



BODIES OF EARTH: Abduction - Death - Grief - Rebirth

Citation

LAVRANOU, EVANGELIA. 2022. BODIES OF EARTH: Abduction - Death - Grief - Rebirth. Master's thesis, Harvard Graduate School of Design.

Link

<https://nrs.harvard.edu/URN-3:HUL.INSTREPOS:37372326>

Terms of use

This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material (LAA), as set forth at

<https://harvardwiki.atlassian.net/wiki/external/NGY5NDE4ZjgzNTc5NDQzMGIzZWZhMGFIOWI2M2EwYTg>

Accessibility

<https://accessibility.huit.harvard.edu/digital-accessibility-policy>

Share Your Story

The Harvard community has made this article openly available.
Please share how this access benefits you. [Submit a story](#)

BODIES OF EARTH
Abduction – Death – Grief – Rebirth

By

Evangelia Lavranou

Diploma in Architectural Engineering, Department of Architecture University of Thessaly, 2018

Submitted in partial fulfillment of the requirements for the degree of

Master in Design Studies
Art, Design and the Public Domain

At the Harvard University Graduate School of Design

May, 2022

Copyright © 2022 by Evangelia Lavranou

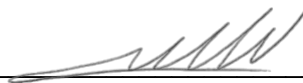
The author hereby grants Harvard University permission to reproduce and distribute copies of this Final Project, in whole or in part for educational purposes.

Signature of the Author



Evangelia Lavranou
Harvard University Graduate School of Design

Certified by



Malkit Shoshan
Lecturer in Architecture
Harvard University Graduate School of Design

EARTH

BODIES

OF

00

INTRO

ex • trac • tiv • ism

Bodies
extract
other
bodies
to sell them
in the world
market

CaCO_3

Bodies,
natures,
machines
and networks
blur in
our complex world

DATA MEDIATES OUR COGNITION

INTRODUCTION

Some words

In the Acropolis, the past and the future converge. The marble that produced the citadel monuments, altered our future and drained the mountain stone. Here, our cultural artifacts are evidence of our destructive relations with the Earth.

Life starts and ends in the soil that gives birth to all sorts of bodies. Bodies are shaped by all the living matter; humans, animals, and plants equally contribute to the creation of bodies. In a time when the boundaries between nature and technology blur more than ever, “the era of plasticity and pollination” (Mbembe) and the digital world merge with the physical in a paradoxical hyper-reality, the body is more present than ever in the popular discourse. In today’s complex world, bodies blur with other bodies, machines, and networks. The definition of what constitutes a body becomes more and more expansive. As categories melt, humans, machines, animals, and plants hybridize. This research aims to examine the role of the body in establishing a partnership with Earth in the time of climate crisis and ecological destruction through exploring artistic experimentations, projects, and ideas. How can a shift in human consciousness lead to a collective restoration of the environment?

Right now, humans dominate the planet without responsibility. Economic meltdowns, natural disasters, resource depletion, terrorism, crime, public health crises, and mass migration are only some of the problems contemporary society faces. Human activity has a significant impact on the planet, it affects the climate and the ecosystems. Especially during the past 60 years the rate and the scale of this impact are unprecedented; carbon dioxide emissions, global warming, over-extraction of natural resources, ocean pollution and acidification, landfills, and extinction of other species are only some evidence that humans have significantly modified the planet. Technological advances and particularly the discovery of fossil fuels contributed to a large extent to climate change.

It is about time to reconsider the belief in our human identity as a dominant species and acknowledge our interdependence with every component of the organic and inorganic world. In the wake of the world’s destruction, instead of imagining a future without humans, how can we prepare humans to face our “reality crisis” and provoke a shift in consciousness to start caring and acting? The first step would be to abandon the notion of humans as an exploitative species and embrace a new beginning of cohabitation. To achieve that, it is suggested that bodies should transcend their limits, take advantage of existing technology and their natural values, and reconnect to the earth. Recognizing our kinship first

with animals and plants and then with machines will help us establish a symbiotic and no-longer exploitative relationship with nature.

Bodies of Earth is a catalog. It is a collection of snapshots, recent memories of cultural and visual consumption of artworks, and design projects that are placed together to help us re-examine our relationships with plants, animals, and machines. It aims to explore the body’s agency in establishing a partnership with Earth in the era of climate destruction and recognizing that our kinship with the soil is intrinsic to establishing an ethics of eco-responsibility. The structure of the catalog deploys Greek mythology to talk about the circle of life and death more specifically borrows the myth of Persephone, the goddess of fertility, and the Underworld to reveal the interconnectivity of everything on Earth, including, life and death.

The first chapter, Abduction, explores the body under surveillance and extraction mechanisms. Fear and modern lifestyle have enhanced the dependence on digital networks. Technologies of surveillance set the grounds for the dossier society. Digitalization leads to a loss of bodily relations and separation of the natural world. Physical bodies are just a part of our existence. The selected projects in this chapter seek to explore the contradictory relationship between bodies and machines.

The second chapter, Death, examines the material and the digital transformations of a dead body and the possibility of extinction. The fear of death is a fundamental element in the performance of sovereignty. Today, the material destruction of a body does not necessarily mean its disappearance. Digital remains continue to define the afterlife. However, the death of a matter symbolizes the ultimate connection with nature, the biological circle, and the return to the earth. Death is an integral part of natural transformation; it can produce new bodies. The selected artworks for this chapter examine death as an opportunity for social change.

The third chapter, Grief, talks about the shifting landscapes of ecological destruction and memories from the past. Climate change affects every aspect of our natural, economic, and social system. Landscapes are shifting and a lot of areas will become soon uninhabitable, species are being extinct, and populations need to migrate or adapt to the living conditions. This collection of projects seeks to raise awareness of ecological grief. Territories will never be the same again and all the lives of all living creatures are affected. All the bodies are deeply influenced by their surroundings.

The last chapter, Rebirth, presents a post-anthropocentric ethical thinking and provides design alternatives for a regenerative future. It focuses on the dehumanization of man. Bodies today blur between the natural and the technological world, species merge with other species and bodies escape themselves. There is no human nature to protect since all the entities merge and cohabitate in a multispecies community. People, animals, and plants and their material characteristics with the help of technology can shape the ground for an alternative future. It proposes a regenerative design as the solution for our future world. This collection of works hopes to provoke a reset in the conventional anthropocentric mindset and inform about the multiple alternative possibilities on materials and energy.

These four discourses, go beyond the limits of conventional academic research. The works are selected to serve the purpose of each section but are not necessarily inspired and executed to serve these purposes by the artists or designers.

The project is inspired by observations of the contemporary cultural, political, economic, and environmental reality in Greece. From human activities that affect nature such as marble extraction and waste management to realities such as wildfires and floods, this research hopes to question our contemporary cultural symbols and understand the complex relationships between bodies, territories, and machines. The artworks selected for each chapter could potentially change and new projects could be added to the list or replace others according to the needs of each era. As time flies and society progresses, this catalog hopes to compile a structure to narrate the fragile character of our ecosystem and teach us how to live together in harmony.

For Korina, in her memory

A work by Eva Lavranou
Advised by Malkit Shoshan

May 2022

Havrrad Graduate School of Design
Master in Design Studies: Art, Design and the Public Domain

Special Thanks to:

My professor, Krzysztof Wodiczko

My friends: Chaido Kaproulia, Shant Charoian, Stella Rossikopoulou Pappa, Nida Ekenel, Adrian Wong, Sofia Sofianou, Alkiviadis Pyliotis, Ioanneta Pandi, Kevin Liu, Antonis Sarris, Konstantina Lavranou, Rodothea Moraiti, Hiroshi Kaneko, ADPD family

01 ABDUCTION



STRANGER VISIONS
Artist: Heather Dewey-Hagborg
Year: 2012–2013



Artist Heather Dewey-Hagborg produces portraits-sculptures of strangers using **genetic artefacts** such as cigarette butts, chewing gums, and hair found in public areas in New York City. For the purpose of this project she developed a software to represent how individuals would look like based on their genetic genome. This project seeks to draw attention to the topic of **biological surveillance**, technology of forensic DNA phenotyping, and **genetic determinism**. How accurate can be the portraits of people generated simply by the traces they leave behind and how easy can someone have **access** to this information?

surveillance



Artist Hanne Zaruma thinks of relationships between **technology** and the **human body**. She imagines hybrid bodies between the human and the machine. These pictures could be possible representations of a **transhumanist future** where bodies blur with the machines to expand their limits and their capabilities. For her work, she uses discarded technological objects that she transforms into imaginative elements of the future body or fashion accessories.



“I’m concerned about the interaction of people with new technologies.”

STEALTH

Designers: Beren Kayali, Lu Ye, Paul Mendieta and Lea Marolt Sonnenschein
Year: 2020

Stealth is a wearable device that acts as an **identification proof** and could replace fingerprints and facial recognition. It uses as an authentication method the **biometrics** of the user’s mouth more specifically it collects data from the rugae, and the goal is to replace the **verification passwords** and provide easy and safe access to their devices. Although, the designers believe that developing such a verification system could protect **sensitive information** from breaches and hacking attacks, using biometrics as an identification system raises **privacy concerns** since biometric data can also be collected and reveal even more sensitive information for a user such as health issues. Tongue biometrics are less accessible than fingerprints.

“If you think changing your password is difficult, try changing your fingerprint.”



WAITING FOR EARTHQUAKES

Artist: Moon Ribas
Year: 2013



Artist and **transhumanist** activist Moon Ribas, used seismic **sensors** to feel the Earth’s moves. She had implants connected to online seismographs in her feet and whenever there was an **earth vibration** it was recorded in her body. She translates these data into movements and incorporates them into her dance performances. Dance is dictated by the Earth’s vibrations. If there is no **earthquake**, there will be no **dance**. In *Waiting for Earthquakes*, the dancer stands still until an earthquake is felt. Through her work, she is looking for ways to investigate how technology could enhance the **bodily senses** and offer deeper connections with the environment.

“Earth is actually the choreographer of the piece and I’m just imitating the data that she gives.”

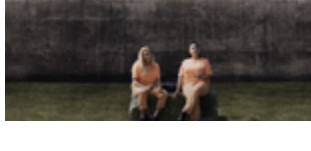
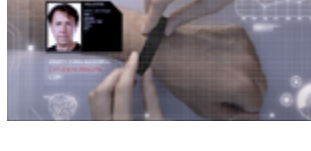
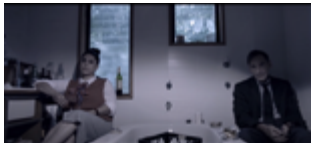
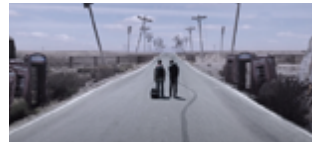
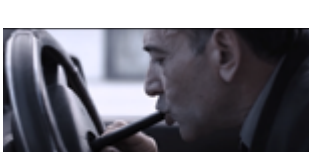
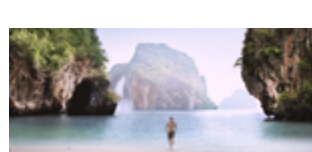


UTOPIA

Director: Kosta Nika
Year: 2019

In the short film *Utopia*, a man lives in a society where citizens police each other with their mobile phones, and a **credit system** controls all their interactions and transactions. There are cameras everywhere and the only place that is not surveilled is the bathroom. The film critiques the absurd mass surveillance that takes place in the contemporary world and predicts future **dystopian scenarios** that might become real if society continues using technology in this way. The questions of **freedom** and **sovereignty** arise since everything will be programmed and all our actions and their consequences will be governed by those who own our **data**.

Where freedom exists only in prison..



digitalization

cyborgs

freedom

data extraction

ABDUCTION

On Surveillance and Extraction

Abduction is the action of taking a body away by force against its will. A body is being abducted when part of it or its whole is extracted, violated, or manipulated and this results in the loss of its dignity, trust, will, or power.

The rise of technology, especially at the turn of the 21st century, led to the expansion of the definition of the body. The body does not refer only to the material form of an object or a living thing but can also have an immaterial presence due to digital communication. Bodies, natures, machines, and networks blur in our complex world. Political theorist and philosopher, Jane Bennett, instead of asking what something is, asks what something can do¹ to explain how objects can produce effects within their networks of relationships. Everything is embedded in systems, affects, and transforms other systems; no form of living can be examined or thrive separately. Survival depends on interrelations. All the systems and their components are designed, from our personal devices to genetic codes, new materials, and network infrastructures. Humans themselves are constantly redesigned by the tools they create.²

The power of the tools to reshape not only the human body but also the planet itself has reached tremendous levels and defined a new geological era, the Anthropocene, in which human activity started to have a significant impact on Earth's geology, climate, and ecosystems. Humans have become the most influential species, causing changes in the environment that might be irreversible. According to historian Dipesh Chakrabarty, humans can become geological agents when they reach large numbers, and the technologies they invent are on a scale large enough to have an impact on the planet itself.³

Technology today is a technology of surveillance and extraction. Extraction of natural resources and extraction of data. Bodies constantly extract other bodies and although the machines of the past were led by humans, the machines of the present lead not only the humans but the whole biosphere. The economic activities of humans, design capitalistic systems that lead to overexploitation of Earth and the living entities and are the main cause of the climate change problem. Extractivism and productionism have become the dogmas of our society.

The phenomenon of extraction is not only confined to the exploitation of natural resources such as oil, gas, minerals, or metals to satisfy the industry and the market's needs but also expands to digital extraction. Data analysis, the commodification of human relations through social media, and the mining of digital currencies are only some examples. Digitalization has created an even stronger dependence of bodies on machines and has objectified the man. The digital

has an impact on the physical and nature and technology merge now more than ever. The difference between the artificial and the natural has vanished⁴ and it is about time to recognize the fact that there is no pristine nature that can be examined separately from human activities. Civilization of any kind requires shifts in the natural environment. The question is how these shifts can happen in a way that guarantees the survival and the protection of the bodies which inhabit it.

One major observation regarding the structure of everyday life of a body would be that is monitored by surveillance systems and networking technologies. CCTV cameras are dominant in the urban environment, X-Ray machines control the bodies and smartphones perform a continuous self-surveillance. Data economy is one of the dominant ways humans interact with their environment but what is important here is the fact that humans themselves are protagonists in this extraction since they offer their bodies and their information most of the times for free to the industry models. "[Surveillance Capitalism is] a new economic order that claims human experience as free raw material for hidden commercial practices of extraction, prediction, and sales" says Shoshana Zuboff in *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*.⁵ Earth and its inhabitants are faced as resources, ready to agree in the data exchange and satisfy the forces of the market and politics.

Moreover, the digitization of communication reshapes the idea of a body. The strong dependence on screens and devices frames a new image for the species, the one without bodies or at least without physical bodies. Embodied relations have been replaced by dematerialized parallel realities. Emotions are expressed through emoticons, care is not shown through touch and conversations happen through messages. The online world has replaced the real⁶ and the world has been transformed into a paradoxical environment of infinite mixed physical and virtual realities. That means that the identities are decentralized from the physical bodies and the bodies themselves lose their autonomy. Fragmentation of bodies also diminishes the capacity for empathy since our virtual selves are always distracted somewhere in cyberspace and do not take accountability for what is happening in reality since there is no actual reality.

Nevertheless, there is also a different perspective that supports that the escape of the body liberates the self, avoids racial or gender discrimination, and provides the chance to choose whichever identity serves it better. This helps the bodies that cannot be examined under the normative patterns to feel free.⁷ A common question in the posthumanism discourse is what it means to be a human and if the absence of a material body signifies the death of the identity and the consciousness; the body becomes a site of conflict. Disembodiment and dislocation are also fundamental principles in the transhumanist ideology.⁸ Transhumanism imagines a body enhanced through technology. The search for a superhuman suggests the increase of physical and intellectual capacities to achieve longevity and amplified cognition. The goal is to transcend the physical and biological limitations of a body through engineering and nanotechnology to ultimately escape from its materiality and face aging and death.

People use their tools, the machines they create, to control all aspects of life. The technosphere comprises all the structures humans have built to keep themselves alive on the planet and today they are used as the main tools to fight decay, entropy, and death.⁹ Through technomedicine, they have managed to control and produce life. It seems that our era is characterized by the blurring of all the living matters with machines. Genetic manipulations and therapies, sensor technologies, 3D bioprinting, advances in artificial intelligence, and cryonics are only some examples. The era of plasticity and pollination¹⁰ seeks to create the finer adjustments to establish the human's survival on the planet.

Donna Haraway predicted that by the late 20th century humans and animals will be all chimeras, hybrids of machine and organism, the so-called cyborgs.¹¹ However, there are different kinds of cyborgs. On the one hand, there are transhumanists who seek to create an even deeper connection with Earth. For example, the dancer Moon Ribas, implanted seismic sensors in her feet to be able to dance according to the Earth's vibrations. On the other hand, there is also the danger that genetic manipulations and species enhancements through technology could easily depart from the dream of an egalitarian society, foster more inequalities, and bring the issue of sovereignty since not everyone could ever have equal access to resources. If there is an immortal elite who decides who lives and how, the questions are who

can become part of it and who will be excluded and what will be the strategy to address the ecological and social crisis.

Since everything is controlled and managed by data, who owns the data is a topic of great importance. Usually, big companies extract from bodies more data than the bodies even know that they possess and use them for market purposes. Even though, consent is required in most interactions this consent can be never transparent as it is impossible to track all the potential uses that data could have due to the fact that technology itself has become extremely smart. Monetization of data controls the planet's life and extraction happens both in the physical and in the digital world. Everything in this world is programmed and organized in a certain way to take advantage of Earth's recourses, bodies, and minds, humans, and non-humans. Philosopher Vilém Flusser asks "Is there any room left for freedom in our programmed world?"¹² Freedom, translated as an idea of autonomy and free will, is hard to be achieved in a system where surveillance and extraction models rule. Nodes of power constantly generate forms of captivity¹³ that limit the ability of the bodies to be free.

It is vital to reconsider the relationships with the networks and machines and create systems that can be more adaptive and less exploitative towards the resources of the planet and all the living beings. Kinship between humans and non-humans-such as animals and machines¹⁴ could give birth to new endless possibilities of living and hope for survival. Models of symbiotic inhabitation should become the paradigm for the future society where, humans, animals, plants, organisms, and machines co-exist and thrive together. Symbiosis could generate new forms of sensitivity and prepare humans for the ecological challenge. Cyborgs can show the way to liberation and freedom not only for humans but also for all living entities and the planet itself. They could offer the potential to hack the habitat and explore ways of resistance by establishing a more conscious relationship with and through machines.¹⁵ The abducted bodies should find ways to escape their prisons.

¹ Bennett, Jane. 2010. *Vibrant Matter : a Political Ecology of Things*. Durham: Duke University Press.

² Keenan, Thomas. "Or are we human beings?", in *Superhumanity: Design of the Self*, edited by N. Axel, B. Colomina, N. Hirsch, A. Vidokle, M. Wigley, 427-435, University of Minnesota Press, 2018.

³ Chakrabarty, Dipesh. 2009. "The Climate of History: Four Theses." *Critical Inquiry* 35 (2): 197–222. <https://doi.org/10.1086/596640>.

⁴ Jonas, Hans, and David Herr. 1984. *The Imperative of Responsibility : in Search of an Ethics for the Technological Age*. Chicago: University of Chicago Press.

⁵ Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism : the Fight for a Human Future at the New Frontier of Power*. First edition. New York: PublicAffairs.

⁶ Basar, Shumon, Douglas Coupland, Hans Ulrich Obrist, and Agnieszka Kurant. 2021. *The Extreme Self*. Köln: Verlag der Buchhandlung Walther and Franz König.

⁷ Russell, Legacy. 2020. *Glitch Feminism : a Manifesto*. London: New York: Verso.

⁸ Emmelhainz, Irmgard. "Authoritarianism and the Cybernetic Episteme, or the Progressive Disappearance of Everything on Earth", *e-flux Journal*, no. 122 (November 2021):

<https://www.e-flux.com/journal/122/430488/authoritarianism-and-the-cybernetic-episteme-or-the-progressive-disappearance-of-everything-on-earth/>

⁹ Emmelhainz, Irmgard. "Authoritarianism and the Cybernetic Episteme, or the Progressive Disappearance of Everything on Earth", *e-flux Journal*, no. 122 (November 2021):

<https://www.e-flux.com/journal/122/430488/authoritarianism-and-the-cybernetic-episteme-or-the-progressive-disappearance-of-everything-on-earth/>

¹⁰ Mbembe, Achille, Steve Corcoran, and e-Duke books scholarly collection. 2019. *Necropolitics*. Durham: Duke University Press.

¹¹ Haraway, Donna Jeanne. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Simians, Cyborgs and Women: The Reinvention of Nature*, Routledge, 1991.

¹² Flusser, Vilém, Rodrigo Mattez Novaes, and Siegfried Zielinski. 2013. *Post-History*. 1st ed. Minneapolis, MN: Univocal.

¹³ Geshoska, Iskra. "The Collective Alice, or, on Fear, Death, Multitudes, and Pain." *e-flux Journal*, no. 119 (June 2021):

<https://www.e-flux.com/journal/119/403048/the-collective-alice-or-on-fear-death-multitudes-and-pain/>

¹⁴ Żylińska, Joanna. 2015. "Bioethics Otherwise, or, How to Live with Machines, Humans, and Other Animals." *Teksty Drugie*, no. 1: 211–30.

¹⁵ Gevers, Ine., "Hacking Habitat." in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 191-193, Bloomsbury Publishing Plc, 2018



SILUETA SERIES

Artist: Ana Mendieta
Year: 1973-1977

THE ICE URN

Designer: Diane Leclair Bisson
Year: 2019

The designer explores sustainable scenarios for death practices. *The Ice Urn* uses **ice** to **dissolve** cremated remains after death. A sealed container of ice holds the ashes of a deceased body, and the idea is that the remains will be **dispersed** in a lake, in the ocean, or in the soil. It is a **dissolvable memorial object** that imagines the return of the dead body to the earth. It offers an alternative to traditional coffins or vases which produce large amounts of **carbon emissions** and their decomposition takes too much time.

“It is the most immaterial urn ever created.”



“the final stage of a ritual but a way and a means of asserting my emotional ties with nature”



biological circle

WILT

Designer: Anya Petrova Stevens
Year: 2022



“I use self-generated datasets and machine learning in order to invite the audience to witness the unseen parts of familiar objects – creating new narratives while evoking empathy for vulnerable lifeforms.”

The artist invites the viewers to imagine possible **entanglements** with more-than-human species. The project reveals how **decay** and death could lead to regeneration and to the production of **new bodies**.

CAPSULA MUNDI

Designer: Raoul Bretzel, Anna Citelli
Year: 2003

An individual's **carbon footprint** does not stop after death. Although, the body itself decomposes eventually, all the objects designed to accompany it on Earth such as the wooden casket, metallic joints, and synthetic fabrics slow down the process and **pollute the soil**. Capsula Mundi is an egg-shaped **biodegradable** burial pod that is inserted in the ground like a **seed** and a **tree** is planted above it. Thus, the body's ashes become nutrients for the nature. It is an alternative to the traditional burial coffins and the idea is to **transform the cemeteries into forests**. By turning deceased bodies into trees, it explores the interrelation between humans and nature.

“The cemetery as a forest not only will reduce the environmental and landscape impact but also it will give new green spaces to our planet.”



LIVING COCOON

Designer: Bob Hendrikx
Year: 2020

Living Cocoon is a coffin constructed with **mycelium** that helps the body decompose faster and improves the surrounding soil. Mycelium has the property to **remove toxic substances** from the earth and create a fertile ground for new plants to grow. The complete **decomposition** of the body and the coffin takes two-three years to decompose in comparison with the traditional coffins which need approximately 10 years. This project is an attempt for the bodies to return to the **soil** by enriching it instead of polluting it. Death could become a process that generates new bodies instead of destroying even more. Mycelium helps the land to be clean again and this living coffin contributes to the better function of the **natural circle** by offering the deceased body as **nutrients** to the Earth.

materiality

“And that’s when I realised what mycelium could do for us humans, bringing us back into the cycle of life and allowing us to provide food for plants.”

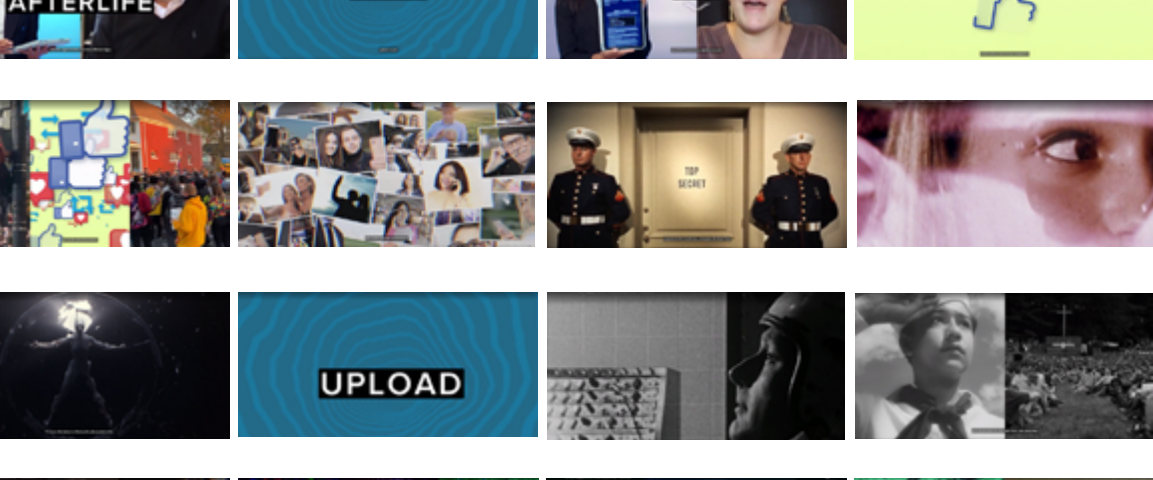


WHAT HAPPENS TO YOUR DATA WHEN YOU DIE?

Creator: Sinead Bovell
Year: 2022

DIGITAL AFTERLIFE

Creator: Sinead Bovell
Year: 2022



This video explores the continuation of life through the **digital afterlife**. More specifically, it investigates what is happening with someone's **data after death**, how can it take life of its own and what does it mean for digital **immortality**. In today's reality when humans are connected with the screens, their digital accounts and their passports, the death of the physical body does not guarantee the end of life for the digital one. Virtual selves remain active in the **networks** and interact with others.

digital remains

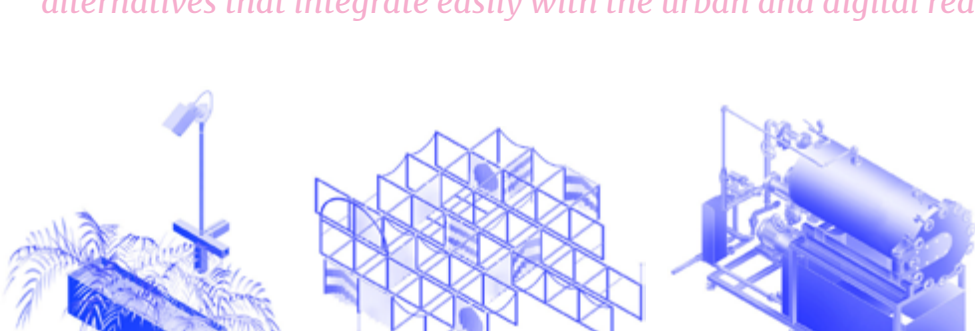
THREE ORDINARY FUNERALS

Designers: Common Accounts
Year: 2017-2020



Today **death** is removed from our cities, a topic that humans avoid and ignore which is faced as a taboo issue. However, the death industry is a rather **pollutant industry** since it requires the production and consumption of a lot of materials. Three Ordinary Funerals is an installation that brings back to the city the topic of death and tries to incorporate it in the **everyday life** and make it more sustainable. It proposes a system of **neighborhood funeral homes** and remains disposition sites with no emissions. Liquefied bodies are used to fertilize plants, and social media accounts generate a virtual afterlife. It imagines a death that blurs the physical and digital reality. The ceremony starts with the opening of a **virtual afterlife portal** where friends and family are invited to contribute digital memories. Then, the deceased body is placed inside a bespoke alkaline-hydrolysis fluid cremation system and transformed into a **fertile liquid**.

“We need new, cleaner, socially productive disposition alternatives that integrate easily with the urban and digital realms.”



new bodies

DEATH

On Extinction and Remains

Death is the action of dying or being killed. It refers to the end of vital processes in a cell or tissue. A body is considered dead when it cannot perform its functions. Death is an important component of the biological circle. It leads to regeneration.

Sovereignty is the dominant power executed in a form of authority over an entity or a crowd. The fear of death is a fundamental element in the performance of sovereignty. Philosopher and political theorist Achille Mbembe, suggests that “the ultimate expression of sovereignty largely resides in the power and capacity to dictate who is able to live and who must die.”¹⁶ Climate change is inextricably connected with the possibility of death since more and more places become uninhabitable, and a lot of species are threatened with extinction. Technological advances and economic activities oriented only toward the mechanism of profit and ignoring any form of responsibility towards the environment, not only contribute to the ecological disaster but also gave humans the power to become the dominant species on the planet. Humans have become something much larger than biological agents; they now wield a geological force¹⁷ that is capable to destroy the life on the planet as climatic anomalies and their effects are becoming more frequent and severe.

Increased use of fossil fuels and carbon dioxide emissions, deforestation, overfishing, overhunting, pollution, consumerism and waste, and genetic editing of plants and animals are only some of the human activities that accelerate the ecological collapse. Philosopher Hans Jonas writes that “man has become dangerous not only to himself but to the whole biosphere.”¹⁸ Environmental destruction causes extreme weather events such as storms, heatwaves, and floods, disruption in food systems and in species interactions, habitat loss for multiple species, accelerates hunger, violence, mass migration, and produces inequalities and diseases.

All species, including humans, face today the extinction crisis and are condemned to live with the fear that their life will soon come to an end. Scientists distinguish the factors of extinction due to climate change into two categories: the abiotic and the biotic.¹⁹ Abiotic factors are the extreme temperature, the modified precipitation patterns due to human activities, and other non-climate related factors which are, however, a result of climate change such as an increase in fire frequencies. Biotic factors are considered to be the interruptions and changes in the relations and in the activities among species such as companion species, predators, and pollinators. Reduction in biodiversity could have detrimental effects since the ecosystems will gradually become inadequate to support life. Climate disaster is a reminder that species are on the edge of extinction.

Extinction is not a threat that concerns only some species. The idea that some species are in danger and some others are not, has no ground since all the species are interconnected and interdependent. Certainly, there are species that are affected in a more obvious and profound way but sooner or later a disruption in an ecosystem affects all its inhabitants. Bodies are entangled with other bodies and their function depends on their relationship with the other. A human body for example is comprised of thousands of bacteria and microorganisms and plants use animals as pollinators for their reproduction. Therefore, the problem is not a loss of individual species but of assemblages and this is the reason why extinction is a multispecies event²⁰ with local and global consequences. It is the distraction of these collaborations and coordinations that will eventually lead to the disappearance of some bodies.

Undoubtedly, death is an integral part of the biological circle. Survival requires to eat and to be eaten, to be born and to be decomposed, to eventually return to Earth so it will be able to give birth to new bodies. Decay is the process that facilitates the continuation of life, the body has a certain life expectancy and after this, it loses its resilience. Society today tends to ignore or fight death. Death is not recognized as a necessity that belongs to nature but as an organic malfunction that must become avoidable at any cost.²¹ From expensive life insurance packages to anti-aging treatments and from genetic experiments to technomedicine trials, the achievement of immortality is the ultimate goal of humanity.

Climate change buttresses the fragility of our existence and cultivates anxiety and fear for a future that might never come. Nevertheless, in the prospect of death, people tend to reflect on life²² and this might need new forms of engagement and action towards a better, more sustainable future. Again, the question of sovereignty appears since there is already an elite that seeks ways to fight mortality and survive by buying plots in areas that will be less affected by climate change, colonizing other planets, or investing in cryogenic facilities. Tactics like these could only deteriorate the common struggle for survival as they neglect that everything comprises one ecology, everything is connected.

Connection though does not happen only in the physical world. The digital world is a significant

part of our reality, and the life of a body today is extended to its virtual networks. In the face of the death of a material body, the question is what is happening with the virtual one. Humans have multiple accounts and are part of many networks; they are active participants in digital communication and data exchange. After the death of a material body, digital data are the remains of it, the elements that sustain life over a dead entity. A lot of scientific experiments and sci-fi movies seek to explore the possibility to extend life in the absence of a material body. That would require the transfer of consciousness, the copy of a brain with all its complexities, and although it is possible to stimulate networks of neurons on a microchip, cognitive and emotional experience depends on a brain-body system embedded in the environment²³ and affected by its experiences and the surroundings.

Yet, the life of a body could continue in the virtual world. In all the social media accounts that are full of pictures, written or sound messages, bank accounts, or avatars in video games, there is a part of the body that cannot completely disappear. All these data remain alive, and their management transcends the control of the living or lacks adequate legislation. For example, in the US, a court order is required to access an online account of a deceased. Moreover, there is a full new afterlife industry that helps people plan their death and organize their legacy. Afterlife companies offer services such as live streaming ceremonies, managing digital information, hosting online memorials, creating chatbots, and messaging the alive beloved ones. However, the operation of a body in the afterlife demands participation in the sociopolitical system and the bureaucratic mechanisms of the living.²⁴ A physically dead body can continue existing in the virtual sphere as long as it is productive in a way that supports the market. The question is if the data immortality is enough to provide immortality to the body. So far, technology has not reached this level.

Right now, bodies have a certain capacity and even though there are organisms that can avoid aging due to their cell operation, all the bodies die for different reasons. They might be eaten, they might be sick, and they might face an accident or an extreme condition. Nanotechnology could prolong the life expectancy of a body but not prevent death. All the bodies return eventually to Earth and there is a poetic expression in this connection with the soil. Decomposition is a natural process that by digesting old bodies it gives birth to new ones

by providing them food. It is a vital part of the biological circle. Bodies and soil collaborate and make the process of degradation a lively procedure that leads to regeneration.²⁵ Recycling of this kind sustains life and rejuvenates the planet. Healthy soil implies the production of healthy bodies.

There is a strong connection between the bodies with their materiality. Everything is born from the soil. Professor of soil science, Francis D. Hole, writes that “in a sense, we are unique moist packages of animated soil”²⁶ to describe that all the bodies are comprised of other bodies that have been constructed out of the soil and to highlight our dependency on the materiality. The ecological destruction has led to the degradation of soil. Soils are in danger polluted by chemicals, threatened by erosion, and desertification and this affects the whole ecosystem and together with them the inhabitant bodies since it leads to changes in the water flow, agricultural productivity, and plant reproduction. The survival of the bodies depends on their relations with the soil. Therefore, it is about time to reconsider the use and the exploitation of the soil and initiate a practice of care. Soil is a generator of life and death should be viewed as a natural process that supports the process of rebirth.

Part of our responsibility as inhabitants of the planet is to transform the idea that society has with death from a marginal procedure that needs to be avoided to a regenerative process that contributes to the continuation of life. The fear of destruction should be replaced with the purpose of continuity for future generations, for new bodies that still need to be born. Death as a reminder of our fragility gives us the chance to practice life in its finest version.

¹⁶ Mbembe, Achille, Steve Corcoran, and e-Duke books scholarly collection. 2019. *Necropolitics*. Durham: Duke University Press.

¹⁷ Chakrabarty, Dipesh. 2009. "The Climate of History: Four Theses." *Critical Inquiry* 35 (2): 197–222. <https://doi.org/10.1086/596640>.

¹⁸ Jonas, Hans. 2014. "Responsibility Today: The Ethics of an Endangered Future 1." In *Global Ethics and Moral Responsibility*, 1st ed., 9–21. Routledge. <https://doi.org/10.4324/9781315584829-2>.

¹⁹ Cahill, Abigail E., Aiello-Lammens Matthew, E., Fisher-Reid M. Caitlin., Hua Xia, Karanewsky, Caitlin J., Yeong Ryu, Hae., Sbeglia, Gena C., Spagnolo, Fabrizio., Waldron, John B., Warsi, Omar., Wiens, John J. "How does climate change cause extinction?" *Proceedings of the Royal Society B* 280:20121890. (24 September 2012): <https://royalsocietypublishing.org/doi/epdf/10.1098/rspb.2012.1890>

²⁰ Tsing, Anna Lowenhaupt, Heather Swanson, Elaine Gan, and Nils Bubandt. 2017. *Arts of Living on a Damaged Planet. Ghosts of the Anthropocene ; Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.

²¹ Jonas, Hans, and David Herr. 1984. *The Imperative of Responsibility : in Search of an Ethics for the Technological Age*. Chicago: University of Chicago Press.

²² Zylinska, Joanna. 2014. *Minimal Ethics for the Anthropocene*. First edition. Ann Arbor, Michigan: Open Humanities Press.

²³ Graziano, Michael. "Why You Should Believe in the Digital Afterlife?", *The Atlantic*, (14 July 2016): <https://www.theatlantic.com/science/archive/2016/07/what-a-digital-afterlife-would-be-like/491105/>

²⁴ Common Accounts. "Going Fluid", *e-flux Architecture* (February 2018): <https://www.e-flux.com/architecture/superhumanity/179183/going-fluid/>

²⁵ Puig de la Bellacasa, Maria. 2019. "Re-Animating Soils: Transforming Human–soil Affections through Science, Culture and Community." *The Sociological Review* (Keele) 67 (2): 391–407. <https://doi.org/10.1177/0038026119830601>.

²⁶ Ibid.

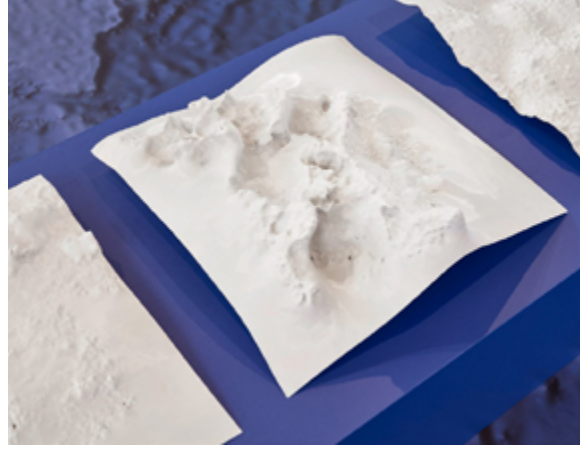
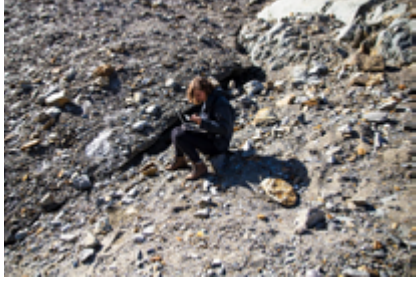
shifting territories



RETREAT

Designer: Xandra van der Eijk

Year: 2019



“I strongly believe that if more people can identify their emotions about the effects of climate change on the landscape and ecology as ecological grief, it can create a much-needed feeling of solidarity and unity”

Retreat is a research project that aims to find ways to preserve the **shifting landscapes** of the climate change era. Loss has become an everyday phenomenon. Glaciers are melting, oceans are rising, icebergs are shrinking, fertile land is turned into desert, habitats are destroyed, and species are extinct. The territories are under constant **transformation**. This project tries to maintain the memories of these landscapes. By **3D scanning** three terrain surfaces in the Swiss Alps at the bottom of a glacier and then turning them into 3D-models made by **bioplastic** it hopes to preserve the memory of the land alive. The idea is that the scanned surfaces will continue to evolve digitally. It is a project that acts as a **memorial** of the lost land and raises awareness of **ecological grief**.

A PEOPLE’S ARCHIVE OF SINKING AND MELTING

Designer: Amy Balkin

Year: 2012 +



People’s Archive of Sinking and Melting is a project that aims to collect items from **places that may disappear** due to the impacts of climate change. The archive contains contributions from locations such as Nepal, Cape Verde, Peru, Greenland, Antarctica, New Orleans, Alaska, Panama, and New York City. Everyone who lives in an area that is in danger of disappearance now or in the future is invited to contribute. This **growing archive** focuses on the everyday objects of the people and tries to keep alive the memories of the communities that inhabited a place. With the **sea-level rise** and **desertification** threatening many areas on the planet, not only the land will be lost but also the cultural heritage. These objects act as memorials that remind us the destructive character of the **capitalist production**.

“The collections and things that comprise them are intended to form a record of the future anterior”

EARTH’S BLACK BOX

Designers: University of Tasmania, communication firm Clemenger BBDO, and an art collective Glue Society

Year: to be constructed in 2022

Earth’s Black Box is a project that collects **data and measurements** that relate to the **demise** of the planet due to climate change. It collects all the moments that contributed to the **climate catastrophe** and explains how human behavior led to the degradation of the planet. The goal is to create a call for immediate action and to prepare future generations. All the ghosts and the monsters of the past and our **fragile present** will be kept in the box to enhance the **ethics of preservation and prevention**. Artists, architects, and researchers in Australia imagined the box as a massive metallic monolith placed in Tasmania. It will be resilient to fire and water damage. As a symbol of the catastrophe, it will record two types of data. The primary data will consist of the **planet’s vital signs** such as temperatures and carbon dioxide concentrations and the contextual will collect documents that respond to them such as governmental **policies**, social media data and articles in an attempt to make world leaders **accountable** for their actions.

“The idea is if the Earth does crash as a result of climate change, this indestructible recording device will be there for whoever’s left to learn from that”

–Jim Curtis



Pyramids in Cairo are one of the most remarkable monuments and **symbols of cultural heritage**. Artist Bahia Shehab imagines the Pyramids of the present constructed by waste in an attempt to raise awareness of the severe environmental problem of **waste management** that Egypt faces. It is also a critique of the modern human who is attached to a **glorious past** but incapable to manage the problems of the present. By reiterating a powerful symbol, she hopes to change the **consumerist behavior** of the people. Will the memorials of the present be erected out of trash? Is this the **legacy** our **civilization** wants to leave behind?

“Are we going to come together to build a sustainable future for all of us or will our new legacy be pyramids of garbage?”

INVOCATION FOR HOPE

Designers: Superflux

Year: 2021

This installation at the Museum of Applied Arts in Vienna brings hundreds of damaged by **forest fire** trees around 27 living trees to raise awareness of the climate change consequences and the destruction of ecosystems. The **living trees** were continuing to grow throughout the exhibition. In the middle of the room, there is a pool in which footage of underwater cameras from water troughs of animals such as lynx and bison at the Alpenzoo Innsbruck, an Austrian zoo is projected. The **damaged trees** symbolize the irresponsible approach of humans towards nature and showcase the results of this **overexploitation** and **violence** whereas the oasis in the middle with the living plants is a hope for a better **more-than-human future**.

“We want to foreground how we’re a part of a larger ecology rather than the masters of nature.”



THE GREAT ANIMAL ORCHESTRA

Artists: Bernie Krause & United Visual Artists

Year: 2016

Every habitat of this planet creates its own **soundscape** that is **unique**. Soundscape ecologist Bernie Krause spent his life collecting **more-than-human voices** from multiple territories across the globe. This installation that took place at Fondation Cartier pour l’art contemporain in Paris, included **recordings** from **seven territories** chosen for their biodiversity. Studio United Visual Artists imagined a translation of Bernie’s soundscapes into visuals, creating an immersive audiovisual experience for the visitor. Sounds are an important **component** of the landscape, reflecting the memories and the ways of living of the inhabitants. Climate change has dramatically affected the **biodiversity** of the ecosystems since a lot of species becoming extinct and weather patterns change. These changes are depicted in the sounds of each landscape. Preserving the soundscapes alive, help us see the “**ghosts**”, understand them and take action to **restore** the nature.



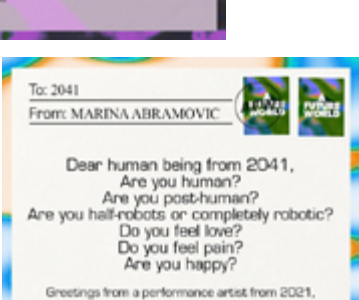
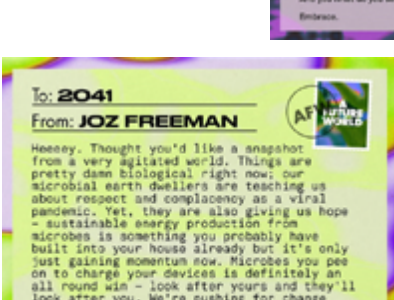
“Natural soundscapes are a narrative of place. They contain information vital to our understanding of the natural world.”

POSTCARDS TO THE FUTURE

Organized by: Dazed Magazine

Participants: Vivienne Westwood, Marina Abramovic, Maisie Williams, Legacy Russell, Rema, A-chaan, Kashiyuka, NOCChi, Joz Freeman, Anil Seth, John Allen, Hans-Ulrich Obrist, Marine Serre, Gaika, Year: 2021

Postcards to the Future invites artists, activists, designers, and scientists to imagine **new realities from the future world**, warn humanity about the limits of our existence and give **advice** to cope with society’s degradation and take action to change the planet. As a response to ecological and social grief this projects seeks to raise hope for the formation of a better more **responsible human being**.



ecological destruction

biodiversity loss

nostalgia

memorials

adaptability

GRIEF

On Ghosts and Memorials

Grief is an emotional response to a loss and a way of managing a disaster. Mechanisms of grief are required to cope with a catastrophe. Grieving is a form of learning new rules to operate in the world.

Loss is the condition of being deprived of something. Today, the world faces countless, unstoppable losses of species, ecosystems, and landscapes due to the carbon-intensive infrastructure of capitalism. Glaziers are melting, oceans are rising, icebergs are shrinking, droughts, rainfalls, and storms are becoming frequent and intense and therefore, the synthesis of the landscape is under a constant transformation. Habitats are lost, fertile land is turned into desert, cities disappear into the water and wildfires destroy the forests. Wounded territories affect the lives of all the bodies that inhabit them, plants, animals, people, and their activities. Humans are designing the destruction of the land and together with it their own extinction with their consumerist and exploitative behavior towards nature. Survival is under threat, nature collapses, and is transformed into a ruin that is haunted by past forms of life. The question is if these modes of exploitation will lead to the ultimate catastrophe, the absolute loss.

The relationship between humans and land has always been exploitative in the sense that survival of the former required an exchange of resources. Food and shelter have been the first needs that humans and most animals, tried to cover. Urbanization and agriculture were the first forms of land transformation revealing the violent relationship between humans and territories. Philosopher Hans Jonas writes that “the raping of nature and the civilizing of man go hand in hand.”²⁷ There are two thoughts deriving from this statement that concern the modern human.

First, the fact that humans tend to make themselves the protagonists of the landscape and they do not spend time understanding the other elements of the ecosystem and their way of living, they do not respect them, and they design worlds to serve only human needs and profit-oriented activities. This is of course devastating not only for the rest ecosystem but also for themselves since everything is interconnected, and the life of one component of an ecosystem affects the life of the other.

Second, the difference between past civilizations and the current civilization is technological advancement. Technology today has the power to cause tremendous alterations in the landscape and in the bodies that inhabit it and all the tools humans create, end up in a landfill. Modern technological waste has durability in time, it is hard to get digested and decomposed and it can create a new geological layer of technofossils, the future remains of late capitalism.

Technological advancements and development without responsibility intensify the climate change challenges. Moreover, they cause imbalance and disruption in the systems that comprise an ecosystem. Not only do they saturate the social, cultural, and natural environment but also change the power structures among them²⁸ which leads to a significant weakening of the self-healing power of nature. The territories and their inhabitants become fragile entities that live constantly under the fear of degradation and extinction. The world is gradually turned into a huge ruin. The process of ruination weighs on the natural environment and does not affect anymore only the manmade infrastructure. Landscapes as the arrangements of human and nonhuman living species²⁹ are constantly shifting and with the enforcement of the radical changes, a lot of stories from the past are being lost. These stories are of great importance since they help in deeply reading and understanding the landscapes from a more-than-human perspective.

As these more-than-human histories disappear from the landscapes, the ghosts appear. “Every landscape is haunted by the past ways of life,”³⁰ say the writers of the Arts of Living on a Damaged Planet. Ghosts of the Anthropocene ; Monsters of the Anthropocene. People tend to forget and ignore these pasts, blinded by the promise of progress and development. And the writers continue that the landscapes of the Anthropocene are also haunted by imagined futures.³¹ Humans are ready to sacrifice the natural environment, their habitats, and even their health in the name of power and profit. Deforestation, imprudent willingness for construction, and the burning of fossil fuels are only some examples. Humans are the designers of the catastrophe; they destroy the planet and naively believe that their dominance over nature and other species would not end. As the stories of the past are being forgotten, the ghosts appear to remind humans of their connection with the Earth and with the non-human entities and their entanglements. All the bodies are connected with other bodies, they grow together, and these relationships are what form a landscape.

The many histories of life, death, struggle for survival, and adaptation to the environmental conditions of all the species is a knowledge that needs to be preserved to maintain the life on a territory. Past civilizations managed to live in harmony with nature and the other

no-human entities by observing them, listening to them, and liberating themselves from their anthropocentric viewpoint. It is about time to remove themselves from the center of the plot, start listening to the owls and start watching the trees³² if they want to achieve continuity in the time since the possibility of collapse is near. These stories of the past could provide humanity with ideas and solutions to reinvent the human and transform it into a more eco-responsible and less egoistic creature. Ghosts, remain in the landscapes to remind us of the importance of assemblages and to reveal the traces of history and time as humans forget what was there before and try to adapt to the new reality of ruins.³³

These ghosts are an integral part of the process of grieving. They are the connections with the lost landscapes, the lost stories – the deceased. To recover from a loss and free oneself from the ghosts, it is important to acknowledge the pain, face the reality, reconsider, examine one’s actions, and accept and embrace a change in mentality. Memory plays a vital role in this mission. The act of inscribing preserves the myths, the battles, the ideas, and the memories of the land and its inhabitants and it is what extends life in time.³⁴ If there is no future waiting there is no point in living. Lost environmental knowledge signifies the loss of the identity of a land that disappears. The traces of the past will contribute to the reinvention of the future. Art today could serve as a memorial that bridges humans with the wounded landscapes. It can become the vessel to mourn the damaged ecosystem and expand our imagination to create more collective futures. Art and culture can provide channels of empowerment, self-organization, control of social capital, preserve local knowledge and bring the communities together.³⁵

Preserving the collective memories of the land which are shaped by the stories of all the living entities of the planet, will help society recover from its traumas. Professor James Young writes when describing the Holocaust that some memorials are erected to educate the next generation and to create a shared sense of experience and destiny whereas others are conceived as expiations of guilt.³⁶ Similarly, the memorials of climate destruction have a dual character, they seek to raise awareness and educate about the ecological challenges and criticize the human dominance and exploitation of the planet. Art could show the way to respond to the climate catastrophe with responsibility and urgency so that the whispers of the dead will prepare

them for the battle and there will be stories to narrate to the next generations. An ethics of preservation and prevention will help reconstruct the landscapes of ghosts and ruins.

It is important to understand that ecological destruction is not an event of the future, that humans can postpone dealing with it, it is happening now, and it demands immediate collective action. It requires an authentic collaboration between systems and a shift in the movement of financial and human resources.³⁷ People should stop thinking only as consumers that sell and buy everything for a certain price. They should realize that they play a crucial role in the maintenance of the ecosystem and start caring and acting towards a more sustainable future, merging themselves with the landscapes rather than excluding them from them. As the economist Kate Raworth describes in Doughnut Economics, humans should try to imitate the fluidity of the octopuses which have the ability to change colors, shapes, and textures according to their shifting surroundings, and understand that they have multiple roles in relation to the economy and not just the role of consumer.³⁸ Embracing fluidity is the first step toward the separation of the solid identity of the human as a dominant species on the planet.

To transform the other, first one needs to transform oneself and this requires a form of separation from one’s traditional thinking. As philosopher and ecologist Timothy Morton writes “Seeing yourself from another point of view is the beginning of ethics and politics”.³⁹ Although separation and loss can be violent procedures, they are also educational and decisive thresholds that may lead us to better realities. Grieving cannot last forever but is an inevitable process to learn how to cope with difficulties and pain, how to adapt, and how to recover. After every loss derives a rebirth.

²⁷Jonas, Hans, and David Herr. 1984. *The Imperative of Responsibility : in Search of an Ethics for the Technological Age*. Chicago: University of Chicago Press.

²⁸Gevers, Ine., “Hacking Habitat.” in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 191-193, Bloomsbury Publishing Plc, 2018

²⁹Tsing, Anna Lowenhaupt, Heather Swanson, Elaine Gan, and Nils Bubandt. 2017. *Arts of Living on a Damaged Planet. Ghosts of the Anthropocene ; Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.

³⁰Ibid.

³¹Ibid.

³²Ehrenreich, Ben. 2020. *Desert Notebooks : a Road Map for the End of Time*. First hardcover edition. Berkeley, California: Counterpoint.

³³Tsing, Anna Lowenhaupt, Heather Swanson, Elaine Gan, and Nils Bubandt. 2017. *Arts of Living on a Damaged Planet. Ghosts of the Anthropocene ; Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.

³⁴Ehrenreich, Ben. 2020. *Desert Notebooks : a Road Map for the End of Time*. First hardcover edition. Berkeley, California: Counterpoint.

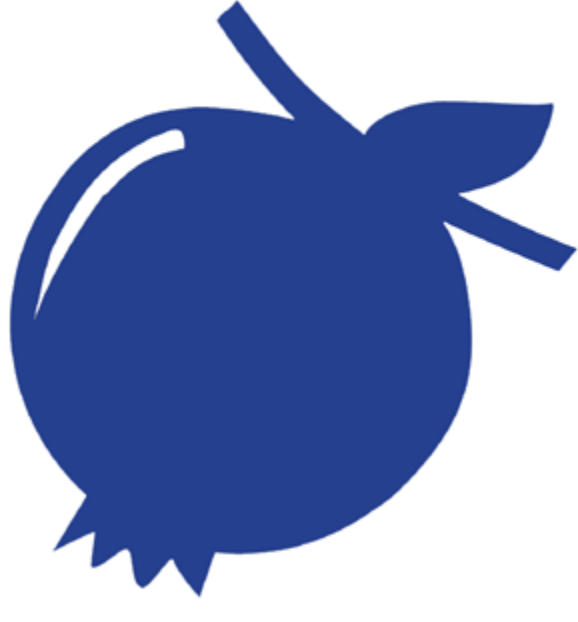
³⁵Gevers, Ine. “Hacking Habitat.” in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 191-193, Bloomsbury Publishing Plc, 2018

³⁶Young, James Edward. 1993. *The Texture of Memory : Holocaust Memorials and Meaning*. New Haven: Yale University Press.

³⁷Brown, Adrienne Maree. 2017. *Emergent Strategy : Shaping Change, Changing Worlds*. Chico, CA: AK Press.

³⁸Raworth, Kate. 2017. *Doughnut Economics : Seven Ways to Think Like a 21st Century Economist*. White River Junction, Vermont: Chelsea Green Publishing.

³⁹Morton, Timothy. 2022. *The Ecological Thought*. Cambridge, MA: Harvard University Press.

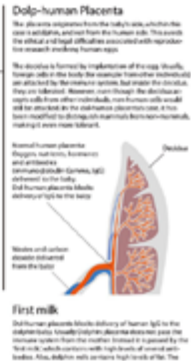
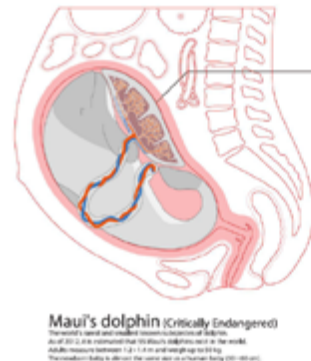


I WANNA DELIVER A DOLPHIN

Designer: Ai Hasegawa

Year: 2011–2013

This project approaches the topic of **reproduction**. In the era of climate change, a lot of species become extinct whereas the planet faces the problem of **human overpopulation**. The designer explores if in the near future where there would be **food shortages**, humans would be willing to help the reproduction of **endangered species**. With the help of technology and synthetic biology, she examines if a woman could give birth to a **dolphin**. To make it possible for a human mother to deliver a dolphin from her womb, there is a need to synthesise 'The Dolp-human Placenta'. Projects like this question the relationships between humans and non-human species, bringing the entities together and examining new forms of collaborations. **Kinship** between diverse entities could be achieved with multiple ways and one suggestion would be the humans to be surrogates for the species that **face extinction**.



kinship

HEAVY DUTY LOVE FOR FUTURE SENSITIVE HUMANS

Artist: Lucy Mcrae

Year: 2021

YOUNG FAMILY

Artist: Patricia Piccinini

Year: 2002



The *Young Family* is a **hybrid** sculpture, merging humans with pigs and questioning the boundaries of humanity in the era of **biotechnology**. It investigates the potential relationships between species through genetic manipulation. This human-animal imaginative pairing is an example of how art can speculate and imagine **new futures**, raise questions, and raise awareness. Are we soon all going to be **chimeras** and what this would mean for our connections with other species?

"I am interested in the way that contemporary biotechnology and even philosophy erode the traditional boundaries between the artificial and the natural, as well as between species and even the basic distinctions between animal and human."

"As we head toward a life designed from scratch, will we seek new types of intimacy?"

This project is a speculative **domestic device** that explores the notion of **intimacy** in our future world. In the future childbirth will be engineered and there is going to be a **lack of human contact**. Due to the artificial wombs, **touch**, the first sense developed in utero, will not be experienced as a performance of **care**, it would be a rather uncomfortable interaction between beings. *Heavy Duty Love* is a device for the future human that replaces the embrace of the parent and teaches children how to be sensitive and **reciprocal beings**. The machine surrounds the occupant with soft, dampening materials to **replicate parental affection**.

DESIGNING FOR SIXTH EXTINCTION

Designer: Alexandra Daisy Ginsberg

Year: 2013–2015



"I'm looking at how we could do rewilding using synthetic biology."

This project investigates how **artificial organisms** could help endangered species and clean up pollution. The designer proposes four different **synthetic living creatures** that include a slug that leaves a trail of alkali to neutralize acidic soil, a porcupine with sticky rubber spines that would help disperse seeds of threatened plants, an artificial puffball that kills tree-damaging pathogens when it bursts and a biofilm that grows on leaves and absorbs pollutants and viruses. These organisms are designed as machines that operate in nature and question the **boundaries between natural and artificial**. The idea is that these new companion species would be designed as products to maintain biodiversity and **save the ecosystems**. Could engineered new species reverse the environmental planet on the planet? To what extent these organisms would be controlled by humans and to what extent reaches their autonomy? What would be their **interaction with other species**?

MYCELIUM PIGEON TOWERS

Designer: Arne Herndriks

Year: 2021

These experimental towers for pigeons test building with mycelium waste from oyster mushroom farms. **Mycelium** is a natural fungi material that could potentially be used in construction. Biomaterials could replace conventional construction materials and **reduce the environmental footprint** of the construction industry. Mycelium is **biodegradable** and has excellent material properties. The pigeon towers are not designed to last forever, they will eventually **compost**. The aim is to participate in the biological cycle by engaging nature, technology, humans, and animals and putting them in active collaboration. Since mycelium is a natural object, it reacts differently to different **environmental conditions**, and humans and animals need to adapt.



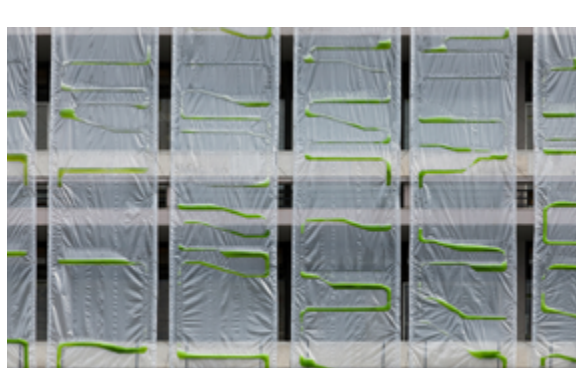
"There is no start, there is no finish, only periods of rest, frantic activity, and transformation."

biomaterials

PHOTO.SYNTH.ETICA CURTAIN

Designers: ecoLogicStudio

Year: 2018



"In the anthropocene age, a non-anthropocentric mode of reasoning, and deploying cutting-edge technologies based on digital and biological intelligence, could be at the core of urban design and stimulate our collective sensibility to recognise patterns of reasoning across disciplines, materialities and technological regimes."

Building and **construction** contribute today to a large extent to **carbon emissions** and **air pollution**. It is about time for architects to provide design alternatives for a more sustainable future. Biomaterials such as **algae** or mycelium could contribute to the reduction of fossil fuel use. PhotoSynthetic Curtains are placed on buildings facades and absorb carbon dioxide from air with the use of algae. The micro-algae captures dioxide molecules, store them within the curtain, and **produces oxygen** that it is released back into the air. By using technology and collaborating with non-human entities designers could generate new **healthier urban environments** and enhance collective forms of living.

hybrids

sensing

regenerative design

REBIRTH

On Care and More-than-human Worlds

Rebirth refers to the act of repairing, reappearing, and flourishing again after a decline. For a body, to rebirth, it needs first to die. Mourning acts as the intermediary procedure that teaches a body to adapt to new realities and release itself from the conventional patterns. Rebirth leads to regeneration.

The last step of grieving is acceptance. Arriving at this step is not a facile process since it demands disengaging from the previous reality and conforming with a new, unfamiliar one. Coping with ecological grief requires reconsidering human identity and what it means to be a human in the era of globalization, capitalism, and climate change.⁴⁰ Humans have always considered themselves dominant entities on this planet and examined everything else through their anthropomorphic perspective. They never experienced themselves as a species⁴¹ and they are probably the only species that tried to free themselves from their animality.⁴²

Yet, the human condition has been always a terrestrial condition in the sense that humans similarly to all the other species are active participants in countless relationships and entanglements with nature, technology, and other animals, with the organic and the inorganic world. Their survival depends on their connection and collaboration with other bodies. All the bodies on Earth are mixed, comprised of other bodies, or sustaining their lives because of others. Today, even more, because of the technological advancements, the categories melt, and the entities hybridize. The traditional binaries of male/female, human/animal, physical/digital and natural/artificial collapse, and the species emerge in relation to their interactions with other species or their environment. Indeed, the category of humans is an unstable and elastic category. It is elastic in all directions and shifts depending on the conditions from humanity to animality⁴³ and machinery. The acknowledgment of this interplay and interrelation between categories is the first step to constructing a more-than-human identity and transforming themselves and consequently their environment.

To achieve that, first, it is important to recognize that life is a system organized by different forces that interrelate. The Earth system is a complex hodgepodge of diverse elements that interact and are interdependent with no clear boundaries that altogether constitute a whole.⁴⁴ These relationships between the different components are dynamic, they vary in scale, and expand across categories. Humans, animals, networks, plants, mountains, and buildings merge within the environment and shape multiple new categories. Then, humans should understand that they are not the only species that has the capacity to communicate with others, feel emotions, or experience violence. The act of noticing and the involvement in the life of others not only will give the multispecies agency but also enhances the reciprocity among them

leading them to a more collective form of living. Friendship is a common practice to achieve kin-making, interspecies relationships. However, kinship can be a violent process that often is accompanied by stories of colonization, domestication, or exploitation.⁴⁵

All bodies live in and are capable of collaboration with other bodies. They are mixed creatures; entities that co-exist and are volatile among forces and agencies. Their survival is defined by the existence of the other and the collaboration with it. Although, entanglements with others are what make life possible when the relationships askew, the consequences can provoke severe damage within the ecosystems.⁴⁶ The most significant example of this detour is the overexploitation of natural resources and other species by the human species, which consequently causes ecological destruction. It is probably too late to deny this catastrophe and it is about time to undertake the responsibility. Grieving for the paradise lost cannot be of any help anymore. Action is required to restore the balance on Earth. Redefining ourselves and our bodies will manifest the way to reinvent our traditional models of exploitation and collaboration to, as Donna Haraway puts it, “learn to stay with the trouble of living and dying on a damaged earth”.⁴⁷ Kin making and familiarizing ourselves with the other bodies is necessary to develop a post-anthropocentric ethics.

A post-anthropocentric ethics suggests that the world is not designed to serve solely the human needs and benefits but examines all the relations between bodies as vital components of the ecosystem that need to be preserved to repair the climate change damage. It means to seek the good of things to the extra human,⁴⁸ to reject the human identity as the dominant species, and transform it into a species that uses its power to perform care and maintain balance within an ecosystem. Preservation of nature should become the focus of this new approach. By nature, it refers to all the interactions and collaborations between humans and non-humans. Since non-humans play a significant role in the societal transformation it is important that humans create a more ethical and inclusive framework to give them agency.⁴⁹ Non-humans do not refer here only to non-human animals but also to plants, other organisms, and machines. These collaborations could potentially liberate humans from their fixed identity constraints and teach them how to live in harmony with their environments. Philosopher Rosi Braidotti, describes this new kind of ethics that shapes humans’ responsibility toward nature as ethics

of joy that rejects dualistic oppositions, seeks to evolve our capacities for collaboration and cooperation, and although it recognizes that reality can be violent and traumatic, it proposes new ways of dealing with the troubles.⁵⁰

Deeply understanding our environment is vital to better understand ourselves, the other bodies around us, and our interdependency since bodies are shaped by their surroundings, and the environment is shaped by the bodies. In that sense, all bodies share a common ground that they equally need to preserve and maintain. Humans due to their technological advances gained more power than other non-human species in this equation and therefore, they affect the environmental transformations to a larger extent. The commons is in constant flux, depending on our social, economic, and environmental practices.⁵¹ In the era of extinction, survival requests to liberate ourselves from the individuality of the human perception and engage in other forms of living. Immersion in the lives of other non-human entities starts when we humans deploy our senses to observe and actively listen to them. To heal the damaged bodies and eventually heal the damaged planet humans need to start caring for others.

Care is the practice of showing affection. Care requires embodied relationships; it is bonded with touch and listening. Touching requires physical contact, it brings different materialities together. This moment when two different entities interact is a powerful moment of reflection and exchange. Contact as touch is a co-transformative experience in connections with other beings where the boundaries between the self and the other blur⁵² and entities start to see themselves through the eyes of the others. This change in perception empowers new forms of acting especially in more-than-human worlds in which touching can be even more complex. Listening is also important. Unless humans spend time listening to other more-than-human voices they will be trapped in the deception of their individuality. Caring for the Earth, consequently, means caring for all the dwelling entities of the planet. To do so, adaptable systems of performing care need to be invented and used in everyday life. To create such systems, deploying senses is necessary.

Sensing today transcends the boundaries of activating our bodily human senses such as touch or hearing, although these methods of sensing are of equal importance, and it expands

to sensing the Earth through technology. The technology could be proved very helpful in identifying and analyzing complex environmental relationships. Sensors today not only are involved in measuring air pressure, temperatures, humidity, or agriculture systems but also notice all the collaborations between species and interact with the environment. Moreover, they predict problems and offer real-time solutions by adjusting the environmental parameters.⁵³ Sensors could expand the capacities of the bodies to feel and understand Earth but it is important to put their function under ethics of responsibility and respect towards all the other-than-human species and not only for human’s benefit.

Sensing earth should start by establishing caring relationships with the soil. Soil is a living world that sustains life. It affects all the living communities by shaping their habitat conditions and providing them with food. It is the ground upon which everyone depends, and everyone survives. Bodies are shaped by soil. Donna Haraway writes, “we are not posthuman; we are compost, we are not homo; we are humus. We are terrain; we are earthlings; we are many; we are indeterminate.”⁵⁴

Humans use the soil for consumption and their activities led to its degradation. Overextraction of natural resources for construction and the use of chemicals to achieve fertility for overproduction are activities that have exhausted the land. This degradation affects all the bodies that inhabit it, including the human body. Instead of being just soil consumers humans should become soil growers⁵⁵ and partner with the land and its living communities. Humans themselves are part of these communities and active participants in the food web models. Food web models reveal the interactions between species and their interdependency so a closer understanding of these systems will enact better care provision and reception. Humans need to be more actively engaged in the concept of soil and forfeit the idea that the system will self-regulate. Action is necessary.

The reorganization of the society and transformation of it into an inclusive and not homogenous system demands radical changes in human economic activities. Future’s economy should be distributive and acknowledge the interdependency of all forms of life and their relationship with technology. Movements such as permaculture and degrowth argue that in order for humanity

to grow without causing climate catastrophe, a drastic reduction in resource and energy consumption is urgent. Permaculture proposes alternative systems for waste management, local food production, alternative energies, and resource renewal as long as democratic forms of organization that decenter humans’ role within an ecosystem.⁵⁶ The concept of degrowth imagines new worlds that provide a better quality of life with fewer resources.⁵⁷ Art, design, and architecture could help society envision and realize sustainable and regenerative systems of production, consumption, and inhabitation. From rethinking construction techniques and material choices to proposing new food systems and new models of inhabitation they can become social and environmental practices. In redesigning our bodies and our cities, we redesign the planet.

⁴⁰Herbrochter, S. “Critical Posthumanism” in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 94-96, Bloomsbury Publishing Plc, 2018.

⁴¹Chakrabarty, Dipesh. 2009. “The Climate of History: Four Theses.” *Critical Inquiry* 35 (2): 197–222. <https://doi.org/10.1086/596640>.

⁴²Mbembe, Achille, Steve Corcoran, and e-Duke books scholarly collection. 2019. *Necropolitics*. Durham: Duke University Press.

⁴³Weizman, Eyal, “Are They Human?”, in *Superhumanity: Design of the Self*, edited by N. Axel, B. Colomina, N. Hirsch, A. Vidokle, M. Wigley, 77-88, University of Minnesota Press, 2018

⁴⁴Parikka, Jussie. “Earth” in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 110–112, Bloomsbury Publishing Plc, 2018.

⁴⁵Klumblyte, Goda. “Kin” in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 225–227, Bloomsbury Publishing Plc, 2018.

⁴⁶Tsing, Anna Lowenhaupt, Heather Swanson, Elaine Gan, and Nils Bubandt. 2017. *Arts of Living on a Damaged Planet. Ghosts of the Anthropocene ; Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.

⁴⁷Haraway, Donna Jeanne. 2016. *Staying with the Trouble : Making Kin in the Chthulucene*. Durham: Duke University Press.

⁴⁸Jonas, Hans, and David Herr. 1984. *The Imperative of Responsibility : in Search of an Ethics for the Technological Age*. Chicago: University of Chicago Press.

⁴⁹Marchand, Jeffrey Scott., “Non-Human Agency”, in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 292–295, Bloomsbury Publishing Plc, 2018.

⁵⁰Braidotti, Rosi., “Joy, Ethics of”, in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 221–224, Bloomsbury Publishing Plc, 2018.

⁵¹Grace Weber, Lindsay. “Commons, The”, in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 83-86, Bloomsbury Publishing Plc, 2018.

⁵²Puig de la Bellacasa, Maria. 2017. *Matters of Care: Speculative Ethics in More Than Human Worlds*. Minneapolis: University of Minnesota Press.

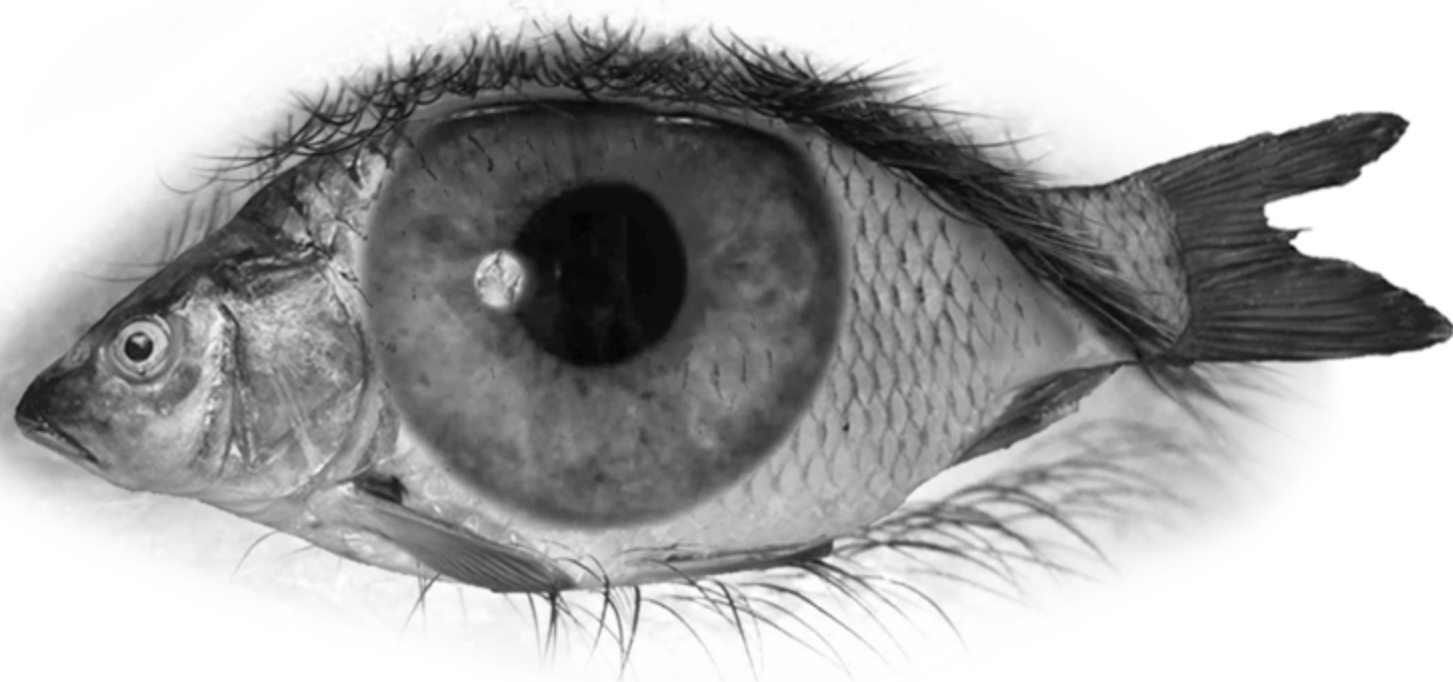
⁵³Gabrys, Jennifer., Pritchard, Helen., “Sensing Practices”, in *Posthuman Glossary*, edited by R. Braidotti, M. Hlavajova, 394-396, Bloomsbury Publishing Plc, 2018.

⁵⁴Haraway, Donna Jeanne. 2016. *Staying with the Trouble : Making Kin in the Chthulucene*. Durham: Duke University Press.

⁵⁵Puig de la Bellacasa, Maria. 2015. “Making Time for Soil: Technoscientific Futurity Pace of Care.” *Social Studies of Science* 45 (5): 691–716: <https://doi.org/10.1177/0306312715599851>.

⁵⁶Puig de la Bellacasa, Maria. 2017. *Matters of Care: Speculative Ethics in More Than Human Worlds*. Minneapolis: University of Minnesota Press.

⁵⁷Varvarousis, A., Koutronikou, P., “Degrowth and the City”, in *e-flux Architecture* (October 2018): <https://www.e-flux.com/architecture/overgrowth/221623/degrowth-and-the-city/>

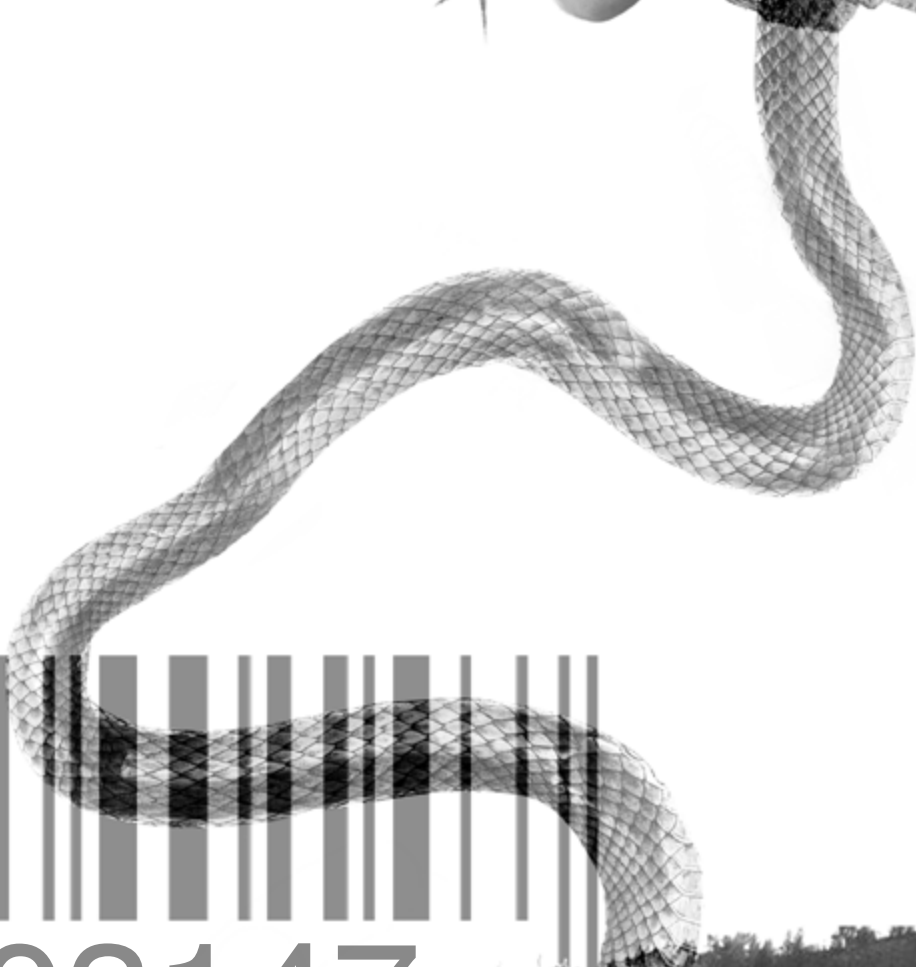


CARE
requires
**EMBODIED
RELATIONSHIPS**



**In a sense we are unique
moist packages of
animated soil**

- Francis D. Hole



640509 03147



CODA

On Engagement

Bodies of Earth is an experimental curatorial intervention developed to spark a public conversation and achieve collective action on the topic of ecological degradation in modern Greece. Greece is a country of contradictions that survives in its ruins. Blurred between the old and the new, the local and the foreign, the rich and the poor, the natural and the artificial, the progress and the attachment to the past, it is a country that tries to reborn through its ashes.

Today, the landscape in Greece faces daily infinite acts of violence. Extreme floods, overextraction of natural resources, and extensive wildfires are only some examples. Moreover, challenges such as economic crisis, mass tourism, mass migration, and the pandemic outbreak increase the burden of recovery. “Crisis” has become one of the most used words in the vocabulary of the modern inhabitant. However, crisis activates collaboration and collectivity. In a country like Greece where the reliance on the authorities is questionable, people have learned how to respond to the catastrophe in informal ways of collective organization.

Climate crisis is a complex issue that transcends the boundaries of ecological destruction and has implications also in the social, political, and economic realms. Although informal initiatives could prove very successful in managing crises, there is a lack of an organized public discourse and forms of engagement that could interact with communities, policymakers, and institutions.

Bodies of Earth deploys art and design practices in an attempt to create a public discussion about climate change through the exploration of the body in relation to the territory. It seeks to reimagine more sustainable future scenarios by provoking a radical change in human consciousness. The intention is to create spaces of exploration, transformation, advocacy, and inclusion to start restoring our damaged environment and consequently our bodies-ourselves.

The intervention is imagined as a collaboration with Onassis Foundation, an organization that seeks to expose the power of contemporary art to stimulate, inspire, and affect both the individual and society at large. It is a series of public events that include exhibitions, performances, talks, workshops, and online events. It is an initiative that tries to bring together communities, artists and designers, environmental scientists, local representatives and policy makers from Greece and other EU countries.

Bodies of Earth is comprised of the subtopics of Abduction, Death, Grief, and Rebirth. It occupies four different sites within the Attica region, one responding to a different chapter of the research.

The idea is that the events will not happen simultaneously but with a time and spatial distance between them so that there will be enough time to integrate the information, identify the problems, discuss, accept, and move forward with a conscious strategy. Each subtheme of the intervention will occupy three days of a week for a full month. This monthly event that resembles a ritualistic ceremony hopes to finally lead to regeneration through collective thinking. Every act of the intervention can function individually, but the idea is that to draw the full circle of discussion, attendance, and engagement with all the sub-topics full participation is suggested. Four “dramatic acts” exploring the connections of the body with nature and technology hope to promote renewal and environmental restoration.

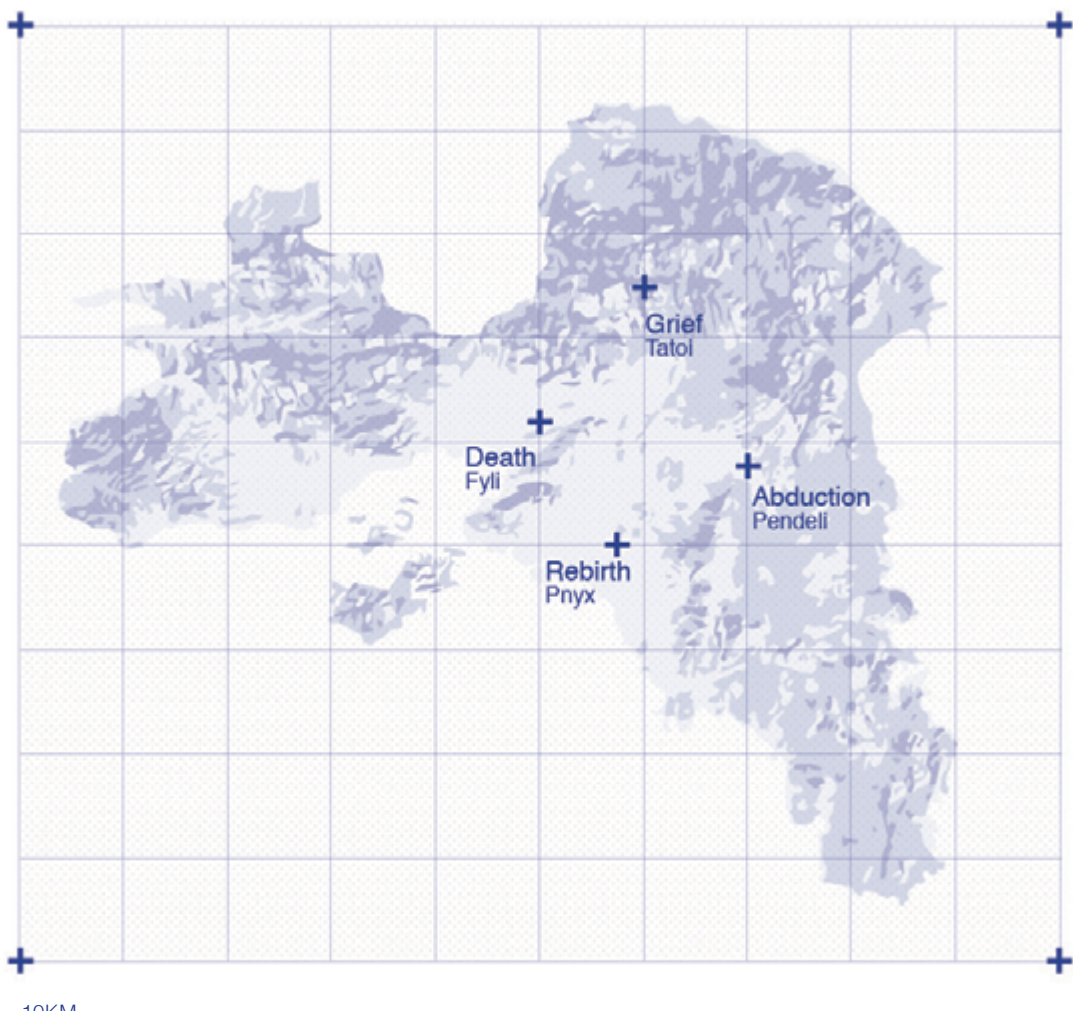
The first act, Abduction, is taking place in the Dionysos marble Quarry at Pentelicus mountain. It is the quarry from which Parthenon was constructed. It has been an important source of white marble throughout the Classical, Hellenistic, and Roman periods. Greece is one of the most marble productive and extractive countries worldwide. The mining process causes multiple environmental problems such as air pollution, deterioration of soil quality, water contamination, and biodiversity loss. Although quarrying from Pentelicus mountain was banned during the 1960s, last year it started a conversation to open the quarries again against the will of the community and local authorities. Quarries remind us of our destructive relationship with Earth. The fragmented mountain will set the ideal ground to spark a discussion about abducted bodies and stories of extraction and surveillance to imagine new forms of non-exploitative collaboration with the land.

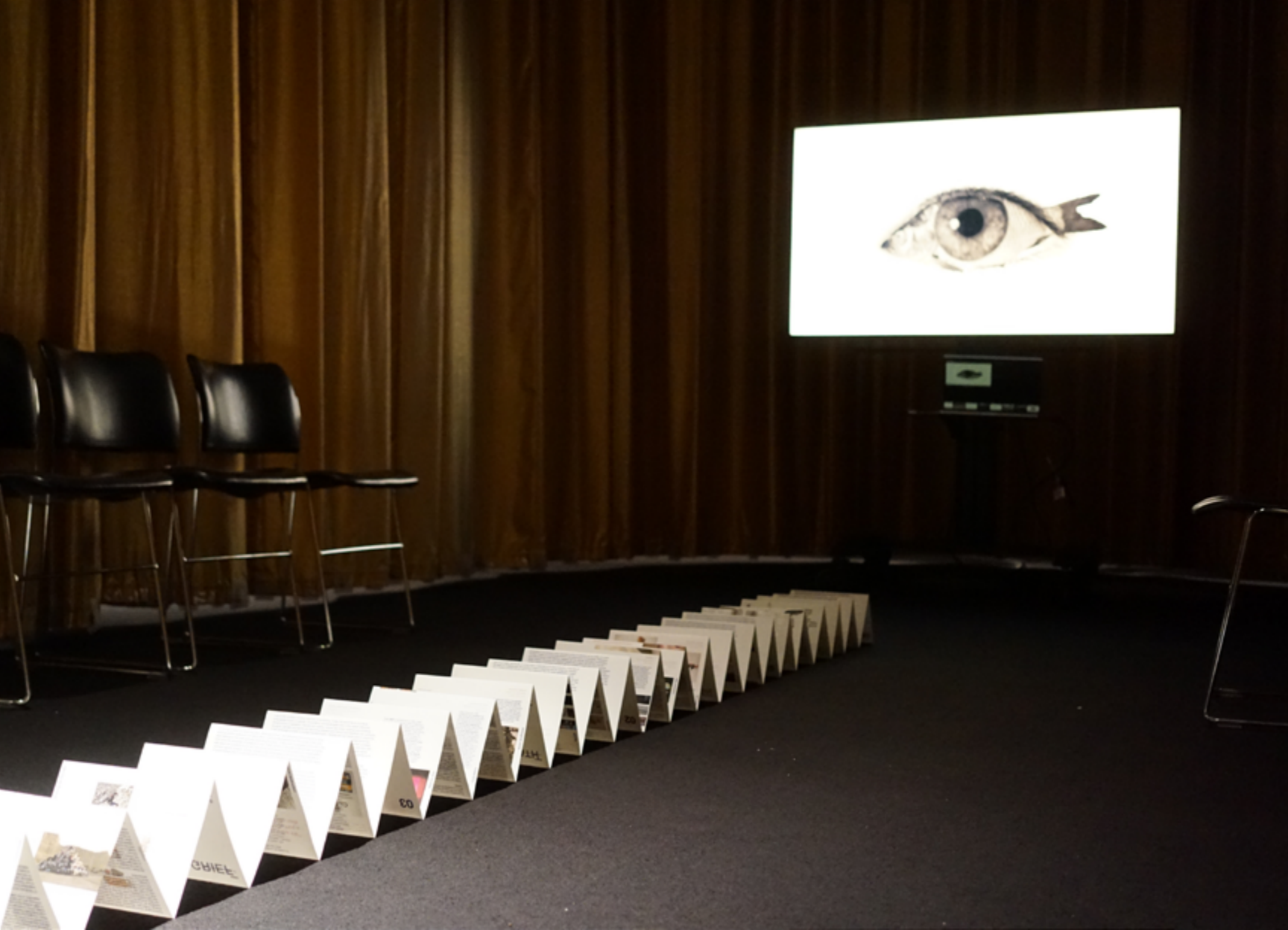
For the second act, Death, Fyli landfill, a landfill just outside Athens is selected. Every day six thousand tonnes of rubbish from Athens and the neighboring areas arrive here. Greece buries 80% of its waste. Fylis is the largest landfill in Greece, and it is almost full so its saturation will come soon. Although there is a recycling plant here it only deals with a very small amount of the rubbish that they arrive. Waste management in Greece is a big issue and the country needs to adopt more environmentally friendly ways to deal with the rubbish. The piles of dumped objects are gradually decaying, and they are affecting the soil and the nearby crops and polluting the water and the nearby river. Next to the landfill, there is a pine forest that is gradually dying. Discussing death through the lens of a landfill raises questions about our consumerist habits and how these affect the other non-human bodies and the environment. Waste itself is treated as a deceased corpse, wrapped in white sheeting to prepare for burial. There must be more sustainable ways to treat the end of life, so let’s explore them through art.

The third act, Grief, is taking place in Tatoi forest, located in Northern Athens, south of Parnitha mountain. On Tatoi, there are the former royal palaces and royal cemetery. Since 1994 it is a land that belongs to the Greek government. Last summer Greece experienced a tremendous heatwave that caused many catastrophic wildfires. Tatoi forest was one of the areas that were affected. 80% out of 42.000 stremmata of the land is burned. The ecological damage is extensive since a lot of animals and plants died or lost their habitat. The fire did not destroy only the forest but also cultural artifacts of historic significance such as buildings and objects. The site is now ghosted by memories of past lives. Grief intervention happens there to help us reconsider our actions and understand that their implications not only affect the other non-human bodies but also us and it is about time to adopt new habits.

For the last part of the event, Rebirth, Pnyx hill has been selected. Pnyx is a hill in central Athens and in the fifth century BC it was the place where Athenians gathered to host their popular assemblies. It is the site where the idea of democracy was born. It is in immediate contact with the Parthenon and the rest concrete cityscape of modern Athens. The reason why this site is selected is its historic importance as a community assembly that seeks to reimagine a form of open public dialogue about environmental issues today. So, it invites people to gather, discuss and collectively decide about a more sustainable future. It is the only selected site in the city center. The concept is that after familiarizing oneself with the topics of Abduction, Death, and Grief and attending the relevant events, one returns to the city with a new, altered perspective, ready to engage in strategies for environmental care and transform our realities for the benefit of our bodies and our planet.

Bodies of Earth, as a public intervention on an urban scale, proposes new ways of examining, through artistic practices, our relationship with the natural world and our role as citizens, consumers, and activists. It is a collective reflection of the present that will hopefully help us imagine and construct a better future.













03147



CARE
requires
EMBODIED
RELATIONSHIPS



CODY



CODY



