Also the subject of a 1996 thesis written at the University of Leiden (American History).

Julie's bicycle
is a pioneering not-for-profit organisation trying to mobilise the arts and culture to take action on the climate and ecological crisis. Founded in 2007, they have partnered with over 2000 organisations. Olafur Eliasson has collaborated with them for his work Ice Watch to address the ecological implications of transporting huge blocks of ice from Iceland to Londen/Paris/Copenhagen.

Karen Barad
(b. 1956) is a feminist theorist. They are currently Professor of Feminist Studies, Philosophy, and History of Consciousness at the University of California, Santa Cruz. They write about feminist theory, physics, twentieth-century continental philosophy, epistemology, ontology and cultural studies.

Kenneth Goldsmith
(b. 1961) is an American poet and critic who teaches at the University of Pennsylvania. He hosted a radio show for 15 years, and has published numerous books of poetry. In 2013 he was appointed the first poet laureate at the MOMA, New York.

Lex Fridman

(b. 1986), born in Moscow Russia as Alexei Fedotov, is a computer scientist and AI researcher at MIT, podcaster and online public personality. His research topics include AI, autonomous vehicles, human-robot interaction and machine learning at The Massachusetts Institute of Technology (MIT). He has 1.2 million subscribers to his podcast.

Ma 間

is a concept similar to Yohaku. Ma is also a Japanese aesthetic that embraces ambiguity and the in-between. Ma is the carefully created intervals between structural parts. Whereas Yohaku typically implies blank on a paper, or space, Ma can also be spatial and temporal. Ma is often found in Japanese traditional music or theatre.

Maine Coone

is a brand of cat that behaves like a dog. Quite large, it sometimes behaves like a pack animal, contrary to 'regular' cats.

Manuel De Landa

(b. 1952) is a Mexican-American writer, artist and philosopher, based in New York. He is a lecturer in architecture at the Princeton University School of Architecture and the University of Pennsylvania School of Design (colleague of Kenneth Goldsmith). He started his career as an independent filmmaker.

Marcel Duchamp

(1887 - 1968) was a French artist who broke down the boundary between works of art and everyday objects. He had disdain for conventional aesthetic standards which led him to his famous ready-mades. He was friends with the Dadaists and Surrealists. He coined the term and concept inframince, which he said was impossible to define, but could be explained by example.

Marie Kondo

(b. 1984) is a Japanese organising consultant who developed the Konmari method. She is also an author and TV host. She has written books on organising which have sold millions worldwide, and had her own show on Netflix.

Martin Heidegger

(1889 - 1976) was a key German philosopher of the 20th Century. In his fundamental text Being and Time (1927), 'Dasein' is introduced as a term for the type of being that humans possess. This he used to approach the question of the meaning of being. The controversy around Heidegger is his membership of the Nazi Party, which he joined in 1933. The French military classified Heidegger as a *Mitlaufer*. He never apologised. Whether there is a relation between Heidegger's political affiliation and his philosophy is another matter of controversy.

Miranda July

(b. 1974) is an American artist, film director, screenwriter, singer, actress and author. Her most recent book is The First Bad Man and her latest movie Kajillionaire. She collected all of her work in a book in 2020, including scripts, on set images and a collection of photos and letters of No One Belongs Here More Than You, which was the first work I encountered by her.

Nahum

(b. 1979) is a Mexican artist, musician, performer who lives in Berlin. He is an artist that focuses on creating new ideas of how we will make the future of space possible and is part of a movement that wants to take ownership of how we (as humans) will explore into space. He has attended Space University in Israel. In 2011 Nahum founded KOSMICA an institute that encourages and promotes creative and critical thinking about the alternative, cultural and artistic uses of space.

Nematocysts
are a part of a jellyfish. Jellyfish have a central body, the form of a bell, and hanging from this bell are long, thin tentacles. These tentacles are lined with structures that are called nematocysts, which deliver the jellyfish sting. Usually unpleasant but innocent, this is changing in the South Chinese seas. Due to overfishing, and decreasing diversity in the seas, the jellyfish are becoming so big, they almost are monsters, and their sting in some cases deadly.

Non-binaries
are binary defying things whether it is human or non-human entities.

Non-Human Nonsense
is a design studio founded by Leo Fidjeland and Linnea Våglund, based between Berlin and Stockholm. With their research driven design and art they question our relationship to the non-human, by shedding a light on the contradictory and paradoxical. They tell stories to open the imagination about the future and what now seems impossible.

Norton Lectures
were created as part of the The Charles Eliot Norton Professorship in Poetry in 1925. It is Harvard's lecture series in the arts and humanities. The Norton Lectures recognize individuals of extraordinary talent who, in addition to their particular expertise, have the gift of wide dissemination and wise expression. The term "poetry" is interpreted in the broadest sense of the word to encompass all poetic expression in language, music, or the fine arts. In 2021 Laurie Anderson was invited to do these lectures.

Object Lessons
is a series of small, collectable books about the hidden lives of ordinary things, created by Bloomsbury. Each book (69 so far) starts from an inspiration (password, eraser, waste, hyphen, trench coat etc.) and from that point explores the object. Contributions are from writers, artists, scholars, journalists and other. Timothy Morton wrote Spacecraft.

Ocean Park
Hong Kong is a marine mammal park, oceanarium, animal theme park and amusement park located in Wong Chuk Hang in the Southern District of Hong Kong. After Disneyland Hong Kong the largest theme park in Hong Kong. Opened in 1977 and is currently the world's 13th most visited theme park. It houses 4 giant pandas, all given to Ocean Park by China.

Olafur Eliasson
(b. 1967) is an Icelandic-Danish artist known for sculptures and large-scale installations, often using the elements light, water, air temperature in his works. In 1995 he established Studio Olafur Eliasson in Berlin as a laboratory for spatial research. In 2014 he founded Studio Other Spaces, a studio that combines art and architecture. Eliasson has an inter-disciplinary approach to his practice. As part of his Tate Modern retrospective in 2019 he recreated a physical example of the pinboards he uses with his team full of pictures, academic papers and article clippings to collect ideas and explore themes.

OOO
is the Abbreviation of Object Oriented Ontology, used in this thesis. OOO can also be (a.o.): Out of Office (OoO), Private Limited Company in Russia, the fictional character OOO from the Tokusatsu series of the same name, the production code for the 1972 *Doctor Who* serial The Time Monster.

p̶_̶_̶_̶p̶

is the way Timothy Morton uses to indicate what a thing is. The real object, outside of human perception (P) and the sensual object that is the perceived object, not P (p). Thus he asserts an object is p̶_̶_̶_̶p̶

Paulo Freire

(1921-1997) was a Brazilian educator and philosopher and leading advocate of critical pedagogy. His work *Pedagogy of the Oppressed* is considered one of the foundational texts in this field and still is extensively used. He advocated using participatory research, where those researched, were an active part of the research.

Pearl River

Delta in China is in the Guangdong province in China. It is an industrial region with massive manufacturing and trade. Hong Kong and Macau are very much part of the Pearl River Delta, located where the Pearl River flows into the South China Sea. It is one of the most densely urbanised regions in the world and the wealthiest region in Southern China.

Pigeon,

the domestic kind, is derived from the rock dove. The Pigeon is the world's oldest domesticated bird. Mesopotamian tablets and Egyptian hieroglyphics already mention pigeons 5000 years ago. Their contribution has been of great importance during wars, where they have acted as messengers. Pigeon Cher Ami was one of 32 pigeons awarded a Croix de Guerre after WWII.

Plastic containers

are often found during walks in an urban setting. Since mid-20th century plastics have been key to the technological revolution. Fundamental in contemporary society and easily disposable. As such plastics are becoming one of the key markers of the Anthropocene. Earth is filled with non-biodegradable plastics. It is increasingly littering the soil and ocean. Geologists think that plastics might be considered as the fossil indicator of our times.

'Remember Nature:

140 artist' Idea for Planet Earth' is a 2021 publication edited by Hans Ulrich Obrist and Kostas Stasinopoulos. Artists offer new ideas for living on earth, the interaction with materials and things that make up our live and possible ways humans can live and work together. It is a collection of drawings, thought experiments, instructions, gardening ideas and so on. Olafur Eliasson and Nahum both contributed.

Robert W. Irwin

(b. 1928) is an American installation artist who has explored perception and the conditional in art, often through site-specific architectural interventions that alter the physical, sensory and temporal experience of a space. Made a work at Villa Panza.

SARS 2003

was the prelude to the current Covid pandemic in Hong Kong, which stayed mostly in Asia, resulting in 774 deaths worldwide. It started in Hong Kong with Liu Jianlun, who had come from mainland China to attend a wedding. The way Hong Kong has handled Covid from the start was instructed by their experiences in 2003.

Shinto
is Japan's native believe system from before known historical records. It revolves around the Japanese land and seasons and their relations with humans. Traditionally Shinto involves purification rites and customs to overcome the polluting effects of death and decay, but holds not moral code, lacks religious scriptures and does not believe in a life after death.

Shadow Game
is the name of a documentary about underage refugees attempting to enter the EU illegally. Attempting to cross the border, they refer to it as playing the (train, forest etc.) game. Johan Huizenga describes games and play in Homo Ludens as an activity outside of daily life. Ian Bogost sees games as part of life. Shadow Game shows games as both and one to be played for life and death/future.

Sarah Walker
(b. ?) is an American theoretical physicist and astrobiologist interested in the origins of life. She is Deputy Director of the Beyond Centre for Fundamental Concepts in Science at Arizona State University. She is on the board of directors for Blue Marble Space Institute of Science, which is a non-profit organisation to build a sustainable future and increase scientific interest among the general public. She often appears in media (and Lex Fridman's Podcast) to communicate about science to the public.

Swamp
is a transition zone between land and water, an in-between. Both land and water create the swamp and swamps vary in size. The water in the swamp may be fresh water, brackish water, or seawater.

Solastalgia
is a form of emotional or existential distress caused by environmental change. It can be best described as a live experience of distress caused by environmental changes. Distress is related to things happening in the past, opposed to eco-anxiety, that is focused on the future. The term was coined by Australian professor in Sustainability Glenn Albrecht (b. 1953)

Sun Tzu—Art of War
is an ancient Chinese military treatise form around 5th century BC. The work is attributed to the Chinese military strategist Sun Tzu. It has 13 chapters, each devoted to a different set of skills: 'art'. Chapter V is about the Art of Energy, which is referred to by Jane Bennett in Vibrant Matter.

Taoudenni 002
is the name of the largest complete uncut Martian rock meteorite on Earth. There are around 300 pieces of Martian rock on earth, with a total of around 250 kg. Allen Hills 84001, the meteorite the design studio Non-Human Nonsense has requested citizenship for on Earth is one of them.

Thomas Metzinger
(b. 1958) is a Professor and Director of the Theoretical philosophy and research group on neuro-philosophy at Johannes Gutenberg University of Mainz, Germany. He is the founder of the MIND group, and his research focuses on philosophy of mind and cognitive science and applied ethics. From 2018 to 2020 Metzinger worked as a member of the European Commission's High-Level Expert Group on Artificial Intelligence.

Thud
is a dull sound, which a heavy object might make when it hits something soft. Maybe a foot hitting the ground while walking.

Timothy Morton

(b. 1968) is a professor in English at Rice University, Texas. He is an Object Oriented Ontologist and explores the intersection between OOO and Ecological studies. Their latest book explores the separation between humans and non-humans and argues that humans need to think about the way we position ourselves and relate to non-humans. Often collaborates with artists. In 2018 he collaborated with Laurie Anderson on a Night of Philosophy and Ideas: "It's not the End of the World. That was a while ago".

Tokimeku ときめく

was translated to English as 'Spark Joy' and is used by Marie Kondo for her tidying method. The literal translation of it is throb, palpitate, pulsate or pulse. Spark joy through the heart beating faster.

Trevor Paglen

(b. 1974) is an American artist and geologist. His photographs often visualise classified information: military activity, satellites, nuclear weapons facilities. The images are taken on public land, and are often blurred. Paglen is credited with coining the term Experimental Geography to describe a practice that combines art-making and critical geography about production and use of space, materials and praxis. The book Experimental Geography (see biography) is inspired by his work.

Ursula LeGuin

(1929 - 2018) is an American Author best known for her works of speculative fiction. She produced novels, short stories, literary criticism, translations and children's books. *The Unreal & the Real. Outer Space, Inner Lands* is a favoured short story collection and LeGuin often a presence in the research. She believed that in order to give voice to all things, poetic language might be the *only* language as it "is the only human language that can try to say what a tree or a rock or a river is".

Villa Panza

was donated to the non-profit foundation FAI in 1996 by Guiseppe and Giovanna Panza di Biumo. A centre for contemporary art, the villa itself dates back to the 18th century. The Panzas started to collect contemporary American art from the 50s, mostly exploring light and colour, creating a collection with over 150, some site-specific, works.

Virginia Woolf

(1882 - 1941) was an English writer. She is considered one of the most important modernist authors and a pioneer in her works for using a stream of consciousness as narrative tool. At some point she thought of reinventing English according to a new plan, to be able to tell a different story. She wrote the heading 'glossary' in her notebook. One of the entries is heroism, defined as botulism. A hero as bottle. Ursula LeGuin likes this idea and wrote 'I now propose the bottle as hero'.

Wanderlust

is a term was first documented in English in 1902, with its origin in German Romanticism. It is commonly described as enjoyment of strolling, roaming about, wandering or walking, and has become a fashionable term for walking and travel on social media. The hashtag 'wanderlust' has been used 138 million times on Instagram.

Whanganui river

is the first river in the world to be recognised as an indivisible and living being with legal rights in 2017. In the Netherlands the Maas Cleanup Foundation has started a petition to grant the river Maas legal rights in the future, organised by environmental lawyers Jessica den Outer and Nina Rijsterborgh. The Foundation aims to offer the petition to the government as soon as 50.000 signatures have been collected.

White sneakers

are mentioned as an infra-thin because they are impossible to keep clean. A soft layer of dust (see dust) settles on the fabric.

William Carlos Williams

(1883 - 1963) was an American poet, writer and physician. He published Paterson in five volumes from 1946 - 1958. He sought a documentary method for writing Poem Paterson that would address 'the mind of the modern man and the city', approaching poetry as 'a field of action'. Often quoted in an OOO context. He saw the poet as a type of reporter who relays the news of the world, and did his research for Paterson while walking (drifting?) the city.

Will Self

(b. 1961) is an English author, journalist, political commentator and broadcaster. He has published, novels, novellas and non-fiction. He describes himself as a phychogeographer and a model-day flaneur, and has written about walks he has taken, most famously in 2005 when he walked 42 kilometres from his home in London to Heathrow Airport. He did the same thing in the US, walking from Kennedy Airport to Manhattan.

Wolfgang Metzger

(1899 - 1979) was a German psychologist and philosopher and is considered one of the main representatives of the Gestalt psychology and the research to human perception. In 1933 the Nazi regime expelled nearly all the member of the Gestalt school, most of which emigrated to the US. Metzger stayed in Germany to successfully keep up the Gestalt tradition there until his death.

Xing Ya

is the name of one of the pandas that came to Ouwehands Dierenpark in 2016 after 16 years of negotiations with the Chinese Government.

Yohaku 余白

means a blank, unpainted space. It is considered one of the identifying characteristics of both Chinese and Japanese painting. Blank space is not simply unpainted areas; it is important to the composition of a painting and it carries the same weight as the painted areas. See Ma.

Yuri Sato

(b. 1987) is a graphic designer from Japan, based in Amsterdam, who collaborated with me to translate ideas for the visualisation of this thesis into a printable form. She graduated from the Gerrit Rietveld Academie in 2020.

Yvonne Dröge Wendel

(b. 1961) is a German Amsterdam based artist. In a playful, philosophical way she researches the way objects influence behaviour. In it she explores the relational and performative ability of objects, and with it our relation to the things around us. She studied at the Rietveld Academie and Rijksakademie van Beeldende Kunsten.

1

Francesco Careri, *Walkscapes. Walking as an aesthetic practice*, Ames, IA: Culicidae Press, 2017, p. 39.

2

Lina Zeldovich, Animals are changing shape to cope with rising temperatures, *Smithsonian Magazine/Science.* September 7, 2021, https://www.smithsonianmag.com/science-nature/animals-are-changing-shape-cope-rising-temperatures-180978595/ (accessed Sept. 13, 2021).

3

Andrei Tarkovsky (director). *Stalker.* Mosfilm, 1979.

4

Eloise Peredruk, Talking Nonhuman Nonsense, *Next Nature,* February 1, 2021 https://nextnature.net/magazine/story/2020/nonhuman-nonsense (accessed Sept. 15, 2021).

5

Cara Daggett, Hyperobjects by Timothy Morton, *Society and Space,* September 5, 2014, https://www.societyandspace.org/articles/hyperobjects-by-timothy-morton (accessed August 28).

6

Eleanor Ainge Roy, New Zealand River granted same legal rights as human beings, *The Guardian,* March 16, 2017, https://www.theguardian.com/world/2017/mar/16/new-zealand-river-granted-same-legal-rights-as-human-being (accessed July 20).

7

Karen Barad mentions that we need to continuously ask the question how to do the fieldwork in the in-between. She starts from Quantum Field Theory and physical particles, inseparable from the void, to invite new imaginaries.

8
Lex Fridman, (Host), (July 9, 2021), The Origin of Life on Earth and Alien Worlds. (#198), in the Lex Fridman Podcast, https://www.youtube.com/watch?v=-tDQ74l3Ovs (accessed July 15).

9
Martin Heidegger, *What is a thing?,* South Bend: Gateway Editions, 1967, p.1.

10
Here Latour references Heidegger who refers to a thing as a gathering that always connects the united four, earth and sky, divinities and mortals in Bruno Latour, "Why has Critique Run out of Steam? From Matters of Fact to Matters of Concern," Critical Inquiry 30, no. 2 (2004), p. 235.

11
Lieselotte E. Sauma-Jeltsch, "About the Agency of Things, of Object and Artefacts" in *The power of things and the flow of cultural transformations: art and culture between Europe and Asia.* Berlin, München: Deutscher Kunstverlag 2010, p. 12.

12
Graham Harman, *Object-Oriented Ontology. A New Theory of Everything,* London: Penguin Random House, 2018, p.202.

13
Bruno Latour, *Reassembling the Social. An Introduction to Actor-Network-Theory,* Oxford: Oxford University Press, 2005, p.6.

14
Kant, Immanuel, "Het wezen der Dingen", https://www.aaap.be/Pdf/Pamphlets-GIC/Hoofdarbeid-4.pdf, 1781, p.33.

15
Christoph Cox, Jenny Jaskey and Suhail Malik, "Introduction" in *Realism Materialism Art.* Eds. C. Cox J. Jaskey S. Malik, Berlin: Sternberg Press, 2015, p. 17.

16
Timothy Morton, *Realist Magic. Objects, Ontology, Causality,* Ann Arbor: Open Humanities Press, 2013, p.59.

17
Ian Bogost. *Alien Phenomenology, or What it's Like to Be a Thing.* Minneapolis, University of Minnesota Press, 2012, p. 19

18
Jane Bennett, *Vibrant Matter. A Political Ecology of Things,* Durham and London: Duke University Press, 2010, p.4.

19
Donna Haraway. "Making the Oddkin. Story Telling for Earthly Survival." *Yale University,* 26. Oct. 26, 2017. https://www.youtube.com/watch?v=z-iEnSztKu8 (accessed September 10, 2021).

20
Jane Bennett. "Artistry and Agency in a World of Vibrant Matter." *The New School. Vera List Centre for Art and Politics,* 27 Sept, 2011. https://www.youtube.com/watch?v=q607Ni23QjA (accessed August 10, 2021).

21
Works referenced to: *When Faith Moves Mountains,* Lima, Peru, 2002, *The Green Line,* Jerusalem, Israel 2004 and *Samples II,* London, UK 2004.

22
EYE Filmmuseum, exhibition Children's games, December 19, 2019 - March 8, 2020, www.francisalys.com/childrens-game-15-espejos/ (visited December 29,2019)

23
Francis Alÿs and James Lingwood, *Seven Walks.* London: Artangel, 2005, p. 24

24
Xue Tan and Tobias Berger, Francis Alÿs on Borders and Games in Hong Kong, *Ocula Magazine,* January 27, 2021, https://ocula.com/magazine/conversations/francis-alys-on-borders-and-games-in-hong-kong/ (accessed Aug. 4, 2021).

25
Bogost, Ian, Latour Litanizer. Generate your own Latour Litanies, *Blog,* December 16, 2009. http://bogost.com/writing/blog/latour_litanizer/ (accessed July 20, 2021).

26
My great-great grandfather was an Indonesian doctor, educated through Stovia (School tot Opleiding van Inlandsche Artsen), the educational advancement programme for 'local' doctors. He then moved to Europe and did research with Madame Curie in her laboratory in Paris. He died of cancer through radiation at age 52. Hence Madame Curie.

27
Graham Harman, Levi on Latour Litanies, *Blog Object-Oriented Philosophy.* April 26, 2010. https://doctorzamalek2.wordpress.com/2010/04/26/levi-on-latour-litanies/ (accessed Sept. 3, 2021).

28
Rossetto, Tania, *Object-Oriented Cartography. Maps as Things,* Oxon/New York: Routledge, 2019, p.23.

29
Bruno Latour, *Reassembling the Social. An Introduction to Actor-Network-Theory,* Oxford: Oxford University Press, 2005, p. 242.

30
Johan Huizenga, (1938), *Homo Ludens. A study of the Play-Element in Culture,* New York: Angelico Press, 2016, p. 11.

31
Timothy Morton, *All art is ecological,* Series: Green Ideas, London: Penguin Random House, 2021, p.101.

32
Brian Thill, *Waste. (Object Lessons),* Edited by Ian Bogost and Christopher Schaberg, New York: Bloomsbury Academic, 2019, p. 8.

33
Maureen Fitzmahan, Negative Space, *Art Junket,* May 25, 2019, https://www.artjunket.com/blog/2019/emptyspace (accessed Sept. 28, 2021).

34
Victoria and Albert Museum, London. Exhibition *"The Future Starts Here. 100 projects shaping the world of tomorrow."* May – November 2018, www.vam.ac.uk/exhibitions/the-future-starts-here.

35
Miranda July. *Miranda July,* London: Prestel Publishing Ltd., 2020, p. 199.

36
Heidegger refers to thing as 'gatherings' which links to its etymological origin and meaning in Old High German *dinc.* Martin Heidegger, Martin. (1975). Poetry, Language, Thought. New York: Harper Collins, 2001, p. 172.

37
Molly Glentzer, Mind-melding with Björk, the ultimate eco-being, *Houston Chronicle,* March 10, 2015. https://www.houstonchronicle.com/local/gray-matters/article/A-professor-shakes-loose-with-Bjork-6124634.php (accessed Aug. 29, 2021).

38

Jane Bennett, *Vibrant Matter. A Political Ecology of Things,* Durham and London: Duke University Press, 2010, p. 99.

39

Olafur Eliasson & Timothy Morton, "Artist talk." *Organised by Moderna Museet and ArkDes,* October 9, 2015. https://www.youtube.com/watch?v=dYht9r9xdA8 (accessed Aug. 20, 2021).

40

An overview of the interdisciplinary field combining Participatory Research and the More-than-Human is described in: Michelle Bastian, Owain Jones, Niamh More and Emma Roe. *Participatory Research in More-than-Human Worlds.* Abingdon, New York: Routledge, 2017. P. 1-17.

41

Thomas Metzinger, "The Representational Deep Structure of the Phenomenal First-Person Perspective" in *Being No One. The Self-Model Theory of Subjectivity,* Cambridge/London: MIT Press, 2003, p. 280.

42

Erik Bort, Aaron Schecter and Richard T. Watson, Humans rely more on algorithms than social influence as a task becomes more difficult, *Nature/Scientific Reports,* 2021. https://www.nature.com/articles/s41598-021-87480-9.pdf (accessed Oct. 3, 2021).

43

Anderson, Laurie, "The Road—4th Instalment Technology in Art." *Norton Lecture, Mahindra Humanities Centre,* 3 Nov. 2021, https://www.youtube.com/watch?v=-pbzcARJ1eM (accessed Nov. 3, 2021).

44

Nahum. "Earthlings—Sheltered in Space—Episode 2: Nahum." *Outer Space on Earth. Space Affairs.* Aug. 11, 2020. https://www.youtube.com/watch?v=Zy0LVXTbbdw (accessed August 20, 2021).

45

Rene ten Bos, *Dwalen in het Antropoceen,* Amsterdam: Boom Uitgevers, 2017, p. 112.

46

Cecily Chen, Andrew Howard, William Kahn, Grace Knight, Jonida Kupa, Amy Marcus, Charlie Sosnick and Zoe Stoller, Ed. Kenneth Goldsmith. *1000 Infrathins.* Philadelphia: University of Pennsylvania, 2018, p. 115.

47

Ibid. p.20 and p. 11.

48

https://web.archive.org/web/2016*/atelierofdreams.com (accessed Sept 29, 2021).

49

Rene ten Bos, *Dwalen in het Antropoceen,* Amsterdam: Boom Uitgevers, 2017, p. 119.

50

Villa Panza houses a collection of around 150 works of Contemporary American Art, collected by Giuseppe and Giovanna Panza di Biumo.

51

Martin Heidegger, *The Question Concerning Technology and Other Essays,* New York & London: Garland Publishing, 1977, p. 20.

52
Federico Campagna, "Technic and Magic. "Neuhaus Symposium. Het Nieuwe Instituut, 18 May, 2019. https://vimeo.com/339310838 (accessed August 6).

53
Karen Barad, What is the Measure of Nothingness? Infinity, Virtuality, Justice. Documenta (13): 100 Notes—100 Thoughts. No. 099. Kassel: Hatje Cantz Verlag, 2012, p. 13.

54
Willem van Weelden, (DOGtime Rietveld) teacher, lecturer, researcher and independent writer on new media culture, media theory and interaction design, described the in-between as a hijacked battleground. Conversation September 2021, Amsterdam.

55
Lucy Chinen, Artist Profile: Femke Herregraven, Rhizome. August 27, 2014, https://rhizome.org/editorial/2014/aug/27/artist-profile-femke-herregraven/ (accessed Nov. 20, 2021).

56
Timothy Morton, All art is ecological, Series: Green Ideas, London: Penguin Random House, 2021, p. 30.

57
Haraway, Donna, "Making the Oddkin. Story Telling for Earthly Survival." ,Yale University, 26. Oct. 26, 2017, https://www.youtube.com/watch?v=z-iEnSztKu8 (accessed Sept. 3)

58
Manuel DeLanda, Assemblage Theory, Edinburgh: Edinburgh University Press, 2016, p. 138.

59
Brent Adkins. Deleuze and Guettari's A Thousand Plateaus. A Critical Introduction and Guide. Edinburgh: Edinburgh University Press, 2015, p. 25.

60
Jeanette Winterson, 12 Bytes. London: Jonathan Cape, 2021, p. 80.

61
Bruno Latour, Reassembling the Social. An Introduction to Actor-Network-Theory, Oxford: Oxford University Press, 2005, p. 248.

62
Rene ten Bos, Dwalen in het Antropoceen, Amsterdam: Boom Uitgevers, 2017, p. 122.

63
Björk, Björk Mid-Career Retrospective with New Commissioned Piece for MOMA, New York: Museum of Modern Art, 2014, email 3 and 8 of 24.

64
Jane Bennett. Vibrant Matter. A Political Ecology of Things. Durham and London: Duke University Press, 2010, p. 35.

65
Haraway, Donna, "Symbiogenesis, Sympoisesis, and Art Science Activisms for Staying with the Trouble". Arts of living on a damaged planet. Monsters. Minneapolis: University of Minnesota Press, 2017, p. M45.

66
Olafur Eliasson, Now is always different, Institut for Raumexperimente, October 2014. Raumexperimentehttps://raumexperimente.net/en/meta/now-is-always-different/ (accessed Nov. 16, 2021).

67
Ibid.

68
Timothy Morton, *Realist Magic. Objects, Ontology, Causality,* Ann Arbor: Open Humanities Press, 2013, p. 66.

69
Ian Bogost. *Alien Phenomenology, or What it's Like to Be a Thing.* Minneapolis, University of Minnesota Press, 2012 p. 125.

70
Orbital Reflector has not been inflated yet due to bureaucracy and unclear reasons (according to Paglen).

71
Federico Campagna. "Technic and Magic. "*Neuhaus Symposium. Het Nieuwe Instituut,* 18 May, 2019. https://vimeo.com/339310838 (accessed Aug. 6, 2021).

72
Katrin Anna Lund, "Creatures of the night: bodies, rhythms and Aurora Borealis" in *Rethinking Darkness. Cultures, Histories, Practices,* Ed. Nick Dunn and Tim Edensor, London/New York: Routledge, 2021. p. 128.

73
Stephen Totilo, What if a Video Game was Poetry?, *Kotaku,* December 20, 2010, https://kotaku.com/what-if-a-video-game-was-poetry-453104628 (accessed Sept. 15, 2021).

74
Karen Barad, "On Touching. The Inhuman That Therefore I Am", *A Journal of Feminist Cultural Studies,* Volume 23, Number 3. Boston: Brown University, 2012, p. 21.

75
Martin Heidegger, (1975). Poetry, Language, Thought, New York: Harper Collins, 2001, p.X.

76
Tim Beckett, Interview Timothy Morton, *Blog ASK/TELL,* February 25, 2012. http://eeevee2.blogspot.com/2012/02/interview-with-timothy-morton.html (accessed Nov. 1, 2021).

77
Johan Huizenga, (1938), *Homo Ludens. A study of the Play-Element in Culture.* New York: Angelico Press, 2016, p. 129.

Books and Articles

Adkins, Brent. *Deleuze and Guettari's A Thousand Plateaus. A Critical Introduction and Guide.* Edinburgh: Edinburgh University Press, 2015, p. 1-34

Alÿs, Francis and James Lingwood. *Seven Walks.* London: Artangel, 2005

Barad, Karen. What is the Measure of Nothingness? Infinity, Virtuality, Justice. *Documenta (13): 100 Notes—100 Thoughts. No. 099.* Kassel: Hatje Cantz Verlag, 2012

Barad, Karen. "On Touching. The Inhuman That Therefore I Am". *A Journal of Feminist Cultural Studies,* Volume 23, Number 3. Boston: Brown University, 2012. p. 206-223

Bastian, Michelle, Owain Jones, Niamh More and Emma Roe. *Participatory Research in More-than-Human Worlds.* Abingdon, New York: Routledge, 2017. P. 1-17

Bennett, Jane. *Vibrant Matter. A Political Ecology of Things.* Durham and London: Duke University Press, 2010

Bennett, Jane. "The Force of Things: Steps toward an ecology of matter". *Political Theory* 32, no. 3, 2004, Sage, p. 347-372

Bjork. *Bjork Mid-Career Retrospective with New Commissioned Piece for MOMA.* New York: Museum of Modern Art, 2014

Bogost, Ian, *Alien Phenomenology, or What it's Like to Be a Thing.* Minneapolis, University of Minnesota Press, 2012

Bogost, Ian. *Play Anything. The Pleasure of Limits, the Uses of Boredom, and the Secret of Games.* New York: Basis Books, 2016

Bos, Rene ten. *Dwalen in het Antropoceen.* Amsterdam: Boom Uitgevers, 2017

Campagna, Federico. *Technic and Magic. The Reconstruction of Reality.* London: Bloomsbury Academic, 2018

Careri, Francesco. *Walkscapes. Walking as an aesthetic practice.* Ames, IA: Culicidae Press, 2017

Catalogue exhibition *"I'm not here. An Exhibition without Francis Alys".* Curated by Nikita Yingqian Cai a.o. Amsterdam: de Appel arts centre, 2010

Chen, Cecily, Andrew Howard, William Kahn, Grace Knight, Jonida Kupa, Amy Marcus, Charlie Sosnick, Zoe Stoller. Ed. Kenneth Goldsmith. *1000 Infrathins*. Philadelphia: University of Pennsylvania, 2018

Coverley, Merlin. *Psychogeography.* Harpenden, Pocket Essentials, 2010

Cox, Christoph, Jenny Jaskey and Suhail Malik. "Introduction" in *Realism Materialism Art.* Eds. C. Cox J. Jaskey S. Malik. Berlin: Sternberg Press, 2015. p. 15-35

DeLanda, Manuel. *Assemblage Theory.* Edinburgh: Edinburgh University Press, 2016

DeLanda, Manuel. *A New Philosophy of Society, Assemblage Theory and Social Complexity*. London: Bloomsbury Academic, 2006. p. 45-66

DeLanda, Manuel. "Possibility Spaces. Manuel DeLanda in Conversation with Christoph Cox" *in Realism Materialism Art,* Eds. C. Cox J. Jaskey S. Malik. Berlin: Sternberg Press, 2015. P. 87-97

Guin, Ursula K. Le. *Deep in Admiration.* Ed. Tsing, Anna Lowenhaupt, Heather Anne Swanson, Elaine Gan, and Nils Bubandt. *Arts of living on a damaged planet. Monsters.* Minneapolis: University of Minnesota Press, 2017, p. M15-M25

Haraway, Donna. "Symbiogenesis, Sympoisesis, and Art Science Activisms for Staying with the Trouble". Ed. Tsing, Anna Lowenhaupt, Heather Anne Swanson, Elaine Gan, and Nils Bubandt. *Arts of living on a damaged planet. Monsters.* Minneapolis: University of Minnesota Press, 2017, p. M25-M51

Harman, Graham. *Object-Oriented Ontology. A New Theory of Everything.* London: Penguin Random House, 2018

Harman, Graham. *The Third Table.* Documenta (13): 100 Notes—100 Thoughts. No. 085. Kassel: Hatje Cantz Verlag, 2012.

Harman, Graham. "Art and OOObjecthood. Graham Harman in Conversation with Christoph Cox and Jenny Jaskey" in *Realism Materialism Art,* Eds. C. Cox J. Jaskey S. Malik. Berlin: Sternberg Press, 2015. p. 97-123

Heidegger, Martin. *What is a thing?.* South Bend: Gateway Editions, 1967

Heidegger, Martin. *The Question Concerning Technology and Other Essays.* New York & London: Garland Publishing, 1977. P. 3-36

Heidegger, Martin. (1975). *Poetry, Language, Thought.* New York: Harper Collins, 2001

Heidegger, Martin. "The Thing" in *The Object Reader.* New York/London: Routledge, 2009. p. 111-125

Huizenga, Johan. (1938). *Homo Ludens. A study of the Play-Element in Culture.* New York: Angelico Press, 2016

July, Miranda. *Miranda July.* London: Prestel Publishing Ltd., 2020

Kant, Immanuel. *Het wezen der Dingen.* https://www.aaap.be/Pdf/Pamphlets-GIC/Hoofdarbeid-4.pdf, 1781

Kondo, Marie. *The Life-Changing Magic of Tidying Up: The Japanese Art of Decluttering and Organizing.* New York: Ten Speed Press, 2014

Latour, Bruno. *Reassembling the Social. An Introduction to Actor-Network-Theory.* Oxford: Oxford University Press, 2005

Bruno Latour, "Why has Critique Run out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry 30,* no. 2, 2004, p. 225-48

Latour, Bruno. "From Realpolitik to DINGpolitik or how to make things public" in *The Object Reader.* New York/London: Routledge, 2009. p. 153-165.

Lund, Katrin Anna. "Creatures of the night: bodies, rhythms and Aurora Borealis" in *Rethinking Darkness. Cultures, Histories, Practices.* Ed. Nick Dunn and Tim Edensor. London/New York: Routledge, 2021. p. 127-137

Macauley, Ann M. "Participatory research: What is the history? Has the purpose changed?" *Family Practice,* Volume 34, Issue 3, 1 June 2017, Pages 256-258

Metzinger, Thomas. "The No-Self Alternative." in *The Oxford Handbook of the Self.* Oxford: Oxford University Press, 2013. p. 279-296

Metzinger, Thomas. "The Representational Deep Structure of the Phenomenal First-Person Perspective" in *Being No One. The Self-Model Theory of Subjectivity.* Cambridge/London: MIT Press, 2003.

Morton, Timothy. *All art is ecological.* Series: Green Ideas. London: Penguin Random House, 2021

Morton, Timothy. *Realist Magic. Objects, Ontology, Causality.* Ann Arbor: Open Humanities Press, 2013

Rossetto, Tania. *Object-Oriented Cartography. Maps as Things.* Oxon/New York: Routledge, 2019

Sauma-Jeltsch, Lieselotte E. "About the Agency of Things, of Object and Artefacts" in *The power of things and the flow of cultural transformations: art and culture between Europe and Asia.* Berlin, München: Deutscher Kunstverlag 2010, p. 10-22

Solnit, Rebecca. *A Field Guide to Getting Lost.* New York: Penguin Putnam Inc., 2006

Swanson, Heather a.o. *Introduction: Bodies Tumbled into Bodies.* Ed. Tsing, Anna Lowenhaupt, Heather Anne Swanson, Elaine Gan, and Nils Bubandt. *Arts of living on a damaged planet.* Monsters. Minneapolis: University of Minnesota Press, 2017, p. M1-M15

Thill, Brian. *Waste. (Object Lessons).* Edited by Ian Bogost and Christopher Schaberg. New York: Bloomsbury Academic, 2019

Thompson, Nato (curated). *Experimental Geographies. Radical Approaches to Landscape, Cartography and Urbanism.* New York: Independent Curators International, 2008

Tucker, Thomas Deane. *Derridada. Duchamp as Readymade Deconstruction.* London: Lexington Books, 2009. P. 39-67

Turckle, Sherry, edited by. *Evocative Objects. Things We Think With.* Cambridge: MIT, 2007. P 3-12

Winterson, Jeanette. *12 Bytes.* London: Jonathan Cape, 2021

Williams, William Carlos. (1963). *Paterson.* New York: New Directions Publishing, 1995

Online References

Beckett, Tim. (2021, February 25). Interview Timothy Morton. *Blog ASK/TELL.* http://eeevee2.blogspot.com/2012/02/interview-with-timothy-morton.html

Bogost, Ian. (2009, December 16) Latour Litanizer. Generate your own Latour Litanies. *Blog Ian Bogost.* http://bogost.com/writing/blog/latour_litanizer/

Bort, Erik, Aaron Schecter and Richard T. Watson. (2021) *Humans rely more on algorithms than social influence as a task becomes more difficult.* Nature/Scientific Reports. https://www.nature.com/articles/s41598-021-87480-9.pdf

Chinen, Lucy. (2014, August 27) Artist Profile: Femke Herregraven. *Rhizome.* https://rhizome.org/editorial/2014/aug/27/artist-profile-femke-herregraven/

Daggett, Cara.(2014, September 5). Hyperobjects by Timothy Morton. *Society and Space.* https://www.societyandspace.org/articles/hyperobjects-by-timothy-morton

Dellanoce, Leonardo. (2016) The All Infrared Line. Femke Herregraven's Art Project on Financial Capitalism. *Thesis Art of the contemporary World and World art studies.* https://studenttheses.universiteitleiden.nl/access/item%3A2663375/view

Eliasson, Olafur. (2014, October) Now is always different. *Institut for Raumexperimente.* Raumexperimentehttps://raumexperimente.net/en/meta/now-is-always-different/

Fitzmahan, Maureen. (2019, May 25) Negative Space. *Art Junket.* https://www.artjunket.com/blog/2019/emptyspace

Glentzer, Molly. (2015, March 10) Mind-melding with Björk, the ultimate eco-being. *Houston Chronicle.* https://www.houstonchronicle.com/local/gray-matters/article/A-professor-shakes-loose-with-Bjork-6124634.php

Harman, Graham. (2010, April 26) Levi on Latour Litanies. *Blog Object-Oriented Philosophy.* https://doctorzamalek2.wordpress.com/2010/04/26/levi-on-latour-litanies/

Herregraven, Femke. (2020, August 13) Er is geen landschap hoe ver ik ook kijk. *Mr Motley.* https://www.mistermotley.nl/er-geen-landschap-hoe-ver-ik-ook-kijk/

Maldonado, Devon Van Houten. (2018, December 14). The Artworks floating above the Earth. *BBC,* https://www.bbc.com/culture/article/20181214-the-artworks-floating-above-the-earth

Morton, Timothy. (2010, October 25). In defence of Phenomenology. *Blog Ecology without Nature.* http://ecologywithoutnature.blogspot.com/2010/10/in-defense-of-phenomenology.html

Nitschke, Gunther. MA. (2018, May 16). Place, Space, Void. *Kyoto Journal.* https://www.kyotojournal.org/culture-arts/ma-place-space-void/#_ftn9

Peredruk, Eloise. (2021, February 1) Talking Nonhuman Nonsense. *Next Nature.* https://nextnature.net/magazine/story/2020/nonhuman-nonsense

Rose, Frank. (2014, July 18). A Villa of Wonders. *NY Times.* https://www.nytimes.com/2014/07/20/arts/design/panza-villa-exhibits-illusionary-works.html

Roy, Eleanor Ainge. (2017, March 16). New Zealand River granted same legal rights as human beings. *The Guardian* https://www.theguardian.com/world/2017/mar/16/new-zealand-river-granted-same-legal-rights-as-human-being

Tan, Xue and Tobias Berger. (2021, January 27). Francis Alys on Borders and Games in Hong Kong. *Ocula Magazine.* https://ocula.com/magazine/conversations/francis-alys-on-borders-and-games-in-hong-kong/

Totilo, Stephen. (2010, December 20) What if a Video Game was Poetry. *Kotaku.* https://kotaku.com/what-if-a-video-game-was-poetry-453104628

Vaughn, Lisa and Farrah Jacquez. (2020, July 21). Participatory Research Methods—Choice Points in the Research Process. *Journal of Participatory Research Methods (JPRM).* https://jprm.scholasticahq.com/article/13244-participatory-research-methods-choice-points-in-the-research-process

Zeldovich, Lina. (2021, September 7). Animals are changing shape to cope with rising temperatures. *Smithsonian Magazine/Science.* https://www.smithsonianmag.com/science-nature/animals-are-changing-shape-cope-rising-temperatures-180978595/

Lectures & Talks

Anderson, Laurie. "The Road—4th Instalment Technology in Art." *Norton Lecture, Mahindra Humanities Centre,* 3 Nov. 2021, https://www.youtube.com/watch?v=-pbzcARJ1eM

Barad, Karen. "An Experimental Lecture with Karen Barad." *The Poetry Project,* 5 Nov. 2020. https://www.poetryproject.org/library/recordings/video-archives/video-an-experimental-lecture-with-karen-barad

Bennett, Jane. "Artistry and Agency in a World of Vibrant Matter." *The New School. Vera List Centre for Art and Politics*, 27 Sept, 2011. https://www.youtube.com/watch?v=q607Ni23QjA

Campagna, Federico. "Technic and Magic. "*Neuhaus Symposium. Het Nieuwe Instituut*, 18 May, 2019. https://vimeo.com/339310838

Haraway, Donna. "Making the Oddkin. Story Telling for Earthly Survival." *Yale University,* 26. Oct. 26, 2017. https://www.youtube.com/watch?v=z-iEnSztKu8

Nahum. "Earthlings—Sheltered in Space—Episode 2: Nahum." *Outer Space on Earth. Space Affairs.* Aug. 11, 2020. https://www.youtube.com/watch?v=Zy0LVXTbbdw

Metzinger, Thomas. "The Transparent Avatar in your brain." *TedxBarcelona.* July 23, 2013. https://www.youtube.com/watch?v=5ZsDDseI5QI&t=15s

Eliasson, Olafur and Timothy Morton. "Artist talk." *Organised by Moderna Museet and ArkDes,* October 9, 2015. https://www.youtube.com/watch?v=dYht9r9xdA8

Film (fragments), Documentary and Podcast

Fridman, Lex. (Host). (July 9, 2021). The Origin of Life on Earth and Alien Worlds. (#198), Podcast, https://www.youtube.com/watch?v=-tDQ74l3Ovs

July, Miranda (director, writer). *Me and You and Everyone We Know.* Film4, 2005

July, Miranda (director, writer). *Me and You and Everyone We Know.* Film4, 2005. Scene 'Pooping back and forth, forever'. https://www.youtube.com/watch?v=KQoJo81lujk

Sandberg, Wallace, Jade (director). *Tidying Up with Marie Kondo.* Netflix—The Jackal Group, 2019

Kubrick, Stanley (director, writer). *2001: Space Odyssey,* Stanley Kubrick Productions, 1968

Melham, Yara Bou (director). *Unseen Skies.* InFilm/Participant
        Media/Magnolia Pictures, 2021

Tarkovsky, Andrei (director). *Stalker.* Mosfilm, 1979

Touch/un-touch

Considerations

in-between

things