



Universiteit
Leiden
The Netherlands

Art as Humus: Composting as a Concept and Artistic Practice to Grow Fertile Soil for a Flourishing World

Mulder, Rosa Marie

Citation

Mulder, R. M. (2021). *Art as Humus: Composting as a Concept and Artistic Practice to Grow Fertile Soil for a Flourishing World*.

Version: Not Applicable (or Unknown)

License: [License to inclusion and publication of a Bachelor or Master thesis in the Leiden University Student Repository](#)

Downloaded from: <https://hdl.handle.net/1887/3247373>

Note: To cite this publication please use the final published version (if applicable).

ART AS HUMUS

Composting as a Concept and Artistic Practice to Grow Fertile Soil for a Flourishing World

Rosa Marie Mulder



Art as Humus

Composting as a Concept and Artistic Practice to Grow Fertile Soil for a Flourishing World

Rosa Marie Mulder

rosa@rosamarie.nl / r.m.mulder@umail.leidenuniv.nl

Research Master Arts and Culture

Leiden University

Supervisor Dr. K. Fedorova

Second reader Prof. dr. F.W.A. Korsten

December 2, 2021

Cover image: TJ Shin. Still from *M for Memoir* (detail). 2020.
Single-channel video. 14:00 minutes.

Table of Contents

Abstract	3
Introduction	4
1. Working Towards <i>Humusities</i> : From Oil to Soil with Composting	7
1.1 Earth in Art and Art History	11
1.2 New Materialism, Human-Earth Relationships, and Making Compost	19
1.3 Haraway and Hot Compost Piles	22
2. Composting as Material Practice: Political and Ethical Layers	26
2.1 Relating <i>M for Membrane</i> to Artistic Human-Earth Approaches	30
2.2 Cultivating Relations and Narratives with Indigenous Mould	36
2.3 Unfolding Politics and Ethics by Metaphorically Composting Shin's Practice	42
3. Composting as Speculative Method: Opening up to Potential Human-Earth Relations	50
3.1 Relating <i>Untilled</i> to Growing Artworks and Speculative Artistic Approaches	56
3.2 Speculating on Togetherness	64
Conclusion	74
Image Credits	78
Bibliography	82

Abstract

This thesis explores how composting can be a fruitful practice and concept in contemporary art. Current artistic practices resonate with the planetary problems that arise when people tend to feel disconnected from soil. There is an increasing awareness that soil is not merely dirt but is in fact essential for human and other life forms on Earth; still, the understanding of soil as a resource prevails. Composting is one way to counter soil-exhausting systems, such as industrial agriculture, and work towards a soil-nourishing approach since composting is the transformative decomposition of organic waste into nutrient-rich humus. Composting offers a means of caring for and relating to soil instead of disconnecting from it. Material and speculative facets of composting can be observed in art and enable to expand and review the agricultural practice and understanding of composting. The material and speculative qualities of artworks can urge a reconsideration of human relations with earth, soil and our planet, by making them sensible and imaginable. Therefore, the question that guides this thesis is as follows: how can we humans re-imagine our relationships with earth through material and speculative forms of composting in contemporary art? Composting entails a web of interdependent relations between humans and many non-human actors, such as microorganisms and the environment. In her book *Staying with the Trouble* (2016), the feminist

biologist and philosopher Donna Haraway engages with this idea of composting in a metaphorical way to imagine the world as one big compost pile. Hence, it is in this composting world that humans must learn other ways to be part of planet Earth's web of relations. The material aspects of composting in art are examined primarily on the basis of the exhibition *M for Membrane* (2020) by the artist TJ Shin at the Wave Hill Public Garden & Cultural Center in New York City. The speculative possibilities of composting are mainly investigated through the artwork *Untilled* (2012) by the artist Pierre Huyghe at dOCUMENTA (13) in Kassel, Germany. In dialogue with complementary theories, the analyses of contemporary artworks aim to develop ways to replenish Haraway's concept of composting and substantiate the idea that art can be fertile soil for a flourishing world: art as humus.

Introduction

This thesis explores how composting can be a fruitful practice and concept in contemporary art. Current artistic practices resonate with the planetary problems that arise when people tend to feel disconnected from soil. There is an increasing awareness that soil is not merely dirt but is in fact essential for human and other life forms on Earth; still, the understanding of soil as a resource prevails. Because of profit motives, humans persist in exhausting the soil with large-scale industrial agriculture, which is the most conventional method of food production. Composting is one way to counter this self-destructive system and work towards a soil-nourishing approach since composting is the transformative decomposition of organic waste into nutrient-rich humus. In the most direct sense, composting offers a means of caring for soil. Moreover, it allows for a relationship with soil instead of a disconnection from it. Composting is a process that involves working with soil organisms, amongst other elements. Without the microorganisms and worms that digest organic matter and break it down into organic fertiliser, humans could not make compost.

The material practice of composting implies working with the hands in the earth and engaging with soil and its organisms. The speculative aspect of composting means exploring how the mesh of relations between all the elements

that are needed for composting, might develop into a decomposing process. Both, the material and speculative facets of composting, can be observed in art and enable an expansion of the agricultural practice and refine the present understanding of composting. The material and speculative qualities of artworks can urge a reconsideration of human relations with earth, soil and our planet, by making them sensible and imaginable. Therefore, the question that guides this thesis is as follows: how can we humans re-imagine our relationships with earth through material and speculative forms of composting in contemporary art? Composting entails a web of interdependent relations between humans and many non-human actors, such as microorganisms and the environment. In her book *Staying with the Trouble* (2016), the feminist biologist and philosopher Donna Haraway engages with this idea of composting in a metaphorical way to imagine the world as one big compost pile. Hence, it is in this composting world that humans must learn other ways to be part of planet Earth's web of relations.¹ In the following chapters, the analyses of contemporary artworks in correspondence with complementary theories aim to develop ways to replenish Haraway's concept of composting.

¹ Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (North Carolina: Duke University Press, 2016), 4, 32, 57.

Chapter One provides the foundations for viewing art through the perspective of composting, which prepares for examining the insights that can emerge from the material and speculative traits of artworks. First, the urgency to view art as well as composting in relation to the importance and problematics of earth's health are outlined. Second, a condensed overview of earth in art and art history will be given to clarify the focus on material and speculative artistic practices and the way this research supplements the current discourse that is mostly based on soil. Third, a theoretical framework based on New Materialism will be established to give rise to an understanding of human-earth relations in which humans co-exist and co-enact with other species and earthly matter, such as when making compost. Fourth, Haraway's notions of composting will be considered in more detail to regard how art might add and give meaning to the practice and concept of composting. Accordingly, Chapter One works towards an understanding of a more-than-human world that negates the idea of human independence and motivates to research artistic practices that invoke to imagine human-earth relations differently.

Chapter Two examines the material aspects of composting in art primarily on the basis of the exhibition *M for Membrane* (2020) by the artist TJ Shin (b. 1993, South Korea) at the Wave Hill Public Garden & Cultural Center in New York City. The choice for *M for Membrane* as research case will be

substantiated by comparing Shin's work to related artistic practices that involve human-earth relations. Subsequently, the specifics of Shin's material practice will be scrutinised. Inspired by indigenous knowledge and farming practices, Shin gathers and cultivates indigenous mould from Wave Hill's soil, and returns it to nourish the land. As such, Chapter Two discloses how *M for Membrane* is regenerating soil life but also material connections with terrestrial matter by working closely with soil and using the senses. Apart from demonstrating the restorative working process, the exhibition invigorates connections with earth by narrating with the aid of matter about the life of indigenous mould, and political and ethical human-earth relationships. These layered stories strongly come to the fore by analysing *M for Membrane* in relation to the article 'Composting Feminisms and Environmental Humanities' by Jennifer Mae Hamilton and Astrida Neimanis.² The article of these feminist environmental humanities scholars enables bringing Shin's material practice into dialogue with Haraway's material metaphors of composting. This dialogue complements the two essays accompanying the exhibition *M for Membrane* and one article in the magazine *MOLD*.³ In addition, Shin's

² Jennifer Mae Hamilton and Astrida Neimanis, "Composting Feminisms and Environmental Humanities," *Environmental Humanities* 10, no. 2 (November 2018): 501-27.

³ See Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen (eds.), *M for Membrane* (New York: Wave Hill, 2020); Vivien Lee, "Tiffany Jaeyeon

material practice and stories are based on the physical and conceptual implications of the permeability of earth and humans, which supplements Hamilton and Neimanis' understanding of permeability and a more thorough and critical sense of the more-than-human world. Consequently, Shin allows art to nourish and pervade human imaginations of human-earth relations.

In Chapter Three, the speculative possibilities of composting will be mainly investigated through the artwork *Untilled* (2012) by the artist Pierre Huyghe (b. 1962, France) at dOCUMENTA (13) in Kassel, Germany. After elaborating on Huyghe's speculative practice, it becomes clear how working with more-than-human elements might not just expand notions of art but mostly how art might extend notions of the more-than-human world. Despite extensive literature on Huyghe's work, this research considers *Untilled* as a case to examine composting in art as a speculative method, which will be justified by comparing *Untilled* to related evolving and speculative artworks. For *Untilled*, Huyghe assembled various elements at the Karlsau Park and speculated on the ways these components would develop in relation to the site.

Shin ferments history, politics and geography in her newest artwork, M for Membrane," *MOLD*, September 23, 2020, <https://thisismold.com/visual/art/tiffany-jaeyeon-shin-ferments-history-politics-and-geography-in-her-newest-artwork-m-for-membrane#.YBbmY-hKg2y>.

Depending on the environment, *Untilled* would emerge in many devised as well as unforeseen ways during the exhibition. The article 'Compost Politics: Experimenting with Togetherness in Vermicomposting' by the science and technology scholars Sebastian Abrahamsson and Filippo Bertoni makes it possible to analyse the speculative process of *Untilled* in relation to the speculative process of composting.⁴ As such, the article supports a view of the practice of composting as a speculative method for building human-earth relations, which gives rise to understanding *Untilled* as a metaphor for the world as a compost pile. Other than composting processes, the analysis will reveal how art contributes to speculating on open-ended and potential human-earth relations by drawing on the senses and imagination.

Eventually, this thesis will show how art can be regenerative when searching continuously for ways to re-relate to earth.

⁴ See Sebastian Abrahamsson and Filippo Bertoni, "Compost Politics: Experimenting with Togetherness in Vermicompositing," *Environmental Humanities* 4 (2014): 125-148.

1. Working Towards *Humusities*: From Oil to Soil with Composting

It has been known for decades that human activities are ruining the liveability of Earth; still, the urgency to drastically change human modes of acting is not commonly recognised and felt. I believe that the practice of the Brazilian artists Jorgge Menna Barreto and Joélson Buggilla not only signals immediate climate problems but also visualises them and makes us feel them. Their practice also demonstrates the dire need to consider the concept and practice of composting in art. The following sections of this chapter provide a framework for art and earth, a theoretical frame of reference based on New Materialism, and an expansion of Haraway's ideas about composting. Because research on how art activates the senses and imagination is foundational to this thesis, I first explain the work of Barreto and Buggilla, which offers a prime example of human-earth relations. This artist duo works at the intersection of art and ecological agriculture to explore how humans relate to the environment through food. They ultimately aim to restore relationships with the environment by exposing what we eat and how we grow food. During their one-year residency at the Jan van Eyck Academy in Maastricht, Barreto and Buggilla produced the first issue of the magazine *Enzyme* (2020), in which they argue that humans practise environmental sculpture by shaping the Earth through the ways

that we eat.⁵ Although Earth hosts 25,000 edible plants, humans mainly consume three types of grain.⁶ Thus, our diets and food choices result in monocultural landscapes. In *Enzyme*, the artists convey how monocultural farming would look and feel if translated into letters. They fill two pages by repeating the letter A (Fig. 1) and describe a person's physical experience when reading it aloud:

[I]t causes discomfort. By line 3, I am out of breath, as there are no commas, periods or breaks in the mono field. A limited amount of muscles are engaged in producing that prolonged sound as I feel my mouth dry from remaining open. [...] By line 7 I already understood this paragraph is not feeding me back.⁷

Thereby, Barreto and Buggilla clearly illustrate that monocultural crop production is an unsustainable and exhaustive system. We humans cannot only extract from the soil to feed ourselves and the animals that we eat; we must also nourish the soil in order to continue nourishing ourselves and others. Healthy soil is crucial to maintaining a flourishing

⁵ Jorgge Menna Barreto and Joélson Buggilla, *Enzyme: Page, Table & Earth* 1, no.1 (2020): 1; See Rosa Marie Mulder, "Growing Food, Growing Earth, and Growing Knowledge. On Art and Ecological Agriculture," *Simulacrum* 29, nr. 4 (2021): 13-19.

⁶ Barreto and Buggilla, *Enzyme: Page, Table & Earth*, 6.

⁷ *Ibid.*, 96-97.

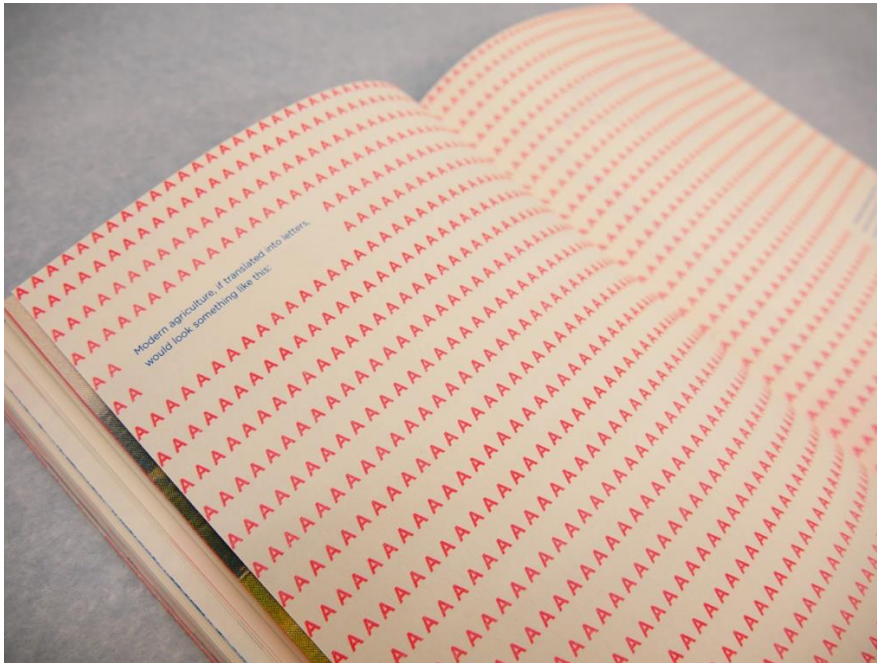


Fig. 1. Jorgge Menna Barreto and Joélson Buggilla. Photo of two pages in the magazine *Enzyme #1 Page, Table & Earth*. 2020. Risograph printed with soy-based ink at the Jan van Eyck Academy in Maastricht. 19 x 27 cm.

world for humans and other species. Barreto and Buggilla highlight that soil has a foundational role in relations between humans and the earth. Their visual and metaphorical language resonates with and is inspired by the work of Vandana Shiva. As a quantum theory scholar and ecological activist, Shiva emphasises that a monocultural landscape is self-destructive because it is inherent to logging, exhausts the soil, and leads to desertification and fewer possibilities to grow food. Shiva contends that humans need to move beyond their reliance on oil and shift our extractive and industrial mindsets and practices from ‘oil to soil’.⁸

The globally integrated industrialisation of agriculture is fuelled by oil—from food transport to the use of oil for the production of synthetic and chemical fertilisers, which further pollute and destroy the soil. A shift from oil to soil through ecological agriculture would not only imply less usage of fossil fuels but also offer more resilience to climate change. Since soil can absorb carbon, ecological agriculture can reduce the carbon in the atmosphere.⁹ Industrialised agriculture emits carbon from non-renewable fossil fuels and devastates possibilities for carbon storage. The yields of monocultures are reduced to their commercial value in the globalised system of agriculture, which devalues soil, water and air. The temporary

⁸ Vandana Shiva, “Soil, Not Oil,” in *The Vandana Shiva Reader* (Lexington: University Press of Kentucky, 2014), 240.

⁹ *Ibid.*, 254.

increase in commodities occurs at the expense of the soil. Thus, people do not usually think of growth or decay as connected to living beings and environments; instead, we associate growth with endless advancements and development in an economic sense.¹⁰

To transform the destructive implications of alleged economic growth, Barreto and Buggilla suggest allowing local sites to determine which foods humans can eat. In earlier art projects, these artists worked with site-specific food from local farmers who cultivate a variety of foods in a forest environment.¹¹ Such practice supports a shift away from monocultural crops towards valuing the local biodiversity of edible plants, which offers several benefits. First, diversity of plant and tree species maintains the soil quality, which enables the conservation of water and nutrients in the soil, reduces erosion, and yields more moist topsoil. Second, biodiverse vegetation can supply food for humans, the soil, and a multiplicity of species, such as birds, insects, and worms. In the long term, biodiverse farming allows for the growth of more

food because it maintains sustainable ecosystems. Shiva is interested in such regenerative forms of agriculture that are based on organic soil fertility and create no waste. Growing food not only for people but also for the soil and its organisms can preclude the need for chemical fertilisers. In addition to encouraging biodiversity, using the manure of farm animals, and growing certain soil-nourishing crops, Shiva considers alternatives that feed the soil by recycling biomass. Recycling the nutrients that were originally derived from the soil returns those nutrients to the soil. Hence, Shiva advocates for implementing the law of return via composting.¹²

Returning nutrients through composting transforms a system that feeds upon itself into a sustainable ecosystem. Composting does not produce an ever-increasing amount of excess waste; it utilises matter that is already present by repurposing unused ‘waste’. The *Encyclopedia of Global Warming* defines composting as a natural (i.e., biological) process in which microorganisms, such as bacteria and fungi, break down organic matter into fertiliser. The faeces of these microorganisms convert waste—for instance, from the garden or kitchen—into nutrient-rich compost or humus.¹³ This basic

¹⁰ Jorgge Menna Barreto and Joélson Buggilla, “The Art of Living. Transcription of lecture by Vandana Shiva Jan van Eyck Academie,” *Enzyme: Page, Table & Earth* 1, no.1 (2020): 57.

¹¹ The project *Restaura: Environmental Sculpture* at the Biennial of São Paulo in 2016 is such an example. In collaboration with chefs and farmers, the artists served food from food forests. Agroforestry is a regenerative form of agriculture in which care for forests is combined with growing food. Barreto and Buggilla, *Enzyme: Page, Table & Earth*, 1.

¹² Vandana Shiva, “Monocultures of the Mind,” in *The Vandana Shiva Reader* (Lexington: University Press of Kentucky, 2014), 108; Shiva, “Soil, Not Oil,” 256.

¹³ C. J. Walsh, “Composting,” in *Encyclopedia of Global Warming*, ed. Steven I. Dutch (Pasadena: Salem Press, 2010), 264-66.

understanding of composting can be supplemented since compost can be made in numerous ways, including with or without the presence of oxygen. In vermicomposting, which is discussed in Chapter Three, earthworms complement the work of the microorganisms. Even though biodiverse farming is one necessary measure, composting is implementable in various circumstances. It can be carried out in both rural and urban environments and on a small or large scale; examples include vermicomposting in buckets on one's balcony or yearly collection and composting of pine trees by the municipality after Christmas. Hence, composting is a feasible approach to improve soil health on multiple levels.

Shiva's concepts of moving from oil to soil and the law of return, which are central to the next chapter, can be recognised in the visual language of artists. For instance, the American artist Claire Pentecost has given form to the need to shift from short-sighted moneymaking businesses to soil-centred practices. For dOCUMENTA (13), Pentecost was asked by the artistic director, Carolyn Christov-Bakargiev, to reflect on seeds, which were a key theme in the Ottoneum building and the exhibition's final conference.¹⁴ However,

¹⁴ Carolyn Christov-Bakargiev et al., *The Guidebook*, vol. 3/3 *dOCUMENTA (13): Catalog* (Ostfildern: Hatje Cantz, 2012), 200. See the conference "On Seeds and Multispecies Intra-Action: Disowning Life," dOCUMENTA (13), September 15, 2012, <https://d13.documenta.de/#/research/>.

Pentecost found herself 'dreaming of soil', as seeds cannot germinate without fertile soil.¹⁵ Local environments determine which species can survive, such as the seeds of plant species that need nutritious soil to grow. In line with Shiva's argument against the financialisation of food and seeds, Pentecost's installation *Soil-Erg* (2012, Fig. 2) primarily criticises the financialisation of earth by presenting compost in the form of



Fig. 2. Claire Pentecost. *Soil-Erg*. Installation with drawings, and bars and discs of compost. 2012. dOCUMENTA (13), Ottoneum, Kassel.

¹⁵ Claire Pentecost, "Notes from Underground," in *The Book of Books*, eds. Carolyn Christov Bakargiev et al. vol. 1/3 *dOCUMENTA (13): Catalog* (Ostfildern: Hatje Cantz, 2012), 384.



Fig. 3. Melanie Bonajo. *DAISY 2*, from the photography series *Last Child in the Woods*. 2017.

gold bars.¹⁶ Pentecost proposes another system of value in which compost is a new currency called 'soil-erg'. In this way, compost becomes the new gold.

1.1 Earth in Art and Art History

The artwork in Figure 3 imagines a world in which barely any nature remains, and future children of children can only find and buy soil in plastic bags. Nature is a consistently intriguing theme for artists, whose work has incorporated the theme of nature in myriad ways. For instance, artists returned to nature to address its forces and beauty in response to industrialisation and urbanisation in the first half of the 19th century.¹⁷ However, such sense of awe is now being replaced by a sense of emergency as we confront the consequences that humanity has imposed on nature. Nature is disappearing, yet its forces, such as rain and temperature, are becoming more extreme. The changing relationship between humans and nature, including the soil, reverberates in art.

¹⁶ Shiva wants to reclaim biodiversity and a diversity of knowledge on seeds by saving them. She initiated the Navdanya movement to save seeds in seed banks. In collaboration with farmers, the movement means to resist genetic modification and the subsequent patenting of seeds by big companies. Vandana Shiva, "Introduction. From Quanta to the Seed," in *The Vandana Shiva Reader* (Lexington: University Press of Kentucky, 2014), 4-5.

¹⁷ Penelope J. E. Davies et al., *Janson's History of Art. The Western Tradition*, 8th ed. (New York: Pearson Learning Solutions, 2010), 821-22.

Whereas composting is still an emerging theme, soil has been present in art in numerous forms over the course of many centuries. This section outlines the art historical context of soil in art to enrich the subsequent discussion of composting in current artistic practices. The surface of the soil is depicted in paintings of natural and rural scenes from antiquity and the Middle Ages as well as in landscape paintings, such as those by Dutch artists in the 17th century.¹⁸ Soil is also widely represented in painted agricultural scenes from the Renaissance period and in French Realism from the 1840s and 1850s. The latter rendered the social conditions of peasant life, and, as in the previous examples, the soil itself had no major significance. As early as the prehistoric era, soil was utilised as a material for painting on cave walls; however, it gained importance as an artistic material beginning in the second half of the 20th century.¹⁹ The French artist Jean Dubuffet painted abstractly with soil in the 1950s (Fig. 4), including in his *Série Texturologie* (1957–1958). In addition, *l metro cubo di terra* [*One Cubic Meter of Earth*] (1967, Fig. 5) by the Italian artist Pino Pascali is a sculptural example in



Fig. 4. Jean Dubuffet at work with soil in 1958.

¹⁸ For more information on the representation of soil in the Antiquity, Middle Ages, and Renaissance, see Christian Feller et al., “The Representation of Soil in the Western Art: From Genesis to Pedogenesis,” in *Soil and Culture*, eds. Edward R. Landa and Christian Feller (Dordrecht: Springer, 2010), 3-22.

¹⁹ C. Feller et al., “Case studies of soil in art,” *SOIL*, no. 1 (2015): 544, 546.

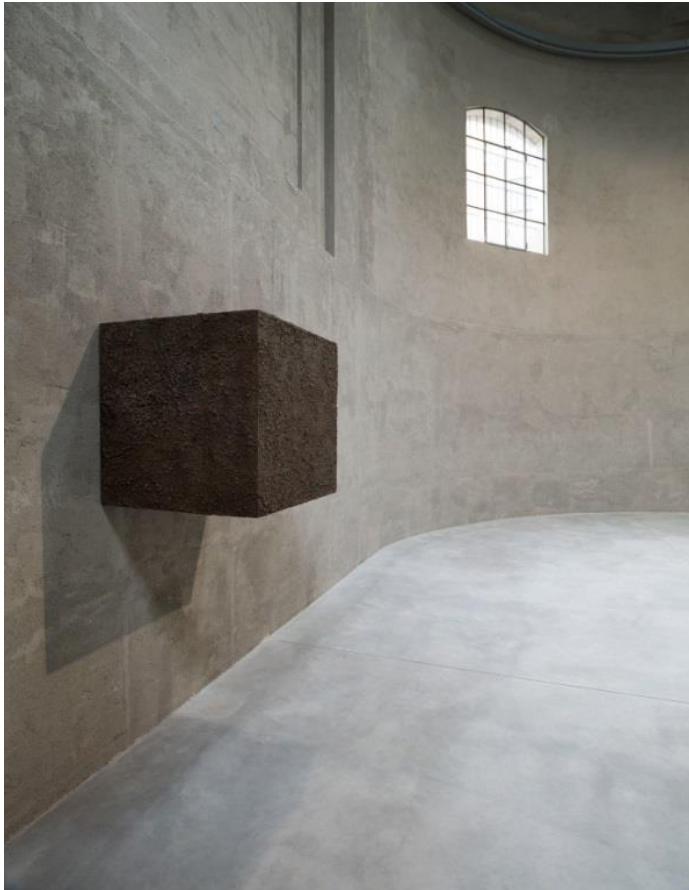


Fig. 5. Pino Pascali. *I metro cubo di terra*. 1967. Sculpture made of earth and wood. 100 x 100 x 100 cm.

which soil is not realistically represented but is presented in itself. In this case, the use of primary materials was intended as a commentary on primary structures comprised of newly mass-produced materials in the 1960s, such as in the minimal sculptures by Donald Judd.²⁰ In the late 1960s and the 1970s, the artistic use of raw materials, such as soil and rocks, extended beyond the walled exhibition space and into the landscape.²¹ Land artists created earthworks by sculpting with earthly materials on site. One well-known example is *Spiral Jetty* (1970, Fig. 6) by the American artist Robert Smithson, whose work is addressed in Chapter Three. The material use of earth by land artists urges viewers to look at their surroundings, and it highlights human attempts to control and shape the natural environment. From around 1970 onwards, artists started to produce works that more explicitly express mounting ecological and climate-related concerns. For instance, in the summer of 1982, the Hungarian-born American artist Agnes Denes cultivated soil to plant and maintain a two-acre wheatfield in Manhattan (Fig. 7) in a lot which was reserved for real estate and valued at billions of dollars. Denes

²⁰ See Nicholas Cullinan, "From Vietnam to Fiat-Nam: The Politics of Arte Povera," *October* 124, Postwar Italian Art (Spring, 2008): 18.

²¹ Ian Chilvers, "Land art (Earth art; Earthworks)," in *The Oxford Dictionary of Art and Artists*, 5th ed. (Oxford: Oxford University Press, 2015), <https://www-oxfordreference-com.ezproxy.leidenuniv.nl/view/10.1093/acref/9780191782763.001.0001/acref-9780191782763-e-1337>.



Fig. 6. Robert Smithson. *Spiral Jetty*. 1970. Mud, precipitated salt crystals, rocks, water. 457.2 m long and 4.6 m wide. Great Salt Lake, Utah.

speculated on more appropriate forms of land usage in the heart of New York City to criticise the exuberance of the economic system, which actively neglects environmental issues.²² Even today, contemporary artists continue to engage with ecology and the environment through manifold approaches and subthemes.

In addition to the concise historical overview of soil in art, more recent angles in art warrant consideration. In this regard, the agricultural and the rural are two connected

²² Mark A. Cheetham, *Landscape into Eco Art: Articulations of Nature Since the '60s* (Pennsylvania: The Pennsylvania State University Press, 2018), 99.

subthemes of ecological art that are integrated with soil. In the past, artists have depicted agricultural landscapes or, as in Denes' work, confronted audiences with them in a highly urban and capitalist setting. A more recent example that unites artists and farmers is the group Futurefarmers, which was founded by the American artist and designer Amy Franceschini in 1995. Futurefarmers organises participatory projects that aim to deconstruct and change dominant food and farming systems.²³



Fig. 7. Agnes Denes. *Wheatfield - A Confrontation*. 1982. Photo of the wheatfield with Denes standing in the field. Battery Park Landfill, Downtown Manhattan, New York City.

²³ "About," Futurefarmers, accessed March 8, 2021, <http://www.futurefarmers.com/about>.

One of the group's actions, *Soil Procession* (2015, Fig. 8), was part of the long-term public art project Flatbread Society, which was initiated in 2012.²⁴ In this action, (Future)farmers from 50 Norwegian farms formed a procession to carry soil from their lands to Oslo to inaugurate the Flatbread Society's grainfield, bakehouse, and accompanying participatory public



Fig. 8. Futurefarmers. Photo of farmers carrying soil from their land during the *Soil Procession* in Oslo. June 13, 2015.

²⁴ Another participatory project by Futurefarmers that involves soil is *Soil Kitchen*, 2011. See "Soil Kitchen," Futurefarmers, accessed March 8, 2021, <http://www.futurefarmers.com/soilkitchen/index.html>.



Fig. 9. Installation view of the exhibition *Countryside, The Future* by OMA/AMO. 2020-21. Guggenheim Museum, New York City.

programme.²⁵ Another example, which conveys a more documentary-style reflection on emerging issues in rural regions, is the exhibition *Countryside, The Future* (2020–21, Fig. 9) by the architects Rem Koolhaas (OMA) and Samir Bantal (AMO). This exhibition was held at the Guggenheim Museum in New York City; in this urban and cultural setting, the exhibition explored the futures of agricultural systems,

²⁵ "Soil Procession," Flatbread Society, June 13, 2015, <http://www.flatbreadsociety.net/actions/29/soil-procession>; Karolin Tempere, "People, Seeds, Belonging Together," *Flatbread Society*, September 15, 2015, <http://flatbreadsociety.net/stories/31/people-seeds-belonging-together>.

food, and uses of soil by, for instance, disclosing methods of soil testing or artificially growing plants with or possibly without soil.²⁶ The following literature review reveals more artistic approaches to soil—and, eventually, to composting—beyond these participatory and documentary methods.

The literature on soil is more extensive than that on composting, although the majority relates to science rather than art. Books dedicated to rural or eco art within the discourse of contemporary art have occasionally addressed soil.²⁷ Moreover, studies in the social sciences have investigated various ways of thinking about soil in view of ecological change.²⁸ Most research on art and soil assumes the viewpoint of soil science, as suggested by the title of the book *Field to Palette* (2019), which presents a plea for soil scientists to engage in more interdisciplinary collaborations with artists and humanities scholars. Through dialogues between artists and scientists, the book outlines visual

methodologies that can extend understandings of soil.²⁹ Meanwhile, the book *Soil and Culture* (2010) discusses perceptions of soil over time and across disciplines ranging from comics to cinema.³⁰ The transdisciplinary art and soil researcher Alexandra Toland and the soil scientist Gerd Wessolek frame ‘soil art’ as a subfield of environmental art. They define it primarily as art that addresses the properties and functions of soil and related conservation issues, which are realms in which soil science perspectives prevail.³¹ The two scholars also identify two main artistic approaches.³² The first is characterised by aesthetic representations of soil that serve the ways in which soil is valued and researched, such as in soil-archiving projects or Daro Montag’s *Bioglyphs* (1994, Fig. 10), and surpass soil documentation methods.³³ The second

²⁶ See Rem Koolhaas/AMO, *Countryside, A Report* (Cologne: Taschen, 2020).

²⁷ See Myvillages (eds.), *The Rural* (London/Cambridge: Whitechapel Gallery/The MIT Press, 2019); Cheetham, *Landscape into Eco Art*.

²⁸ See Juan Francisco Salazar et al., *Thinking with Soils: Material Politics and Social Theory* (London: Bloomsbury Academic, 2020).

²⁹ Alexandra Toland et al., *Field to Palette: Dialogues on Soil and Art in the Anthropocene* (Boca Raton: CRC Press, Taylor & Francis Group, 2019), vii.

³⁰ Edward R. Landa and Christian Feller (eds.), *Soil and Culture* (Dordrecht: Springer, 2010).

³¹ Alexandra Toland and Gerd Wessolek, “Merging Horizons – Soil Science and Soil Art,” in *Soil and Culture*, eds. Edward R. Landa and Christian Feller (Dordrecht: Springer, 2010), 51.

³² *Ibid.*, 48.

³³ *Ibid.*, 53. An example of a soil-archiving project is Marianne Greve’s *One Earth Altar* (2000). See also Daro Montag and Clive Adams, *Soil Culture: Bringing the Arts down to Earth* (Devon: CCANW and Gaia Books, 2017).

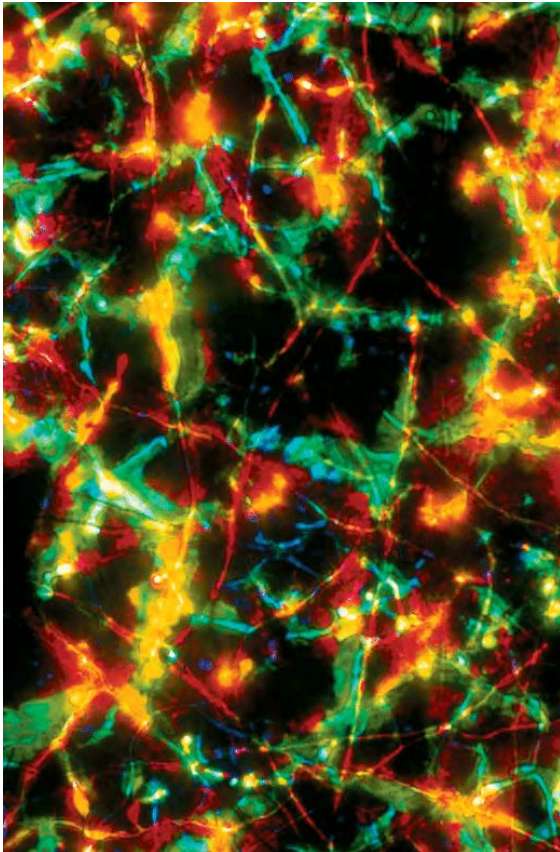


Fig. 10. Daro Montag. *Bioglyph: Radiance II*. 1994. Soil organisms have left their traces on the gelatin-enriched surface of film that was buried in earth. Dimension unknown.

approach is ecologically restorative; however, it is discussed less extensively and does not take composting into consideration even though it could be part of this type of soil art. Only one short chapter in *Field to Palette* addresses the restorative practice of composting, which falls under the umbrella of ‘Artisanal Soil’ and is defined as an ‘artist-initiated process for ameliorating topsoil’.³⁴ Nevertheless, the author and curator Sue Spaid concludes that the discussed artworks are characterised not by artistic practices but by farming practices that promote the appreciation of soil as a museum treasure.³⁵ In contrast to this largely agricultural approach, the present thesis does not place soil on a pedestal for admiration but instead reconsiders human-earth relations by exploring insights into fruitful, composing and decomposing artistic practices and concepts of composting.

This research focuses mainly on material and speculative aspects in contemporary art in the last decade rather than on predominantly participatory, documentary, representative, agricultural, or symbolic artistic practices. Chapters Two and Three will further contextualise and analyse

³⁴ Sue Spaid, “Artisanal Soil,” in *Field to Palette: Dialogues on Soil and Art in the Anthropocene*, eds. Alexandra Toland et al. (Boca Raton: CRC Press, Taylor & Francis Group, 2019), 35.

³⁵ *Ibid.*, 49.



Fig. 11. Claire Pentecost. *Proposal for a New American Agriculture*. Circa 2012. Photo of a vermicomposted cotton flag. 23 x 13 cm.

such material and speculative aspects, as they both offer possibilities to actively re-imagine human-earth relationships. Many artworks have criticised and signalled key issues. For instance, another artwork (2012, Fig. 11) by Pentecost symbolically condemns the destructive and exploitative agriculture in the United States by presenting the nation's flag as compost being decomposed by soil organisms. However, it is equally as important to foster our human senses and imagination to avoid dissolving in negative or apocalyptic spheres as it is to pursue new modes of action. In this regard, *The Earthport* (2021, Fig. 12) by the Mexican-born artist Aldo

Esparza Ramos goes beyond signalling the absence and loss of earth that coincides with the human disconnection from the soil.³⁶ This disconnection results from the disruptive forms of agriculture that Pentecost reveals and the isolation or covering of the soil due to building upon fertile ground, amongst other causes. One could almost forget that earth lies underneath the



Fig. 12. Aldo Esparza Ramos. *The Earthport*. 2021. Photo of Ramos sitting in the hole, 3 m wide and 80 cm deep, in his studio at the Rijksakademie, Amsterdam.

³⁶ Aldo Esparza Ramos, "The Earthport," in *We Had Plans*, eds. Irene de Craen et al. (Amsterdam: Rijksakademie van beeldende kunsten, 2021), 16.

concrete that we walk on and live in. Therefore, for *The Earthport*, Ramos removed all layers separating himself from the earth in his studio at the Rijksakademie. The circular hole in the concrete floor exposes the layers of steel wire, polystyrene, plastic sheeting, and sand. The work invites the audience to feel the materials of the earth with their bare feet and offers a meeting place for sharing ideas and devising approaches to repair relational ways of being and thinking with the earth. In addition to Pentecost's symbolic presentations of compost as gold or a decomposing process, Ramos' invitation encourages an investigation of the potential of composting as a material practice and speculative concept in art. To preface my analysis of composting in contemporary art, I first provide a theoretical frame of reference that starts with soil's aliveness, which is the foundation for a New Materialist perspective and Haraway's concept of the world as a compost pile.

1.2 New Materialism, Human-Earth Relationships, and Making Compost

There is an urgent need to reconsider human-earth relations. Humans have defined the relationship between humankind and earth, and such dominance of humans in their interplay with earth has resulted in rapid and vast destruction of soil

ecosystems.³⁷ A rethinking of the role of humans in human-earth relationships must begin with an understanding of soil as living matter. Humans tend to undervalue soil as mere 'dirt' and mistakenly consider it lifeless or inert when it is in fact alive. Soil contains a multitude of lifeforms, including worms, insects, and many types of microorganisms. A single gram of soil is home to 50,000 algae and 400,000 fungi, amongst other lifeforms.³⁸ Thus, soil is a living world with which humans must coexist.

The aliveness of soil distinguishes it as a prime example of 'vibrant matter' from the viewpoint of New Materialism, which perceives soil as explicitly alive matter. The New Materialist notion of 'active matter' assumes that matter has vitality regardless of whether it is alive, inert, human, or non-human. New Materialism emerged in the mid- to late 1990s and posits that the world is formed by all things that

³⁷ Anna Krzywoszynska and Greta Marchesi, "Toward a Relational Materiality of Soils," *Environmental Humanities* 12, no. 1 (May 2020): 191.

³⁸ Vandana Shiva, "One gram of soil," *The Shape of a Circle in the Mind of a Fish: The Understory of the Understory*, Serpentine Galleries, December 5-6, 2020, https://themind.fish/wp-content/uploads/2020/12/The_Shape_of_a_Circle_in_the_Mind_of_a_Fish_The_Understory_of_the_Understory-1.pdf.

necessarily co-exist and co-enact.³⁹ Accordingly, it does not distinguish humankind as the most important force in world-making. New Materialism dissolves the dualist construction of human versus all that is not human, including non-human animals, sand, and air.⁴⁰ Earth is a world that is ‘more-than-human’, which is an attribute emphasising the forces of non-human entities that participate in making Earth.⁴¹ This view considers humans and non-humans not as separate entities but as part of a more-than-human world encompassing relational webs of interdependent beings and things.⁴²

Karen Barad, a feminist theorist, quantum physicist, and main proponent of New Materialism, understands the world and its entangled relational webs as ‘substances-in-becoming’, which include both human beings and other beings

and substances.⁴³ Instead of living ‘on’ the Earth, humans live ‘with’ the Earth and all of its inhabitants and can only live in ongoing relations with others. Since these relations are entangled, all actions pose consequences for others, for which participants are responsible.⁴⁴ At the same time, this view implies that one can only ‘be’ and ‘know’ by being part of relations with others. As such, humans cannot ignore their role in relational webs and must recognise the implications of their actions, which in turn promotes ethical awareness, stimulates accountability for one’s actions, and requires humans to decentre themselves without detaching from relationalities.

The social anthropologist Tim Ingold builds upon Barad’s notion of engaging with the world in its becoming to obtain knowledge by describing how this relational becoming and knowing can evolve through correspondences between maker and material.⁴⁵ For Ingold, ‘making’ does not entail

³⁹ Rick Dolphijn and Iris van der Tuin, “Interview with Karen Barad,” in *New Materialism: Interviews & Cartographies* (Ann Arbor: Open Humanities Press, 2012), 48.

⁴⁰ Ibid.

⁴¹ Alisdair Rogers, Noel Castree, and Rob Kitchin, “more-than-human,” in *A Dictionary of Human Geography* (Oxford: Oxford University Press, 2013), <https://www-oxfordreference-com.ezproxy.leidenuniv.nl/view/10.1093/acref/9780199599868.001.0001/acref-9780199599868-e-1216>.

⁴² María Puig de la Bellacasa, “Introduction. The Disruptive Thought of Care,” in *Matters of Care. Speculative Ethics in More Than Human Worlds* (Minneapolis/London: University of Minnesota Press, 2017), 1, 5.

⁴³ Dolphijn and Van der Tuin, “Interview with Karen Barad,” 69; Karen Barad, “Meeting the Universe Halfway//2007,” in *Materiality*, ed. Petra Lange-Berndt (London: Whitechapel Gallery and The MIT Press, 2015), 215.

⁴⁴ Dolphijn and Van der Tuin, “Interview with Karen Barad,” 61.

⁴⁵ María Puig de la Bellacasa, “Touching Visions,” in *Matters of Care. Speculative Ethics in More Than Human Worlds* (Minneapolis/London: University of Minnesota Press, 2017), 114; Tim Ingold, *Making. Anthropology, Archaeology, Art and Architecture* (London/New York: Routledge, 2013), 5.

controlling and imposing a preconceived idea with pre-defined outcomes, such as forcing the growth of monocultures in soil. Similarly, soil is not pre-existing in a solid form but rather ever-evolving through relations with the more-than-human world. Making is a form-generating activity that resembles an emerging, open-ended process.⁴⁶ In contrast to interaction, which presumes two separate entities alternately responding to each other, correspondence is an intertwined process of co-becoming by working together with matter.⁴⁷ Participating in composting processes—as opposed to being in charge of materials—is one way for humans to materially *correspond* with soil. Accordingly, by being involved and experiencing direct sensory contact with materials, humans can learn how to react, for instance, to sustain the composting process. To reconsider human-earth relations and find possibilities to work towards a flourishing but not human-centred world, people can learn what might work by consciously participating in making processes. In that respect, active participation in the process and practice of composting fits Ingold's understanding of making and knowing, which recurs throughout this thesis.

Like the web of relations that make planet Earth, the practice of composting is based on a 'foodweb' of

interdependent relations in which humans need to determine their role. The process of composting is briefly described in this section but elaborated on in the following chapters. In her book *Matters of Care* (2017), María Puig de la Bellacasa, a feminist scholar in technoscience and the environmental humanities, partly grounds her theories of ecological ethics and care in Elaine Ingham's 'foodweb' concept of soil. Puig de la Bellacasa refers to Ingham, who is a soil scientist and activist, as the 'Queen of Compost'.⁴⁸ Composting fosters a complex foodweb of eating and feeding because matter that is food for one entity and waste for another changes in the process.⁴⁹ Organic waste that humans produce can be food for soil organisms, whose waste or excrement is then food for plants. Thus, by feeding soil organisms through composting, humans care for more than those organisms because the organisms, in turn, take care of human waste.⁵⁰ Besides eating and feeding, environmental factors, such as humidity, also influence composting. Being involved in the process of composting

⁴⁸ María Puig de la Bellacasa, "Alterbiopolitics," in *Matters of Care. Speculative Ethics in More Than Human Worlds* (Minneapolis/London: University of Minnesota Press, 2017), 159.

⁴⁹ See Elaine Ingham, "The Soil Foodweb: Its Role in Ecosystems Health," in *The Overstory Book: Cultivating Connections with Trees*, ed. Craig R. Elevitch (Holualoa: Permanent Agriculture Resources, 2004), 62-65.

⁵⁰ Puig de la Bellacasa, "Alterbiopolitics," 147.

⁴⁶ Ingold, *Making*, 21-22.

⁴⁷ *Ibid.*, 107.

necessitates direct engagement with the soil, its organisms, and the surroundings, which imparts an awareness of one's environment. As such, the soil-centred work of composting can transform how humans understand and relate to the environment. Making compost requires close attention to environmental changes based on physical contact and sensory perceptions. This experience builds knowledge of how to maintain a functional compost pile and compels humans to slow down in order to be more attentive, notice differences, and be able to respond. Composting is a gradual but anticipative process that demands patience, which explains Puig de la Bellacasa's claim that designating time for soil care is 'disruptive' in productionist times.⁵¹ Based on the law of return, she explains composting as an example of an eco-ethical practice that transforms humans from soil consumers into soil growers.⁵² The following section outlines Haraway's concept of composting to lead into the discussion of material

⁵¹ Mariá Puig de la Bellacasa, "Soil Times: The Pace of Ecological Care," in *Matters of Care. Speculative Ethics in More Than Human Worlds* (Minneapolis/London: University of Minnesota Press, 2017), 195. Currently, Puig de la Bellacasa is working on a book specifically about human-soil relations, titled *When the Name for World is Soil*.

⁵² Puig de la Bellacasa, "Soil Times," 202; Mariá Puig de la Bellacasa, "Re-animating soils: Transforming human-soil affections through science, culture and community," *The Sociological Review Monographs* 67, no. 2 (2019): 397.

and speculative artistic practices that can extend such composting processes.

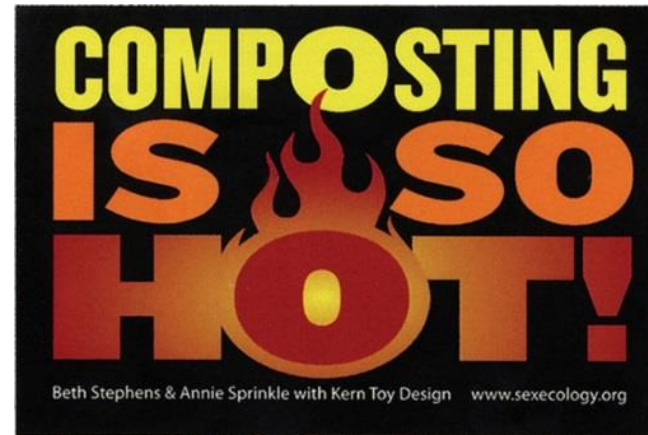


Fig. 13. Beth Stephens and Annie Sprinkle. Bumper sticker. 2016.

1.3 Haraway and Hot Compost Piles

After Haraway's call to make compost, the American artists Beth Stephens and Annie Sprinkle designed a bumper sticker with the text 'Composting is so hot!' (2016, Fig. 13). Haraway considers compost as an example to contemplate companion species that live together and form multispecies world-making webs. Compost cannot be made independently, as it inherently requires one to work together with other matter and species. Haraway's writings resonate with and contribute to New Materialist theories, and her book *Staying with the Trouble*

(2016) is of particular importance to research on composting. For Haraway, 'making trouble' involves continuously devising ways to live and die well with others by practising response-ability—the capability to respond.⁵³ Haraway encourages us to imagine possibilities for this ethical way of 'becoming-with' in multispecies alliances, which she calls symbiogenesis, by means of sympoiesis.⁵⁴ The latter opposes the idea of self-making and, through speculative storytelling, explores how to 'make-with' as companion species. Sympoietic stories probe ways of opening up to composing and decomposing with each other to make multispecies flourish.⁵⁵ In *Staying with the Trouble*, Haraway explicitly refers to the concept of composting in regard to sympoiesis. In the introduction, she states that '[s]taying with the trouble requires making oddkin; that is, we require each other in unexpected collaborations and combinations, in hot compost piles.'⁵⁶ In this way, she extends the understanding of composting beyond agriculture, soil science, and human-earth relations to encompass broader ideas for rethinking humanities as *humusities*. Haraway views

⁵³ Haraway, *Staying with the Trouble*, 1; Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago: Prickly Paradigm Press, 2003), 16.

⁵⁴ Haraway, *Staying with the Trouble*, 98, 125.

⁵⁵ *Ibid.*, 40, 58.

⁵⁶ *Ibid.*, 4.

humans not as self-contained but as compost: she proposes thinking and making in a multispecies compost pile to transform the excesses of capitalism into fertile grounds for continuing potentialities.⁵⁷

This concept of composting is invoked occasionally throughout Haraway's book. In the last chapter, she speculates on a possible way to follow up on the concept. In 'The Camille Stories', Haraway formulates a fictional storyline about a future with the Children of Compost, which is set in a time of significant human population growth and mass extinction of other species.⁵⁸ Through this narrative, Haraway imagines an alternative future scenario of reproduction to explore humanities as *humusities*. Instead of giving birth to human babies, a person chooses an endangered animal symbiont with whom the newborn shares some visible and sensory traits. These features offer a tool for rethinking and reworking relationalities with Earth and its species, which can support the planet's recovery. Hence, Haraway understands this story—and storytelling—as possible humus for creating practices of regeneration. In this regard, she often refers to science fiction

⁵⁷ *Ibid.*, 32, 57.

⁵⁸ Donna Haraway, "The Camille Stories. Children of Compost," in *Staying with the Trouble: Making Kin in the Chthulucene* (North Carolina: Duke University Press, 2016), 134-68.



Fig. 14. Ai Hasegawa. Video still of / *Wanna Deliver a Dolphin...* 2011-13. Video. 2:39 min.

writers while also advocating for other art forms in arguing that biologies, politics, and the arts need to make and think of sympoiesis reciprocally.⁵⁹

Haraway's story is an invitation to extend and re-imagine her concept of compost. The exhibition *The Camille Diaries: New Artistic Positions on M/otherhood, Life and Care* (2020, Art Laboratory Berlin) is, as the title suggests, explicitly

⁵⁹ Haraway, *Staying with the Trouble*, 98.



Fig. 15. Manjot Kaur. *Lajja Gauri / लज्जा गौरी* giving birth to an ecosystem rather than a child or food plant. 2021. Painting. Dimensions unknown.

based on Haraway's chapter.⁶⁰ However, the subtitle specifies that the exhibition does not specifically explore the concept of composting but examines other themes that come to the fore in the chapter. One work by the artist and designer Ai Hasegawa visualises the speculative idea of bearing a species that is approaching extinction—in this case, a Māui dolphin (2011–13, Fig. 14). Recent work by the Indian artist Manjot Kaur, such as

⁶⁰ "The Camille Diaries: New Artistic Positions on M/otherhood, Life and Care," Art Laboratory Berlin, accessed November 1, 2021, <https://artlaboratory-berlin.org/exhibitions/the-camille-diaries/>.

the painting *Lajja Gauri* / लज्जा गौरी *giving birth to an ecosystem rather than a child or food plant* (2021, Fig. 15), can also be viewed in relation to Haraway's Children of Compost concept.⁶¹ Another example that does not explicitly refer to 'The Camille Stories' but could be interpreted literally as 'human-as-humus' is *Loop Living Cocoon* (2020-present, Fig. 16) by the biodesigner Bob Hendriks. In a living coffin composed of



Fig. 16. Bob Hendriks. Photo of the *Loop Living Cocoon*. Coffin: mycelium; inside a bed of moss. 204 x 67 x 49 cm.

⁶¹ See Jan van Eyck Academie, "Manjot Kaur," *Open Studios 2021*, accessed November 1, 2021, <https://openstudios2021.janvaneyck.nl/participants/manjot-kaur>.

mycelium, a fungal network of roots, a dead human body can be composted into humus, from which vegetation can grow.⁶² However, rather than adhering to the Children of Compost concept or applying the human-as-humus in a more literal sense, this research interrogates how the human-as-humus is gaining new forms, layered stories, and meanings in art. It does not seek to resolve the consequences of human actions or identify material solutions, such as coffins that disturb soil life; instead, it considers composting in art specifically to explore how we can work towards changing human ways of living with earth. The following chapters discuss how, in addition to composting to create actual fertile soil, composting as a material practice and speculative method might re-imagine making-with as *humusities*. Such perspective of composting makes it possible to interpret artistic practices as regenerative.

⁶² "Loop Living Cocoon," Loop, accessed November 1, 2021, <https://www.loop-of-life.com/>.

2. Composting as Material Practice: Political and Ethical Layers

This chapter focuses on the material aspects of art and earth that make human-earth relations sensible and imaginable. It analyses material practices based on working with organic matter of earth, such as composting, within works of art to demonstrate how art can facilitate a re-imagining of human-earth relationships. This discussion directs particular attention to how re-relating to earth goes hand-in-hand with creating a sense of the politics of material histories and the ethics of material relations. Although Puig de la Bellacasa is less concerned with art than with care in technoscience and more-than-human living ecologies, her article ‘Re-animating soils’ investigates imaginaries of soil. The article presents examples deriving from art, science, and grower communities. It discusses, for instance, how ecological and social community work at a farm revolves around the soil’s aliveness through soil care and composting.⁶³ When considering art, some of her observations—such as the tendency to depict life in soil with aesthetic representations that raise awareness of soil’s aliveness—align with the art historical context outlined in

⁶³ Puig de la Bellacasa, “Re-animating soils,” 396.

Chapter One.⁶⁴ With respect to science, Puig de la Bellacasa refers to soil students and scientists who are encouraged to touch soil to become familiar with its various types. In citing such learning through active relational engagement with soil, she affirms feminist efforts to refuse science as ‘abstract knowledge’ acquired from a so-called objective distance.⁶⁵ Puig de la Bellacasa briefly discusses how the ability to learn with proximity to soil, which is characterised by physical closeness and sensory experiences, is also present in art. She notes that artists reinforce a material connection with soil by employing ‘do-it-yourself’ approaches.⁶⁶ The art project *M for Membrane* (2020) by TJ Shin reveals how the practice of composting is consistent with such ‘do-it-yourself’ approaches and cultivates material relations with earth. Through the project, Shin builds relationships with earthly matter. *M for Membrane* can inform a New Materialist understanding of a more-than-human world by considering the permeability of matter and indigenous heritage.

M for Membrane was held as a solo exhibition by Shin at Wave Hill in New York. The exhibition consisted of both indoor and outdoor multi-media installations (Figs. 17–18) and was the result of Shin’s artist-in-residence programme at the

⁶⁴ Ibid., 393.

⁶⁵ Ibid., 399.

⁶⁶ Ibid., 398.



Fig. 17. TJ Shin. Indoor installation view of the exhibition *M for Membrane*. 2020. Wave Hill Public Garden & Cultural Center, New York City.

centre. Wave Hill is located next to the Hudson River in the Riverdale neighbourhood of the Bronx and is renowned for its horticultural gardens, from which one can view the cliffs of the Palisades across the river (Fig. 19). Shin started the residency by observing the surrounding land and investigating its history. In this way, Shin connects the land's present materiality to its past. Shin's research and practice focus on a time period in which the land was occupied by its indigenous inhabitants, and Shin tracked the colonial legacy of Wave Hill as an institution. During this research, Shin was confronted with colonial stories



Fig. 18. TJ Shin. Outdoor installation view of the exhibition *M for Mother*. 2020. Reflective tarp, sandbags, stainless steel plaques. Abrons Woodland Trail, Wave Hill, New York City.

of indigenous genocide, the exploitation of Black and child labour, and material extraction of the trees and the rock of the Palisades.⁶⁷ In a material sense, Shin also traced Wave Hill's history by examining indigenous mould on the land. Shin cultivated this nourishing indigenous life and thus returned it to Wave Hill's soil to rehabilitate the soil ecosystem, which reflects Shiva's law of return.

Shin's practice of cultivating indigenous mould was

⁶⁷ Lee, "Tiffany Jaeyeon Shin ferments history."



Fig. 19. View from Wave Hill on the Palisades Cliffs. 2015.

inspired by JADAM Organic Farming. The acronym JADAM derives from the Korean phrase *Jayonul Damun Saramdul*, which translates to ‘people who are like nature’.⁶⁸ The practices of JADAM draw from traditional Korean Natural Farming methods, which are based on cost minimisation and do-it-yourself principles and include working with materials that are from the farm itself or otherwise locally available. Youngsang Cho founded JADAM in 1991 with a group of organic farmers, which eventually evolved into an accessible global network of farmers who share sustainable agricultural methods.⁶⁹ The

⁶⁸ Youngsang Cho, *JADAM Organic Farming. The way to Ultra-Low-Cost agriculture*, trans. Rei Yoon (Korea: Younsang Cho JADAM, 2016), v.

⁶⁹ JADAM Organic Farming, “Introduction,” *JADAM*, accessed March 9, 2021, <https://en.jadam.kr/com/com-1.html>.

group offers an alternative to the fast-paced industrialised agriculture that disturbs soil ecosystems and causes farmers to be dependent on the global market to buy all input from fertilisers to pesticides. Soil quality is core to JADAM practices; as such, the way in which Shin co-enacts with soil reflects the active New Materialist understanding of soil as well as Ingold’s notion of corresponding with matter. By working closely with the soil, Shin demonstrates that composting can signify much more than a method of waste management that revitalises soil. The visible artistic practice in *M for Membrane* reveals how material practices can generate knowledge, unearth social and material histories, and contribute to various webs of relationalities.

To comprehend what making compost might involve and invoke and which artistic insights and perspectives working with earth might engage, this chapter analyses Shin’s exhibition in dialogue with the article ‘Composting Feminisms and Environmental Humanities’. In this article, Jennifer Mae Hamilton and Astrida Neimanis define composting as a ‘material labor whereby old scraps are transformed—through practices of care and attention—into nutrient-rich new soil’.⁷⁰ To preserve the nutrients, the scraps need to be digested and

⁷⁰ Hamilton and Neimanis, “Composting Feminisms and Environmental Humanities,” 501.

returned to the soil in a different condition, which implies that transformation is inherent to the composting process. However, the aim of the two authors is to develop composting as a material metaphor for reviewing how environmental humanities is repurposing feminism—or, phrased differently, how environmental humanities is composting feminism.⁷¹ Such a metaphor of composting allows for reflection on the feminist input of the compost pile and how it is recycled and transformed in the composting process by the environmental humanities, which build upon feminist concepts, such as storytelling, natureculture, and intersectionality. Storytelling is part of Shin's practice alongside thinking in terms of natureculture instead of perpetuating the dualist construction of nature versus culture.⁷² These concepts are explored below in relation to the broadening intersectional perspective, which includes class, race, sex, and gender, amongst other factors. The concept of intersectionality also relates to the non-binary identity of Shin, who considers themselves neither female nor male and uses the pronoun 'they'. With regard to decolonisation and indigenous life, Shin's practice is valuable

⁷¹ Ibid., 502.

⁷² See Iris van der Tuin, "Naturecultures," in *Posthuman Glossary*, eds. Rosi Braidotti and Maria Hlavajova (London: Bloomsbury Academic, 2018), 269-70.

for addressing the pitfalls that Hamilton and Neimanis observe within the feminist environmental humanities.

According to these authors, the environmental humanities have not implemented feminist concepts in their full scope. The partly reuse by the environmental humanities, limits the nourishing potential of those concepts to evolve the scholarship as a thorough discourse and change relationalities in light of Haraway's idea of composting and making humus.⁷³ The metaphorical transformative potentiality of composting allows Hamilton and Neimanis to analyse what concepts are built upon and how they are reconsidered and changed. Hence, the authors summarily argue, 'it matters what compostables make compost.'⁷⁴ Thereby, they reinforce Haraway's statement that 'it matters what stories we tell to tell other stories with', which was inspired by the social anthropologist Marilyn Strathern's assertion that 'it matters what ideas we use to think other ideas (with).'⁷⁵ In addition to this reflection on the input of the compost pile, Hamilton and

⁷³ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 510.

⁷⁴ Ibid., 502.

⁷⁵ Haraway, *Staying with the Trouble*, 12; Marilyn Strathern, *Reproducing the Future: Anthropology, Kinship, and the New Reproductive Technologies* (Manchester: Manchester University Press, 1992), 10.

Neimanis' article is aligned with Shin's practice in that the analysis is guided by two notions: Haraway's concept of compost as articulated in *Staying with the Trouble* and the notion of permeability as understood by the gender studies and queer theory scholar Eve Kosofsky Sedgwick. Haraway's claim that '[w]e are all compost'—in the sense that human beings cannot live separately from all that is more-than-human, and all beings live together in a compost pile—is complemented by Sedgwick's suggestion of a 'permeable we'.⁷⁶ Hamilton and Neimanis employ Sedgwick's concept in considering the permeability of interdependent multispecies bodies to emphasise the necessity and possible solidary ways of living with both other humans and more-than-humans.⁷⁷ This understanding of permeability resonates with Shin's artistic practice because it centres on the permeability of human bodies, which is prevalent in Shin's previous projects, and on terrestrial matter, such as soil and leaves, which features in *M for Membrane*.

This chapter builds upon and adds to the mostly metaphorical analysis of Hamilton and Neimanis by analysing

⁷⁶ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 503; Eve Kosofsky Sedgwick, *A Dialogue on Love* (Boston: Beacon Press, 1999), 106.

⁷⁷ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 504.

Shin's exhibition from a material perspective. It first frames Shin's work by distinguishing *M for Membrane* from contemporary artworks with similar themes and approaches. Subsequently, it elaborates on Shin's material practice to analyse how the exhibition connects and critically engages with the concepts reviewed by Hamilton and Neimanis. As such, the analysis of *M for Membrane* delivers a clear understanding of Shin's work as sympoiesis to disclose specific stories and imagine fruitful human-earth relations. This chapter ultimately illustrates how composting or working *with* matter is a relational practice that not only generates fertile soil but also cultivates practices of being and knowing in a more-than-human world.⁷⁸

2.1 Relating *M for Membrane* to Artistic Human-Earth Approaches

This section highlights the relevance of researching *M for Membrane* in particular by contextualising Shin's artistic practice within a framework of related contemporary artworks. While these artworks share characteristics with Shin's art, they are approached uniquely in Shin's practice. This dialogue between related works also facilitates consideration of several

⁷⁸ See Ingold, *Making*. The italicised 'with' refers to the way Ingold thinks of correspondence between maker and material.

sub-issues on the spectrum of artistic approaches to human-earth relations, namely natureculture, the restorative quality of fungi, caring through proximity, eco-social community work, and highly technical versus do-it-yourself practices. While Shin's project highlights the connection between nature and culture, it is not the first work to do so. Previous works by the Brazilian artist Maria Thereza Alves reveal how nature and culture are always necessarily intertwined and cannot be thought of as two separate entities. Both Shin and Alves dissolve preconceived boundaries between nature and culture by demonstrating how soil maintains memories, bears witness to history, and reflects socio-cultural dimensions. Through Alves' ongoing project *Seeds of Change*, which she has iterated in various European ports since 1999 (for example, see Fig. 20), Alves investigates soil that was dumped as waste after being used as ballast in ships along the transatlantic slave routes. Her botanical research on ballast flora evokes the colonial histories of landscapes, as narratives of slavery and the migration of people, goods, and plants can be derived by tracing the unintended displacement of recovered seeds that had travelled with the soil.⁷⁹ In a similar way, Shin's work at Wave Hill is characterised by the material history of the site.

⁷⁹ Richard William Hill, "Borderless Histories. The Botanical Art of Maria Thereza Alves," *Third Text* 32, no. 2-3 (2018): 287.

Shin's research highlights how, in contrast to the aesthetically pleasing environment of Wave Hill, the trees, the stone of the Palisades, and the soil inhabit and exhibit destructive colonial histories as well as social histories of Black labour. Besides revealing such histories, Shin's practice also reinvigorates the land through the law of return.

Like Alves, who traces and germinates the long-dormant seeds salvaged from the ballast soil, Shin regenerated and awakened dormant mould on leaf litter to support the fungal roots that form a mycelium network in the soil. Another artist whose material practice involves working with fungi is Jane Lawson, who has engaged in symbolically 'detoxifying neoliberalism' by growing oyster mushrooms on Milton Friedman's book *Capitalism and Freedom* (2014, Fig. 21). In this work, the oyster mushrooms figuratively decomposed neoliberalism by literally decomposing a book on the topic. Still, Shin's practice is distinct from others because of its caring and restorative quality. Beyond breaking down toxins, Shin worked on restoring soil health in response to the naturalcultural history of the site, which is reflected in the exhausted soil and lack of mould growth in the ornamental flower gardens. Even in the forest at the back of the estate, mould is scarce. With indigenous JADAM techniques, Shin cared for the soil by encouraging the growth of mould on leaf



Fig. 20. Maria Thereza Alves. *Seeds of Change: A Ballast Flora Garden*. 2021. Cultivated seeds from flowers and plants that arrived in the Netherlands via colonial trade routes. Centraal Museum Utrecht.

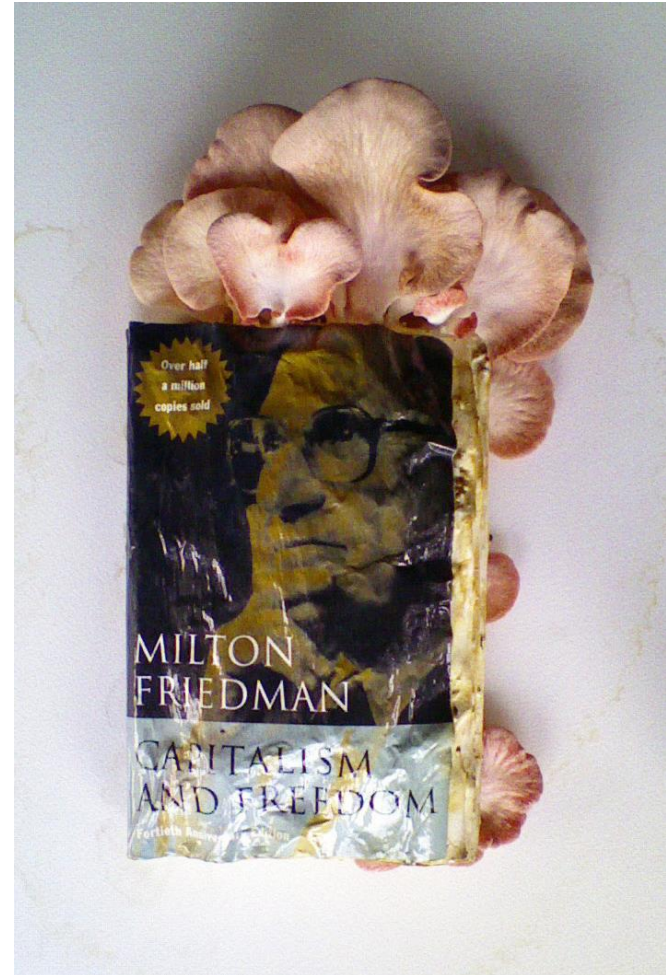


Fig. 21. Jane Lawson. Still of *The Detoxification of Capitalism and Freedom*. 2014. Timelapse film over a period of forty days and forty nights, Milton Friedman's book *Capitalism and Freedom*, oyster mushrooms.

litter, where an abundance of microbes can leak through the porous membranes of the leaf mould in the soil. This process helps to restore the soil's microbial diversity and thus strengthen the deep indigenous mycorrhizal fungi network, which provides nutrients and enables communication between plant species.⁸⁰

While Shin interrogates working in proximity with soil through the concept of porousness, other artists have mostly approached the idea of proximity as physical closeness in the sense of material intimacies. Within her observations on cultivating material relations with soil through physical closeness, Puig de la Bellacasa identifies the aforementioned sensory do-it-yourself approach as well as various intimate, sensual approaches.⁸¹ Examples of the latter are ecosexual performances, such as Earth-marriage ceremonies and *Dirt Bed* (2012, Fig. 22) by Annie Sprinkle and Beth Stephens, who



Fig. 22. Annie Sprinkle and Beth Stephens. Photo of the performance *Dirt Bed*. 2012. Grace Exhibition Space, New York City.

made the 'Composting is so hot!' bumper sticker.⁸² Sprinkle and Stephens use intimate proximity as a form of caring for the 'Earth-as-Lover' and counteracting Earth's destruction.⁸³ Meanwhile, Shin engages closely—but not intimately—with matter. Shin understands proximity as being always already

⁸⁰ Tiffany Jaeyeon Shin, "M for Mitigation," in *M for Membrane*, eds. Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen (New York: Wave Hill, 2020), 7.

⁸¹ Puig de la Bellacasa, "Re-animating soils," 398-99. Another instance of material closeness to soil might be direct consumption of soil, as researched by artist Masha Ru. For more information on art and geophagy, the eating of soil, see Lindsay Kelley, "Geophagiacy: Art, Food, Dirt," in *Thinking with Soils. Material Politics and Social Theory*, eds. Juan Francisco Salazar et al. (London: Bloomsbury Academic, 2020), 191-210.

⁸² Another example of ecosexuality and queer ecology in art, inspired by Sprinkle and Stephens, is *Ecosexual Bathhouse* (2016) by the initiative Pony Express, led by Ian Sinclair and Loren Kronemyer.

⁸³ T. J. Demos, "Anthropocene, Capitalocene, Chthulucene. The Many Names of Resistance," in *Against the Anthropocene. Visual Culture and Environment Today* (Berlin: Sternberg Press, 2017), 90.

near one another through the permanent transference of microbes via porous bodies.⁸⁴ In their work, Shin questions both sides of porosity: while it allows for rehabilitating bodies, it also causes vulnerability in the first place. The history of Wave Hill indicates that geological, bodily, and social boundaries were permeated at the expense of indigenous life and to the benefit of the colonists and others who followed. In response, with *M for Membrane*, Shin deepens the restorative



Fig. 23. Mary Mattingly. Photo of *Swale*. 2017. Brooklyn Bridge Park Pier 6, New York City.

⁸⁴ Lee, “Tiffany Jaeyeon Shin ferments history.” See also Zoë Schlanger, “Our Microbes, Ourselves,” in *M for Membrane*, eds. Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen (New York: Wave Hill, 2020), 12–19.

possibilities of the porosity of the leaves, fungi, and landscape. Hence, Shin examines the stories that microbial life can communicate about social life and its relation to, for instance, racialised bodies.

Shin’s material practice often takes place on a molecular scale, but it raises concerns that have implications for humanity. Shin works on eco-social justice, albeit without the participation of a community of people in the case of *M for Membrane*. Social community engagement typifies, for example, the work of the American artist Mary Mattingly and the American-Dutch artist and researcher Debra Solomon. Mattingly has created public floating edible gardens and maintained their ecosystems together with local communities in Philadelphia (*WetLand*, 2014–17) and New York (*Swale*, 2016–ongoing, Fig. 23). As part of the project, she arranges access to clean water and cares for fresh food together with local residents.⁸⁵ Similarly, Solomon practises urban agriculture with communities of people at Urbaniahoeve, which she initiated in Amsterdam in 2010. More than Mattingly, she recognises the interdependent work of humans and multispecies communities that are involved in agriculture.

⁸⁵ “Swale, ongoing,” Mary Mattingly, accessed March 9, 2021, <https://marymattingly.com/html/MATTINGLYSwale.html>.

Solomon particularly stresses the necessity of working together with the more-than-human community of soil ecosystems in the case of composting to make topsoil.⁸⁶ To observe the result of these collaborations and the quality of the humus, Solomon produces soil chromatograms for various composted soils, which form the series *Soil Portraits* (2016–ongoing, Fig. 24). Shin shares Solomon’s eco-social agenda and appreciation for joint work with microorganisms in the soil. However, rather than focusing on the human work or the end result, Shin makes visible the working process in growing the mould from decomposed leaves and constructs a narrative about the route of its return to the indigenous fungal network in the soil.

In searching for ethical ways of working with and caring for the more-than-human world, artists have tried to connect to non-human species. For example, Slovenian artist Saša Spačal studies mycohuman relationships and pursues methods for transgressing boundaries between fungi and humans. For *Myconnect* (2013, Fig. 25), Spačal developed a technological interface as an interspecies connector with the



Fig. 24. Debra Solomon. *Soil Portrait #55*. 2016–ongoing. Soil chromatogram of vermicomposted humus. 580 × 580 mm. Urbaniahoeve Food Forest, Amsterdam North.

⁸⁶ Debra Solomon and Caroline Nevejan, “Soil in the City. The Socio-Environmental Substrate,” in *Field to Palette: Dialogues on Soil and Art in the Anthropocene*, eds. Alexandra Toland et al. (Boca Raton: CRC Press, Taylor & Francis Group, 2019), 620.



Fig. 25. Saša Spačal, in collaboration with dr. Mirjan Svagelj and Anil Podgornik. *Myconnect*. 2013. Capsule with mycelium and, amongst other elements, mycorrhizal technology. Kapelica Gallery, Ljubljana.

help of mycorrhizal technology. In the capsule, the interdependent human-fungi symbiosis and feedback loop becomes perceptible.⁸⁷ Although Spačal's work warrants a more detailed explanation, it is clear that it matches Shin's work in tracing and relating to non-human life, but it differs in its method. Spačal translates or makes relationalities visible, audible, and tactile through technological interfaces, such as a heartbeat sensor and electrical oscillations. In contrast, Shin

⁸⁷ "Mycohuman Relationships," Saša Spačal, 2017, <https://www.agapea.si/en/projects/mycohuman-relationships>.

works with organic matter through direct sensory experiences based on low-threshold, open-source JADAM practices and knowledge which require only low-cost equipment.⁸⁸ In comparison to the related artworks outlined above, Shin's exhibited working process distinguishes itself with its restorative practice, which is based on porosity and reacts to a site-specific naturalcultural history. By working with their hands in the earth, Shin *corresponds* with and takes care of growing more-than-human matter.

2.2 Cultivating Relations and Narratives with Indigenous Mould

This section considers in detail Shin's artistic practice and the material process evident in the exhibition's installations. Shin's material practice emerged from their observation of Wave Hill's outdoor area to discover the connection between its indigenous and colonial history and the present day. During such observation, Shin uttered the following sentences to themselves:

⁸⁸ Shin, "M for Mitigation," 8.

The view that I witness today, across the Wave Hill
Estate overlooking the Palisades.
The view that they witnessed that day, across the
New World overlooking the Palisades.
The view that they witnessed that day, across Lenape
Land overlooking Muhheakantuck.⁸⁹

Accordingly, Shin regarded how their artistic practice could respond to the material history of the site and the Palisades. By searching for traces of indigenous life, Shin intertwined their material practice with the site's history. Initially, Shin could only find four trees predating 1843, when Wave Hill became an estate. For each tree, Shin created a 'portrait' in the form of a multi-media collage that included historical photographs, microscopic images, images of related paintings, scientific drawings and quotations, a map, and organic material, such as a leaf. Shin's work *Portrait (American Elm Tree)* (2020, Fig. 26) features mushrooms hanging in a small plastic bag.

Mushrooms are the fruiting bodies of fungi that grow from spores of the soil's fungi network. When foraging for mushrooms, one is more likely to find them close to old, deep-rooted trees than near horticultural gardens, as the latter

⁸⁹ Ibid., 3.



Fig. 26. TJ Shin. *Portrait (American Elm Tree)*. 2020. Multi-media collage print. 61 x 160 cm.

contain mostly annual, non-perennial flowers and plants with more shallow roots. Hyphae, or fungal root tips, form a mycelium network that lives in symbiosis with trees and plants



Fig. 27. TJ Shin. Installation view of the exhibition *M for Membrane*, with the single-channel video *M for Memoir*. 2020. 14:00 minutes. Wave Hill, New York.

by connecting to their roots.⁹⁰ The trees and plants provide carbon to the mycorrhizal species, and the mycelium delivers nutrients, such as phosphorus, to the trees and plants. The mycelium functions as an essential, decentralised communication network between trees; for instance, it allows trees to inform other trees about diseases to encourage preparation of defences to prevent further transmission. As such, the mycelium network is vital for trees to resist parasitic

⁹⁰ Ibid., 7.

infections, which mainly result from deforestation and monoculture of plant species. At Wave Hill, the network of mycorrhizal species has been damaged by the chemical fertilisers and pesticides that are used in the horticultural gardens. However, this network can be slowly restored and strengthened by the indigenous leaf mould, which might be the only indigenous life that remains on the previously indigenous land.⁹¹ Shin started looking for the indigenous leaf mould because of its known restorative quality. The mould consists of hyphae that grow on undisturbed and decomposing leaf litter piles. For the exhibition *M for Membrane*, Shin cultivated indigenous leaf mould, and visitors could follow the growth of the mould and its return to the soil and to its mother: the indigenous mycorrhizal network from which it stems.

The video *M for Memoir* (2020) and various equipment, such as buckets and wooden boxes for cultivating the mould, were part of the indoor installation (Fig. 27). The video (Figs. 28–31) offers the most comprehensive account of the working process. It depicts Shin at work and fragments of actions alternated with views of the landscape, including the Palisades across the water and close-ups of the forest, earth, and mould. At the same time, a spoken voice is seemingly replaced by the

⁹¹ Ibid., 2.



Fig. 28–31 . TJ Shin. Stills from *M for Memoir*. 2020. Single-channel video. 14:00 minutes.

sounds of the surroundings. The subtitles present a narrative that appears to come from a leaf mould that has just awoken. It asks questions such as, 'How long have I been dormant? When was the last time I bit into sweetness?' and 'Where do I go from here?' (Fig. 30) before concluding, 'I am on my way home.' Since life can be cultivated only from existing life, Shin had to first locate indigenous leaf mould. Remarkably, it was not easy to gather the mould, and such difficulty is a sign of poor soil health. Inspired by JADAM practices, Shin buried steamed rice in a leaf pile to allow the mould to feed on the rice, but Shin did not observe any visible mould growth after one week.⁹² Eventually, Christopher Bivens, who leads the compost initiative at Wave Hill, showed Shin the compost piles that he maintains, and Shin was able to uncover some indigenous leaf mould. Prior to the exhibition, Shin volunteered at compost sites in New York, where they mostly transformed food waste into humus.⁹³ At Wave Hill, the compost piles are fed mainly by leaf litter cleared from the garden and supplemented with other organic waste. Microbes and other species decompose the organic matter, and, in the last stage, fungi transform toxins into soil-nourishing substances.⁹⁴ After

⁹² Ibid. See Cho, *JADAM Organic Farming*, 161.

⁹³ Lee, "Tiffany Jaeyeon Shin ferments history."

⁹⁴ Shin, "M for Mitigation," 6.

Shin acquired some nuggets of indigenous lead mould hyphae (Fig. 31) from deep underneath the leaf litter of a compost pile, they were able to actively apply JADAM methods to support indigenous microbial growth and return it to the soil as an organic fertiliser.

After ascertaining the long-lasting effect of the material resource extractions that coincided with the colonial and capitalist history of the site, Shin decided to work *with* the material of the land. Rather than extracting matter, attempting to master it, and forcing it into a shape, Shin wanted to create an exhibition that was ephemeral but could continue to grow after its deinstallation.⁹⁵ Their goal was to replenish, repair damage, and combat scarcity by regenerating and returning that which had been extracted from the land. In this effort, Shin was guided by the practices and theories of JADAM farmers, who work with the land as companions and prioritise soil health over plant growth. Caring for the soil by taking care of the land's indigenous microbes can improve the fungal relationships of plants and, in turn, the plants' ability to grow.⁹⁶ To cultivate indigenous microbes, JADAM has developed an open-source process for making organic fertiliser from the excess of any crop as well as transforming leaf litter into

⁹⁵ Lee, "Tiffany Jaeyeon Shin ferments history."

⁹⁶ Ibid.



Fig. 32. TJ Shin. Installation view of the exhibition *M for Membrane*, showing three buckets with ingredients and the one with the wooden bar on top demonstrates the fermentation process. 2020. Wave Hill, New York.

fermented fertiliser. Fermentation is a microbiological process that is often harnessed to produce and extend the shelf life of foods—for example, to preserve cabbage as sauerkraut by converting its natural sugars into organic acids. Shin was raised with the family tradition of making kimchi, a Korean dish of fermented vegetables that can be produced in numerous ways. However, Shin had to use the open-source network of JADAM to learn how to create fermented fertiliser that could

nourish the soil and its fungal network.⁹⁷ In contrast to the process of fermenting foods for human consumption, the fertiliser fermentation process involved feeding starches, such as rice and sweet potato, to the bacteria and indigenous mould of the leaf litter, soil, and hyphae nuggets that Shin had foraged from the land. During the exhibition, Shin utilised two JADAM methods.⁹⁸ The first consists of enclosing leaf litter in one cheesecloth and a boiled potato in another and then hanging them in a bucket with rainwater and salt. After squeezing the two permeable bags in the liquid, the juice starts to bubble, as in the upper-left bucket in Figure 32. The second technique entails feeding rice to the leaf mould in a wooden box. Once white mould grows on the mixture, it can be combined with sugar and placed in large jars with breathable lids (Figs. 33–35). Through the fermentation process, microbes of the indigenous leaf mould proliferated, and the harvested and transformed matter could ultimately be returned to the forest. At the outside installation, *M for Mother* (Fig. 18), a tarp was used to create a humid atmosphere where Shin returned the nutrient-rich humus and liquid fertiliser during the

⁹⁷ TJ Shin, interview by Rosa Marie Mulder, February 9, 2021, New York City/Amsterdam.

⁹⁸ See Cho, *JADAM Organic Farming*, 156–163.



Fig. 33. TJ Shin. Photo of detail of wooden box with rice and indigenous mould. 2020.

Fig. 34. TJ Shin. *Untitled (Incubator #2)*. 2020. Soil from Wave Hill's forest, rice, indigenous mould, plexiglass, wood, stainless steel plaque. 112 x 41 x 124 cm.

Fig. 35. TJ Shin. *Untitled (Incubator #1)*. 2020. Indigenous mould, sugar, glass jars, foam cooler, digital thermometer. 66 x 48 x 99 cm.

deinstallation of the exhibition (Figs. 36–37). In time, the reinforcement of the fungal network will support the regrowth of Wave Hill's forest and the restoration of the previously indigenous land. Shin's do-it-yourself practice serves the regeneration of human-earth histories and futures by cultivating relations and narratives with indigenous life.

2.3 Unfolding Politics and Ethics by Metaphorically Composting Shin's Practice

Through their artistic work and use of JADAM techniques, Shin explores opportunities to encourage the land and its life to flourish. Moreover, by working with matter from the land, Shin imagines ways of living as and with companion species. This

section complements the insights from *M for Membrane*, Haraway's understanding of composting, and feminist environmental humanities concepts by discussing the interrelation of Shin's material practice and the material metaphor of composting. Like Hamilton and Neimanis, who track scraps of feminism in the environmental humanities compost pile, Shin followed threads of indigenous mould to make 'string figures', as Haraway would say, with creatures to create stories about more liveable relations. In the video *M for Memoir*, Shin weaves a story from the perspective of the mould to imagine life in a compost pile, which renders it possible to re-imagine how humans can merge into the webs of life. For Haraway, making string figures involves finding

ways to make the world and its inhabitants continue as multispecies.⁹⁹ String figuring is a continuous process of becoming-with each other by tracing and responding to matter of specific places and times of this world, which Haraway calls the Chthulucene. This term addresses forms of storytelling that critically respond to other terms, such as the Anthropocene or the Capitalocene, that are used to refer to the current era.¹⁰⁰ The former describes a geological epoch in which humans are considered the most important species and reign over the Earth while destroying the ecologies that enable life. However, not all humans have always ruled over the world in the same way.¹⁰¹ In fact, the emergence of capitalism and neoliberalism caused humans to have an increasing and everlasting impact on the Earth, thus inspiring the term Capitalocene.¹⁰² Three of the possible starting dates of the Anthropocene are arguably related to colonialism, as it essentially gave rise to capitalism in the long term. For example, British colonialism facilitated

⁹⁹ Haraway, *Staying with the Trouble*, 3.

¹⁰⁰ Ibid., 2. Chthulucene derives from a combination of two Greek words, *kainos* meaning “now” and *khthôn* meaning “chthonic ones.”

¹⁰¹ Anna Lowenhaupt Tsing, “Arts of Noticing,” in *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015), 19.

¹⁰² See Demos, “Anthropocene, Capitalocene, Chthulucene,” 85-112.



Fig. 36-37. TJ Shin. Deinstallation process of *M for Membrane*, returning all fermented fertiliser back to Wave Hill's forest. 2020. New York.

industrialism.¹⁰³ Therefore, Haraway understands the Chthulucene as a timeplace that stimulates, rather than assuming it is too late, to learn to live on a damaged Earth with all kinds of creatures. Following these creatures illuminates that soil can be a witness, like ‘hyphae infusing all sorts of temporalities and materialities’, which leads to stories of multispecies that are impacted by violent histories of landscapes.¹⁰⁴ Along these lines, one can tell stories by means of matter that reflects the past and offers a critical view of the present human-centred world.

Shin’s video is an example of such a story: for instance, the subtitled silent voice, which supposedly comes from the indigenous leaf mould, states, ‘I am resistant to memory’ and ‘I am resistant to history’ in reference to its endurance of violence and time. At the same time, these phrases confirm that all beings co-habit an active history and that nature and culture know no distinction, which opposes the anthropogenic thought that nature and culture are two discrete phenomena. Wave Hill’s past reveals how its history of indigenous inhabitants, colonialism, and labour coincide with the extractive and devastating natural history of the land. For the sake of the railroad industry and the building of plantation

houses in the South, 400-year-old trees were cut down. Moreover, the diabase volcanic rock of the Palisades, which solidified 225 million years ago, was extracted. These rocks had been used for shelter by Native Americans, such as the Munsee-speaking Wappinger tribe, who lived along the river and named the cliff ‘Wee-awaken’, meaning ‘rocks that look like trees’.¹⁰⁵ In the 17th century, Dutch colonisers described the rock as beautiful, hard stone that was as white and clean as they had ever seen. They viewed the Palisades from the river, which was named the Hudson in honour of a colonist.¹⁰⁶ Dutch people and other European (settler) colonists expropriated the land from the Native Americans to use the rock to construct roads and building blocks for New York City. The Carpenter Brothers quarried and dynamited the white rock



Fig. 38. Photo of the Palisades Cliff. Year unknown. The Carpenter Brothers are blasting trees and diabase rock.

¹⁰³ Haraway, *Staying with the Trouble*, 223.

¹⁰⁴ *Ibid.*, 2.

¹⁰⁵ Shin, “M for Mitigation,” 4.

¹⁰⁶ *Ibid.*

of the cliff, which was carried away by Black children and shaped into bricks mainly by Black Americans in the 1900s (Figs. 38–40).¹⁰⁷

Shin's work on Wave Hill corresponds to Hamilton and Neimanis' explanation of feminist concepts as foundational to the environmental humanities. Haraway, for example, develops storytelling not as a neutral concept to simply expand perspectives but as a means of sharing stories that are politically and ethically engaged. Asking who or what is missing from specific hegemonic colonial, capitalist, and patriarchal histories can illuminate their effects and how they can be felt or perceived in the present.¹⁰⁸ Hence, recounting particular stories generates certain understandings and allows for changing relationalities and intervening in material ways, as Shin does by tracing, cultivating, and telling stories with indigenous leaf mould. As with Haraway's concept of storytelling, Hamilton and Neimanis build their argument on philosopher and ecofeminist Val Plumwood's critique of the nature/culture binary. In the environmental humanities, Plumwood is often credited for her contribution to dismantling the nature/culture dualism. However, there has been little attention to her argument that

¹⁰⁷ Ibid., 5.

¹⁰⁸ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 514-16.



Fig. 39. Photo of the Carpenter Brothers' Quarry, the Palisades, 1897. This photo is also part of the multi-media collage *Portrait (Red Oak Tree)*, 2020.



Fig. 40. Photo of African-Americans who work the brickyards, wheeling bricks to the kiln. Haverstraw. 1900s.

the Western nature/culture division is related to other dualist structures.¹⁰⁹ Plumwood clarifies how ideas concerning nature and culture are connected to issues of gender, class, and race. Hamilton and Neimanis contend that it is crucial to acknowledge this feminist input since its negation naturalises mutually reinforcing, oppressive dualisms.¹¹⁰ Polarities such as male/female and civilised/primitive relate to the Western discourse on what can be defined as 'nature' or 'culture' and who or what can act and have power. Notably, Plumwood highlights interlocking structures of oppression, which offers insight to the environmental humanities to consider how environmental damage coincides with social injustice. Likewise, Shin shows the relation between naturalcultural history and social histories of labour in the way that the exhaustion of natural resources implies the exhaustion of human resources.

Hamilton and Neimanis also engage with the topic of intersectionality, for which they draw on Sedgwick's previously mentioned notion of permeability. The term 'intersectionality' was coined by Kimberlé Crenshaw, who is a scholar in Black feminist legal theory. Intersectionality has been crucial to

expanding the inclusivity of feminism by conceiving of gender as permeable. This permeability makes it impossible to consider gender without also accounting for its many overlapping and diverse experiences and discourses of, for example, race, class, sexuality, age, and ability.¹¹¹ The concept of intersectionality has continuously expanded the scope of social justice and prompted challenges to species or speciesism to include relations to the more-than-human world. This call to include the more-than-human in the (environmental) humanities is inherently feminist, which has hardly been acknowledged.¹¹² Moreover, the expansive concept of intersectionality interrogates the boundaries of being 'human' and promotes awareness of the permeability of bodies that are all dependent on and always consisting of multiple species, like a multispecies assemblage.¹¹³

When considering interspecies interdependence, permeability must be viewed not only in terms of intersectionality but also with respect to an ethics of care. Care

¹⁰⁹ Ibid., 512.

¹¹⁰ Ibid., 513; Val Plumwood, *Feminism and the Mastery of Nature* (New York: Routledge, 1993), 43.

¹¹¹ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 512. See Kimberlé Crenshaw, "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color," *Stanford Law Review* 43, no. 6 (1991): 1241–99.

¹¹² Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 508, 519.

¹¹³ Ibid., 519.

can be understood as something that permeates bodies and which bodies can receive and pass on. Such varied understandings of permeability resonate with the practice of Shin, which investigates the possibilities and traps of permeability that allow for care and repair as well as vulnerability and violence.¹¹⁴ Power causes some (white) people to seem untouchable while rendering others vulnerable. Consequently, those with power directly or indirectly gain control over people of colour and more-than-human bodies. Shin has engaged with permeable forms of vulnerability and care in their earlier works as well. For instance, in the exhibition *Microbial Speculation of Our Gut Feelings* (2020, Fig. 41) at Recess in New York City, Shin responded to the relation of biological living processes to social life and immigrant health. In general, microbes live in and on the body; however, immigrants undergo microbial gut colonisation after arriving in the United States, which exposes them to metabolic diseases. In consideration of this phenomenon, Shin established a ‘do-it-yourself’ garden at Recess, where they applied JADAM techniques to ferment lactic acid bacteria that they could harvest and eat together with visitors to improve

¹¹⁴ “In Conversation—Tiffany Jaeyeon Shin & Dr. Vanessa Agard-Jones,” Wave Hill, October 8, 2020, <https://www.wavehill.org/calendar/in-conversation-tiffany-jaeyeon-shin-dr-vanessa-agard-jones>.

their microbial diversity and gut health.¹¹⁵ In *M for Membrane*, Shin demonstrates the dual meaning of permeability by working with the permeability of soil, porous membranes of mould, and leaves while questioning racialised histories through the exploited porosity of the social and bodily boundaries of Black people.



Fig. 41. TJ Shin. Photo of Shin watering the plants, installation view of *Microbial Speculation of Our Gut Feelings*. 2020. Recess, New York City.

¹¹⁵ “Tiffany Jaeyeon Shin: *Microbial Speculation of Our Gut Feelings*,” Recess, accessed November 2, 2021, <https://www.recessart.org/tiffanyjaeyeonshin/>.

The importance of permeability to *M for Membrane* is literally present in the exhibition's title. Yet, the letter M, which also recurs in the titles of the artworks *M for Memoir* and *M for Mother*, gestures to the M-theory of physics. This theory encompasses all superstring theories. For Shin, the significance of the M in this theory is that it refers to membrane, mystery, magic, and a few other concepts. Thus, the letter alludes to practices and knowledges, such as those based on alchemy, that Shin explores in the exhibition but are not confined to strictly scientific methods.¹¹⁶ Shin's use of JADAM methods is inspired by the knowledge and experience of Korean Natural Farmers, which adds to Hamilton and Neimanis' methodology of composting. These authors analyse how the discourse of environmental humanities selectively composites feminist concepts and seek to determine what is being 'mulched' together. While careful analysis of the composting process yields insight into which concepts might or might not offer fertile grounds for environmental feminists, Hamilton and Neimanis recognise that composting feminism with decolonial efforts requires even more care.¹¹⁷

¹¹⁶ TJ Shin, "M for Membrane," accessed November 1, 2021, <https://jaeyeonshin.com/M-for-Membrane>.

¹¹⁷ Hamilton and Neimanis, "Composting Feminisms and Environmental Humanities," 520.

Furthermore, they acknowledge that feminist and decolonial theories are both compromised, and attention needs to be directed to their specifics for them to nourish each other.¹¹⁸ For example, in the expansion of perspectives and inclusion of the more-than-human world, feminists and their concept of intersectionality deserve only part of the credit. Native and indigenous people have developed and perpetuated knowledge of the more-than-human world for centuries.¹¹⁹ Indigenous theoretical contributions and indigenous practices have been subject to erasure, as they are often unacknowledged as foundational to ecological and regenerative forms of agriculture or permaculture.

With respect to JADAM—and in comparison to Hamilton and Neimanis, who carefully and rightfully observe what is being composted—it is interesting to note that practices based on JADAM are not at all selective. Cho argues that symbiotic relationships with the soil are based on care instead of judgment.¹²⁰ People do not own the soil and, thus, should not dominate it. Scientists are still largely unaware of which of the billions of microorganisms maintain the soil's micro-

¹¹⁸ Ibid., 523.

¹¹⁹ Ibid., 522; Zoe Todd, "An Indigenous Feminist's Take on the Ontological Turn: Ontology Is Just Another Word for Colonialism," *Historical Sociology* 29 (2016): 4–22.

¹²⁰ Lee, "Tiffany Jaeyeon Shin ferments history."

ecosystems and in which combinations they do so. This gap in knowledge hinders the classification and adoption of beneficial microorganisms for cultivation.¹²¹ The selection of bacteria for industrial pesticides is mainly commercially motivated; these pesticides colonise and pollute the soil and reduce the amount of locally adapted microorganisms as well as the nutrients they provide. Therefore, JADAM encourages the symbiosis of soil's microbial diversity and refuses to decide which species can live or die.¹²² Again, JADAM and Shin's practices reveal how the microbial level discloses larger patterns of biopolitics—of lives that are worthy or unworthy of cultivating, protecting, or optimising.¹²³

Just as Hamilton and Neimanis outline that their theoretical methodology of composting as a material metaphor is a matter of matter too, Shin demonstrates that beings and stories are at stake in their material practice of fermenting at both the micro and macro levels. As an artist, Shin combines their material practice and imagination to continuously explore forms of reciprocal and entangled relations. Through working with matter in proximity to develop an understanding of and

feeling for living processes, Shin advocates for imagining possible alternative relationalities with bodies and the environment. Like composting, fermentation involves working with, making, and changing environments to enable life, which allows for adapting or changing and decomposing or composing.¹²⁴ At the same time, composting and fermentation urge less binary or polarised thinking, as the co-transformation and interdependence of the environment and its life are inherent to its processes. Shin blurs the boundaries between bodies and their surroundings, thus questioning the self-containment of bodies and making it imaginable how mould is part of all multispecies bodies. As such, *M for Membrane* encourages possible imaginations of Haraway's idea of humans as humus by thinking of *humusities* instead of humanity to gradually transform the remnants of naturalcultural history from vulnerable into fruitful beings.

¹²¹ Shin, "M for Mitigation," 8.

¹²² Lee, "Tiffany Jaeyeon Shin ferments history."

¹²³ See Mel Y. Chen, "Animacies," in *Posthuman glossary*, eds. Rosi Braidotti and Maria Hlavajova (London: Bloomsbury Academic, 2018), 32-34.

¹²⁴ See also Lauren Fournier, "Fermenting Feminism as Methodology and Metaphor. Approaching Transnational Feminist Practices Through Microbial Transformation," *Environmental Humanities* 12, no. 1 (May 2020): 88-112; Sandor Ellix Katz, *Fermentation as Metaphor* (Vermont: Chelsea Green Publishing, 2020).

3. Composting as Speculative Method: Opening up to Potential Human-Earth Relations

In contrast to Shin's restorative material practice, the angle of composting is applied in this chapter to investigate speculative human-earth relations in contemporary art. The speculative possibilities of composting give rise to imaginations of humans working together with other things and beings—as if the world's relations form one huge compost pile. Envisioning the world as a compost pile requires a different mindset and attitude than those which are currently prevalent and which cause humans to feel self-reliant and extraordinary. In this regard, this chapter is more concerned with creating space and ideas to think differently about human-earth relations than with promptly resolving the issues that accompany the general human mode of acting. When defining the speculative, the design theorists Anthony Dunne and Fiona Raby observe that people usually think of design as problem-solving; however, these theorists prefer to relate it to speculative culture, such as fine art.¹²⁵ They recognise speculative qualities of art that facilitate other ways of imagining the present. Hence,

¹²⁵ Anthony Dunne and Fiona Raby, "Beyond Radical Design?" in *Speculative Everything: Design, Fiction, and Social Dreaming* (Cambridge: The MIT Press, 2013), 2-3.

speculative art inherently involves a critical reflection on the current state of being and thinking and explores alternative futures.¹²⁶ Without predicting or defining one particular future, art probes possibilities that suggest other frames of thinking and creating. The growing mess that humans have caused can be mitigated by, for instance, the use of biomaterials. The design Studio Klarenbeek & Dros has developed a seaweed-based material that can replace plastic objects (e.g.,



Fig. 42. Studio Klarenbeek & Dros. *Seaweed Cycle*. 2020. Photograph of replicas of design objects but made from biodegradable seaweed-based material instead of plastic. Developed for the online exhibition *The Breakdown Economy*. Boijmans van Beuningen.

¹²⁶ Ibid.

compostable plant pots instead of plastic pots; Fig. 42).¹²⁷ Although such design and material research are helpful, this chapter does not present material alternatives but instead speculates on how humans can alternatively relate to matter and other species in the first place. To this end, an analysis of Pierre Huyghe's artwork *Untilled* (2012, Figs. 43–46) delivers insight into re-imagining and developing a sense of the human role amongst the mess of relations in a composting world.

Huyghe's works are regularly characterised as speculative.¹²⁸ *Untilled* at dOCUMENTA (13) is one example of a work that can be considered a speculative environment. Huyghe introduced components to the location of the work at the compost site of Kassel's Karlsaue Park. With the addition of these components to the elements that were already present, the work changed and developed over the course of the 100-day exhibition. Animate and inanimate matter, such as hills with plants and paving slabs (Figs. 43, 45), and objects

¹²⁷ Boijmans van Beuningen, "Maartje Dros and Eric Klarenbeek," *The Breakdown Economy*, accessed November 2, 2021, <https://deafbreekeconomie.boijmans.nl/en/#interview-studio-klarenbeek-and-dros>.

¹²⁸ See, for example, Hans Ulrich Obrist, "Serpentine Galleries Foreword," in *Pierre Huyghe*, eds. Rebecca Lewin et al. (London: Koenig Books and Serpentine Galleries, 2019), 5; Sven Lütticken, "Systemic Aestheticization," *Texte zur Kunst*, no. 114 (June 2019), <https://www.textezurkunst.de/114/>.

from different eras and contexts became part of the site's living processes. For instance, a bee colony built a hive in place of the head of a sculpture (Fig. 46). For Huyghe, the notion of creating conditions that permit a work or exhibition to evolve by itself initially emerged from an earlier work, *The Host and the Cloud* (2009–10), which he viewed as a 'hypothetical situation'.¹²⁹ For this one-year live event, which took place in the closed and out-of-use Musée National des Arts et Traditions Populaires in Paris, Huyghe convened a group of people for whom he set up structures and basic rules to generate situations that might facilitate unforeseen encounters. The participants were confronted with situations, such as a legal trial, that they could either imitate or transform and which, in turn, caused speculative situations (Fig. 47).¹³⁰ In the years after *The Host and the Cloud*, Huyghe continued to work on speculative approaches whereby arranged sets of operations would unfold into unsettled incidents through external influences, such as rainfall or birds making a nest in the case of *Untilled*. This artwork decomposed and composed through

¹²⁹ Hans Ulrich Obrist, "Conversation. Hans Ulrich Obrist and Pierre Huyghe," in *Pierre Huyghe*, eds. Rebecca Lewin et al. (London: Koenig Books and Serpentine Galleries, 2019), 107.

¹³⁰ Rebecca Lewin et al., "The Host and the Cloud, 2009-10," in *Pierre Huyghe*, (London: Koenig Books and Serpentine Galleries, 2019), 26.



Fig. 43–46. Pierre Huyghe. Photos of *Untilled*. 2012. Things made by humans and more-than-human entities. documentA (13), Karlsaue Park in Kassel. Bottom left, fig. 45: paving slabs and a bench by artist Dominique Gonzalez-Foerster. Bottom right, fig. 46: *Untilled (Liegender Frauenakt)* [Reclining Female Nude], a replica of a sculpture from the 1930s by Max Reinhold Weber, concrete with beehive structure, and live bee colony, concrete sculpture 105 x 145 x 44,5 cm, beehive variable dimensions.

entangled processes emerging in collaboration with the compost site. Breaking down organic matter was certainly part of *Untilled*'s many processes, but rather than presenting composting as a material practice, the artwork gives rise to the idea and investigation of composting as a speculative method.

The speculative aspect of Huyghe's work derives from his engagement with chance and disruption. He has identified the role of chance in the unfinished *Le Livre* by poet Stéphane Mallarmé as a major source of inspiration for his work. As of



Fig. 47. Pierre Huyghe. Still from the film after the eponymous artwork *The Host and the Cloud*. 2009–10.

1855, *Le Livre* was no longer intended to be a bound or rigid book but rather to remain unbound so that, with every reading, the pages could be reshuffled in consonance with the situation and attendees.¹³¹ As such, the work is disrupted and subject to continuous change. However, Huyghe has differentiated his work from that of composer John Cage. He has stated that chance also features in Cage's writing process, but the score is not disrupted afterwards.¹³² While chance is in full play during the performance, it is still inherent to the 'score' of Cage's silent piece 4'33 (1952), in which ambient noise fills in the scripted silence. Huyghe's works do not follow a predetermined script but are instead scenarios. Like a 'scenario without a script', a work represents one of many possible scenarios without being predefined.¹³³ Through this concept of scenarios, the art historian Dorothea von Hantelmann interprets Huyghe's work as an antithesis to art and exhibitions. A scenario, such as that of *Untilled*, takes place when the artist has assembled

¹³¹ Dorothea von Hantelmann, "Situating Cosmo-Technologies. Pierre Huyghe's *Untilled* and *After Alife Ahead*," in *Pierre Huyghe*, eds. Rebecca Lewin et al. (London: Koenig Books and Serpentine Galleries, 2019), 20.

¹³² Obrist, "Conversation," 108.

¹³³ Dorothea von Hantelmann, "Thinking the Arrival: Pierre Huyghe's *Untilled* and the Ontology of the Exhibition," *On Curating*, nr. 33 (June 2017), <https://www.on-curating.org/issue-33-reader/thinking-the-arrival-pierre-huyghes-untilled-and-the-ontology-of-the-exhibition.html#.YJkoOLUzY2w>.

a composition of various elements, and the site subsequently assumes control. In that respect, Von Hantelmann perceives the speculative in Huyghe's practice as replacement of the independence of the artist with that of their artwork. The materials of the work are established by the artist but thereafter influenced by the surroundings, which transform their shape as well as the traditional idea of an artist's autonomy.¹³⁴ Legitimately, this understanding of a speculative approach equips Von Hantelmann to view Huyghe's work as an antithesis to art. Just as a scenario depends on factors such as the seasons, a work being made in relation to its environment can also be understood as an antithesis to the notion of an exhibition. Exhibitions generally remove objects from their context to present them in a disassociated space. Rather than occurring in the white cube of a delineated exhibition space, which permits control of the framework, mode of display, and factors such as the temperature, Huyghe's work exists in relation to a site with porous borders. For example, in *Untilled*, the bees move indeterminably beyond the compost site to pollinate flowers, crops, and trees. Through their interdependent relations, the artwork and its surroundings continue to affect each other, which counteracts the

¹³⁴ Von Hantelmann, "Situated Cosmo-Technologies," 18.

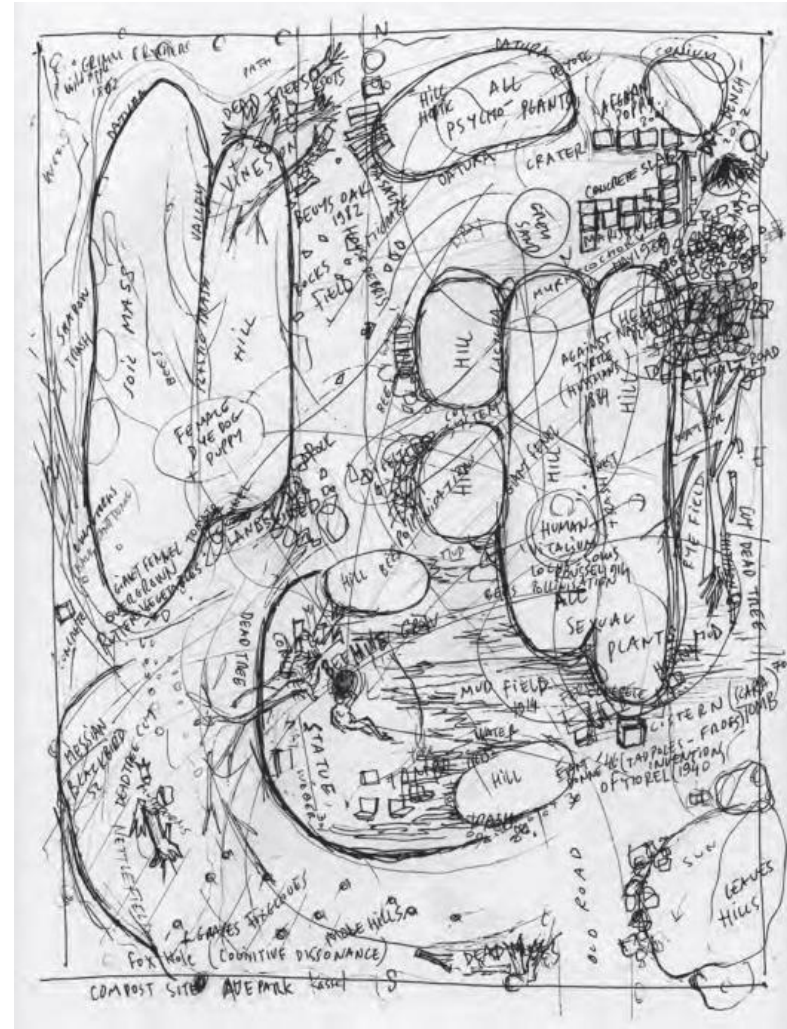
autonomous format of the exhibition.¹³⁵ This interpretation of Huyghe's speculative work as an antithesis to art and exhibitions has significantly informed readings of his work.¹³⁶

This thesis constructs a framework for composting and contemporary art that probes modes of relating to a more-than-human world, whereas Von Hantelmann primarily elaborates on an art historical discourse. While she does emphasise the participation of the more-than-human in Huyghe's work to underpin her antithetical argument on art, this chapter considers art in order to speculate on human-earth relations, not vice versa. Rather than using more-than-human entities to expand art, it scrutinises art to explore a move from the human to the more-than-human realm. The feminist scientist Puig de la Bellacasa's understanding of the speculative proves to be valuable in this regard. The (sub)title of her book *Matters of Care: Speculative Ethics in More Than Human Worlds* refers to a reconsideration of care that shifts away from the view of care as human-centred and human-specific. To envision and work towards a more-than-human world, Puig de la Bellacasa applies a speculative approach to critically assessing the

¹³⁵ Ibid., 19.

¹³⁶ See, for example, Obrist, "Serpentine Galleries Foreword," 4-7; Dorothea von Hantelmann, "Notes on the Exhibition," in *The Book of Books*, eds. Carolyn Christov Bakargiev et al. vol. 1/3 *dOCUMENTA (13): Catalog* (Ostfildern: Hatje Cantz, 2012), 548-50.

present. In this sense, to work speculatively is to work critically, which serves the continuous search for ways of caring as well as possible.¹³⁷ Puig de la Bellacasa draws upon the speculative as a way to think about the ethically possible by stirring the imagination. The speculative departs from the present and imagines fictional futures that could become and change reality. Speculative propositions make it possible to re-imagine and reshape the world and its ingrained modes of thinking. In a way, the material and imaginary feed each other. Although Puig de la Bellacasa does not address art in her book, artistic practices create materialised images and provoke mental images. The cluttered ensemble of elements in Huyghe's sketch of *Untilled* (Fig. 48) speculates on, for example, the co-existence of more-than-human matter, while the work's actual manifestation altered local life and generated a further stream of thoughts, actions, and images. The labyrinth of relations in the drawing mirrors the numerous interdependent relations in a compost pile but speculates on the artwork and its site in becoming.



¹³⁷ Puig de la Bellacasa, "Introduction," 7.

a compost pile; one can only explore how to work together by speculating and experimenting. Since every compost pile is unique, it is impossible to establish normative rules for composting. The interdisciplinary science and technology scholars Sebastian Abrahamsson and Filippo Bertoni have published an article as a guide to vermicomposting with dung earthworms. The article, 'Compost Politics: Experimenting with Togetherness in Vermicomposting', examines composting practices and a range of scenarios that one might encounter.¹³⁸ It offers no simple conclusions but provides a glossary to extend the text and theory to experiential practices of togetherness. The following sections present a more elaborate description of *Untilled* and contextualisation with two later works by Huyghe and other related artistic practices. The artwork is investigated on the basis of the glossary's keywords: assembling, decomposing, maintaining, feeding, knowing, and compost politics. Accordingly, this chapter focuses on composting as a speculative method by analysing *Untilled* in relation to Abrahamsson and Bertoni's article. This analysis clarifies how art can prompt the imagination of alternative relationalities in a more-than-human world by appealing to the senses.

¹³⁸ Abrahamsson and Bertoni, "Compost Politics," 125-148.

3.1 Relating *Untilled* to Growing Artworks and Speculative Artistic Approaches

Of the various aspects of *Untilled*, the most well known is likely the living white dog, which has a leg painted bright pink. The dog, which is called 'Human' (Fig. 49), was put in place by Huyghe and cared for by an actual human through repetitive tasks. As much as the dog's fluorescent leg demands attention and accentuates the human intervention, it is ambiguous whether many other elements and processes were added, intervened, or were already present. For example, even when viewing Huyghe's drawing of *Untilled* or walking through the compost site, it is unclear if Huyghe made the walkway, the pile of black chippings, or the compost hills. However, the text in dOCUMENTA's catalogue does suggest that Huyghe planted the aphrodisiac and psychoactive plants on the hills (Fig. 50).¹³⁹ Furthermore, Huyghe incorporated various artworks, such as an uprooted tree of *7,000 Oaks* (1982) by Joseph Beuys from Documenta 7. He also contrived the replica of a sculpture from the 1930s by Max Reinhold Weber, which represents a reclining nude woman, on whose head the beehive was able to grow. Yet, Huyghe might not have foreseen certain processes. For instance, the pink paint on the

¹³⁹ Carolyn Christov-Bakargiev et al., *The Guidebook*, vol. 3/3 *dOCUMENTA (13): Catalog* (Ostfildern: Hatje Cantz, 2012), 262.



Fig. 49–50. Pierre Huyghe. Photos of *Untilled*. 2012. Things made by humans and more-than-human entities. dOCUMENTA (13), Karsaue Park in Kassel. Top: a dog named Human, a white hound with a painted pink leg, in front of paving slabs. Bottom: planted pink flowers that grow on the compost hills.

bench by artist Dominique Gonzalez-Foerster (Fig. 45) leached into the soil when it rained, which affected the soil life. Moreover, like the beehive and its bees, the plants grew and reproduced during the exhibition, which caused the path to narrow and the stacked paving slabs to become overgrown. Further changes at the compost site took place on a smaller scale. The arranged anthill anticipated myrmecochory, the dispersion of seeds by ants, whereas the small water basins that were created enabled—expectedly or not—life for tadpoles and algae. The tadpoles consumed the algae but could be eaten by the nestled birds before they could grow into frogs. By extension, *Untilled* influenced and generated life which intertwined organic elements and biological processes with human-made products to form one ecosystem. The following section provides a more comprehensive sense of *Untilled* by differentiating it from related artworks in preparation for examining Abrahamsson and Bertoni's speculative compost politics.

As a result of the strong connection to a specific site, Huyghe conceives of his artworks as habitats. In view of this site-specificity, Von Hantelmann contextualises Huyghe's work in relation to that of the artist Daniel Buren and the land art

movement.¹⁴⁰ Buren makes most of his conceptual work *in situ*, which entails that an artwork is inextricably linked to its site. The characteristic stripes (Fig. 51) that he has created since 1965 are always integrated with the site; the exhibition site itself is the canvas for the striped pattern, and Buren uses it to question how space and its context inform an artwork. In a similar way, Huyghe's work is also site-specific. However, *Untilled* is not a 'finished' work, as it changes continuously in accordance with the site. Some land art of the 1960s and



Fig. 51. Daniel Buren. Installation view of the exhibition *Daniel Buren: Sketches for a work in situ*. June 20–July 19, 1987. Serpentine Gallery, London.

¹⁴⁰ Von Hantelmann, "Situated Cosmo-Technologies," 13-15.

1970s introduced earth and other matter, such as stones, into the exhibition space (for an example, see Fig. 52) or utilised photography to document earthworks in very remote places. Most of these indoor installations and documentary works have removed matter and representations from their original context without actively relating them to the new exhibition context. However, the aspect of processuality is more present in land art that is created outside, in and with the landscape.



Fig. 52. Walter De Maria. Installation view of *The New York Earth Room*. 1977.

Transience plays a role in many artworks, such as *Broken Circle/Spiral Hill* (1971, Fig. 53) by Robert Smithson. This artwork would have dissolved years ago if people had not taken care of it by pouring sand in places where erosion processes had affected the work.¹⁴¹ In discussing Buren and land art, Von Hantelmann focuses again on the relationality and permeability of *Untilled* through the embedding of the



Fig. 53. Robert Smithson. Photo (2014) of *Broken Circle/Spiral Hill*. Since 1971. Emmen.

¹⁴¹ Hans Marijnissen, "The Emmer Circle is Closed After Forty Years//2011," in *The Rural* (London/Cambridge: Whitechapel Gallery/The MIT Press, 2019), 210-11.



Fig. 54. *Flag of Compassion*, initiated by Rini Hurkmans in 2002. Photo of *Flag of Compassion* during the event *Making Waves*. 2017. Amsterdam.

site's ecological processes. In addition to processes such as decay, she thinks of the artwork as a growing exhibition.¹⁴²

As the following paragraphs indicate, viewing the idea of art that is growing in a more contemporary artistic framework offers a broader perspective of *Untilled*. First, a growing and speculative artwork about forms of togetherness is discussed before a few artworks are addressed that speculate on a more-than-human world. The conceptual artwork *Flag of Compassion* (2002–present, Fig. 54), which was initiated by

¹⁴² Von Hantelmann, "Thinking the Arrival."

Rini Hurkmans, allows for temporarily removing *Untilled* from the usual ecological framing of Huyghe's work.¹⁴³ *Flag of Compassion* and the Unda Foundation, which manages the artwork, encourage people to use the Flag to make their opinion on compassion visible and heard. Via the Unda Foundation, the Flag functions independently of the artist or any nation, religion, political party, or other institution.¹⁴⁴ Everyone can use the Flag in their own way, which has activated many different reactions. The Flag's website displays a collection of photographs and personal stories that reflect a wide variety of occasions and statements.¹⁴⁵ Hence, the Flag's archive is still demonstrably growing in both size and meaning. Above all, the Flag's archive could be considered one big speculation on possible definitions of compassion which provokes and sustains dialogues on how to live together. The

¹⁴³ See, for example, Adré Rottmann, "The Medium Is Leaking": Notes on the Work of Pierre Huyghe and the 'Ecologization' of Contemporary Art," *Grey Room*, no. 77 (Fall 2019): 84-97; Luke Skrebowski, "On Pierre Huyghe's *Umweltanschauung*: Art, Ecosystems Aesthetics, and General Ecology," *Grey Room*, no. 77 (Fall 2019): 66-83.

¹⁴⁴ Pascal Gielen and Rini Hurkmans, "Reconsider, reformulate, reinvent. A dialogue about Life, Art and Politics," in *Compassion. A Paradox in Art and Society*, eds. Jeroen Boomgaard et al. (Amsterdam: Valiz, 2017), 19-43.

¹⁴⁵ "Connections with the Flag," Flag of Compassion, accessed June 21, 2021, <https://flagofcompassion.com/connections/>.

Flag might, for example, be used to express compassion for the Earth and oppose its destruction, yet it remains an instrument that is utilised by humans and communicates human perspectives. Because Hurkmans does not authorise people's use of the Flag, it has assumed a life of its own through the foundation, while the artist herself has faded into the background. As the following example indicates, disclaiming the artwork can also be at stake when considering the active role of matter in an artwork from a New Materialist point of view.

Unlike Huyghe, Semâ Bekirović treats and acknowledges matter itself as an artist—for example, moss that grows on a lost shoe, or the heat of the sun pressurising polyurethane out of a discarded spray can (Fig. 55). Bekirović works with materials that are used by humans, such as a ceramic vase, but highlights the natural processes that transform and, in a sense, re-appropriate matter (Fig. 56). Though she usually works as an artist, she curated the exhibition *Reading by Osmosis* (2019) at Zone2Source in Amsterdam featuring artworks by more-than-human forces.¹⁴⁶ With this New Materialist approach, Bekirović subverts art as a traditionally human domain. However, when presented in a

¹⁴⁶ Semâ Bekirović, "Reading by Osmosis/ Nature interprets Us," accessed June 21, 2021, <https://www.semabekirovic.nl/1792-2/>.



Fig. 55. Artist: the Sun. 2019. Polyurethane.



Fig. 56. Artist: barnacles. Year unknown. Vase.

traditional exhibition setting (e.g., on a pedestal) and withdrawn from their habitat, most of the works no longer transform or grow in relation with their environment. Nonetheless, the title *Reading by Osmosis* offers a fruitful perspective in referring to how these more-than-human forces ‘read’ and respond to the world. This form of ‘reading’ and responding is the entry point for speculation which, in this context, concerns how more-than-human matter understands and engages with the world.

As illustrated with the work *Myconnect* by Saša Spačal in the previous chapter, there is a tendency to apply technological means to connect to different entities and species.¹⁴⁷ Two later works by Huyghe also fit this technological approach regarding the interdependent relations with more-than-human matter. After *Untilled*, Huyghe produced two works that depend more on technology and less on organic and tactile matter: *After Alife Ahead* (2017) and *UUmwelt* (2018–2019), of which the latter certainly aligns with speculative interspecies communication based on technology. At Skulptur Projekte Münster, *After Alife Ahead* (Fig. 57) was held in the more enclosed yet still porous space of an inoperative ice rink. Following excavations, the site’s sediments, soil, clay, and microorganisms formed part of the

¹⁴⁷ See Saša Spačal, “Myconnect,” 2013, <https://www.agapea.si/en/projects/myconnect>.



Fig. 57. Pierre Huyghe. Installation view of *After ALife Ahead*. 2017. Skulptur Projekte Münster.

work. Additionally, air, rain, and sunshine could enter the space when pyramids in the ceiling were temporarily opened. Although various life forms were present, they were connected to a feedback system that affected various technologies, such as the system for opening and closing the ceiling. Via sensors, signals from living beings, such as a conus textile snail, were sent to digital devices that transformed them into different kinds of output.¹⁴⁸ In turn, such output continued to impact the

¹⁴⁸ Obrist, "Conversation," 315.

many processes within the rink. Despite the visible changes in the work's landscape, only a fraction of the manifold interdependent relations were actually perceptible. In this work, in comparison to *Untilled*, the partly unnoticeable natural processes seemed to be largely replaced by technological mechanisms. In the case of *UUmwelt* (Fig. 58), which took place at the Serpentine Gallery, the artwork's ecosystem appeared to be almost completely taken over by technology. With *UUmwelt*, Huyghe generated an 'ecosystem of mental



Fig. 58. Pierre Huyghe. Installation view of *UUmwelt*. 2019. Serpentine Gallery, London.

images'.¹⁴⁹ To achieve communication between species, Huyghe employed technologies in an attempt to bypass differences in the types of intelligence and means of communication of species. With interfaces such as a brain-computer, signals were translated into visible mental images, which is naturally a speculative visual interpretation of brain activity. Rather than relying mostly on technology as a mediator, this chapter combines an analysis of *Untilled* with an analysis of composting based on Abrahamsson and Bertoni's hands-on experience.

In their article, Abrahamsson and Bertoni argue that composting is a form of politics because it is a process that involves many activities that are shaped by disparate relations with humans and, above all, more-than-human bodies. To combine all of these variable elements, they employ the concept of 'compost politics', which is based on the philosopher Isabelle Stengers' understanding of cosmopolitics.¹⁵⁰ The visual culture scholar T. J. Demos has similarly applied Stengers' concept to speculate on interspecies cosmopolitics as a 'world-making practice of

¹⁴⁹ Ibid., 364.

¹⁵⁰ Abrahamsson and Bertoni, "Compost Politics," 127; Isabelle Stengers, "The Cosmopolitical Proposal," in *Making Things Public: Atmospheres of Democracy*, eds. by Bruno Latour and Peter Weibel (Cambridge, MA: The MIT Press, 2005), 994-1004.

human-nonhuman relations'.¹⁵¹ As an example of a possible form of interspecies cosmopolitics, Demos cited the participatory performance *The Trial* (2014, Fig. 59) by the Finnish artist Terike Haapoja and the writer Laura Gustafsson. Demos describes *The Trial* as an experiment for an alternative model that recognises more-than-human concerns and can restructure ways of living together. *The Trial* is a play on a lawsuit that makes imaginable a future juridical system in which animals are granted rights. The trial concerns the



Fig. 59. *The Trial* is part of the project *History of Others* (2013-ongoing), initiated by Terike Haapoja and Laura Gustafsson. 2014. Photograph of the participatory performance with a duration of approximately 90 minutes. Helsinki University.

¹⁵¹ Demos, "Anthropocene, Capitalocene, Chthulucene," 105.

punishment that humans will receive for killing wolves and the compensation that will be granted to the wolf pack.¹⁵² *Untilled* also extends the following analysis beyond the realm of institutional politics and brings it ‘down to earth’ by speculating on the process of composting based on directly responding to earthly matter. Instead of representing more-than-human concerns in a constructed human system, the process of composting teaches us to use our senses to develop attentiveness and a feeling for the more-than-human compost pile. This dialogue with *The Trial* and the other related artworks motivates the analysis of *Untilled* in the next section by way of a speculative concept of composting.

3.2 Speculating on Togetherness

Both the artwork *Untilled* and the work of composting are about relations. Each speculates on togetherness through speculation on converging and diverging relational processes between entities and elements that make and live together. Abrahamsson and Bertoni ‘argue that composting shifts what togetherness might come to be’ and aim to reconsider

¹⁵² T. J. Demos, “Animal Cosmopolitics: The Art of Terike Haapoja,” *Centre for Creative Ecologies*, August 2016, <https://creativeecologies.ucsc.edu/demos-haapoja/>.

togetherness through the practice of vermicomposting.¹⁵³ Composting revolves around compositions of elements, such as organic matter, earthworms, and critters, whose ways of being and working together might generate fertile soil through decomposition. Composing and decomposing are two concepts and practices that are also present in *Untilled*. When preparing the work for dOCUMENTA (13), Huyghe searched for a site that was part of an ecosystem with its own particularities but which allowed for experiments in breaking down patterns and re-entangling relations.¹⁵⁴ With an assemblage of elements, Huyghe considered unexpected or disruptive incidents, such as the effects of potentially invasive plant species or a warm winter, that prompt the other elements to adapt and re-assemble in new forms of togetherness. Huyghe understands a compost site as an assemblage of things that are left to transform; thus, he argued for using the same logic of ‘dropping’ things in *Untilled*.¹⁵⁵ Huyghe dropped, for example, objects of importance to himself or the city of Kassel, such as the bench of the artist Gonzalez-Foerster and Beuys’ tree of a past Documenta. However, the transformative processes of these elements are often not visible to the human

¹⁵³ Abrahamsson and Bertoni, “Compost Politics,” 126.

¹⁵⁴ Obrist, “Conversation,” 180.

¹⁵⁵ *Ibid.*, 181, 183.

eye. Beyond assembling matter to showcase it to human visitors, the work exposed the elements to one another to encourage them to re-assemble and ease into or disturb relations. Beuys' tree could, for instance, decompose with fungi or be made into a nest by ants. Thus, besides bringing entities together, the work centres on actions and relations that developed between those entities.

This observation aligns with Abrahamsson and Bertoni's first glossary word: assembling. Instead of an open compost site outdoors, they work with a compost bin at home to turn their kitchen food scraps into humus. The composting process begins with assembling the various elements of the bin (Fig. 60). Since all elements actively support the process, assembling entails not only putting the parts together but also finding certain ways in which the elements merge.¹⁵⁶ Beyond simply adding worms to the bedding in a tray, one must monitor how the worms are adjusting to the bedding, as they might resist relating to the constitution of the bedding—for example, they could drown if the bedding is too wet. Vermicomposting is only effective when the bin's complex relations converge in 'decomposing', which is the second term on which Abrahamsson and Bertoni elaborate.¹⁵⁷ The

¹⁵⁶ Abrahamsson and Bertoni, "Compost Politics," 128, 138.

¹⁵⁷ *Ibid.*, 139.

decomposition of food waste largely depends on the worms that digest the scraps and excrete fertile castings, but those worms cannot perform all of the work on their own. When activities in the bin merge in decomposition, the food scraps and worms are joined by bacteria, fungi, and non-living things, such as the lid to prevent light from entering. Because of all the

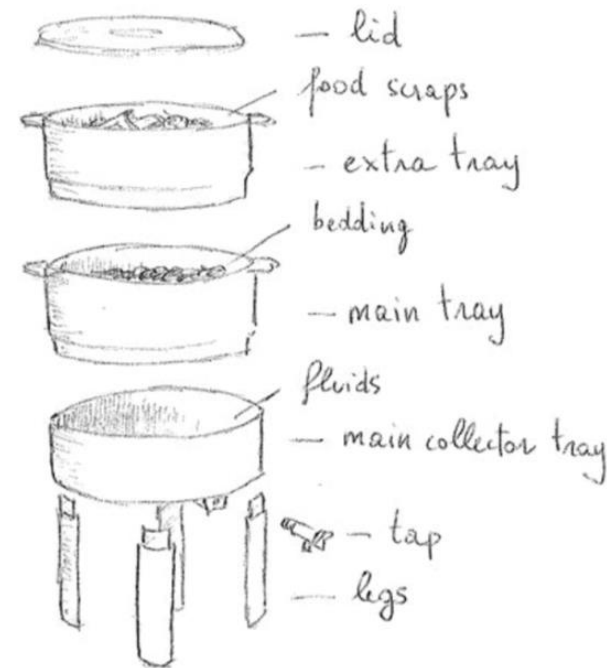


Fig. 60. Drawing by Sebastian Abrahamsson and Filippo Bertoni of the various parts of the compost bin that need to be assembled. 2014.

entangled metabolic processes, decomposition extends beyond the digestive system of worms, like an 'external rumen', and is distributed over a plethora of other critters.¹⁵⁸ In this ongoing and changing process, decomposing relations intertwine, and one activity cannot be clearly distinguished from another. Decomposition encompasses all of these relations and calls for imagining the compost bin in its entirety as a living organism that eats, digests, and excretes fertile soil.

Likewise, *Untilled* gives rise to imagining the work as an organism with its own metabolism, whose vitality diffuses throughout the time of the exhibition and the area of the artwork. Therefore, Hans Ulrich Obrist, the curator and director of the Serpentine Galleries, has referred to *Untilled* as a living organism.¹⁵⁹ The work exists through continuous formation and deformation, just as an organism grows, digests, dies, and might eventually become earth itself that feeds other life. Furthermore, things that are not living in a literal sense are nonetheless part of the artwork as organism and engaged in the processes of composing and decomposing. The

¹⁵⁸ Ibid., 129-30.

¹⁵⁹ Obrist, "Serpentine Galleries Foreword," 4; Obrist, "Conversation," 182. In this respect, Obrist also refers to Timothy Morton's understanding of hyperobjects, see Timothy Morton, *Hyperobjects. Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2017).

assembled elements are not inert objects but were made and changed through relations and the movement or transformation of materials. This aspect is most evident in Huyghe's reclining female figure, which is a replica of a sculpture by Max Weber. The sculpture's reinforced concrete seems to be static yet became part of the work's mesh of relations. The female body lived together with the surrounding plants and flowers as well as the bees, their hive, and their honey. Weber's original sculpture and Huyghe's living replica are comparable to Henry Moore's *Warrior with Shield* (1953–54, Fig. 61) and Simon Starling's replica entitled *Infestation Piece (Musselled Moore)* (2007–08, Fig. 62), respectively. Ingold analyses Moore's bronze sculpture in relation to the *Musselled Moore* to clarify how the latter is alive as a real living organism.¹⁶⁰ This analysis also illustrates the difference between Weber and Huyghe's work, although it is not certain whether Huyghe was aware of the *Musselled Moore*. As its title suggests, Starling's steel sculpture lived with mussels rather than with bees. For over a year, the sculpture sat on the bottom of Lake Ontario, where zebra mussels had been introduced after trading ships carried the species from the Black Sea to another lake on the border between the United States and Canada.¹⁶¹ Just as Huyghe's

¹⁶⁰ See Ingold, *Making*, 91-93.

¹⁶¹ Ingold, *Making*, 91.



Fig. 61. Henry Moore. *Warrior with Shield*. 1953–54. Bronze. Birmingham Museums and Art Gallery.

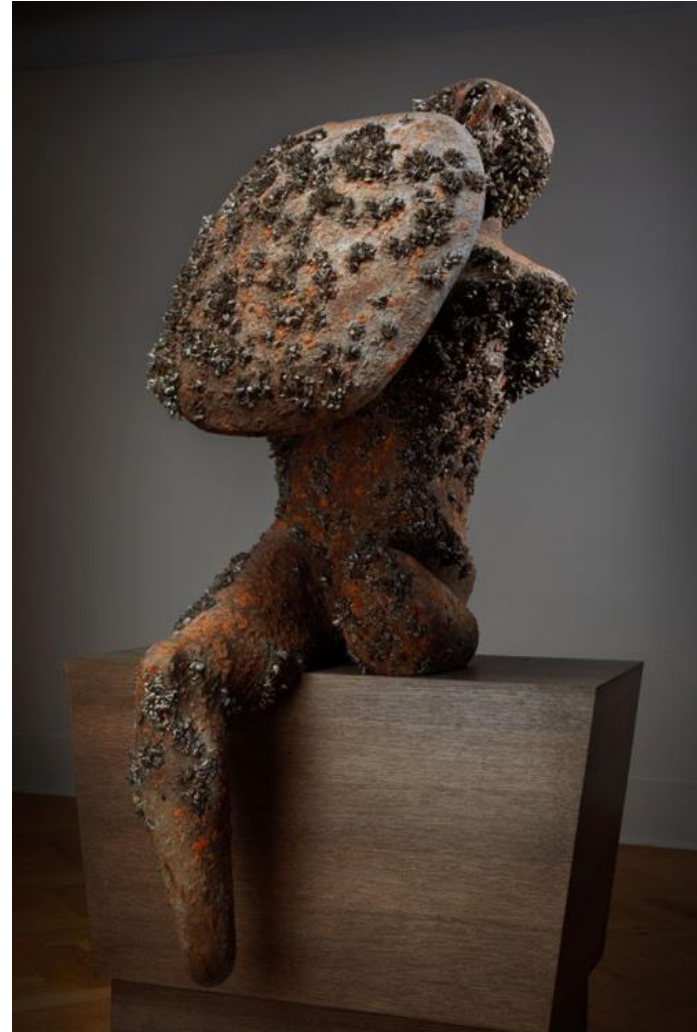


Fig. 62. Simon Starling. *Infestation Piece: Musselled Moore*. 2007–08. Steel and zebra mussel shells.

replica opened up to its surroundings, the materials of Starling's sculpture, when submerged in the lake's water, merged with the mussels into growth. The sculptures did not remain mostly closed to the environment as they had in the two original works by Weber and Moore; rather, the living sculptures became porous. At the same time, such porosity reveals the fine line between infesting and investing or supporting relations.

Bees support the environment but are threatened by extinction due to a lack of food. Meanwhile, the infestation of mussels in Lake Ontario and Starling's work was enabled by an abundance of plankton in the water. The first work invests in various life forms, while the second decreases the lake's biodiversity. Food and the process of attending and responding to changing environments are significant in the sometimes slight difference between mutual and parasitic relations. 'Feeding' and 'maintaining' are two of Abrahamsson and Bertoni's keywords, as they are necessary acts for maintaining a thriving compost bin. Just as *Untilled* continued to develop during the exhibition without visitors present, internal and external digestive processes carry on even when the vermicomposter is not present. However, to maintain the circumstances and relations that are required for decomposition, one must pay attention to and participate in the

processes by taking care.¹⁶² While it is not possible to control all interdependent life forms and relations, one can attend to external factors that influence the decomposition. In the same way that the inside of the bin is influenced by the outside temperature and moisture level, *Untilled* was dependent upon the weather. One might take care of the bin by simply moving it in or out of a shadow, just as the dog's caretaker in *Untilled* accounted for dry conditions by watering the flowers on which the bees would feed. Feeding is another form of maintaining and caring for the bin. Just as species feed and eat other species in an ecosystem, eating and feeding occur simultaneously in the compost bin. Relations in the bin constantly transform food and waste.¹⁶³ The vermicomposter feeds kitchen waste to the worms, for whom it is not waste but food. In turn, the worm's castings are useless waste to the worms but food for plants. Nevertheless, these transformative relations are not seamlessly integrated with each other. Friction arises, for instance, when an infestation of mites or nematodes disrupts the decomposing process. In such cases, the goal is not to control these critters by removing them all, as the external rumen of the worms depends partly on them. Instead, the solution is to adjust the feeding approach and

¹⁶² Abrahamsson and Bertoni, "Compost Politics," 132.

¹⁶³ *Ibid.*, 138.



Fig. 63. Photo of beekeeper Andrew Coté taking care of the bees and hive of Pierre Huyghe's *Untilled* (*Liegender Frauenakt*) [*Reclining female nude*]. (2015) 2012. Museum of Modern Art, New York City.

determine which food appeals more to the worms than to invasive critters to avoid the latter's proliferation.¹⁶⁴

Vermicomposting involves activities and adaptability by both humans and the more-than-human; however, in spite of assembling and decomposing processes, the maintaining and feeding activities that include humans are rather vague in

¹⁶⁴ Ibid., 135-36.

Untilled. The wandering man who cares for the dog and waters the plants when necessary demonstrates the most obvious form of taking care in the work. It seems that, apart from this caretaker, Huyghe wants to give the impression of a vacant lot that is slowly becoming overgrown. According to Huyghe, the title *Untilled* refers to uncultivated land, which suggests that the site is abandoned.¹⁶⁵ In addition, one of Huyghe's galleries states that *Untilled*'s beehive sculpture was left uncultivated even though it was installed and maintained with the help of beekeepers.¹⁶⁶ After *DOCUMENTA*, the living sculpture was exhibited at various locations and then acquired by the Museum of Modern Art. There, it was monitored and maintained by Andrew Coté (Fig. 63), who learned from the experiences of the beekeeper who attended to the work in Kassel.¹⁶⁷ Like vermicomposters, who work with worms to

¹⁶⁵ Obrist, "Conversation," 182.

¹⁶⁶ See "Pierre Huyghe. *Untilled* (*Liegender Frauenakt*)," Esther Schipper, accessed June 21, 2021, <https://www.estherschipper.com/artists/41-pierre-huyghe/works/7760/>.

¹⁶⁷ Margaret Ewing, "Close-up on Pierre Huyghe's *Untilled* and a Q&A with Beekeeper Andrew Coté," *Inside/Out: A MoMA/MoMA PS1 Blog*, July 17, 2015, https://www.moma.org/explore/inside_out/2015/07/17/close-up-on-pierre-huyghes-untilled-and-a-qa-with-beekeeper-andrew-cote/. The living sculpture was on show in MoMA's Sculpture Garden from June 16 until August 19 in 2015.

make humus, beekeepers are often interested in working with bees for their honey. However, with *Untilled*, they explored joint effort in the form of an evolving sculpture. During the exhibition, the beekeeper monitored the rhythm and movement of the bees, which are most active in the spring and summer when flowers are blooming. Although bees are often capable of taking care of themselves, a beekeeper can help by, for instance, averting pests, as honey is appetising not only to humans and bees but also to other species. Huyghe might have assembled an ant's nest for the purpose of myrmecochory, which would implicitly support the bees, but ants can also infest beehives to steal honey. Through experience, a beekeeper might learn that placing a physical barrier between ants and a beehive is usually more helpful than killing the ants in the hive, which is likely to kill the bees as well. Besides the work of the dog owner and the beekeeper, it is unclear which elements of *Untilled* were maintained and which were left to the whims of the environment.

In this respect, the concepts of indeterminacy and indifference are both relevant to Huyghe's work, where existing and new elements are assembled to speculate on indeterminate ways of togetherness. These open-ended relations explore where this indeterminacy could lead and how the indeterminate might become contingent to, for example,

find out whether or not these relations could develop into a decomposing bench or tree. Although Von Hantelmann understands indeterminacy and indifference as a recipe for the artist's anti-control, the two concepts are not equivalent.¹⁶⁸ Huyghe frequently mentions the latter to refer to the ongoing becoming of the work regardless of the presence of humans.¹⁶⁹ As it is indifferent to the visitors, more-than-human matter perpetually changes, such as in the case of the algae that continuously grew in the waterhole. Yet, Huyghe's idea of composting and 'dropping' things to let them 'exist in indifference' contrasts with Abrahamsson and Bertoni's notion of composting, which concentrates on neither control nor anti-control.¹⁷⁰ For these authors, 'maintaining' implies becoming familiar with the compost bin's processes, which centres worms instead of humans, though it incorporates human actions. While Huyghe's work focuses on the unfolding relations that humans observe but barely participate in, Abrahamsson and Bertoni argue that humans can be part of the interdependent composting processes only by 'learning to speak worm'.¹⁷¹ For Huyghe, *Untilled* is about finding ways to

¹⁶⁸ See Von Hantelmann, "Situated Cosmo-Technologies," 22.

¹⁶⁹ Christov-Bakargiev et al., *The Guidebook*, 262.

¹⁷⁰ See Von Hantelmann, "Situated Cosmo-Technologies," 21.

¹⁷¹ See Abrahamsson and Bertoni, "Compost Politics," 134.

create a self-generative work that can surpass his own reach and the capacity of complete comprehension.¹⁷² As Huyghe understands *Untilled*, Abrahamsson and Bertoni understand composting as a process that one can never fully grasp, yet the vermicomposter must still probe how to be attuned to the worms. ‘Knowing’, or ‘learning to speak worm’, is another glossary term that focuses on food as a language or feeding as a means of communicating with the worms.¹⁷³ Food recommendations for vermicomposting vary widely because worms also have food preferences. The vermicomposter has to determine through practice which kind of food their worms like. By feeding, noticing, and adapting, they can learn through time and experience how to feed the worms. Besides the type of food, other significant considerations include its variety and quantity as well as the frequency of feeding the matter.¹⁷⁴ The worms might adapt by learning to eat waste, but inevitable friction and troubleshooting can allow one to learn from and react to the wormery. As such, knowing is an ongoing and emerging process that cannot be achieved in advance.¹⁷⁵ Abrahamsson and Bertoni argue that taking part in the

processes in addition to observing can result in knowing but Huyghe’s work primarily addresses the acts of observation and experimentation to stimulate the senses and imagination in the first place. *Untilled* emphasises and speculates on a possible more-than-human world without the explicit intention of learning to know and act in that world.

Rightly, Obrist and Von Hantelmann reflect on *Untilled* as an exhibition through the perspective of an ontology that is not static but ever-evolving and in which epistemology has no significant role.¹⁷⁶ In this regard, the art historian Sven Lütticken notably frames Huyghe’s practice as ‘an *aestheticism of speculation* in which almost anything goes – both for better, and for worse’.¹⁷⁷ This notion of the aestheticism of speculation contrasts with the understanding of the speculative outlined at the beginning of this chapter, namely to critically assess the present for the better. When anything is possible in the experiment, it dismisses a critical re-imagination of the present that could open up to a continuous search for alternative ways of being together in the future. Rather than reconsidering, for instance, the changing forms of togetherness, Lütticken

¹⁷² Obrist, “Conversation,” 180.

¹⁷³ Abrahamsson and Bertoni, “Compost Politics,” 134.

¹⁷⁴ *Ibid.*, 137.

¹⁷⁵ *Ibid.*, 133.

¹⁷⁶ See Obrist, “Conversation,” 232; Von Hantelmann, “Thinking the Arrival.”

¹⁷⁷ Lütticken applies this to Huyghe’s works in general but particularly to *After Alife Ahead* and *Umwelt*, see Lütticken, “Systemic Aestheticization.”

purports that Huyghe mostly aestheticises the experiential. Both the aesthetic and the experiential could allow for other ways of being and knowing, but, in this case, the experiential requires one's presence and attention, which invokes imagination but does not demand involvement or response. Similarly, the writer Christophe Van Gerrewey states that *Untilled* leaves a lasting experience, but he discusses *Untilled* as a myth created by Huyghe: an artwork from which the engagement of the artist and other humans, except for the viewing eye, are absent.¹⁷⁸ It is as if humans no longer exist beyond their heritage, which is left to nature in a time after the Anthropocene.

This idea of the future after humanity contrasts with the concept of this thesis, which considers how to relate to the more-than-human as and by decentring humans. Although *Untilled* does not solicit a human response, it stimulates visitors to use their sensibility. In a way, it suggests an environment that re-imagines a sensibility for togetherness. *Untilled* might leave the more-than-human indifferent to humans, but it does not leave human visitors indifferent to the more-than-human. The work immerses visitors in a speculative environment that requires them to use their senses to follow

¹⁷⁸ Christophe Van Gerrewey, "Pierre Huyghe," *De Witte Raaf*, no. 205 (May-June 2020): 25.

the work, as it involves a messy mesh of unfolding relations rather than a clear, linear storyboard. In both the artwork and the compost bin, dichotomies blur between what is human-made and what is not, the borders of bodies, and insides and outsides. Unsettling these boundaries reveals that everything is related, though not in similar or equal ways. So-called different politics are at stake in, for example, the case of myrmecochory, where the benefits for plants and ants are distinct and not equivalent. Similarly, composting takes place thanks to and despite converging and diverging needs. Abrahamsson and Bertoni refer to these asymmetric relations as 'compost politics'.¹⁷⁹ Boundaries dissolve—for instance, between the caretaker and the cared-for or the feeder and the one being fed—but do not flatten or make relations reciprocal. Coexistence is based on differences, to which one must be sensitive to avoid generalised practices and knowledges. Therefore, living and working with more-than-humans involves recognising otherness and responding to asymmetry. Since neither *Untilled* nor composting processes are dominated by human ways of acting, one has to develop a feeling for the processes. *Untilled* does encourage a return to the compost site to walk around and discover for oneself what is happening

¹⁷⁹ Abrahamsson and Bertoni, "Compost Politics," 142-3.

and which particularities matter for the artwork's processes. Over time, one might notice that the various rhythms of the work do or do not resonate in polyphony. To redirect and reshape the human role in this respect, a fluid recipe is more appropriate than one of either control or anti-control. Since Huyghe's work and the development of a composting process are each one of many scenarios, they call for a method of fluidness that is not characterised by universal rules of thumb. Rather than predefining actions and relations for general situations, one must deal with the opaque, as the processes will always be only partially known. To work speculatively is to work in between trying to grasp and re-imagining togetherness, including one's own part in it. As such, working speculatively can be an open-ended method for living with a more-than-human world that is becoming.

Conclusion

Compost revitalises soil and supports growth through decay. The decomposing process, which returns nutrients to the soil, offers fertile grounds for cultivating life. Yet, what does it mean to grow fertile soil for a flourishing world by means of art? Artistic practices might literally provide compost; however, and more importantly, the analysis of artworks from the perspective of composting evidences that art can also generate fertile soil in a figurative sense to re-imagine human-earth relationships. As humans, we need to devise ways of re-relating to earth to continue living in a flourishing world. Humans could neither make compost nor survive on planet Earth without soil and other existing forms of life. Therefore, a flourishing world includes all who inhabit and make earth. As outlined in Chapter One, Shiva rightly argues that humans need to shift from oil-centred to soil-centred practices and mindsets. Such a shift apparently requires more than knowing the facts about destructive human effects on earth, as oil-centred attitudes are still the norm more than the exception. In this context, I argue that human senses and imagination need to be addressed to feel the urgency and create possibilities to move away from a human-centred world.

The analyses of Shin's work *M for Membrane*, Huyghe's *Untilled*, and the artworks discussed in relation to these works illustrate that art can offer humans means to open up and reconnect to their environment by harnessing the power of the sensible and imaginable. In particular, the material and speculative aspects of the artworks enable humans to re-imagine and revitalise a more-than-human world. In *M for Membrane*, the material working process with soil and mould compels a reconsideration of political histories and speculates on the ethics of caring relations with more-than-human matter. Moreover, the speculative and unfolding character of *Untilled* invites viewers to use the changing and sensible material environment as a guide to speculate on the growing and decaying artwork in becoming. Chapter Two has examined Shin's material practice in relation to feminist concepts, such as storytelling, natureculture, and intersectionality, which are metaphorically composted by the environmental humanities scholars Hamilton and Neimanis. On the basis of practical and theoretical observations by the vermicomposting scholars Abrahamsson and Bertoni, Chapter Three has approached Huyghe's speculative work as a metaphorical compost pile to analyse his artistic practice in relation to the practice of composting. Therefore, metaphorical understandings and the practice of composting are core to the

analyses of both artworks and subsequently yield insight into ways of re-imagining human-earth relations through art.

In *M for Membrane*, Shin connected the past, present, and future by working closely with indigenous mould from Wave Hill's land in New York. They reveal how the histories of the exhibition site are reflected in the site's current state of matter and how the lack of indigenous mould in the soil relates to the suppressed history of indigenous people. By regenerating and returning indigenous life to the land through JADAM farming practices, Shin nourished the soil for future life. Above all, Shin converted farming practices into an artistic practice with a political and ethical agenda by sharing the material practice of fermenting mould with the viewer and narrating the natural and cultural history of the site. Shin's site-specific stories strengthen and invigorate Hamilton and Neimanis' argument regarding the concept of natureculture, which refutes the dualism between nature and culture and emphasises the relation with other constructed dualities, such as civilised/primitive. *M for Membrane* also demonstrates that the deterioration of nature, including the soil and trees, is deteriorating people as well. Harming nature through the extraction of resources is harmful to specific groups of people, which Shin conveys by connecting colonial and capitalist histories to indigenous genocide and Black labour. Hamilton

and Neimanis use the inherent transformation of matter in the composting process to assess how environmental humanities discourse has transformed the aforementioned feminist concepts. Shin's work not only illustrates that the use of composting as a material metaphor is a matter of matter but also contributes to a critical understanding of the concepts. Hamilton and Neimanis acknowledge but do not elaborate on the importance of indigenous knowledge for developing understandings of the more-than-human world, and they mostly apply the feminist notion of permeability to explain how the concept of intersectionality has expanded to include the more-than-human. Shin employed indigenous JADAM practices and ethics to cultivate relations with more-than-human matter by basing their artistic practice on the properties of permeability—for example, of soil, mould, leaves, and human bodies. Moreover, Shin engenders not only an indigenous understanding but also a feeling for more-than-human matter by visualising the working process, telling stories, and making it possible to approach, sense, and imagine the life path of indigenous mould. Shin's do-it-yourself practice supplants a 'scientific objective distance' and a selective view of which lives are 'worthy' and 'unworthy' of being cultivated. Through their practice, Shin worked in proximity and reconnected with earth, thus learning through a

material practice that involves sensory experiences and nurturing all forms of soil life. Considering the vulnerable and restorative facets of permeability, Shin worked with and exhibited the permeability of matter to develop a sense of care for the more-than-human world. With their hands in the earth, Shin made it possible to imagine a transformation of human roles in a world where naturalcultural care permeates through more-than-human relations.

While Shin's regenerative material practice might continue to restore Wave Hill's forest, Huyghe's work *Untilled* implies a continuous exploration of how indeterminate relations might come together or fall apart. Some aspects of the evolving artwork are similar to or contrast with the process of composting, which involves speculating on how all of the elements and relations might converge into a togetherness of decomposing matter. Abrahamsson and Bertoni argue that the practice of composting can enable us to re-interpret togetherness; accordingly, a composting artwork allows for speculation on finding ways that matter and beings might re-relate to one another. Rather than proposing material solutions for destructive human-earth relations, *Untilled* offers the means to re-imagine the defining human role in making art as well as the dominance of humans in material relations with earth. At its open exhibition site within Karlsau Park in Kassel, *Untilled*

was a porous artwork in that it was influenced by its surroundings, the weather conditions, and more-than-human elements that had a pervasive influence on the emerging artwork. The speculative supports the exploration of alternative future scenarios without pinning down what is not yet. For *Untilled*, Huyghe created an assemblage of many diverse elements and used drawings to speculate on how those elements might relate to each other even though they could all merge or deviate from each other in myriad ways during the exhibition. Similarly, in the context of vermicomposting, Abrahamsson and Bertoni explain that assembling all the necessary elements of a compost bin does not necessarily result in compost. Instead, one must attend to the many relations in the decomposing process by feeding and maintaining the worms and other critters. In both cases—the artwork and compost bin—the various elements open up to the site and become intertwined in a mesh of relations, which renders it impossible to control all of the processes. Although humans cannot master the composting process, Abrahamsson and Bertoni argue that we can maintain the bin by being attuned to the entangled relations. By observing, experimenting with feeding the worms, and adapting to instances of friction, such as an infestation, we can determine what might work for the worms. In the case of composting,

knowing is a process of participating, noticing, and responding by taking care. In *Untilled*, people took care of a living dog, the plants, and the bee sculpture, but human involvement was less present than it is in the vermicomposting process.

Nonetheless, *Untilled* invites visitors to take their time, observe, and use their senses to find their way through the labyrinth of relations in the artwork. As in composting, the experiential process makes it possible to develop a feeling for the relations-in-becoming. Because these relations are not always equally reciprocal, Abrahamsson and Bertoni refer to working towards togetherness as ‘compost politics’. Both composting and *Untilled* encourage exploration of how such relations might look and feel to develop a sensibility for weaving human-earth relations. However, composting and art differ in that the former depends on responses, while the latter relies on imagination. Huyghe’s work draws the visitor in—not to respond but to sense and imagine *Untilled*’s speculative more-than-human world over time. In that sense, art enables the re-imagination of a continuous fluid or open-ended form of human-earth relations.

Whereas composting demands response-ability, art calls for sense-ability and imagine-ability in the first place. Indeed, we might learn to know and act through the process of composting, as Ingold clarifies how making means knowing

when corresponding with matter. In accordance with this New Materialist discourse, Haraway advocates for response-ability and becoming capable of acting in a world where we can only co-exist with other matter and beings, therefore suggesting taking responsibility for one’s actions. Because toxic human mindsets and attitudes still prevail, Haraway proposes that we rethink the humanities as *humusities* to generate possibilities to carry on with this world. Yet, a certain openness is needed to conceive of this world as a compost pile in which humans must reorganise themselves in relation to the more-than-human. In this respect, art needs to permeate this massive compost pile to create space for unexpected relations. Rather than providing answers or aiming to make people learn—and beyond raising awareness—art can invoke questions and elicit sense-ability and imagine-ability. It can train the use of the senses and imagination by means of material and speculative traits. Thus, art can be fertile soil for a flourishing world: art as humus.

Image Credits

- Cover. From the artist's photo archive, TJ Shin.
- Fig. 1. Credit: Lara Fuke. From the artists' archive, Jorgge Menna Barreto and Joélson Buggilla.
- Fig. 2. Photo by Jürgen Hess. Courtesy of the artist Claire Pentecost. <http://www.publicamateur.org/?p=85>
- Fig. 3. Courtesy of the artist Melanie Bonajo, AKINCI, selection made by Unseen. <https://www.widewalls.ch/magazine/unseen-amsterdam-photo-fair-2017>
- Fig. 4. Photo by Jean Weber. Courtesy of Archives Fondation Dubuffet, Paris; Fondation Gianadda, Martigny. https://www.researchgate.net/figure/Jean-Dubuffet-with-soil-1958-C-Archives-Fondation-Dubuffet-Paris-photo-Jean-Weber_fig2_281131728
- Fig. 5. Photo by Attilio Maranzano. Courtesy of Fondazione Prada. <https://www.fondazioneprada.org/project/trittico/?lang=en>
- Fig. 6. Courtesy of Holt/Smithson Foundation and Dia Art Foundation, licensed by VAGA at ARS, New York. <https://holtsmithsonfoundation.org/spiral-jetty>
- Fig. 7. Photo by Agnes Denes. Courtesy of the artist Agnes Denes. <http://www.agnesdenesstudio.com/works7.html>
- Fig. 8. Photo by Svein Kjøde. <http://www.flatbreadsociety.net/actions/29/soil-procession>
- Fig. 9. Credit, photo by Laurian Ghinitoiu. <https://www.oma.com/projects/countryside-the-future>
- Fig. 10. https://www.researchgate.net/figure/Daro-Montag-Bioglyph-Radiance-II-1994_fig4_227206854
- Fig. 11. Courtesy of the artist Claire Pentecost. <http://www.publicamateur.org/>
- Fig. 12. Credit, photo by Pauline Niks. <https://www.volkskrant.nl/cultuur-media/de-rijksakademie-kon-haar-jubileum-niet-vieren-zoals-gepland-maar-gelukkig-zijn-de-ateliers-weer-open~b7d78616/>
- Fig. 13. Courtesy of the artists Beth Stephens and Annie Sprinkle, the author Donna Haraway and e-flux journal. <https://www.e-flux.com/journal/75/67125/tentacular-thinking-anthropocene-capitalocene-chthulucene/>
- Fig. 14. Courtesy of the artist Ai Hasegawa. <https://aihasegawa.info/i-wanna-deliver-a-dolphin>

- Fig. 15. <https://openstudios2021.janvaneyck.nl/participants/manjot-kaur>
- Fig. 16. Courtesy of Loop. <https://www.loop-of-life.com/>
- Fig. 17–18. <https://jaeyeonshin.com/M-for-Membrane>
- Fig. 19. Credit, photo by Corey from Fifi + Hop. <https://fifiandhop.com/2015/05/22/wave-hill-a-must-for-new-yorkers-and-suburban-new-yorkers/>
- Fig. 20. <https://www.centraalmuseum.nl/nl/tentoonstellingen/de-botanische-revolutie>
- Fig. 21. Courtesy of the artist Jane Lawson. <https://www.islingtonmill.com/tenant/jane-lawson/>
- Fig. 22. Photo by Geraldo Mercad. <https://www.documenta14.de/en/artists/13487/annie-sprinkle-and-beth-stephens>
- Fig. 23. <https://marymattingly.com/html/MATTINGLYSwale24.html>
- Fig. 24. Solomon, Debra, and Caroline Nevejan. "Soil in the City. The Socio-Environmental Substrate." In *Field to Palette: Dialogues on Soil and Art in the Anthropocene*, edited by Alexandra Toland et al., 605-23. Boca Raton: CRC Press, Taylor & Francis Group, 2019.
- Fig. 25. Credit: Damjan Švarc, the artist Saša Spačal, the Kapelica Gallery Photo Archive. <https://www.agapea.si/en/projects/myconnect>
- Fig. 26. From the artist's photo archive, TJ Shin.
- Fig. 27–35. <https://jaeyeonshin.com/M-for-Membrane>
- Fig. 36–37. From the artist's photo archive, TJ Shin.
- Fig. 38. Courtesy of the Palisades Interstate Park Commission Archives. Shin, Tiffany Jaeyeon. "M for Mitigation." In *M for Membrane*, edited by Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen, 2-11. New York: Wave Hill, 2020.
- Fig. 39. Courtesy of the Palisades Interstate Park Commission Archives. <https://www.njpalisades.org/stopLongPath.html>
- Fig. 40. Courtesy of the Haverstraw Brick Museum. <https://artswestchester.org/brick-by-brick-timeline/>
- Fig. 41. Courtesy of the artist TJ Shin and Recess. <https://www.recessart.org/anaiwataki/>

- Fig. 42. Courtesy of Studio Klarenbeek & Dros. <https://www.ericklarenbeek.com/>
- Fig. 43–45. Courtesy of the artist Pierre Huyghe; Marian Goodman Gallery, New York, Paris; Esther Schipper, Berlin. <https://www.on-curating.org/issue-33-reader/thinking-the-arrival-pierre-huyghes-untitled-and-the-ontology-of-the-exhibition.html#.YYFMZJ7MI2y>
- Fig. 46. Courtesy of the artist Pierre Huyghe; Esther Schipper, Berlin. <https://www.estherschipper.com/artists/41-pierre-huyghe/works/7760/>
- Fig. 47. Courtesy of the artist Pierre Huyghe; Marian Goodman Gallery, New York/Paris. <https://www.moma.org/calendar/film/1538>
- Fig. 48. Courtesy of the artist Pierre Huyghe; Marian Goodman Gallery, New York/Paris; Esther Schipper, Berlin. Weir, Andy. “Cosmic Alreadymades: Exhibiting Indifference at dOCUMENTA (13).” *Journal of Curatorial Studies* 3, no. 1 (2014): 98-116.
- Fig. 49. Courtesy of the artist Pierre Huyghe; Esther Schipper, Berlin. <https://www.estherschipper.com/exhibitions/386-untitled-pierre-huyghe/>
- Fig. 50. Courtesy of the artist Pierre Huyghe; Marian Goodman Gallery, New York, Paris; Esther Schipper, Berlin. <https://www.on-curating.org/issue-33-reader/thinking-the-arrival-pierre-huyghes-untitled-and-the-ontology-of-the-exhibition.html#.YYFMZJ7MI2y>
- Fig. 51. Courtesy of the artist Daniel Buren. <https://www.serpentinegalleries.org/whats-on/daniel-buren-sketches-work-situ/>
- Fig. 52. Photo by John Cliett. Courtesy of The Estate of Walter De Maria and Dia Art Foundation. <https://www.artsy.net/article/artsy-editorial-artist-masterpiece-involved-filling-apartment-140-tons-dirt>
- Fig. 53. Credit, photo by Aerophoto Eelde. <https://emmercourant.nl/artikel/1090619/wereldberoemd-landart-werk-broken-circle-bij-emmen-is-dit-jaar-vier-keer-te-bezoeken.html>
- Fig. 54. Courtesy of the Unda Foundation. <https://flagofcompassion.com/connections/>

- Fig. 55–56. Photos by Sander Tiedema. Courtesy of the artists the Sun and barnacles, respectively, and the curator Semâ Bekirović. <https://www.semabekirovic.nl/1792-2/>
- Fig. 57. Credit, photo by Ola Rindal. <https://www.skulptur-projekte-archiv.de/en-us/2017/projects/186/>
- Fig. 58. Credit, photo by Ola Rindal. Courtesy of the artist Pierre Huyghe and the Serpentine Galleries. <https://www.serpentinegalleries.org/whats-on/pierre-huyghe-uumwelt/>
- Fig. 59. Photo by Saara Hannula. <https://creativeecologies.ucsc.edu/demos-haapoja/>
- Fig. 60. Abrahamsson, Sebastian, and Filippo Bertoni. “Compost Politics: Experimenting with Togetherness in Vermicompositing.” *Environmental Humanities* 4 (2014): 125-148.
- Fig. 61. Courtesy of The Henry Moore Foundation. <https://www.tate.org.uk/art/research-publications/henry-moore/henry-moore-om-ch-falling-warrior-r1151465>
- Fig. 62. Courtesy of the artist Simon Starling. <https://ago.ca/exhibitions/elevated-contemporary-art-ago-tower>
- Fig. 63. Photo by New York City Beekeepers Association. Courtesy of the artist Pierre Huyghe. https://www.moma.org/explore/inside_out/2015/07/17/close-up-on-pierre-huyghes-untitled-and-a-qa-with-beekeeper-andrew-cote/
- Fig. on p. 91. Credit, photo by Rini Hurkmans.

Bibliography

Abrahamsson, Sebastian, and Filippo Bertoni. "Compost Politics: Experimenting with Togetherness in Vermicompositing." *Environmental Humanities* 4 (2014): 125-148.

Art Laboratory Berlin. "The Camille Diaries: New Artistic Positions on M/otherhood, Life and Care." Accessed November 1, 2021. <https://artlaboratory-berlin.org/exhibitions/the-camille-diaries/>.

Barreto, Jorgge Menna, and Joélson Buggilla. *Enzyme: Page, Table & Earth* 1, no.1 (2020).

Barreto, Jorgge Menna, and Joélson Buggilla. "The Art of Living. Transcription of lecture by Vandana Shiva Jan van Eyck Academie." *Enzyme: Page, Table & Earth* 1, no.1 (2020): 36-63.

Barad, Karen. "Meeting the Universe Halfway//2007." In *Materiality*, edited by Petra Lange-Berndt, 213-15. London: Whitechapel Gallery and The MIT Press, 2015.

Bekirović, Semâ. "Reading by Osmosis/ Nature interprets Us." Accessed June 21, 2021. <https://www.semabekirovic.nl/1792-2/>.

Boijmans van Beuningen. "Maartje Dros and Eric Klarenbeek." *The Breakdown Economy*. Accessed November 2, 2021. <https://deafbreekeconomie.boijmans.nl/en/#interview-studio-klarenbeek-and-dros>.

Cheetham, Mark A. *Landscape into Eco Art: Articulations of Nature Since the '60s*. Pennsylvania: The Pennsylvania State University Press, 2018.

Chen, Mel Y. "Animacies." In *Posthuman glossary*, edited by Rosi Braidotti and Maria Hlavajova, 32-34. London: Bloomsbury Academic, 2018.

Chilvers, Ian. "Land art (Earth art; Earthworks)." In *The Oxford Dictionary of Art and Artists*. 5th ed., Oxford: Oxford University Press, 2015. <https://www-oxfordreference-com.ezproxy.leidenuniv.nl/view/10.1093/acref/9780191782763.001.0001/acref-9780191782763-e-1337>.

Christov-Bakargiev, Carolyn et al. *The Guidebook*. Vol. 3/3, *dOCUMENTA (13): Catalog*. Ostfildern: Hatje Cantz, 2012.

- Cho, Youngsang. *JADAM Organic Farming. The way to Ultra-Low-Cost agriculture*. Translated by Rei Yoon. Korea: Younsang Cho JADAM, 2016.
- Crenshaw, Kimberlé. "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color." *Stanford Law Review* 43, no. 6 (1991): 1241–99.
- Cullinan, Nicholas. "From Vietnam to Fiat-Nam: The Politics of Arte Povera." *October* 124, Postwar Italian Art (Spring, 2008): 8-30.
- Davies, Penelope J. E. et al. *Janson's History of Art. The Western Tradition*. 8th ed., New York: Pearson Learning Solutions, 2010.
- Demos, T. J. "Animal Cosmopolitics: The Art of Terike Haapoja." *Centre for Creative Ecologies*. August 2016. <https://creativeecologies.ucsc.edu/demos-haapoja/>.
- Demos, T. J. "Anthropocene, Capitalocene, Chthulucene. The Many Names of Resistance." In *Against the Anthropocene. Visual Culture and Environment Today*, 85-112. Berlin: Sternberg Press, 2017.
- dOCUMENTA (13). "On Seeds and Multispecies Intra-Action: Disowning Life." September 15, 2012. <https://d13.documenta.de/#/research/>.
- Dolphijn, Rick, and Iris van der Tuin. "Interview with Karen Barad." In *New Materialism: Interviews & Cartographies*, 48-70. Ann Arbor: Open Humanities Press, 2012.
- Dunne, Anthony, and Fiona Raby. "Beyond Radical Design?" In *Speculative Everything: Design, Fiction, and Social Dreaming*, 1-9. Cambridge: The MIT Press, 2013.
- Ewing, Margaret. "Close-up on Pierre Huyghe's Untilled and a Q&A with Beekeeper Andrew Coté." *Inside/Out: A MoMA/MoMA PS1 Blog*. July 17, 2015. https://www.moma.org/explore/inside_out/2015/07/17/close-up-on-pierre-huyghes-untilled-and-a-qa-with-beekeeper-andrew-cote/.
- Feller, C., et al. "Case studies of soil in art." *SOIL*, no. 1 (2015): 543-59.

Feller, Christian, et al. "The Representation of Soil in the Western Art: From Genesis to Pedogenesis." In *Soil and Culture*, edited by Edward R. Landa and Christian Feller, 3-22. Dordrecht: Springer, 2010.

Flag of Compassion. "Connections with the Flag." Accessed June 21, 2021. <https://flagofcompassion.com/connections/>.

Flatbread Society. "Soil Procession." June 13, 2015. <http://www.flatbreadsociety.net/actions/29/soil-procession>.

Fournier, Lauren. "Fermenting Feminism as Methodology and Metaphor. Approaching Transnational Feminist Practices Through Microbial Transformation." *Environmental Humanities* 12, no. 1 (May 2020): 88-112.

Futurefarmers. "About." Accessed March 8, 2021. <http://www.futurefarmers.com/about>.

Futurefarmers. "Soil Kitchen." Accessed March 8, 2021. <http://www.futurefarmers.com/soilkitchen/index.html>.

Gerrewey, Christophe Van. "Pierre Huyghe." *De Witte Raaf*, no. 205 (May-June 2020): 25-7.

Gielen, Pascal, and Rini Hurkmans. "Reconsider, reformulate, reinvent. A dialogue about Life, Art and Politics." In *Compassion. A Paradox in Art and Society*, edited by Jeroen Boomgaard et al., 19-43. Amsterdam: Valiz, 2017.

Hantelmann, Dorothea von. "Notes on the Exhibition." In *The Book of Books*, edited by Carolyn Christov-Bakargiev et al., 548-50. Vol. 1/3 of *dOCUMENTA (13): Catalog*. Ostfildern: Hatje Cantz, 2012.

Hantelmann, Dorothea von. "Situating Cosmo-Technologies. Pierre Huyghe's Untilled and After Alife Ahead." In *Pierre Huyghe*, edited by Rebecca Lewin et al., 10-25. London: Koenig Books and Serpentine Galleries, 2019.

Hantelmann, Dorothea von. "Thinking the Arrival: Pierre Huyghe's Untilled and the Ontology of the Exhibition." *On Curating*, nr. 33 (June 2017): <https://www.on-curating.org/issue-33-reader/thinking-the-arrival-pierre-huyghes-untilled-and-the-ontology-of-the-exhibition.html#.YJkoOLUzY2w>.

Hamilton, Jennifer Mae, and Astrida Neimanis. "Composting Feminisms and Environmental Humanities." *Environmental Humanities* 10, no. 2 (November 2018): 501-27.

Haraway, Donna. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press, 2003.

Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. North Carolina: Duke University Press, 2016.

Haraway, Donna. "The Camille Stories. Children of Compost." In *Staying with the Trouble: Making Kin in the Chthulucene*, 134-68. North Carolina: Duke University Press, 2016.

Hill, Richard William. "Borderless Histories. The Botanical Art of Maria Thereza Alves." *Third Text* 32, no. 2-3 (2018): 273-89.

Ingham, Elaine. "The Soil Foodweb: Its Role in Ecosystems Health." In *The Overstory Book: Cultivating Connections with Trees*, edited by Craig R. Elevitch. Holualoa: Permanent Agriculture Resources, 2004.

Ingold, Tim. *Making. Anthropology, Archaeology, Art and Architecture*. London/New York: Routledge, 2013.

JADAM Organic Farming. "Introduction." *JADAM*. Accessed March 9, 2021. <https://en.jadam.kr/com/com-1.html>.

Jan van Eyck Academie. "Manjot Kaur." *Open Studios 2021*. Accessed November 1, 2021. <https://openstudios2021.janvaneyck.nl/participants/manjot-kaur>.

Katz, Sandor Ellix. *Fermentation as Metaphor*. Vermont: Chelsea Green Publishing, 2020.

Kelley, Lindsay. "Geophagiacy: Art, Food, Dirt." In *Thinking with Soils. Material Politics and Social Theory*, edited by Juan Francisco Salazar et al., 191-210. London: Bloomsbury Academic, 2020.

Koolhaas, Rem/AMO. *Countryside, A Report*. Cologne: Taschen, 2020.

Krzywoszynska, Anna, and Greta Marchesi, "Toward a Relational Materiality of Soils." *Environmental Humanities* 12, no. 1 (May 2020): 190-204.

Landa, Edward R., and Christian Feller (eds.). *Soil and Culture*. Dordrecht: Springer, 2010.

Lee, Vivien. "Tiffany Jaeyeon Shin ferments history, politics and geography in her newest artwork, M for Membrane." *MOLD*. September 23, 2020. <https://thisismold.com/visual/art/tiffany-jaeyeon-shin-ferments-history-politics-and-geography-in-her-newest-artwork-m-for-membrane#.YBbmY-hKg2y>.

Lewin, Rebecca et al. "The Host and the Cloud, 2009-10." In *Pierre Huyghe*, 26-7. London: Koenig Books and Serpentine Galleries, 2019.

Loop. "Loop Living Cocoon." Accessed November 1, 2021. <https://www.loop-of-life.com/>.

Lütticken, Sven. "Systemic Aestheticization." *Texte zur Kunst*, no. 114 (June 2019): <https://www.textezurkunst.de/114/>.

Marijnissen, Hans. "The Emmer Circle is Closed After Forty Years//2011." In *The Rural*, 208-11. London/Cambridge: Whitechapel Gallery/The MIT Press, 2019.

Mattingly, Mary. "Swale, ongoing." Accessed March 9, 2021. <https://marymattingly.com/html/MATTINGLYSwale.html>.

Montag, Daro, and Clive Adams. *Soil Culture: Bringing the Arts down to Earth*. Devon: CCANW and Gaia Books, 2017.

Morton, Timothy. *Hyperobjects. Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press, 2017.

Mulder, Rosa Marie. "Growing Food, Growing Earth, and Growing Knowledge. On Art and Ecological Agriculture." *Simulacrum* 29, nr. 4 (2021): 13-19.

Myvillages (eds.). *The Rural*. London/Cambridge: Whitechapel Gallery/The MIT Press, 2019.

Obrist, Hans Ulrich. "Conversation. Hans Ulrich Obrist and Pierre Huyghe." In *Pierre Huyghe*, edited by Rebecca Lewin et al., 104-9, 178-83, 230-5, 314-9, 362-6. London: Koenig Books and Serpentine Galleries, 2019.

Obrist, Hans Ulrich. "Serpentine Galleries Foreword." In *Pierre Huyghe*, edited by Rebecca Lewin et al., 4-7. London: Koenig Books and Serpentine Galleries, 2019.

Pentecost, Claire. "Notes from Underground." In *The Book of Books*, edited by Carolyn Christov-Bakargiev et al., 384-88. Vol. 1/3 of *dOCUMENTA (13): Catalog*. Ostfildern: Hatje Cantz, 2012.

Plumwood, Val. *Feminism and the Mastery of Nature*. New York: Routledge, 1993.

Puig de la Bellaca, María. "Alterbiopolitics." In *Matters of Care. Speculative Ethics in More Than Human Worlds*, 125-68. Minneapolis/London: University of Minnesota Press, 2017.

Puig de la Bellacasa, María. "Introduction. The Disruptive Thought of Care." In *Matters of Care. Speculative Ethics in More Than Human Worlds*, 1-25. Minneapolis/London: University of Minnesota Press, 2017.

Puig de la Bellacasa, María. "Re-animating soils: Transforming human–soil affections through science, culture and community." *The Sociological Review Monographs* 67, no. 2 (2019): 391-407.

Puig de la Bellacasa, María. "Soil Times: The Pace of Ecological Care." In *Matters of Care. Speculative Ethics in More Than Human Worlds*, 169-215. Minneapolis/London: University of Minnesota Press, 2017.

Puig de la Bellacasa, María. "Touching Visions." In *Matters of Care. Speculative Ethics in More Than Human Worlds*, 95-122. Minneapolis/London: University of Minnesota Press, 2017.

Ramos, Aldo Esparza. "The Earthport." In *We Had Plans*, edited by Irene de Craen et al., 15-18. Amsterdam: Rijksakademie van beeldende kunsten, 2021.

Recess. "Tiffany Jaeyeon Shin: Microbial Speculation of Our Gut Feelings." Accessed November 2, 2021. <https://www.recessart.org/tiffanyjaeyeonshin/>.

Rogers, Alisdair, Noel Castree, and Rob Kitchin. "more-than-human." In *A Dictionary of Human Geography*. Oxford: Oxford University Press, 2013. <https://www-oxfordreference-com.ezproxy.leidenuniv.nl/view/10.1093/acref/9780199599868.001.0001/acref-9780199599868-e-1216>.

Rottmann, Adré. "'The Medium Is Leaking': Notes on the Work of Pierre Huyghe and the 'Ecologization' of Contemporary Art." *Grey Room*, no. 77 (Fall 2019): 84-97.

Salazar, Juan Francisco et al. *Thinking with Soils: Material Politics and Social Theory*. London: Bloomsbury Academic, 2020.

Schipper, Esther. "Pierre Huyghe. Untilled (Liegender Frauenakt)." Accessed June 21, 2021. <https://www.estherschipper.com/artists/41-pierre-huyghe/works/7760/>.

Schlanger, Zoë. "Our Mircobes, Ourselves." In *M for Membrane*, edited by Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen, 12-19. New York: Wave Hill, 2020.

Sedgwick, Eve Kosofsky. *A Dialogue on Love*. Boston: Beacon Press, 1999.

Shin, T.J. Interview by Rosa Marie Mulder. February 9, 2021. New York City/Amsterdam.

Shin, T.J. "M for Membrane." Accessed November 1, 2021. <https://jaeyeonshin.com/M-for-Membrane>.

Shin, Tiffany Jaeyeon. "M for Mitigation." In *M for Membrane*, edited by Tiffany Jaeyeon Shin, Zoë Schlanger, and Helen Chen, 2-11. New York: Wave Hill, 2020.

Shin, Tiffany Jaeyeon, Zoë Schlanger, and Helen Chen (eds.). *M for Membrane*. New York: Wave Hill, 2020.

Shiva, Vandana. "Introduction. From Quanta to the Seed." In *The Vandana Shiva Reader*, 1-7. Lexington: University Press of Kentucky, 2014.

Shiva, Vandana. "Monocultures of the Mind." In *The Vandana Shiva Reader*, 71-112. Lexington: University Press of Kentucky, 2014.

Shiva, Vandana. "One gram of soil." *The Shape of a Circle in the Mind of a Fish: The Understory of the Understory*. Serpentine Galleries. December 5-6, 2020. https://themind.fish/wp-content/uploads/2020/12/The_Shape_of_a_Circle_in_the_Mind_of_a_Fish_The_Understory_of_the_Understory-1.pdf.

Shiva, Vandana. "Soil, Not Oil." In *The Vandana Shiva Reader*, 239-76. Lexington: University Press of Kentucky, 2014.

Skrebowski, Luke. "On Pierre Huyghe's *Umweltanschauung*: Art, Ecosystems Aesthetics, and General Ecology." *Grey Room*, no. 77 (Fall 2019): 66-83.

Solomon, Debra, and Caroline Nevejan. "Soil in the City. The Socio-Environmental Substrate." In *Field to Palette: Dialogues on Soil and Art in the Anthropocene*, edited by Alexandra Toland et al., 605-23. Boca Raton: CRC Press, Taylor & Francis Group, 2019.

Spačal, Saša. "Mycohuman Relationships." 2017. <https://www.agapea.si/en/projects/mycohuman-relationships>.

Spačal, Saša. "Myconnect." 2013. <https://www.agapea.si/en/projects/myconnect>.

Spaid, Sue. "Artisanal Soil." In *Field to Palette: Dialogues on Soil and Art in the Anthropocene*, edited by Alexandra Toland et al., 35-50. Boca Raton: CRC Press, Taylor & Francis Group, 2019.

Stengers, Isabelle. "The Cosmopolitical Proposal." In *Making Things Public: Atmospheres of Democracy*, edited by Bruno Latour and Peter Weibel, 994-1004. Cambridge, MA: The MIT Press, 2005.

Strathern, Marilyn. *Reproducing the Future: Anthropology, Kinship, and the New Reproductive Technologies*. Manchester: Manchester University Press, 1992.

Tempere, Karolin. "People, Seeds, Belonging Together." *Flatbread Society*. September 15, 2015. <http://flatbreadsociety.net/stories/31/people-seeds-belonging-together>.

Todd, Zoe. "An Indigenous Feminist's Take on the Ontological Turn: Ontology Is Just Another Word for Colonialism." *Historical Sociology* 29 (2016): 4-22.

Toland, Alexandra, et al (eds.). *Field to Palette: Dialogues on Soil and Art in the Anthropocene*. Boca Raton: CRC Press, Taylor & Francis Group, 2019.

Toland, Alexandra, and Gerd Wessolek. "Merging Horizons – Soil Science and Soil Art." In *Soil and Culture*, edited by Edward R. Landa and Christian Feller, 45-66. Dordrecht: Springer, 2010.

Tsing, Anna Lowenhaupt. "Arts of Noticing." In *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, 17-25. Princeton: Princeton University Press, 2015.

Tuin, Iris van der. "Naturecultures." In *Posthuman Glossary*, edited by Rosi Braidotti and Maria Hlavajova, 269-70. London: Bloomsbury Academic, 2018.

Walsh, C. J. "Composting." In *Encyclopedia of Global Warming*, edited by Steven I. Dutch, 264-66. Pasadena: Salem Press, 2010.

Wave Hill. "In Conversation—Tiffany Jaeyeon Shin & Dr. Vanessa Agard-Jones." October 8, 2020.
<https://www.wavehill.org/calendar/in-conversation-tiffany-jaeyeon-shin-dr-vanessa-agard-jones>.

Weir, Andy. "Cosmic Alreadymades: Exhibiting Indifference at dOCUMENTA (13)." *Journal of Curatorial Studies* 3, no. 1 (2014): 98-116.



A souvenir of a day in Antwerp. Sint-Jansvliet 21–23. Mural painted by Charlotte De Cock. 2021.

Thank you Loran, Erik, Mirjam, Job, Rini, Lisa, Kitty, and Ksenia.