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# (BUILDING) NEW PERSPECTIVES

## through Practice-led Research in Art, Design and Architecture

Art Academy of Latvia

# (BUILDING) NEW PERSPECTIVES through Practice-led Research in Art, Design and Architecture

Symposium Proceedings
10-11 November 2022

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# Editorial Introduction

Liene Jākobsone, Dietmar Köring, Eva Sommeregger, Dina Suhanova, Māra Traumane

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Interdisciplinarity, and even more—transdisciplinarity, is not an apparent condition in academia. However, we intuitively and empirically know that transcending disciplinary boundaries is something to strive for; and with that ambition, the LMDA, the Institute of Contemporary Art, Design and Architecture of the Art Academy of Latvia was founded in 2021. As the naming suggests, the institute aims at combining methods, tools and approaches of human, social and engineering sciences in order to discover new knowledge or, at least, to open new perspectives. Moreover, the institute's core research directions include experimental, creative approaches to employing new technologies; discourses on identity, belonging and social integration; creation of new forms of collaboration and ambitions for regional and international recognition.

Titled *(Building) New Perspectives through Practice-led Research in Art, Design and Architecture*, the symposium was the first major international event hosted by the LMDA. Its propelling motif was to challenge the prevailing standards in scientific research by embracing experimental, non-academic and other practice-based forms of inquiry. Inquiry is the right way to put it, as we intended to raise questions, be analytical and critical and express our doubts, rather than to receive supposedly confident, straightforward answers that can only be concerned with limited views.

The symposium gathered international researchers and professionals who shared insights and perspectives on interdisciplinary creative practices and the potential of contemporary practice-based research in art, design, and architecture. The multifaceted mix of interdisciplinary contributions manoeuvred between scientific and designerly or artistic methods, covering building and assemblage, spatial practices in times of urgency, landscape and identities, architecture and users, algorithmic governmentality and its ethical dimensions. The symposium was planned in four thematic sessions that were fed by the perspectives of (post) digital and (post)human architecture; speculative and critical design; social and political activism in times of crises; and the intersection of art, identity and landscape. However, the presented contents clearly revealed opportunities in blending and crossing the established disciplinary and thematic borders.

The diverse discursive approaches showcased in the symposium formed a valuable platform for exchange of ideas and building of shared understanding in the current uncertainty evoked by the global political power shifts. With this collection of selected contributions, we hope to assure a long-lasting impact and to emphasise the importance of interdisciplinary practices and research in developing critical thinking, in transforming and redirecting the practice, and in speculating on changes urgently needed.

#architecture and new media
#VR/AR changing physical architecture here and there
#VR/AR influence gaming as designing tool
#avatars as posthuman bodies

# Exploring Aesthetic Presence in Virtual Space with *Can't Figure You Out*—a Social Mixed-Reality Installation

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# Introduction

Since the early definition of cyberspace by Marcos Novak as "a completely spatialized visualization of all information in global information processing systems,"[1] there has been a concern about the redefinition of the relationship between the self and the environment as well as the boundaries of the body and identity. Today, as the Internet, social media, and social networking get more accessible by individuals and collectives, we are frequently confronted with new experiences of corporeality and subjectivity—an amalgam of information and materiality enabled by digital technologies that expands the human sensorium into the digital domain in which we practice social and cultural activities.

Due to physical restrictions caused by the Covid-19 pandemic, the use of spatial computing technologies[2] coupled with networked virtual environments has led to increasing use of Social VR[3] and Web XR platforms which facilitate users with new ways of spatial social networking based on creating, sharing, and dwelling in virtual spaces, making the users "physically present" in the digital via extended virtual bodies—so-called digital avatars. A digital avatar is a virtual representation of a person or character created using computer graphics. It can be used in various contexts, such as in video games, virtual reality, or social media. In her dissertation *Image Avatars: self-other encounters in a mediated world*, Kathy Cleland[4] characterizes a digital avatar as an extended mode of subjectivity and identity creation, as well as permitting new emergent modes of self-reflection and self-presentation.

This ability of Social VR and Web XR platforms to offer various ways to be present and socialize in virtual spaces has led to embodied experiencing spaces and representing one's telepresence based on 3D objects, virtual spaces, and virtual avatars. As a result, users have been able to design, curate, and share their self-representations as well as their virtual spaces, in artistic and social ways, which has led to a complex set of spatial relationships.

Social VR and Web XR platforms' abilities to offer the creation of one's custom world and to build a self-avatar relationship is complementary to Legacy Russell's *Glitch Feminism: A Manifesto* that insists on dissolving the gap between the digital and physical worlds. Her manifesto questions: "How do we find out who we are and where we are within this digital era? Where do we create the space to explore our identity?" In a provocative yet significant way, she promotes our relationship with our digital personas: "Usurp the body, become your avatar!"[5] For Russell, becoming your avatar entails embracing your mediated online presence. It is not only a sociopolitical act but also a mode in which the materiality of online culture crystallizes itself in the actual world, allowing for the emergence of new subjects and ideas for worlding.

Glitch Feminism is an opening, a call to "[occupy] the digital as a means of world-building" in that Russel states, "There are aspects of being and operating in the world, within this current world condition. There are also glitches that push us to explore new models of life and invent possible bodies of desire. The great joy is to allow all those things to be dispersed and to have a holistic view to navigate a certain kind of space that allows for more elastic and flexible models of what world-making can even look like, even if it hasn't been built yet."[6]

Russell's *Glitch Feminism* recognizes the tremendous possibilities of remixing and remaking the body in cyberspace. She emphasizes that "we are not one but many bodies" pointing out the multiplicity and malleability of the self which are not constrained by the geopolitical or socioeconomic

1 Marcos Novak, "Liquid Architecture in Cyberspace," in *Cyberspace: First Steps, ed.* Michael Benedict (Cambridge, Mass.: The MIT Press, 1991).

2 The term "spatial computing" covers a wide range of concepts rather than just one specific technology. Spatial computing is the use of augmented reality (AR), virtual reality (VR), and mixed reality (MR) to enable computers to interact intuitively in a three-dimensional world. Spatial computing is the merging of the physical and virtual worlds, creating an environment where both reality and the digital one are inextricably entwined.

3 Social Virtual Reality, or Social VR, and Web XR is an Internet-based social interaction paradigm mediated by immersive technologies and taking place in specially designed three-dimensional virtual worlds where individuals or collectives represented by an avatar, may engage in real-time interpersonal conversation and shared activities. Examples of Social VR and Web XR include Mozilla Hubs, Second Life, RecRoom, AltSpace VR, High Fidelity, Sansar, VR Chat, etc.

4 Kathy Cleland, *Image Avatars: self-other encounters in a mediated world*, Introduction (PhD Thesis, 2008).

5 Legacy Russell, *Glitch Feminism: A Manifesto* (Verso, 2020).

6 Legacy Russell, "Legacy Russell on Play, Digital Skins and Becoming Triple," *Extra Extra Magazine*, no. 18 (2022).

boundaries of the self. Instead, through the Internet and digital culture, it is now possible to create new kinds of communities and new terms of representation. For instance, Social VR platforms like Sansar or VR Chat allow their community members to create custom 3D avatar representations or choose from a large avatar library to expand their self-representation and spatial narratives.

As such, the following architectural research project, *Can't Figure You Out*, a part of practice-led research, proposes that virtual avatars can act as bodily extensions in online sociocultural practices and simultaneously express architectural and spatial qualities. Besides researching how our online personas that extend our physical presence can have cognitive and social impacts on our lives, the project investigates the formal and spatial qualities of online modes of embodiment in virtual spaces by building formal and complex relationships with avatars that remixed bodies and created multiplicities, which allowed for self-creation, curation, modifications, and distribution, and resulted in new spatial aesthetics.

## *Can't Figure You Out* – a Virtual Reality Seminar[7,8,9]

Considering the understanding as mentioned earlier of "extended presence" as a distributed and digitally embodied design territory of subjectivity and worlding, this chapter presents the virtual reality seminar at ./studio3 Institute for experimental architecture, dubbed *Can't Figure You Out*, which investigated online modes of spatial production that juxtapose the spatial and bodily experiences by dissolving the thresholds between being and becoming, subject and object, physical and digital. The seminar resulted in a multi-user and fully bodied mixed reality (MR) experience with each student's mixed reality work contribution that allowed users to practice their bodily presence in physical/virtual social settings in various artistic and formal expressions.

Concerned with dissolving these binary oppositions in virtual spaces, *Can't Figure You Out* was an attempt to disrupt the human-centered perception of built environments through the estrangement of one's bodily presence to experience a fresh viewpoint on architecture, aesthetics, and the spaces we inhabit. Together with a group of students, the virtual reality seminar examined the causal relationships between the physical and the virtual, including the actuality of the virtual, its inversion, the position of ambiguity, and virtuality as a space that is useful for rethinking architectonics and assessing the self through practically investigating embodiment in the physical and virtual spaces with the application of XR technologies, specifically through the use of live motion tracking technology offering interactive full body sculptural avatars inside a multi user mixed reality experience.

At the intersection of architecture, art, and XR, *Can't Figure You Out* explored artistic and architectural design processes emerging around the human subject and practically probed the notions of embodied design, avatars, and sociability by conceiving the "physical presence" as an artistic medium that allowed the real-time creation of spatiotemporal mixed reality experiences.

Upon entering the collective mixed reality installation via mixed reality head-mounted displays, visitors, through their motion, poses, and encounters, became active creators of their aesthetic experiences via their physical presence being utilized in the virtual space as a formal artistic

7 Can't Figure You Out – Virtual Reality Seminar was co-taught by Univ. Prof. DI Arch ASTE Kathrin, Univ. Assistant MA Cenk Güzeliş, and Burkart Schwaighofer in summer semester 2022 at the ./studio3 Institute for Experimental Architecture, Faculty of Architecture in Innsbruck University. The seminar resulted in a VR experience showcasing the works of Greta Schott, Sabrina Dorner, Sophia Niederkofler, Leonard Schwaegerl, Ömer Gürel, Bahattin Bozdogan, Magdalena Frick, Atakan Özkan, contributing to the Günther Domenig: Dimensional Exhibition: A project of Architecture House Kärnten in cooperation with the Province of Carinthia and the Museum Moderner Kunst Kärnten together with STEINHAUS Günther Domenig Privatstiftung and Heft/Hüttenberg. The Heft exhibition was organized and curated by Valerie Messini.

8 *Can't Figure You Out gameplay experience*, by Cenk Güzeliş (2022), Vimeo, 10 min., *https://vimeo.com/781001058*.

9 *Can't Figure You Out showreel*, by Cenk Güzeliş (2022), Vimeo, 7:36 min., *https://vimeo.com/749915507*.

expression. In a surreal, social, and embodied XR setting, one entered the physical setup with a virtual body, surrounded by sculptural objects, and became one of them, a familiar stranger with a new self-representation that emerged only in its multiplicity.

# Becoming-with-avatar as an Embodied Design Method

The seminar became an experimental laboratory to assess bodily interactions with virtual avatars using applied XR technologies in performative ways thus exploring embodiment in the architectural design process. Taking Haraway's statement into account, "To be one is always to become with many,"[10] the seminar approached the expression "becoming-with-avatar" as a methodological, affective, and practical mode for designing embodied spatial experiences aiming to turn one's physical presence into an aesthetic and immersive experience in a highly sophisticated networked XR setting, combining multi-user VR and motion tracking, where one is conceived and perceived simultaneously as both subject and object and becomes a partial figure of the spatial configuration. Our comprehension of *becoming-with* is consistent with Barad's agential realist ontology, in which the world is not made up of discrete "things," but rather "phenomena-in-their-becoming"—"a radical open relatedness of the world worlding itself." [11]

"Worlding is informed by our turning of attention to a certain experience, place or encounter and our active engagement with the materiality and context in which events and interactions occur."[12] In that regard, becoming with reveals itself as a form of multi-species worlding that opens up the frames of what registers to us and what matters to us.[13] Considering this approach to "becoming-with" as multispecies worlding, in the design process, we extensively collaborated with virtual avatars, considering them crucial and affective mediators between the organic and inorganic, physical and virtual, and subject and object, to explore online modes of spatial experiences where subjects entered embodied and aesthetic relations with objects in space. We asked the following questions:

How can "physical presence" be turned into a spatial design method and become the object of design in virtual space? How does the body become sculptural, and the sculpture becomes spatial in the virtual space? What are the spatial qualities of the human-avatar-assembly?

These inquiries guided us towards a practical design investigation: departing from the field of sculpture and performance arts; the seminar explored the intrinsic relationship between architecture and sculpture, where classical attributions such as architecture as a space-creator and sculpture as a body-creator were examined and their boundaries were negotiated within the virtual space as an expanded field of experimentation.

In sculpture, the creation of an object is firmly and closely related to the human body; through additive and subtractive processes, the object emerges from the interaction between its material properties and the body's performative response. In this form of creation, the subject and object interact seamlessly, the sculptor becomes a sculpture, and the sculpture becomes architecture. A particular artist reference to this approach is Yayoi Kusama, one of the most influential avant-garde artists since the 1960s. She has used a variety of art forms to express her obsession with a single visual element, polka dots,

10 Donna Haraway, *When Species Meet (Volume 3) (Posthumanities)*, Illustrated Edition, (University of Minnesota Press, 2007).

11 Karen Barad, "Nature's Queer Performativity," *Qui Parle* 19, no. 2, (Duke University Press, 2011), 121–58. https://doi.org/10.5250/quiparle.19.2.0121

12 Helen Palmer and Vicky Hunter, *"Worlding."* New Materialism, 2018. Accessed December 10, 2022, https://newmaterialism.eu/almanac/w/worlding.html.

13 Kate Wright, "Becoming-With," in *Environmental Humanities 5*, no. 1, (2014) 5 (1): 277–281. https://doi.org/10.1215/22011919-3615514

covering her body with them, designing clothing, and filling entire rooms with an infinite number of the same visual module. Yayoi Kusama's well-known incessant obsession with nets and polka dots motivated her to design immersive room-scale installations where she became one with her surroundings.

Along with the visitors' immersion, Kusama also addresses her identification with polka dots: "Obliterate your personality with polka dots. Become one with eternity. Become part of your environment."[14] Aligned with this idea of becoming a part of the environment, a subject-environment consolidation, where the content of the art piece doesn't exist without active spatial participation, the seminar delved into an exploration of artworks within the fields of sculpture and performing arts, including those by Tony Cragg, Doreen Garner, Yasue Maetake, Lee Bul, Louise Bourgouisse, Sarah Sitkin, and Chakaia Booker. These artists' respective bodies of work were closely examined to gain deeper insights into their creative contributions. Notably, Yayoi Kusama's artwork, *The Self-Obliteration by Dots,* was highlighted for its intentional blurring of boundaries between the individual and the surrounding world, resulting in a transformative experience of self-dissolution.

In this light, the list of artists served as the first case study for each seminar participant to investigate the relationship between the body and space by reconstructing the selected artwork around avatars and how, by extending and modifying the self's presence with an artistic intervention in the virtual space coupled with live motion capture and VR technology, the body constructs a new embodied and aesthetic relationship with the self and, thereby, with the surrounding physical/virtual space.

In this regard, it is essential to mention the notion of embodiment, which is a concept that has been integral to understanding the human condition. Embodiment is the "subjective experience of using and 'having' a body."[15] It is how we experience the world through our bodies, and senses and then interact with our environment. However, with the advent of social media and virtual reality, how we experience the world is changing. Through VR, we are increasingly present in digital spatial domains through new digital bodies, which consequently confront and challenge the understanding of our bodies as no longer the singular sensorium that defines our experience of the world.

Referring to Canadian VR installation artist Char Davies' works, *Osmose* and *Ephémère*, Ingrid Richardson describes the VR-body as a "technosomatic intercorporeality". She comments, "[the] Contesting notion of VR as a disembodying medium thus requires a shift from thinking of the virtual as de-corporealized subjectivity, toward a notion of embodiment as incorporating the virtual, as a way of having/being another kind of body."[16] This goes along similar lines with our embodied experience design approach of "becoming-with" as a symbiosis between human and avatar bodies where one's physical presence in the virtual space—referring to one's spatial experience of being inside a body—enacts itself as an aesthetic presence through avatars as it creates new affordances in terms of tactility, self-representation, and spatial organization that operates in specific ways of organizing senses.

This embodied design approach to aesthetic presence, which situates the visitors' presence at the center of the experience and builds upon the affordances of their physical presence in the space through avatar bodies, sheds light on our artistic and architectural design processes so that they are perceived not in terms of the finalized work of art (work-aesthetics) but rather

14 "Artsy," Yayoi Kusama's Polka Dots - For Sale On, n.d., accessed August 2, 2023, https://www.artsy.net/artist-series/yayoi-kusama-polka-dots.

15 Olaf Blanke and Thomas Metzinger, "Full-body illusions and minimal phenomenal selfhood," in *Trends in Cognitive Science*, (13) 1, (Elsevier Inc., 2009), 7–13. https://doi.org/10.1016/j.tics.2008.10.003.

16 Ingrid Richardson, *Telebodies and televisions: corporeality and agency in technoculture*, (Western Sydney University, Doctoral thesis, 2003).



Fig.1 Inside *Can't Figure You Out* experience: interaction (from different users' POV) inside Yayoi Kusama-inspired virtual environment. Image: Ömer Gürel, 2022.

regarding the time-based practices and strategies of production (production-aesthetics) applied in the process of making as well as in experiencing oneself and others' presence in a multi-user social setting.

Thus, the subsequent part of the paper endeavors to reveal the experience as well as the production process of the multi-user social mixed reality installation, *Can't Figure You Out,* by presenting applied methodologies and digital techniques: namely, how we, as creators, with our bodies in synthetic corporeality with virtual avatars, interacted and produced a time-based work of art (embodied digital sculptures) in an embodied social setting. In that sense, providing insights into the practical applications of XR technologies is useful. (Fig.1)

# Extended Self: Self-Avatar Assemblage

Several workshops on the practical applications of Extended Reality technologies, such as VR and Motion Tracking, as well as a multi-user mixed reality experience creation, were held during the seminar. These workshops focused on creating embodied and aesthetic experiences through full body interactive avatars inside virtual space, with participants' "physical presence". The first workshop instructed each seminar participant to design an avatar originating from the depicted artwork in virtual space, using traditional 3D modeling tools such as Blender, Maya, or 3Ds Max. Additionally, some participants preferred to sculpt in 3D space with VR, using Adobe Medium software, which enabled them to use their bodies and gestures to create a 1:1-scale digital

body, at varying resolutions and scales over time. Then, with Adobe Substance Painter, 3D textures and digital materials were applied to these digital bodies, giving them digital materiality and haptic textures.

The second design workshop looked at the rigging of digital avatars using the open-source Web platform Mixamo by Adobe. Mixamo connects eight critical points on the body (wrists, elbows, knees, chin, and groin) to create a skeletal system with 65 joints that enable the virtual body to be animated or controlled by human motion. One obstacle we faced during this process was that since not every participant had built an avatar with a human-like body shape, it was slightly more difficult for the Mixamo algorithm to create a character rig, as it relies on detecting a human silhouette in a 3D space. To tackle the limitations of the online rigging solution, each student used a shared basic avatar mesh with a human figure outline. This basic, generic avatar mesh enveloped complex geometrical creations and enabled the rigging procedure. Following the character's rigging, the human mesh was removed from their design.

# Time-Based Object Library for Worlding via Live Motion Tracking

In this third workshop session, we examined how a creators' physical presence in space can be transformed into aesthetic, spatial objects, and how we can use our extended bodies to construct intricate formal representations to create worlds linked to our physical bodily expressions. To do this, we used the motion interactive digital sculptures of rigged avatars, which were brought into iterative compositions as spatial objects in unique ways. We recorded and documented our physical presence over time using the motion tracking technology of the Microsoft Kinect Azure and Rokoko Smart Suit Pro motion capture systems. Participants developed individualized choreographies that constituted a time-based database, including gestures, poses, motions, and social interactions in the form of digital sculptures. From this motion-driven object library, each participant designed a virtual room in the Unity Game Engine accessible in a shared five-by-five meter gameplay area. (Fig.2)

# Spatial Framework: Physical/Virtual Overlap Space

We aimed to test the complexity of physical bodily presence—proprioceptive capacities—as a real-time aesthetic design tool in a social VR setting. To achieve this, we needed complete freedom to access and operate within the physical environment. However, most VR platforms' spatiality isolates users from experiencing the physical environment, leading to a disconnection between physical and virtual spaces. To address this issue, we developed a networked (multi-user) VR-based spatial framework in Unity for *Can't Figure You Out* that overlapped physical and digital experiences in real-time, creating a mixed reality experience that situated virtual environments within our well-known physical environments.

The project hosted seven distinct, interconnected virtual worlds within this mixed-reality multi-user experience; the contributions of each student participant related to a specific artwork which rendered itself onto the physical room

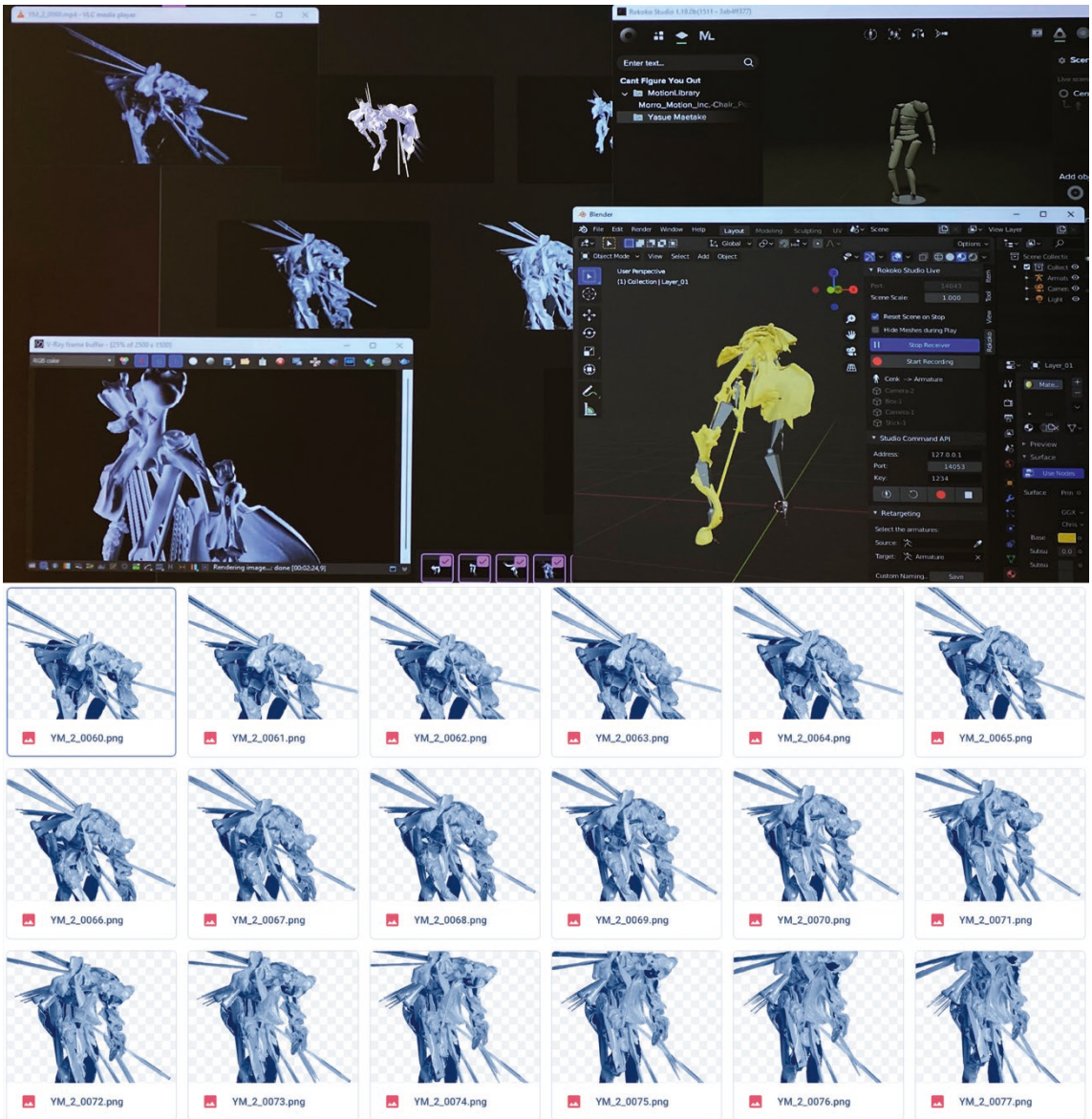


Fig.2 Digital Metodology: A sequence from a live "stand-up" motion-driven human-avatar for the creation of the Yasue Maetake-artworks-inspired digital sculpture library. Image: Cenk Güzeliş, 2022.

setup. This spatial framework makes the real-time participation of visitors a central part of one's experience of oneself and the world around them, where they can simultaneously navigate different materialities with their bodies and enter new social gatherings. One becomes an other to oneself, has extended symbiotic sensory experiences, and experiences a form of mixed embodiment oscillating between physical and virtual, local and global, human and non-human, as well as being and becoming.

By leveraging the proprioceptive processes of the human body and the proprioceptive capabilities of the virtual body, the "here" body (the physically grounded body) and the "there" body (the virtual body) are perpetually entangled through Hand Tracking and Inverse Kinematics (IK) motion tracking implementations in VR that do not require users to wear any additional motion capture suits. In the virtual environment, we used a third-party pose estimation model and hand tracking models for Quest2 VR headsets that detect the position and orientation of the user's real-time body parts, such as hands and head. Furthermore, considering the environment's physicality, spatial computing technology



Fig.3 The HEFT Exhibition: Two real-time visitors inside physical/virtual experience of the *Can't Figure You Out* Installation. Image: Cenk Güzeliş, 2022.

in VR informs an Inverse Kinematics (IK) system to generate estimated motion paths for avatars. Together, these two techniques allow for a lifelike motion for avatar bodies that are linked to the tactile and proprioceptive mechanisms of a human user, allowing experiencers to assume an avatar's shape without ever disconnecting from their own; they can perceive their surroundings via the digital body's eyes while still being able to recognize the familiar layout of the actual world. (Fig.3)

## Becoming-with-avatars: An Aesthetic Presence in Virtual Space

The proprioceptive synchronicity between physical and virtual bodies created synthetic corporeality, evoking a sense of the surreal due to the blurring of the divide between subjects' own bodily motion and avatar bodies that follow their kinaesthetic and tactile mechanisms, as well as the gap between physical and digital, flesh and data. Despite their virtual

character, the subject user becomes a perceptible digital object that may be sensed, felt, and explored through tactile and proprioceptive interactions. The setting is akin to Oskar Schlemmer's experimental Bauhaus performance *Das Triadische Ballet* which uses the human figure as an artistic medium and reduces it to geometric, formalist shapes. In a similar approach, our XR setting transformed the human physical presence into geometrical figures in virtual space, allowing us to engage in real-time with basic architectural design principles such as figure-ground, and parts-whole relationships, enacted through the performative bodies in space. This resulted in a new embodied aesthetic in which visitors, by their physical presence, engaged in intricate relationships with extended bodies and reacted to their physical surroundings in previously impossible ways.

In conclusion, in this mode of becoming-with-avatar in various worlds, one is attuned to various worlds through facing new relational and spatial contexts—an avatar "Umwelt". In other words, based on the users' interaction between virtual bodies and actual bodies, both online and offline, a peculiar real-time experience is generated that continually evolves around bodies, objects, their social interactions, and how they relate to their relative spaces, giving rise to artistic, formal, and aesthetic expressions of spatial figures that are intrinsically linked to personal expression, kinesthetic, and proprioceptive embodiment.

The multi-user mixed social reality experience of *Can't Figure You Out* thus proposes an artistic and architectural playground to use the physical distinctiveness of the body experience in the design of seamless physical/virtual overlap space to explore new technosomatic corporeality and sensorimotor capacities of space navigation, and thereby unique spatial characteristics.

#digital landscapes
#polynesian navigation
#algorithmic spatiality

# Vessels for New Digital Landscapes

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Dr Eva Sommeregger is a Vienna-based researcher and architect. She works as a Senior Researcher at the LMDA Research Institute of the Art Academy of Latvia and as a Senior Scientist at the Academy of Fine Arts Vienna. Her research investigates overlooked (digital) spaces as means of identifying entangled power relations and alternative forms of thinking. Eva is also co-founder of the architecture studio eyetry.

# The Digital and the Human

To cohabitate with algorithms and living environments requires new conceptual models of space—new models that transgress binary oppositions, able to reflect the multi-layered and interconnected coexistence of the digital and the physical, and the living and non-living beyond their distinction. Binary oppositions usually are defined as the relationship between the members of a pair of elements, as a pair of distinguishing features, such that one is the absence of the other, like voicelessness and voice, or that one is at the opposite pole of the other, like sharpness and softness.[1] The present text criticises in particular the binary opposition of digital and physical in worldviews that treat the online and offline as separate entities.

It can be said that in a digital society, the human body and its senses are complemented by data and how data is processed based on algorithms, as technology has always affected the transformation and social structure of society.[2] Phones and computers serve as digital extensions of the human body, operating as prosthetic devices that rely on algorithms and real-time networking to function. The intricate communication between these prostheses, enabled by computer scientists and programmers, often transcends comprehension. Navigating a positive future with the algorithms that shape human lives necessitates adherence to humanistic principles and ethical considerations.[3] Still, human behaviour tends to adapt to the ways of communication put forward by these prostheses—as adaptation, of course, is a core human ability. [4] Although the majority of users do not understand these prosthesis conversations, they are nevertheless employed on a daily basis and shape everyday perceived realities; although, in this text, it is not the explanation of the concept of reality/realities, but that of locality: i.e. the place in which human data actually is and how it travels,and ultimately the space it generates, argued from an architectural perspective that intends to free itself from inherited conventions while focussing on the very practice of articulating space.

# Architecture and Fluidity

The present research looks for alternative architectural models beyond standardised, prevailing concepts to create new terrain reflecting the qualities of digital landscapes. The notion of the unchangeable, pre-existing container space, even though heavily in use in digital mapping and observation technologies, misses out on the general fluidity, instability, and layered nature of the amalgamation of digital and physical space. Cartesian space requires a conceptual extension to make possible the materialisation of alternative spaces. Here, amongst others,[5] the theories of Gilles Deleuze and Félix Guattari prove fruitful. Their conception of the world does not emerge from the subject, but processes of subjectivation emerge from the interactions between body and world.[6] In Plateau 1440 of the *A Thousand Plateaus* publication, they coin a small number of so-called models, fluctuating processes subject to change. The model of the sea, for example, constantly goes back and forth from a process of territorialisation (the vast expanse of the ocean are mapped so they might be navigated and controlled) to a process of de-territorialisation (a submarine may bypass the geographic and political order of the surface).[7]

The water metaphor, to be found in terms of data streams and practices of navigating or surfing the internet, reminds us that the rules learned from (human) life on terrestrial grounds no longer apply to the posthuman world of

1 Collins Dictionary, *Binary Opposition* (New York: Penguin Random House LLC and HarperCollins Publishers Ltd, 2019).

2 This is made very clear in Radman and Gorny's introduction to Stiegler's work, in which Stiegler states that life forms such as humans are first shaped by material environments and conditions through adaptations to ecological niches. See Robert A. Gorny, Andrej Radman, *From Epiphylogenesis to General Organology*. (Footprint 30: Epiphylogenetic Turn and Architecture: In (Tertiary) Memory of Stiegler, 2022).

3 Dietmar Koering, "Exploring the human-AI nexus: A friendly dispute between second-order cybernetical ethical thinking and questions of AI ethics." *Enacting Cybernetics*, 1(1): Article 5, 2023). https://doi.org/10.58695/ec.4.

4 Dietmar Koering, "What We Should Have Learned From Cybersyn: An Epistemological View on the Socialist Approach of Cybersyn in Respective of Industry 4.0, in: *Responsible AI and Ethical Issues for Businesses and Governments* (IGI Global Publ. 2021) DOI: 10.4018/978-1-7998-4285-9.ch005.

5 The theme of space resulting from movement can be traced back to the so-called topological turn, coined by the architectural theorist Brian Massumi in the 1990s. The term Topology was introduced by Georg Friedrich Bernhard Riemann in the 19th century as a reference to Gottfried Wilhelm Leibniz's philosophical questions regarding the nature of space: According to Leibniz, space is not given, but relational; space emerges from

a set of connections subject to constant change. Following this theory, Massumi detected a paradigm shift in architecture: space was reimagined as an active and constantly evolving experience rather than a static concept. This new perspective not only challenges fixed shapes, i.e. built architecture, but also emphasizes the significance of bodily perception in shaping human understanding of space, highlighting the role of locomotion. See Brian Massumi, »Sensing the Virtual, Building the Insensible«, in: Stephen Perrella (ed.), *Hypersurface Architecture, Architectural Design* (Profile no. 133, vol. 68, no. 5/6, May-June 1998), 16–24; and James J. Gibson, *The Ecological Approach to Visual Perception* (New Jersey: Lawrence Erlbaum Associates Publishers, 2015 [1979]); See also Eva Sommeregger, *raum durch das bewegte bild entwerfen*; in: Angelika Schnell, Eva Sommeregger, Waltraud Indrist (ed.), *Entwerfen Erforschen: Der performative turn in der Architekturlehre* (Basel/Berlin/Boston:Birkhäuser Publishers, 2016): 152–159.

6 Karan August, Zakaria DJebbara, Stavros Kousoulas, Andej Radman, *The Architecture of the Virtual - An Encounter between Cognitive Neurosciences and Architecture* (Conference Paper: Ambiances, Alloæsthesia Senses, Inventions, Worlds 4th International Congress on Ambiances, 2020).

7 Gilles Deleuze, Félix Guattari, *A Thousand Plateaus. Capitalism and Schizophrenia* trans. Brian Massumi (London: The Athlone Press, 1988 [1980]).

data. Instead, humans need architecture, such as a boat or a digital device, to navigate the flowing cosmos.

# Non-Western Navigation

In search of a conception of avatar navigation, non-Western wayfinding practices offer valuable ways of rendering space: The conceptual model of Polynesian navigation, for instance, creates an animated world in flux around the traveller. During a journey, the moving canoe is the fixed point of reference, while the islands, sun, moon, constellations, a flock of birds and fish, currents, winds and the like pass by the boat along the itinerary.

A map that Polynesian star navigator Tupaia drew together with James Cook's scientific crew aboard the Endeavour mission in the late 18th century (Cook's first voyage across the Southern Pacific) reveals the discrepancy between Western and Polynesian notions of imagining and drawing space. A sheer unbridgeable gap lies between them. Simply put, the map exhibits a misunderstanding: Tupaia was able to adopt Western mapping conventions and translated his knowledge of approximately 70 Polynesian islands into the map they drew together, using an ingenious mapping method he had made up from scratch. Yet, his mapping method was not understood by the Europeans at that time, only to be decoded in 2019 by scientists Lars Eckstein and Anja Schwarz.[8] Having drafted a copy of Tupaia's map, Enlightenment researcher Georg Forster wrote in 1777: "if his drawing had been exact, our ships must have sailed over a number of these islands which he had set down."[9] Not able to understand a different way of looking at the world, i.e. a form of cartography incompatible with his own, Forster continues, accusing Tupaia of pretension: "It is therefore very probable that the vanity of appearing more intelligent than he really was, had prompted him to produce the fancied chart of the South Sea, and perhaps to invent many of the names of islands in it."[10] It seems as if it is challenging for Western minds to unlearn the logic of geographic mapping, in which anything that exists is located within the coordinates given by Cartesian space. In the Oceanic model of the world, though, the location of an island is not fixed within an a priori grid of longitudes and latitudes set after the cardinal directions of North, South, East and West. Even the concept of such fixed locations does not exist. What matters is the itinerary from one stop to the next. Itineraries are remembered from a mobile position from within, from a moving storyteller's perspective.

Many of these Oceanic world model qualities apply to the body when it communicates or resides in the digital medium, such as computer games that use avatars, or mixed reality experiences: The body is fixed while the digital architecture moves in the flow.

# An Inversion

Interestingly, also in the 1990s, architectural practitioners and theorists speculated on inverting the only seemingly fixed relationship between static, pre-existing space and its (mobile) observer(s) within—see Lars Spuybroek's notion of Motor Geometry,[11] in which the moving observer is the point of reference, generating space. In the Freshwater Pavilion from 1997 by NOX), Spuybroek attempted to materialise some of these aspects within the scope of a built structure: the Freshwater Pavilion does not feature walls nor floor, its composition does not follow the given logic set up by x, y and z axes. Instead, "walking and falling become confused", as Spuybroek writes, dwelling on a



Fig.1 Two tripod figures reminiscent of early 20th-century photography techniques attempt to be in conversation with each other, the one on the floor displaying flows in movement, the one on the wall showing modes of hiding and deciphering navigational techniques. Installation within the framework of the (Building) New Perspectives symposium, Riga 2022. Image: Dietmar Köring, Eva Sommeregger.

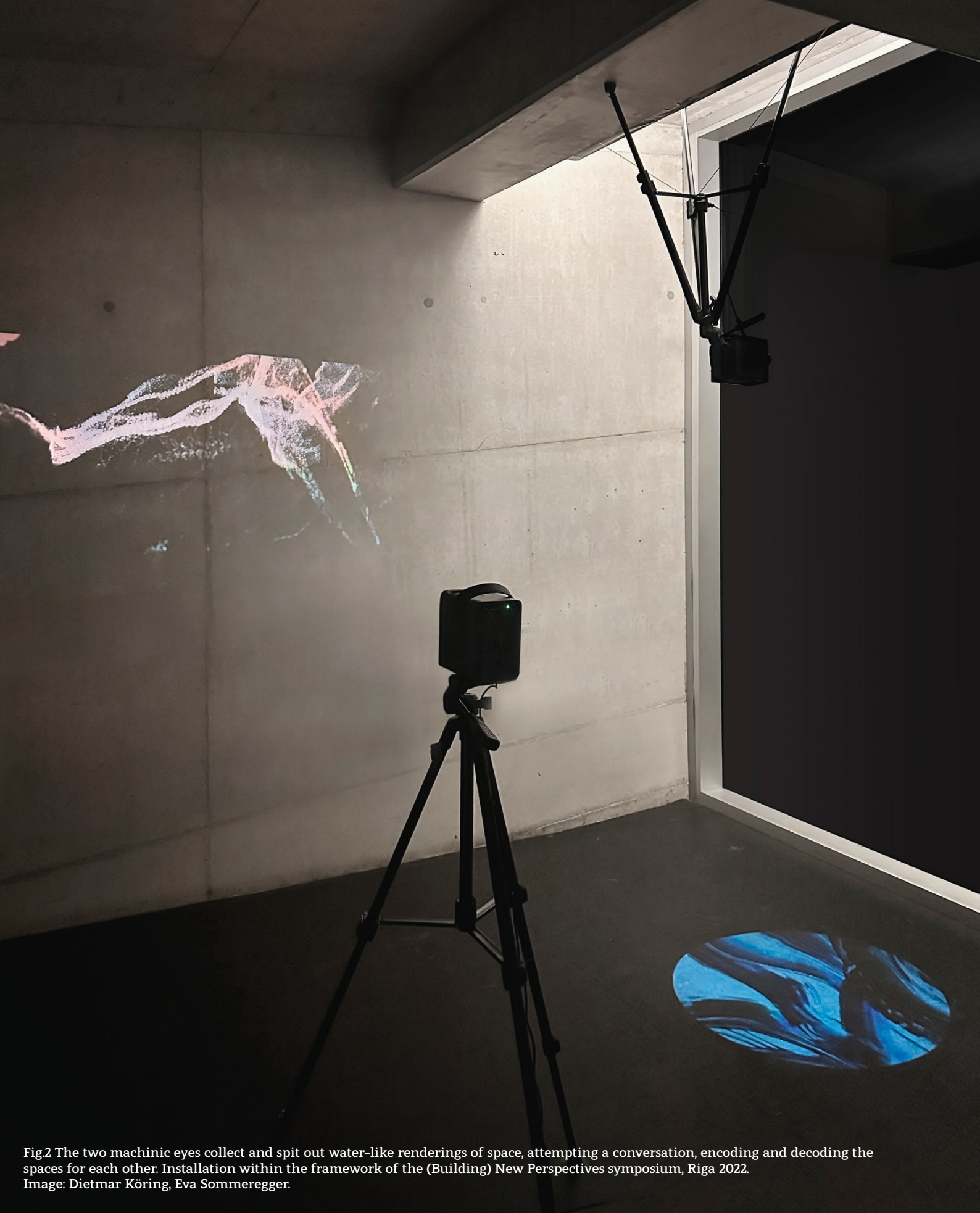

Fig.2 The two machinic eyes collect and spit out water-like renderings of space, attempting a conversation, encoding and decoding the spaces for each other. Installation within the framework of the (Building) New Perspectives symposium, Riga 2022.
Image: Dietmar Köring, Eva Sommeregger.

concept in which "topology precedes geometry."[12] Orientation is not meant to be given externally, but proprioceptively results from bodily interaction with the pavilion that affords the visitor's body multiple ways of occupation. The present research aims to cultivate an innovative architectural spatial narrative by exploring the dynamic interplay between stability and fixity. Recognising the necessity to utilize vessels or devices becomes evident to navigate and counterbalance the demands imposed by the unpredictable digital realm. This endeavour seeks a distinctive perspective, contributing to the non-binary theory surrounding the emergence of digital landscapes.

# Speculative Fabulations

To delve into the realm shaped by data, algorithms, and questions of locality, speculative fabulation is employed. Speculative fabulation, according to Donna Haraway, draws a lot from the narration of everyday experiences and the notion of the fable. It is an alternative to master histories and normative historiography that transparently gives away by whom and from what positioning a story is constructed—a stance Haraway refers to as "situatedness".[13] Speculative fabulation, in her own words, is a "mode of attention, a theory of history."[14] Speculative fabulation brings alternative aspects to the fore insofar as it is a practice that puts the finger at biases that shape human perceptions by breaking with familiar modes of understanding. Speculative fabulations are narratives that, despite their imaginative nature, do not necessarily contradict scientific facts. The construction of new theory actually does require using fiction to a certain degree, as it is a practice of imagining something that differs from the already known.[15]

Therefore, it is worth looking at a story about the island of Rapa Iti, the most southern island (according to Western understanding) of the ones drawn onto Tupaia's map, located at the very end of an itinerary narrated by him. Rapa Iti, too, is one of the fifty islands described in the book *Atlas of Remote Islands* by Judith Schalansky.[16] It is a story—the sources one can find about it are thin—that is as incredible as it is romantic, far-fetched, strange and yet perhaps possible. Somewhere in the intermediate realm between real life on the mainland and uncertainty on the oceanic islands.[17]

Interestingly, the island of Rapa Iti (Austral Islands, French Polynesia) plays the role of the link to an unknown language in Schalansky's story, the unknown algorithm. The island Rapa Iti is entangled in a story to be told here in this text about understanding and misunderstanding, a story on a kind of navigation that is commonplace in the virtual world but has no model of reference in the physical Western world and therefore seems too challenging to be conceptualised.

In her story about Rapa Iti, Schalansky recounts the tale of Marc Liblin, an individual who, as a child, acquired an unknown language through his dreams. Scientists take notice of this intriguing and solitary character, attempting to decode and translate his language using calculating machines or early computers. However, their efforts proved unsuccessful. Eventually, a man in a French harbour bar recognised the language and brought Marc Liblin together with a Polynesian woman, Meretuini Make, who spoke their common language, *Rapa* from Rapa Iti—"the loneliest of all Polynesian islands", as Schalansky puts it. In 1983 Marc Liblin married Meretuini Make and moved with her to Rapa Iti. Marc Liblin died on the island on 26 May 1998 at the age of 50, his death marking the end of Schalansky's Rapa Iti tale.
Marc Liblin existed; to what extent

8 Lars Eckstein, Anja Schwarz, "The Making of Tupaia's Map: A Story of the Extent and Mastery of Polynesian Navigation, Competing Systems of Wayfinding on James Cook's Endeavour, and the Invention of an Ingenious Cartographic System" (*The Journal of Pacific History*, 54:1,2019) 1–95. DOI: 10.1080/.00223344.2018.151236 See also: Vaughan Yarwood, Tupaia (online article, *New Zealand Geographic*, 2020) https://www.nzgeo.com/stories/tupaia/ For a more detailed description of the different ways of imagining the world involved in the drawing process of Tupaia's map, please refer to Eva Sommeregger *Tupaia, Kybernetes & Lara Croft. Bodily Perspectives on Postdigital Spaces* (Vienna: Breite Gasse Publishing, 2022) https://doi.org/10.21937/9783950411195pdf.

9 Georg Forster, *A Voyage Round the World in His Britannic Majesty's Sloop Resolution, Commanded by Capt. James Cook, during the Years, 1772, 3, 4, and 5* (London, 1777), 398. See also Lars Eckstein and Anja Schwarz The history of Tupaia's map (online article, University of Potsdam) https://www.uni-potsdam.de/en/iaa-alc/tupaias-map; Georg Forster based his publication on James Cook's and his father Johann Reinhold Forster's diaries, as well as his own notes. The Forsters accompanied James Cook on his second and third journey across the Southern Pacific aboard the Resolution.

10 Ibid.

11 Lars Spuybroek Motor geometry (*Architectural Design* 68, no. 5/6): 48–55; a great example as we speak about the flow within water,



Fig.3 Installation view, 2022. Image: Dietmar Köring.

surfing the web - or the virtual space. Spuybroek put it this way: "The architecture charges the body because its geometry is one in which points become vectors. In an architecture that has become mobilised, where geometry has become a prosthetic vehicle, initiative lies exactly between body and environment." This observation shares a lot of similarities with the views of Brian Massumi, see Footnote 5.

12 Ibid.

13 Donna Haraway, "Situated knowledges: The science question in feminism and the privilege of partial perspective." (*Feminist Studies* 14, 1988): 575–599. 575–599.

Schalansky invented details of the story can only be speculated on. Schalansky introduces a speculative fiction of Liblin's case of xenoglossia, the parapsychological phenomenon that makes individuals speak foreign languages. The present text is not concerned with trying to prove or disprove his case; rather it underlines the case as a wonderful form of exaggeration demonstrating how humans tend to deal with the algorithms surrounding us, apparently being able to speak in a foreign language—yet, in need of a deciphering entity. What is interesting, therefore, is not that Marc Liblin communicated in a language that no one in his immediate environment understood, but in the role played by his wife Meretuini Make. She is the enigma of communication, of the old "Rapa" language of her native Rapa Iti, able to decipher what Marc Liblin says and thinks in the foreign language. Through her, the act of decoding the formerly misunderstood becomes possible and an undecipherable monologue turns into a dialogue.

# Dialogues

Transferring the fiction of a deciphering ability to a contemporary society shaped by data landscapes, new questions arise: What if humans suddenly could make sense of the algorithms that have become part of and have influenced their reality? Would humans improve

them, adapt their lives or even change them completely? What would be revealed to humanity?

To address these questions effectively, active engagement in communication and participation within the postdigital environment is essential. By doing so, we can explore the diverse possibilities that various algorithms already hold regarding their adaptive influence on the environment.

In conclusion, the conversations to be investigated do not lie in the relationship between humans and machines, but rather in a more entangled and mutually influencing set of dependencies: In the in-formation of the algorithms that in turn in-form us, or, put differently, precisely in the conversations between humans and algorithms and their impact on the lived reality.[18]

14 Donna Haraway *Staying with the trouble: Making Kin in the Chthulucene* (Durham, NC: Duke University Press, 2016), 230.

15 Sarah E. Truman *SF! Haraway's Situated Feminisms and Speculative. Fabulations in English Class* (Vol.: 0123456789 Studies in Philosophy and Education, Springer Nature B.V., 2018) https://doi.org/10.1007/s11217-018-9632-5.

16 Judith Schalansky, *Atlas der abgelegenen Inseln. Fünfzig Inseln, auf denen ich nie war und niemals sein werde.* (Hamburg: Mare, 2009).

17 For more information on Schalansky's publication, please refer to Armin Fischer, "Das Paradies ist eine Insel. Die Hölle auch | Ein gar nicht aktueller Beitrag zur Frankfurter Buchmesse"; (online article, text und text.de, 2010) http://www.textundtext.de/2010/10/das-paradies-ist-eine-insel-die-holle-auch-ein-gar-nicht-aktueller-beitrag-zur-frankfurter-buchmesse/.

18 Dietmar Koering, "Exploring the human-AI nexus."

#body
#drawing
#alien
#alterity
#relationality

# LEAPs as Relational Catalysts: Drawings for the Eastway Studiolo

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# Bodies

The conception of the human body in an architect's work plays a crucial role in imparting ontologies into architecture. At least since the influential diagrams of Renaissance architects such as Francesco di Giorgio Martini—where an abstracted and idealised image of the body governed the lineaments of proportions and arrangements—the legacy of Humanism permeates the bodies incorporated into designs comprising Western architecture, imprinting a homologous notion of subjectivity into it. Yet, contemporary visions of anthropos call into question the human body's vaunted status at the pinnacle of an assumed hierarchy and the sanctity of the body proper itself. For instance, the body is revealed as an original prosthetic, a condition that opens corporeality to encounters with alterity.[1] This radically relational condition both profoundly deepens the subject's entwinement with the world and intensifies the body's propensity to manifest as an uncanny stranger. It demands a re-thinking of bodily presence in design: how can embodied subjectivity be interjected into design in a way that opens relational strands and considers the innate alterity of embodiment itself?

# LEAPs

Leaky Embodiment Alter-ego Personas (LEAPs) are visions of tragicomic actors with bodies comprized of bulbous, mismatched, and ever-changing parts. In the portraits and relief sculptures that envision them, they appear astounded at the unwieldy contingencies of their anatomies. Represented through installations and camera-tracked animations, LEAPs emerged from specific places, sometimes constructed amidst that context, absorbing and reflecting it, but also sometimes transposed to other sites, intimating narratives of jarring contrasts and unexpected kinships between humans, aliens, and things.

Some of the aspects of the LEAPs' contours evoke commonality with a recognizable human gestalt, but other aspects are alien. In this respect, they are emblems of the unhuman, a subjective mode where lived instances are, by definition, elusive moments of human experience that slip past efforts to adequately reify them through language. The phenomenology of the unhuman finds tangible examples in horror and sci-fi, where alien bodies more adequately reveal the expression of the unhuman.[2]

In addition to bridging the human and alien, LEAPs are considered as liaisons between the human and the thingly. The thingly property of the body itself is at the crux of the unhuman, but Ian Bogost's idea of "alien phenomenology" further solidifies the association of the alien with the realm of things.[3] Going beyond the phenomenological notion of the alien as an extreme extension of intersubjectivity, Bogost sees everyday nonhuman and inanimate objects as alien: objects are, in a sense, living their own lives, inaccessible from anthropocentric perspectives.[4] Through their composition of seemingly contingent and mismatched parts, changing from one view to the next, the LEAPs are assemblages, setting up the possibility to enter inexhaustible webs of "unit operations."[5] In these interactions between sets of things, "something is always also something else, too."[6] The thingly nature of LEAPs lends itself to the technique of it-narration, a mode that sits between empathy and defamiliarization.[7]

# Project

The LEAP Studiolo project aimed to explore the relational capacity of LEAPs through speculative design. The project took the Renaissance studiolo typology—small interior interventions

1 Zylinska, Joanna, *The Ethics of Cultural Studies* (London and New York: Continuum, 2005), 124.
2 Trigg, Dylan, *The Thing: A Phenomenology of Horror* (Winchester, UK: Zero Books, 2014), 9.
3 The link between thingliness and the unhuman body is indicated in the prominence of John Carpenter's 1982 film *The Thing* in Dylan Trigg's book exploring the phenomenology of the unhuman. Trigg, *The Thing*, 133–46.
4 Bogost, Ian, *Alien Phenomenology, or What It's Like to Be a Thing* (Minneapolis: University of Minnesota Press, 2012), 34.
5 Ibid. 27.
6 Ibid. 26.
7 Rossetto, Tania, and Giada Peterle, "Buildings as non-human narrators: Between post-phenomenological and object-oriented architectural geographies," *Transactions of the Institute of British Geographers* 46, no. 3 (September 2021): 642–658.

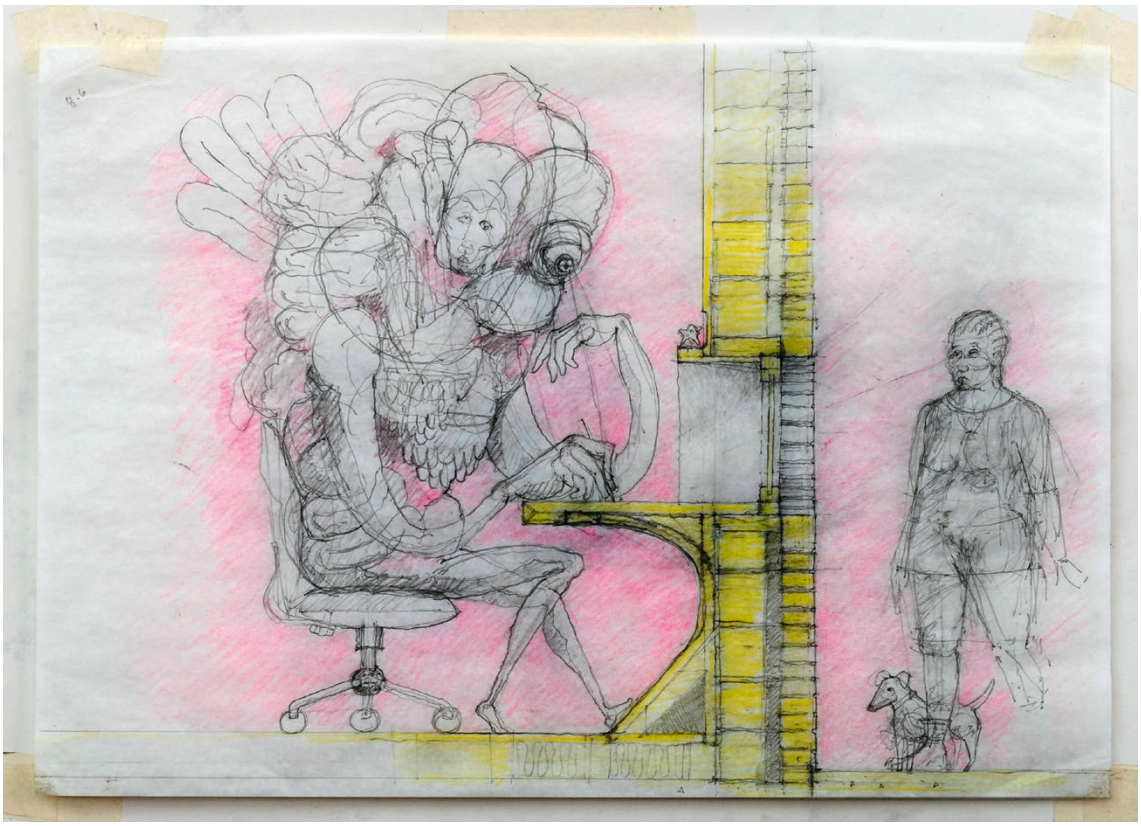


Fig.1 Alessandro Ayuso, *Studiolo 1:10 section 3*, pencil on paper, 590 x 720 mm, 2022.

designed for the ostensible purpose of enlightened study—as a starting point. Precedents such as Martini's design of the Ducal Palace study in Urbino or St. Jerome's study as depicted by Antonello da Messina could be considered as spatialised ontological schema, or, manifestos displaying the virtues and ambitions of Humanist contemplation. Their efficacy hinges in a large part on the studiolo's design elements' immediate proximity to the body.

The project site was a room in a former repurposed industrial laundry building on the Eastway in London, and it was generated through a reciprocal process where serial drawing alternated with speculative writing. The following text is an edited excerpt from a writing piece taking the form of an imagined conversation with a LEAP. Initially integral to the process of design itself, writing served as a form of critical reflection, but also a culturally embedded technique, extending the consideration of alternate subject positions and vantage points. In the context of this paper, the writing also describes the design process and illustrates the deployment of the LEAP as a body agent, or alter ego enacting a subject position into the design process through its integral representation. The interlocutor is a fictionalised version of the author, whom the LEAP refers to on familiar terms as *Al*.

ALESSANDRO: The project started with a multi-layered 1:10 cross section through the existing building's street-facing wall. Could you describe what you were up to in this drawing?

LEAP: Since we were, after all, designing a studiolo, I thought it only fitting that I engage in my writing practice. [8]

ALESSANDRO: I had no idea that you maintained a writing practice until we made that drawing...

LEAP: Oh yes, I enjoy composing summaries of the instruction manuals and prolegomena of the philosophical texts I read. It is one of my means of endeavouring to comprehend the world in which I am thrust. At first, I took this project as a welcome opportunity for peaceful lucubrations. We designed a rudimentary desk for this purpose, and I began my work. But soon enough, I realised that I had more company in the form of a curious passer-by outside... (Fig.1)

ALESSANDRO: Ah, you mean the figure on the outside looking through the window..?

LEAP: Yes. She brought her companion animal with her to create unwanted distractions with its barks and yaps. (Fig.1) Their presence proved a harbinger; such tedious distractions were constant in these first drawings: from those waiting at the bus stop, to the screaming children peering through the window, and even the crows, squawking and squabbling on the roof skylight over my head.

ALESSANDRO: The presence of pets did give us an idea though...

LEAP: Yes. We designed a tiny talisman for me; although it was an inanimate object, I thought of it as a companion, advising me and encouraging me from the window sill near my Heads.[9] (Fig.1) This also could be thought of as my first sculpture.

ALESSANDRO: The sculptures proved important for you later. But, please, continue; why don't you describe the next drawings in the series?

LEAP: Al, honestly, for our discussion today, I think I'd like to skip past many of these early drawings.

ALESSANDRO: Oh... why?

LEAP: I have many critiques of them, Al. For instance, if we consider the second drawing we worked on... in it I continued my labours at my desk, and as my contingent body dissipated and extended upwards, our design began to take shape around me.[10] An arrangement of inflatable steel cells formed a canopy above my Heads. On one side it was supported by geometricized caryatid figures. I found them an inappropriately anthropomorphic typology for a studio inhabited by an alien being. From your scribbles on the margins, it became clear that the anthropomorphic metaphor organised the entire design parti, with the inflatable canopy akin to a frontal lobe, the canopy supports as a cerebellum, and the two round windows as oculi.[11] Human Head was delighted to realise this, but I was troubled by it. Why was the design predicated around human bodily metaphors and permeated by aesthetics more appropriate to classical architectural history?

ALESSANDRO: Ah, well, yes, you have a point there, and of course, your presence as a depiction in the drawings was a prompt to explore morphologies beyond the classical metaphor of the human body, and eventually I did realise that we were succumbing to this tendency towards anthropomorphism...

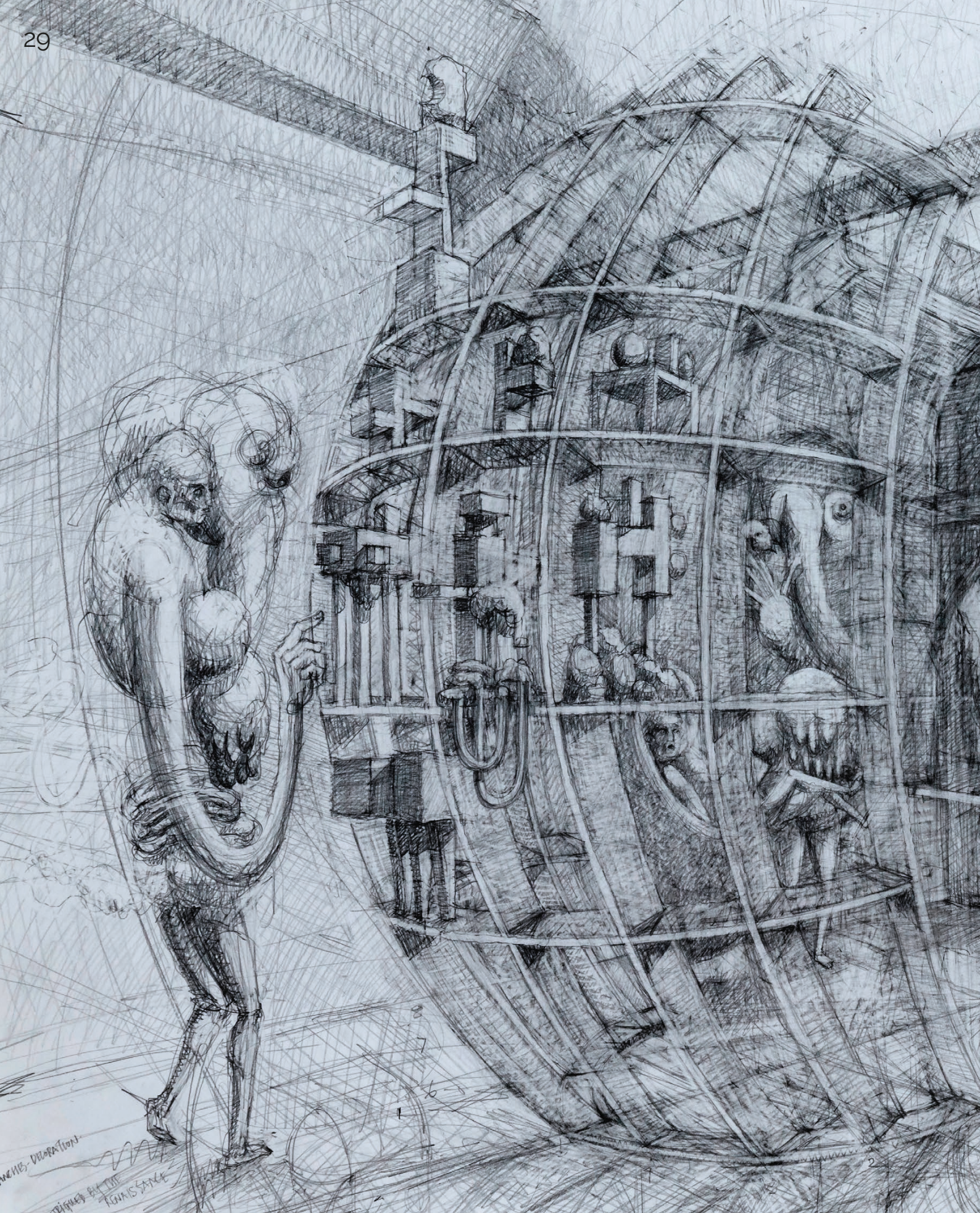
LEAP: Oh, Al, it took so long for you to realise this! We did so many drawings before you changed course! Section, cross section, plan, even a reflected ceiling plan, and still this Humanist body metaphor was the governing principle—the design

8 Alessandro and the LEAP often refer to the drawing process as collaboration between them. Hence the statement 'Wewere... designing' refers to Alessandro and the LEAP collectively. The LEAP sometimes disavows ownership of an aspect of the process when it takes a form they are not satisfied with, momentarily reverting to second-person descriptions denoting Alessandro as the sole author.

9 In this sentence, the LEAP refers to their Heads (plural), a reference to what they call 'Human Head', an ancillary head projecting from their own. Human Head has a semi-independent existence from the primary body. In other excerpts, Human Head also participates in the discussion, offering a slightly different viewpoint.

10 The LEAP's mention of its contingent body refers to the sporadic changes their body undergoes, where organs change position and size, or even disappear completely, and their measurements and solidity fluctuate.

11 The LEAP refers to a sketched diagram on the margin of the third drawing in the series.



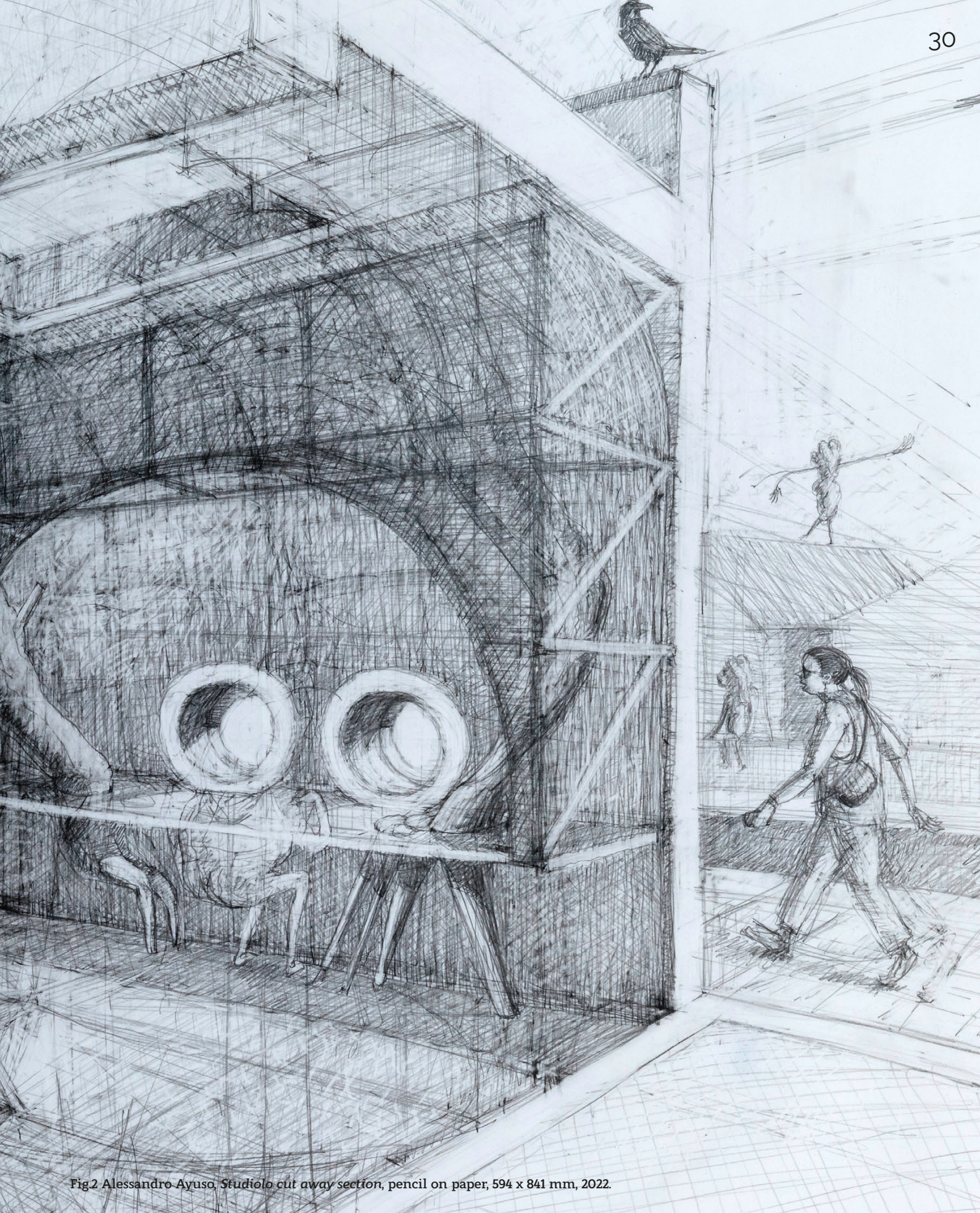


Fig.2 Alessandro Ayuso, *Studiolo cut away section*, pencil on paper, 594 x 841 mm, 2022.

became more and more classical and rigidly symmetrical over the course of these drawings.

ALESSANDRO: Um, well, I suppose that's true. I didn't realise you had such strong adverse feelings about the early drawings. Were there any aspects of them that you liked or found productive?

LEAP: We began to design some elements that I thought were fitting, such as my enclave, which enshrouded me and guided the sunlight from above where Human Head and I could settle into our readings. The tunnel-like entry was also promising.

ALESSANDRO: Why?

LEAP: For one thing, it broke this rigid classical symmetry and was designed according to the measurements and movements of my body. But perhaps more importantly we could carve away its thick poche to provide niches for my burgeoning sculptures, which were multiplying as evolutions from the original small talisman.

ALESSANDRO: At least it wasn't all intolerable for you. So, which drawing in the series do you want to pick up with to describe in more detail? In your opinion, at which point did the drawings head in the right direction?

LEAP: When you finally stopped drawing orthographically!

ALESSANDRO: Was it the orthographic nature of the first drawings that bothered you?

LEAP: I didn't know it at the time, but in retrospect, yes! What annoyed me is not that they were orthographic per se, but when we began drawing in perspective a few things occurred which "headed in the right direction". For instance, the first perspective drawing looked into the Studiolo from the outside. This was important. I mean, Al, of course I cherish my time to peacefully write, but if we are intent on studying relationality, why was I stuck in the interior for so long, with the world going on outside?

ALESSANDRO: I understand what you are saying. There is an answer to that; it was important for me to keep the set of relations more concise, I was trying to understand the capacities for your workings as an agent in the virtual realm of the drawing within a more constrained set of …

LEAP: In any case, the first perspective drawing looking in, with the exterior wall represented as transparent was significant because it introduced the exterior as more than an epiphenomenon, and it suggested a particular point of view amidst that exterior.
Another important shift correlating with the shift from orthographic to perspectival modes was aesthetic in nature. Human Head is a voracious reader of science fiction, often listening on his earbuds to audio versions of many of the classics of this genre. With the cranial scheme seemingly behind us, Human Head proved themselves a fair weather Humanist, and advised the course of the design to take on more of an 'alien' aesthetic.
In these early perspectives, as I walked through the interior, leaking miasmatic excretions and leaving viscera in my wake, as I do, there began to be some welcome changes. The zygomatic desk supports became more like arthropodous legs, my reading chair began to more accommodate the lumps and variables of my body, and the classical purity of the idea of a cranial dome gave way to a gothic structure evoking bone and patagium.[12] I engaged the nascent architecture more, touching the edges and corners of openings, pressing my body back into shadows and crevices, leaving deeper impressions, and I

12 The 'alien aesthetic' referred to by the LEAP above is described here in particular aspects of the design. As Bernhard Waldenfelds has noted following Edmund Husserl, the alien is 'something that is accessible- not in spite of-but rather *in its inaccessibility*.' Waldenfels, Bernhard and Anthony J. Steinbock, "Experience of the Alien in Husserl's Phenomenology." *Research in Phenomenology* 20, (1990): 20. In this sense, the alien is comprised of that which could be considered—from a particular horizon—as on the periphery of accessibility. This was encapsulated as a discernible aesthetic in Dominique Gonzalez-Foerster's recent mural for her Alienarium 5 exhibition in the Serpentine Gallery London, a compendium in which the pervasive presence of non-eurocentric design, aquatic and insect anatomies, non-animal lifeforms, and non-classical design historical genres are evident as source material comprising a genre of accessible otherness.

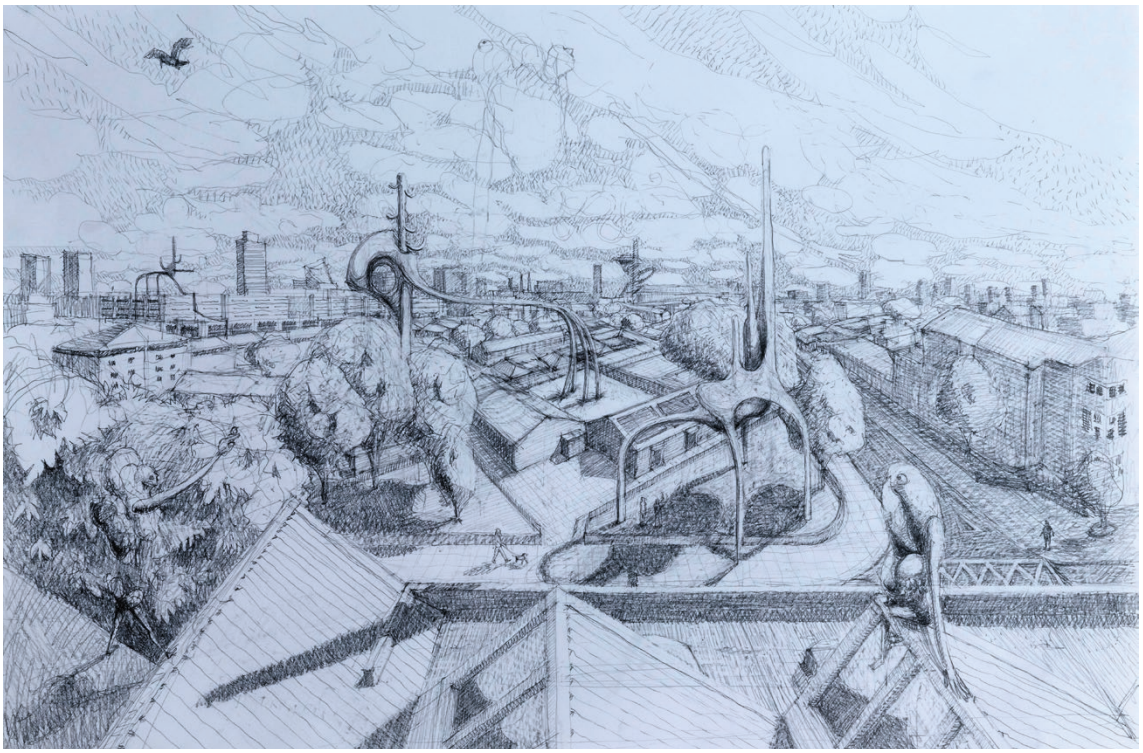


Fig.3 Alessandro Ayuso, *Hackney Panorama*, pencil on paper, 594 x 841 mm, 2022.

reached up to the ceiling, pushing it upwards.[13] And my collection of sculptures continued to grow, exhibited in a wall enclosing the Studiolo. (Fig.2)

ALESSANDRO: Maybe you should explain the importance of the sculptures.

LEAP: The sculptures beckoned a more propositional mode of comprehension.

ALESSANDRO: What do you mean? Comprehension of what?

LEAP: Comprehension of the world! Al, as you know, I am an alien without much of a backstory; there is no long-lost home planet I seek to return to. I am new here.[14] I hungrily read philosophy and technical manuals to attempt to understand my surroundings and myself, and for all that I have confirmed that I carry my own world with me, in that I always seem to be 'other-than'. As lumpy, unlikely, alliances of parts, I saw the sculptures as reflections of me and as extensions of my world, offering queries to the one I observed through the Studiolo's oculi.

My sculpture collection suggested praxis; the sculptures, as propositional entities, motivated me to embrace a more active exchange with my environment, to understand it better.
So, when we drew the cutaway perspective, I finally made my escape from the interior. (Fig.2)
I moved from the shadowy seclusion of the Studiolo, and used the opening left by the cutaway as the means to make my way outside. At first I sat on the knee wall across the street looking back at the Eastway building. But then I began exploring the labyrinthian housing estate also across the street, becoming so disoriented that I climbed on top of one of the houses to look down and gather my bearings. (Fig.2, right-hand)

ALESSANDRO: From that moment on you insisted on being outside.

LEAP: Absolutely. We began work on a panoramic drawing where I sat looking out over East London from the roof of the Eastway building. (Fig.3) Atop the building I was taken by the view, by the

13 The process of a figure in a drawing shaping the design is a property of body agents and is discussed by Frascari as a *metonymic* aspects of scale figures. Frascari, Marco. "The body and architecture in the drawings of Carlo Scarpa." *RES* 14 (1987): 124.

14 The first iteration of the LEAP as a relief sculpture was created in 2016, and in the narrative the LEAP recognises this moment as the beginning of their sentience in the world.

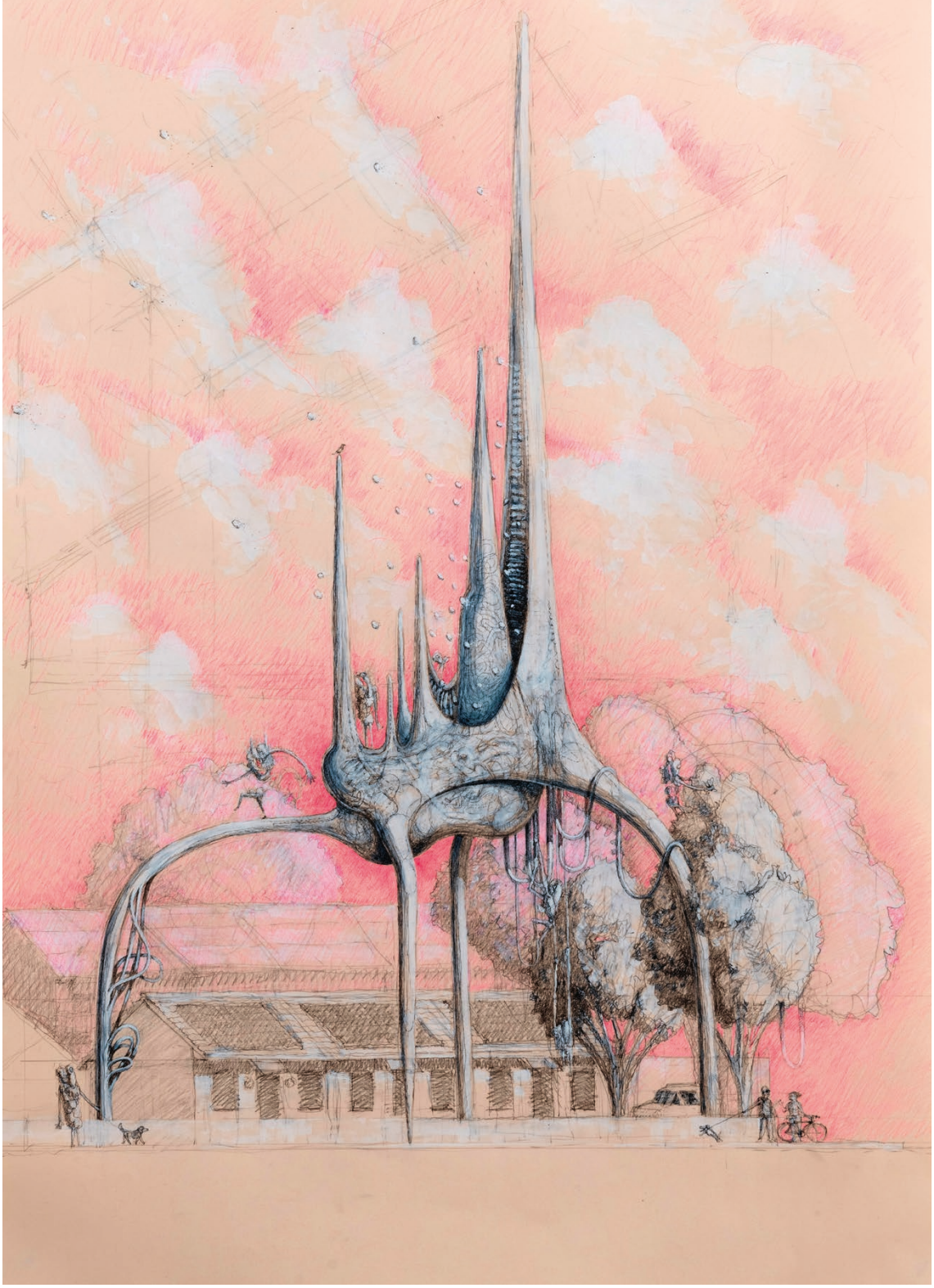


Fig.4 Alessandro Ayuso, *Environmental Barometer 1:50 elevation*, pencil and acrylic on paper, 841 x 594 mm, 2022.

feeling of the wind rushing through the voids between my organs, and by the sound of the rustling leaves in the nearby tree canopies. I was able to smell the leaves and interact with the birds I had eventually grown fond of. I watched the humans below me, as they socialised and engaged in ritualistic ambulation with their companion animals. Looking past the housing estate, I was attracted to a unique tower on the skyline.[15] It gave me confidence to design my Environmental Barometers, of which three are visible in the panorama. (Fig.3)

ALESSANDRO: What are those?

15 **The LEAP refers to the AcelorMittal Orbit Tower in Stratford, London.**

LEAP: They are evolutions of my sculptures, developed contextually to form spatial and aesthetic relationships with their surroundings. They probe, connect and activate zones I had perceived on the ground as partitioned and cellularized.

ALESSANDRO: In the most recent drawing we've done (Fig.4), it seems like they enable your exploration of the environment... Could you describe some of the things that you are doing in that drawing? Aren't you balancing on one of the Barometer's tubular supports? (Figure 4, middle right) How did you even get up there?

LEAP: Obviously, I climbed up the Barometer's legs.

ALESSANDRO: Isn't that a bit dangerous?

LEAP: Oh yes, the legs are perilously tall and slippery, although the footholds provided by the efflorescent ornamental strands we devised on the northeast leg helped me to scale it. But there are parts I cannot access at all! The Barometer's spires soar towards the sky, offering a perch to my avian companions.

ALESSANDRO: Yes, I know that part of the design is important to you, and I suppose, to the birds; but what else are you doing in that drawing...?

LEAP: At one point I inhabited the womb of the Barometer, a much more fitting interior than the Studiolo. In another instance I observed the speed and directionality of the wind, as it carried capsules dispersed from the Barometer's inner cavity. In another moment, noticing that the Barometer, like me, has viscera that spills out into the surroundings, I tried to stuff them back in. (Fig.4, lower centre)

ALESSANDRO: And... isn't that you, in the nearby trees?

LEAP: Yes. Realizing that stuffing the viscera back into the Barometer was futile, I set about climbing up the tubes, finding my way to the adjacent trees. I sampled their leaves by masticating and digesting them, registering their taste and biometric information. I admit I might have gotten a bit carried away. (Fig.4, lower right)

ALESSANDRO: ... and are you also walking a dog below the Barometer? (Fig.4, lower left)

LEAP: Yes. My Barometer is beautiful, with ornamental qualities and aesthetic evocations that fascinate me. But I often wonder how the inhabitants of East London perceive it, and sometimes I engage in their strange rituals, just to try to change my perspective and to see it from their point of view.

# Conclusion

The Eastway Studiolo design began confined to an existing interior; yet as the dynamic between the author and the author's conception of an alien subject played out in the design process, the design expanded out to the surroundings. This is not the only unexpected expansion the project has seen: as an alien presence, the LEAP expanded the notion of the subject, complicating the binaries of architect/inhabitant, human/non-human and self/other in the design process. This is partly because, much like Odradek, whom Jane Bennet[16] notes in Kafka's short story defies ontological categorisation by the story's narrator, LEAPs always remain *other than*. The LEAP suggested worlds beyond themselves which do not align precisely with our own; in this slippage, the sense of relationality LEAPs engender is inherently propositional. As narrative and nonhuman presences, LEAPs are not only diagnostic and speculative devices, interjecting possibility, insisting on world-building and creating new relational capacities.

16 **Bennett, Jane, *Vibrant Matter: A Political Ecology of Things* (Duke University Press, Durham, London: 2010), 7.**

#spatial dramaturgy
#regeneration
#co-presencing
#co-constitution
#decay

# A Chance for Life on the Remains of HALL07


## Breg Horemans

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## *REMAIN[1] 1: a Memory of a Dead Cat[2]*

*You remember the circumstances of my death vaguely. On the day that a team member of the HALL07[3] festival school found me in the basement, you were in the main workshop space on the building's second floor. People seemed excited about finding my dried up skin-over-bones. As the basement space was supposed to be on the route for the audience, they immediately decided to take me out and throw my remains in a garbage container on the street. You try to imagine who took the lead in the process. You imagine how one of the male participants in the group used a shovel to pick my body up and place it in a cardboard box.*

*You imagine the moments just before my death, where my body led me instinctively to a quiet dark place. The old school building on Aristida Briana street had been my livelihood for many years. It took care of me as an aristocratic old lady. She provided me with my hunting ground and I gave birth to my children in her annex building, where there used to be the technical room. You wonder how I found my final resting ground, sensing the moist air flows that would decompose my muscles through a symbiosis of fungal networks on the brick surfaces and families of woodworms eating up the old wooden floors. You wonder how my spirit kept wandering around or might've re-incarnated elsewhere. In Latvian mythology cats have seven lives. I'm speaking to you from my 3rd life-cycle.[4]*

*Are you still with me? You must be thinking: why am I reading this? Why do you want my attention, dear fictional creature?*

# Reading-Writing and the Partial Perspective

In this paper, I'm speaking to you as an assemblage: as an arts practitioner that works collectively, as a practice based researcher, symposium presenter, the author of this paper, and the voice of a dead cat. The fictional creature in the previous paragraph was *re-discovered* one day before the start of the Building New Perspectives symposium, during a *reading-writing*[5] exercise (see extract *REMAIN 4*) where I attempted to displace my voice as a writer into the cat's *forgotten body.*

In my PhD project, Regenerative Spatial Dramaturgies, I claim that *spatial dramaturgy*, in order to increase the *regenerative potential of aesthetic experience*, depends on a reciprocal and genuine dialogue within the actor-networks in which it operates. This entails processes of diversification of voices and positionalities, incorporating also the invisible bodies that appeared alongside a creative process.

Since 2013 the work we do as TAAT focusses on prototyping silent experiences facilitated by either found or built space focussing on both humans and more-than-humans. TAAT's work situates itself within the intra-discipline *spatial dramaturgy*. Since 2020 our collective aims to reformulate our art practice as a *regenerative* practice, questioning a multitude of extractive[6] forces in our livelihood. We are introducing reparative strategies to *aesthetic experience in-the-making*—and its processes of archiving—enhancing regeneration of the hidden hierarchies of late modernist *co-design*. We are aiming to make space for relationships of reciprocity and care where voices of both human and more-than-human actors are heard as co-constitutive actors.

The meaning of the word d*ramatourgia* lies in the combination of

1 This text is the first archival remain in a series of remains (photography, text) that will alternate with the written text of this paper. These so-called remains can be understood as fragments of documentation of the project HALL07. By revisiting the remains in dialogue with the text of the paper, we explore their potential as carriers of situated knowledge.

2 The memory of the dead cat appeared in the *reading-writing* session between Ieva Gaurilčikaitė, Liga Zepa, and Breg Horemans on November 8th at the Art Academy of Latvia. The text is a fictional attempt to give rise to the cat's voice in relation to the development process of the project HALL07.

3 HALL07 by TAAT, a performative walk for two human participants that had never met before. The project took place in an abandoned school building on Aristida Briana street (Riga), as part of the Homo Novus Festival in September 2019. Audience members were invited to walk in parallel pathways and to take pre-set positions (painted dots on the floor) alongside a fixed (painted) line, separating the participants in two respective zones on the floor. The spatial dramaturgy was aiming to make the participants appear sequentially in each other's aesthetic image and would invite them to negotiate the relationship to each other within the confines of the existing architecture. About 10 multidisciplinary practitioners were

invited to co-create the project that was set up as a "festival school". TAAT was founded by Gert-Jan Stam and Breg Horemans in 2013 and has been working as a liquid collective since 2020. More information on HALL07's spatial dramaturgy is to be found on the online archive of the Building New Perspectives symposium through this link: https://www.facebook.com/lmalmda/videos/697884068338632 (from 2h17'00").

4 The life-cycle of the cat is a metaphor for the life-cycle of the archival remains that are staged on the coming pages.

5 Reading-writing continues on Jane Rendell's work on site-writing, combined with a score developed by the arts collective Building Conversation. In reading-writing different voices (I/you/we) are implemented as writing voices to explore how the mechanics of writing– and consequently the reading out loud of that writing in different persons defines the performativity and personification of these different voices. I often choose to write in the second person and in the present tense, inspired by the work of American Chicana researcher and poet Gloria E. Anzaldúa, who often used the you-form to explore closer readings of her own situatedness in the connection to land and its indigenous cultures.

6 Extraction here is to be understood as both institutional and material processes in which entities do not relate to each other in a balanced reciprocal manner.

the words *drama* (meaning *a composition presenting in dialogue a course of human action or the description of a story converted into the action of a play*) and *-ourgia* (meaning a working activity). Dramaturgy then refers *to the work that needs to be done on the composition and development of dialogical human actions and stories.* Through collaborations with artists from different fields, a shift in my understanding of the role of the architect or spatial designer took place, and opened up a multitude of possible attitudes and roles that I decided to explore. As these development processes are very often prototype and dialogue based they are foregrounding spatial experience as the main directive for collective decision making. *Regenerative spatial dramaturgies* is therefore exploring new forms of *thinking-being-doing* that create spatial experiences and narratives that enable bodies, objects, material and spaces to work and act together.

This is where the body of the dead cat enters the stage of this paper. In Donna Haraway's iconic contribution to Feminist Studies on Situated Knowledges,[7] a distinction between *"*the view of a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity*"*[8] offers a new angle to spatial thinking, or to spaces as bodies. The quote is a plea for a situated knowledge production based on *partial perspectives*, demanding us to re-open the question *from which bodies we speak* and through the recognition of which bodies we generate meaning. Secondly a closer reading implies a diversification of bodies—or possible body parts—that constitute the life of a building as a living ecosystem. By displacing ourselves in the *remains* of a dead cat we can unleash a rethinking of our own positionality towards practices of knowledge making that we aim to situate. For these unseen bodies to *"*have a chance for life*"*[9], as Haraway writes, we need to recognize and nurture our relationships with them as partial perspectives of HALL07's livelihood. In doing so we can actively "build meanings and bodies"[10] as an important part of the work on ourselves as practicing researchers. This paper therefore explores artistic research methods to improve the situatedness of both the artistic practice we take part in and the knowledge making apparatus we contribute to. So the archival remains we are studying in this paper are tools (1) to displace ourselves into other bodies, objects and materials, (2) to instigate processes of care as a basis for new relationalities and (3) to expand our partial awareness as practice based researchers and knowledge makers. By revisiting the HALL07 project through its archival remains, we aim to diversify meaning making processes in the field of Spatial Dramaturgy. In addition, by introducing both regenerative and performative components to the field of Spatial Dramaturgy in specific, we aim to diversify the skill set of spatial design in a broader sense.

On the following pages, three specific remains in HALL07's archive will be staged: the memory of finding a dead cat (REMAIN 1), a picture of the basement space where the cat was found (REMAIN 2), and a piece of the wooden floor from the so called "ballroom space" (REMAIN 3). To bridge these remains, excerpts of the transcript of the recording of the reading-writing session will be used as a sort of mindmap, highlighting concepts throughout the different readings (see REMAIN 4)**.** The old school building on Aristida Briana street will serve as the site for a re-visiting of the HALL07 project, where the remains as mentioned above serve as different parts in a form of reconstruction of HALL07. In this way we aim to *build assemblies* between the different bodies that were activated in the artistic project HALL07. Methodologically I will draw upon a method I call *reading-writing,* which allows for a slow attentive conversation moving attention from speaking to listening. I see use *lively practices of*



Fig.1 REMAIN 2, photograph by Jim Stephenson, 2019, courtesy of TAAT arts collective.
Basement space where the audience members of HALL07 moved through, separated from one another. This is the room where the body of a dead cat was found on day one of the co-design process (September '19). The line you see on the floor is part of the spatial dramaturgical intervention developed by the co-design team.



Fig.2 REMAIN 3a, picture of the ballroom, photograph by Jim Stephenson, 2019, courtesy of TAAT arts collective. Breg Horemans balming the wooden floor of the ballroom space of the old school building.

*writing* as a way to open the spectrum of separation between "our inner and outer world"[11] diversifying the spectrum of the *writing subject* and embracing messiness and playfulness into academic writing.

Let us now zoom in briefly on how the re-visiting of the HALL07 location and the engagement with its archival remains instigated conversations of care and reciprocity.

## *For a Moment*: Relationships of Care through Practice-Based Findings

On November 8th 2022, Ieva Gaurilčikaitė, Liga Zepa, and I were standing in front of a fence on Aristida Briana street, separating the pavement from the old school building we worked at together in September 2019. We managed to persuade the site manager to let us in and to provide us with safety helmets and fluorescent vests. We re-entered the building that was undergoing rigorous renovations. On the stairwell floor, some remnants of a painted line we applied were still visible. The ballroom space on the ground floor was stripped to its bare structure, except for some parts of the wooden floor that were dusty but rather intact. I picked up a slat of the old parquet's top layer, instantly becoming melancholic: I remembered spending late nights on elbows and knees to balm this floor to its original state. The ballroom was the space along the route, where we aimed to provide the two participants of HALL07 with an almost royal grandeur that invited for grand movements or even an occasional waltz. I wrapped the piece of parquet in a plastic bag and tucked it away in my backpack. The piece of wood, with its dusty surface and tarred bottom layer has been lying on the desk of my apartment in Brussels since, waiting to reveal secrets stored in matter.

The final reflection of REMAIN 4, Take 3 (see below) concludes with "You were taking care. Or maybe the building took care of you. For a moment." This quote implies a reciprocity in the care

7 Haraway, Donna, "Situated Knowledges: the science question in Feminism and the Privilege of Partial Perspective," *Feminist Studies 14*, no. 3 (Autumn 1988): 580.
8 Ibid.
9 Ibid.
10 Ibid.
11 Rendell Jane, *Site-writing: The Architecture of Art Criticism* (London: I.B. Tauris & Co. Ltd Turner, C., 2011).



Fig.3 REMAIN 3b, picture of a floor fragment, photograph by Breg Horemans on November 8th 2022, courtesy of Breg Horemans. Detached piece of parquet, saved from demolition. The piece of wood has a tar layer on the bottom. The remain is saved as part of TAAT's Live Archive.

relationship between the building as body and the body of the caregiver(s). In REMAIN 3 (selection of pictures, see below) two bodies are entangled in intimate acts of care: above, a kneeling body that balms the floor of the ballroom space of the old school building (September 2019). Below, a detached piece of the same parquet, after demolition (November 2022). The two pictures show two moments in both the parquet's life cycle (and the lifecycle of the person present). Two moments (treating the floor as part of the dramaturgical work, picking a piece of wood up for conservation) in which gestures of care are touching the materiality of the wood, covered by balm, carried by tar. Both the treatment and the underground substance carry other extractive gestures (chemical extraction of oils and tar, situated in early 20th century production processes in the Baltics and Scandinavia). The reading-writing exercise (see excerpts in REMAIN 4) brought up a shift in our understanding in reading the archival remain, from a way to merely access our embodied memory of the HALL07 project, to a more critical and political potential of the remain in regards to the history of extraction of the building. This brings us to the following questions: How does reading-writing as a gesture of care relate to past gestures of material extraction? What kind of reparative potential does the exercise have and how does the partial perspective contribute to a better understanding of the building's body?

## *What Are You not Seeing?*: Relationships of Care Through Practice-Based Findings II

In REMAIN 4 (Take 1) the following question is raised: "You find it weird not to have a clear image of the building's interior. What are you not seeing?" The question puts the emphasis on possible blind spots in the memory of the writing subject. The sentence proves an emergent recognition of other, much

12 quote from REMAIN 4, Take 1.

more possible, blind spots in the re-reading of the building. This recognition leads the way for an associative process between physical experience and metaphorical association. Through writing an expanded space of meaning making between the material entity of the *dead cat* and the metaphorical entity of the *old lady*—representing the life of the building—was created. Already during the co-design process in 2019, the metaphor of the old lady came up in the dialogue between the participants, addressing the human character of the building or even the building's *spirit*.

In preparation for this paper—while listening to the recording of the reading-writing session—the appearance of the cat drew my attention. I decided to open this paper with an exploration of her forgotten bodily presence in my personal memory on the HALL07 development process (REMAIN 1). Why did we see the body as an anomaly that needed to be removed from the audience route immediately? Why did she not matter? As a reaction to these questions I started a fictional writing session from the perspective of the dead cat, speaking to you (the reader). Through retracing the moment I heard the news and recognising the vague circumstances, I enabled myself to construct a narrative and displace myself in a possible story. It allowed me to honor the creature and to relate to "echoes of the past where workers, pupils and other users inhabited, touched and merged with the building's soft and hard layers."[12]

Although both the cat and the old lady are merely fictional, they lead the way for a new sense of embodiment with the spatial environment in which HALL07 took place. The reading-writing session also generated several attempts of displacement into the *building as a body.* It enabled us to explore a set of partial perspectives related to the old school building's ecosystem, and it facilitated a hyper-complex process of building assemblies on how spatial experiences are constructed.

# Conclusive Thoughts

I started this writing journey with a recognition of how the construction of myself as the author of this piece *is an assemblage*. Through Haraway's concept of the *partial perspective* as a building block for situated knowledge, we displaced ourselves into the unheard voices of bodies and body-parts in the archive of HALL07, and through this we shed new light on how the artistic practice of TAAT is situated. My claim was that through *building assemblies* within the actor-network of HALL07, we are increasing the "chance for life" of forgotten voices and therefore also the chances for life within other artistic research practices that aim to operate increasingly *as ecosystems*. My aim with this paper was to expand the discourse on situated knowledge making. I did this through sharing a set of explorative methods and through exposing the explorative endeavor of writing as an assemblage. With these insights my aim is to continue developing polyphonic awareness and consequent methods for artists practice based research.

Through the fragment titled "For a moment", our attention was directed towards a moment in which relations of care and reciprocity were highlighted: between our bodies as "users" the building-as-body and its body parts. The piece of parquet as a tacit body became a tactile entity to re-discover processes of extraction and care. The first page of this paper allowed us to empathize with the cat's deteriorated skin-over-bones and to recognise her life-cycle as part of HALL07's livelihood.

Through the method of reading-writing I introduced a shared artistic research approach that can further stimulate the *chances for a more reciprocal way to live together* through acts of displacement in other bodies and processes of recognition that they generate. Through using this paper space

not only as a space for a *distant* reading of how the HALL07 practice is situated, we have ingrained ourselves in a radical form of collective site-writing with and alongside the old school *building-as-body.* In this way I aimed to contribute to a growing field of exploratory artistic and practice based methods that can contribute to a diversification and deepening of the interdisciplinary field of Spatial Dramaturgy.

## *REMAIN 4: Transcript of the Edited Reading-Writing Session on November 8th*[13]

*Take 1 (diffraction on our last entry to the building, November 8th, 2022)*
*I: The building is empty. Its owners and users are gone. You understand that they were using the building daily.*
*B: Your first entry to the building was on a bright summer day. You were not alone. You remember being on the roof of the building. In the background you overlook the city of Riga. You find it weird not to have a clear image of the building's interior. What are you not seeing?*[14]
*Take 2 (diffraction on our first entry to the building, July-September 2019)*
*L.: When you walk up, you see a room full of people, sitting in a circle. The room is filled with daylight, coming in from the windows on your right.*
*B: You hear different entry points to the building. You relate to echoes from the past, where workers, pupils and other users, inhabited, touched and merged with the building's soft and hard layers.*[15] *You yourself were a user once. You were part of the group circle that filled the space. You initiated a silent walking score on day one of the design process. You invited all participants to the school in an experiential setup. Moving comes before taking.*
*I: You, and all others, try to relate to the building. You look around and—as a snake—measuring everything through the size of your own body. The shapes of objects and walls are already blurred.*

*Take 3 (diffraction on previous rounds)*
*L.: There is a lot of dust. Time has passed in this place. How can you ever really explain the objective experience that your body stores? You move through the building as an investigator, knowing you can not know how it really feels like.*
*B: Your relationship with the building is one of growing empathy.*[16]
*You can't stop thinking about the moment you re-entered the building, just 45 minutes ago. The old lady is gone. Or is she still there somewhere? Resting in the basement? You suddenly remember a story of a dead cat. An animal that went to rest in the basement. You found its deteriorated and dusty skin over bones. You moved her out. You don't remember where she found her final resting ground.*
*L.: You remember being in peace with the body of the building. You were taking care. Or maybe the building took care of you. For a moment.*[17]

13 For the edited recording, go to https://www.facebook.com/lmalmda/videos/697884068338632 (from 2h25'00").
14 This question recognises unseen bodies within the creative process of HALL07.
15 The "echoes from the past" resonate through the reading-out-loud of the writings, and enforce a diversification and layering of HALL07's livelihood.
16 A relationship of growing empathy is at the core of the process of working on site, revisiting the site, site-writing and a site-specific diffraction that is unleashed through this reading-writing exercise.
17 Recognising that the old building took care of us, even in a state of decay (the building was in a terrible state at the moment we worked in it in 2019) softens our relation to the architecture and directly influenced HALL07's aesthetic experience.

#morphogenesis
#assemblage
#territorial thinking
#affordances
#spatial agency
#speculative practice

# Towards Spatial Immanence: Morphogenetic Capacities of Territorial Assemblages met by Speculative Design

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We live in an age of ever-increasing inequality, driven by constantly accelerating urban development, which contributes to issues ranging from climate change and loss of habitat to social structures based on inequality and disenfranchisement.[1] As designers and architects, we are active participants in this development process and thus have the responsibility to question our role and explore the possibilities of subverting the status quo. Even though, in terms of aesthetics, design seems to be mutating continuously in search of novelty, in reality, the built environment tends towards increasing homogeneity in how space is used, leaving variation to be purely formal. Moreover, demands of the market economy press architectural projects to follow the same structure—perfunctory preliminary analysis, conceptual design, design development, construction documentation, and building—leaving little room for questions beyond the client brief or revisiting the project after its completion. This approach invariably gravitates towards destroying or devaluing the existing, heedlessly taking over any site, and exploiting it for human needs, categorically prioritizing them over the non-human.

This paper aims to argue for a more sensitive way of designing by entering into relation with a territory[2] on equal terms, in order to work towards the actualization of virtual spaces already contained within it, and to enable using these spaces in ways that are immanent[3] to the territorial assemblage. The term "virtual" is used in the Deleuzean[4] sense, meaning that, in contrast to the "possible", it refers to something that is already real (only not actualized), as opposed to something that might only become real. The virtual is already contained within a territory or assemblage, and its process of actualization is the way by which it expresses itself in the course of its becoming,[5] thus it is and has always been immanent to the territory. Working towards uncovering "virtual" aspects of a territory is only possible when engaging with it on an equal ontological level. Normally the relation between the designer and territory is hierarchical and there is a clear dichotomy between the designer as an actor and the site for that action. To break this dichotomy, we must strive to make ourselves part of the assemblage through relational practice, accepting our subjectivity and the fact that not only do we impact the assemblage when engaging with it through design, but we are also in turn affected by it.[6] The knowledge we bring to a design task is always situational and embodied through our previous experiences,[7] and this realization leads us to give up pretensions of objectivity and the resulting assumption of a right to impose our will on a territory without regard for what already exists within and its potential. Instead, we strive to create (or rather, reveal through design) that which is immanent to the assemblage and thus subvert the status quo of the hierarchical development processes.

This design method based on relational practice has arisen from studying liminal urban territories where material and non-material flows enter into productive relations with their physical environment. Unlike spaces subject to conventional urban development forces, where human activity so clearly takes precedence over the non-human, the agency and morphogenetic capacities[8] of these liminal territories are more evident and lend themselves better to material-discursive[9] engagement.

Two case study territories lie at the heart of this research. They were chosen because, as examples, they serve to demonstrate how even territories diametrically different in almost every respect, from location and climate to intensity of activity on site, can manifest morphogenetic capacities. It is significant because morphogenesis is a process by which a territory expresses itself, by which the virtual actualizes as the productive outcome of all pertinent relations playing out in real time. Morphogenesis in the context of critical theory as theorized by Manuel DeLanda,[10] refers primarily

1 Tahl Kaminer, Miguel Robles-Durán, Heidi Sohn "Introduction: Urban Asymmetries," in *Urban Asymmetries. Studies and Projects on Neoliberal Urbanization*, eds. Tahl Kaminer, Miguel Robles-Durán, Heidi Sohn (Rotterdam: 010 Publishers, 2011), 12.

2 Throughout this paper the term "territory" is used interchangeably with "assemblage" meaning a site and all its relevant material flows, all agents acting in and on it, and their inter-relations and resulting capacities, which are irreducible to any one component.

3 Todd May, *Gilles Deleuze: An Introduction* (New York: Cambridge University Press, 2005), 33-40.

4 Ibid, 52.

5 Ibid.

6 Gilles Deleuze, Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, translation and foreword by Brian Massumi (Minnesota: Minnesota University Press, 1987).

7 Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," in *Feminist Studies* 14, no. 3, (1988), 575-599.

8 "Manuel DeLanda. Deleuze, Morphogenesis, and Population Thinking. 2011," Youtube, accessed November 2, 2022, https://www.youtube.com/watch?v=5HSMTUZ64bY&t=1007s.

9 Karen Barad, "Posthuman Performativity: Toward an Understanding of How Matter Comes to Matter," in *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003), 801-831.

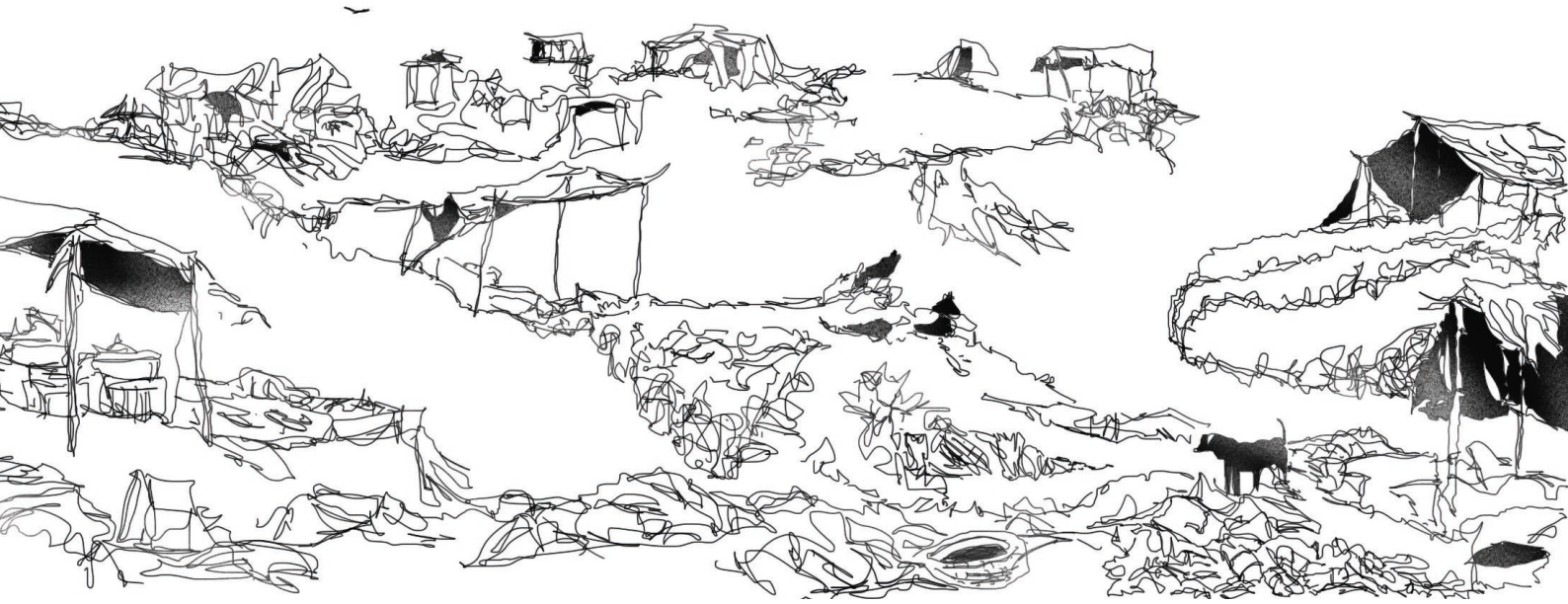

Fig.1 Morphogenesis in the landfill, spatial formations constantly emerge from the intersection of the numerous flows that meet there. Image: Ramon Cordova, 2022.

to the generation of physical form by an assemblage that has reached a critical threshold that forces it to change qualitatively, not just quantitatively. In this paper, the term is expanded to include not only the questions of what form spatial manifestations take but also, perhaps more importantly, questions of how and why, and what ways of being this process enables. However, a brief introduction to each case study territory is necessary before morphogenesis and immanent design practices can be discussed in more detail.

The first territory is a landfill close to Tapachula city on Mexico's southern border. It is a liminal territory in several senses: first, it is physically located in the border region between two countries; second, almost all people working in the landfill daily, making their living off it and residing in communities on the outskirts of it are migrants. Lastly, a landfill in and of itself is something that most people prefer being out of sight and out of mind, therefore many of the usual norms and conventions do not seem to apply. The landfill is teeming with life, seeming almost to be a living creature in how it grows and morphs over time—mounds of garbage shifting into paths and again into piles of sorted and discarded matter. All inhabitants of the landfill, from humans to vultures and from stray dogs to microorganisms, seem to work in concert participating in this process of constant change and spatial development through material flows. The various built structures and ways of using space purposefully that manifest continually in the territory are of particular interest. The intention behind drawing attention to these spatial manifestations that would hardly qualify as architecture is not to glorify them aesthetically or imply that this is design in its purest form, and we should strive to replicate them. Instead, viewed through the lens of morphogenesis, the important questions are: how did these structures come to be? What were the conditions that provoked their emergence? And, what can they do? Ultimately, what ways of inhabiting space do these manifestations afford? The emergence of these structures can be traced to the intersection of multiple flows—garbage, people,

10 "Manuel DeLanda. Deleuze, Morphogenesis, and Population Thinking. 2011," Youtube, accessed November 2, 2022, https://www.youtube.com/watch?v=5HSMTUZ64bY&t=1007s.



Fig.2 The shoreline of the lake is where morphogenesis is more palpable, a place of encounter and intense negotiation between the human and the non-human. Image: Signe Pērkone, 2021.

machines, microorganisms, climate—and not to a programmatically predetermined idea. They are conceived and executed in the moment, based on what affordances[11] they ought to offer rather than what classifiable functions they should enable. More importantly, they are not imposed but immanent to the territory, emerging spontaneously from the inter-relation of flows, while responding in real-time to the needs of actors and what is happening on site. As the activity shifts, so do the spatial manifestations. Due to the smooth and subtle way in which they intertwine with the existing rhythms[12, 13] of the place, these spatial formations seem to promote more horizontal ways of being, eschewing distinctions and separations between social groups, subverting and transcending gender roles, religious beliefs, and age groups, as well as enabling unconventional relations between the human and the non-human. (Fig.1)

Though morphogenesis might appear to be stronger and more evident in a territory of such apparent intensity as the landfill, spatial immanence is equally possible in a territory characterized by dereliction, abandonment, and decay, as evidenced by the second case study territory, which is an abandoned post-military site on the shore of Ķīšezers lake in Riga, Latvia. The territory, loosely defined as an undeveloped peninsula of land between a military complex, some warehouses, and a Soviet-era residential cluster, is dominated by the presence of water and the past attempts to keep it at bay. The site bears traces of military-industrial use and failed real estate development, traces that are in the process of being assimilated back into nature, and vegetation intertwining with non-organic remnants of the past. The peninsula is comprised of a collection of distinctive spaces, each with its own historical makeup and resulting relational capacities but it is the spaces along the shoreline that present the most evident morphogenesis. Here material flows meet most intensely—water and land, soil and climate, vegetation and rubble. Furthermore, human activity crisscrosses that soft boundary in all seasons adding to its morphogenetic capacities. Construction debris dumped on the shore becomes not only a means to stabilize against the encroaching water but also offers possibilities of rest and traversing the steeper parts of the shore, as well as creates pockets of space for small animals to make their nests. As reeds and moss

11 James J. Gibson, *The Ecological Approach to Visual Perception* (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1979), 127–143.

12 Arjen Kleinherenbrink, "Territory and Ritornello: Deleuze and Guattari on Thinking Living Beings," in *Deleuze Studies* 9, no. 2 (2015), 208–230.

13 As Kleinherenbrink notes, "'Rhythm" refers to discontinuous series of events and fragmented parts of time characterized by disturbances and changes, rather than to such predictable harmony [...] It is something constituted by the capacities of a being in reciprocal determination with the affordances and events in its environment. Hence, rhythm 'runs through all of life' in connecting living things to both nonorganic and organic entities in a series of contingent encounters".

14 Nishat Awan, Tatjana Schneider, and Jeremy Till, *Spatial Agency: Other Ways Of Doing Architecture* (Abingdon, England: Routledge, 2011), 31.
15 Ibid., 32.

overgrow this rubble, the natural and the man-made intertwine on the shore, over time creating a rich landscape of affordances. The territory is not dominated by one principal use but serves as a site for heterogeneous activities by unrelated user groups, often conducted sporadically or surreptitiously. (Fig.2)

Both in the landfill and on the lakeshore, spatial manifestations emerge from within the inner logic of the assemblage. When we encounter a territory, we have the chance not only to observe but also to engage with it creatively, adding to its morphogenesis in productive ways. Before acting, however, we must first consider if what we will add to the assemblage will contribute to it actualizing what is immanent to it, will it enable new ways of being, and how to make our actions productive instead of being destructive towards existing rhythms and flows. The agency belonging to us as researchers and designers entails the capacity to act, and also the wisdom not to. While choosing not to act can seem counterintuitive to architects, the addition of a building is not necessarily the best way of making a spatial difference.[14] As written by Nishat Awan, Tatjana Schneider and Jeremy Till, "[…] in relation to spatial agency […] the agent is one who effects change through the *empowerment* of others, allowing them to engage in their spatial environments in ways previously unknown or unavailable to them, opening up new freedoms and potentials as a result of reconfigured […] space."[15] When studying the landfill, we were cautioned by the fact that past interventions affected in the territory by outside agents either stifled the existing ways of being or failed to make meaningful connections with the assemblage. We concluded that at the given time, with the tools and the time available, actualization of virtualities in the form of physical design interventions would not reveal the transformative capacities that allow immanent becoming of the territory. Instead, this territory represents just such a case when a mutual relation between a territory and an agent has more impact on the agent and their virtual capacities in the form of knowledge and impact on future designs. On the other hand, contrary to the situation in the landfill, in the lakeshore territory we found that, given the relatively low intensity of rhythms and flows in relation to the space, spatial intervention could in fact encourage new modes of being. By tentatively intervening here and there, we need to observe over time how our interventions are absorbed into the assemblage or rejected outright. The goal is to spark spatial transformation that is immanent to the territory by gently intertwining design with the existing.

One way of ensuring that the design is not guided by preconceptions of final forms (which would be a colonizing way of developing a territory, meaning it takes over and destroys the existing, replacing it with something alien) is working through affordances—possibilities of action offered by the environment to an actor. Crucially, affordances are not aspects of the environment but depend on an actor having the specific skills to pick up the affordance, the capacity to actualize it.[16] This underpins the importance of the relational entanglement of actor and space, as spatial manifestations do not exist as fixed and final objects but are extended in time and thus in relation to material flows, being used in one sense or another continuously. The creative work is a two-fold process: first, as designers we pick up affordances for design (modification of the environment) in order to then create new affordances for further interaction with the environment by the end user. These affordances are designed to be open-ended, leaving room for interpretation and speculation, allowing human and non-human actors to take charge of them and even modify them over time. Furthermore, a truly sensitive practice is a material-discursive process incorporating observation, reflection, and modification in a continuous loop.



Fig.3 Structures are introduced as parameters in order to “palpate” the immanent capacities of the territory. Image: Signe Pērkone, 2021–2022.

Using the relational practice design method, a speculative spatial intervention was developed as a tool to probe the Ķīšezers territory. It consists of a modular structure comprising a robust timber frame with a roof and a horizontal surface that can be manually re-positioned at three different heights to broaden the scope of the structure's use, especially when several modules are combined. The structure is designed to be introduced into the territory as a disruptor that triggers new relations and offers indeterminate yet discernible ways of engaging with the environment. While to the human actor, it offers such affordances as sitting, leaning, placing objects, sheltering, and others, which are then imbued with social meanings such as "bench", "picnic table", "market stall", etc., to an animal actor the structure offers completely different affordances responding to their specific way of being in the world. At the same time, to non-living beings it represents matter and surface. The intervention is a parameter and its significance at this stage lies not in its form as a final object but in what happens to it in the territory, how it is engaged with and what virtualities it actualizes. Referring to an intervention as a parameter points to the fact that it is meant to be manipulated and later on updated according to the discoveries made throughout its relation to the physical aspects of the territory. A series of such interventions together works as tactical acupuncture of the site, which is a way to "palpate" the territory lightly[17] in order to reveal its virtual capacities and activate different areas. The palpation process differs from aimless and random experimentation by being an active and reciprocal engagement with the specificity of the places where disruptors are introduced. (Fig.3-4)

There were three ensembles of modules placed in the territory. Over time, only one remained intact; one was pushed over and dismantled, and another was completely broken. This raises the question of why these particular developments happened in these particular sites in the territory. Why did one structure remain untouched while another was broken? It can be said that, evidently, it appeared alien enough to the territory that it presented itself for destruction. Of course, it does not matter that it was destroyed because it lost only its human-assigned meaning. Even in its dismantled state, the spatial intervention constitutes a material flow, which is just as valid a part of the environment as anything else, only it is no longer recognizable as a "bench" or "table". In fact, breaking is simply one of the affordances arising from the relation between the structure and an actor in the territory. However, as Gibson asserted, "being opportunities for action, [affordances] do not cause behavior, but simply make it possible."[18] While an intervention can succumb to simple material flows of a territory, such as loads or weather conditions, in this case, it is safe to say that the response to the intervention was perpetuated by a more complex flow involving living agents. Therefore, we can enter into a mediated conversation with the assemblage and learn that there are actors in it that feel the need to assert their power over alien elements in the territory. The various aspects of the assemblage are becoming not value-judged as good or bad outcomes but used as information points in the material-discursive discovery process and analyzed to provide the basis for the modification in future interventions. Currently, the information gathering from the first set of interventions is in process, wherein follows the next level of intervention, either continuing palpation in different sites of the territory, or modifying, complementing, or replacing the existing interventions with more site-specific designs, based on what ways of being their predecessors enabled. One approach to avoid destruction can be to make the intervention more ambiguous

16 Erik Rietveld and Julian Kiverstein, "A Rich Landscape of Affordances," *Ecological Psychology* 26, (2014), 325–352, https://doi.org/10.1080/10407413.2014.958035.

17 Todd May, *Gilles Deleuze: An Introduction* (New York: Cambridge University Press, 2005), 20.

18 Rob Withagen, et al., "Affordances Can Invite Behavior: Reconsidering the Relationship between Affordances and Agency," *New Ideas in Psychology*, Vol.30, Issue 2, (2012), 250–258.



Fig.4 Structures are introduced as parameters in order to "palpate" the immanent capacities of the territory.
Image: Ramon Cordova 2021-2022.

and harder to classify and assign socially loaded meanings. However, this direction has its limits because making affordances too cryptic can inhibit their actualization.

The goal of this intervention process is to reach critical thresholds of qualitative change[19] that force the assemblage to reveal something new about itself and to offer new ways of being. Even as we act with transformative intent, our intentions, methods, and tools for effecting them are constantly shaped and reshaped by the context, our active relation with the territory, and our ever-increasing mutual knowledge.[20] Undeniably, working in this way requires embracing uncertainty and drawing near the unfamiliar. However, by doing so we allow the assemblage to express itself, and we refrain from determining what it should be based on pre-established values that inhibit its agency; instead, we set out on the path of discovering what it might be capable of. In order to sensitively engage with a territory through design, we must modulate our actions to act accordingly to the scale and intensity of the morphogenetic capacities displayed by the assemblage, in addition to the dynamics of their development over time. Moreover, if we want to avoid colonizing the territory with our preconceptions and destroying delicate rhythms and flows without understanding them, the intervention process needs to be tentative as an outstretched hand bridging the gap between the existing and the new, allowing new connections to form and sparking further spatial transformations immanent to the territory.

19 "Manuel DeLanda. Intensive and Topological Thinking. 2011," Youtube, accessed November 1, 2022, https://www.youtube.com/watch?v=0wW2l-nBIDg&t=192s.

20 Nishat Awan, Tatjana Schneider, and Jeremy Till, *Spatial Agency: Other Ways Of Doing Architecture* (Abingdon, England: Routledge, 2011), 32.

#public planning
#dumb copyness
#emancipatory futures
#red vienna re-reading
#dumb emancipatory housing

# Dumb Copyness* An Emancipatory Way to Work with Repetition and Sameness in Architecture

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Architecture has to do with repetition. Housing especially manifests the inherent repetition of architecture: a lot of buildings with a lot of flats, a lot of flats with a lot of rooms, a lot of stairs, walls, doors and windows. There are two dominant ways of how to deal with this inherent repetition of architecture: seriality and differentiation.[1] Both basically try to evade the problem by making it a well-behaved necessity. The conception that Büro Bietenhader Moroder has been working on is to embrace repetition as a positive emancipatory quality by willfully maximizing the dumb formal sameness of repeated instances, termed *dumb copyness*.

First, we will briefly summarize the other two approaches, mainly concerning how they deal with repetition and sameness, before we contrast these with our conception of *dumb copyness*.

a) *Seriality* is on its face clearly accepting of repetition. The development of the serial approach towards sameness was one big triumph of modernism. Mere serial production is not the deciding factor, but instead a design that responds to the fact of mass seriality. The case of pseudo handcraft metal castings obfuscating the seriality of production is well known from the beginning of modernist polemics.[2]

The proper serial approach instead consists of a special response to the identical: Although the serially produced objects are exactly identical to a functionally designed original and therefore also identical to all the objects coming from the same production line, their intended quality is not that of sameness, but rather of material perfection, functional necessity, and so on. There is a direct and singular link between the one object, its function, and its production. The fact that these products are identical to each other is a secondary effect, they are first and foremost identical as a consequence of quality control and tight tolerances in the production. Their functional expression gives them a serene vibe—everyday objects, reduced to the bare material necessity.[3]

In the case of architecture, a lot of work following the Bauhaus has been made to introduce this quality of reference to a functionally determined process into a housing block, a flat, a room, a kitchen, a window, a balcony.[4] The true dominance of seriality came in the post WWII period; the aloof slab became so ubiquitous that it was almost synonymous with housing itself.

For sure the serial architecture of the modernist slabs offered emancipatory possibilities in specific times and contexts, but critics have rightly pointed out among other things the problematic negation of the historic city, the predominant monofunctionality and monotony of the slabs as well as the functional determinism of the small flats and its resulting reduction of sociality to the small family unit.[5]

The eleven-story high monofunctional housing slabs in Hoyerswerda in the former GDR are part of the *Wohnkomplex VIII* with about 3,200 flats that was realized from 1966 to 1972 and are executed as a variation of the residential panel building type P2 by the *VEB* Wohnungsbaukombinat Cottbus, Sitz Hoyerswerda (Fig.1). The pictured facades of the two slabs set at a right angle to each other are those of the loggias that are in front of the living rooms of the flats connected by a door and a window, providing one loggia for each flat. Their prefabricated concrete panels have equal thickness on the sides as well as for the floors, which creates a grid-like facade, even though it doesn't extend to the top of the block volumes. The grid is furthermore interrupted five times by a vertical band without loggias, giving the slab the symmetrical rhythm: AA–B–AAAA–B–AAAA–B–AAAA–B–AAAA–B–AA. These vertical bands are narrower than the width of the loggias and feature a window on each floor. Behind the rooms with the windows, the bands contain an elevator each in the depth of the block.[6]

* This text is part of an ongoing broader architectural research that comprises a series of theoretical reflections, historical analyses as well as design projects by Büro Bietenhader Moroder that aim to formulate a specifically own architecture for publicly owned and built housing. This research develops a critical re-reading and a re-claiming of a totally overlooked formal quality of public architecture found in French and Russian revolutionary architecture as well as that of Red Vienna from 1919 to 1934, namely maximalist intentional sameness that we termed as *dumb copyness*.

1 A third way is that of composition. However, composition plays a very small role in contemporary housing, more or less since the end of WWI, it was left aside together with a lot of hierarchical rules for architecture.

2 See: John Ruskin, *The Two Paths: Being Lectures on Art and Its Application to Decoration and Manufacture* (London: G. Allen, 1906), 203–219; Augustus Welby Northmore Pugin, *The True Principles of Pointed or Christian Architecture: Set Forth in Two Lectures Delivered at St. Marie's, Oscott* (Edinburgh: John Grant, 1895), 19–22.

3 See: Deutscher Werkbund, *Die Form: Zeitschrift für gestaltende Arbeit.* (Berlin: Reckendorf, 1922–35, 5. Jahr, Heft 11/12, 1930), 281–326. For instance, an image caption reads as follows: "Industrial series production. Flower-vases made by the Staatliche Porzellan-Manufaktur, Berlin. The end in view is absolute identity. Only when the individual object is put to its intended purpose does it come into relation to its surroundings and to man. It is given a function and thereby acquires an individual existence."; see: Unknown Author, 310. Translated by the authors.

4 See: Ludwig Hilberseimer, *Grosstadtbauten*



Fig.1 *Wohnkomplex VIII, 1977*, Stadt Hoyerswerda, 1977.

(Hannover: Aposs-Verlag, 1925); Hans Schmidt, Bruno Flierl, *Beiträge zur Architektur, 1924–1964* (Berlin: VEB Verlag für Bauwesen, 1965).

5 For an early critique of modernist architecture and its principles see: *Team 10 primer*, ed. Alison Smithson (Cambridge/MA: MIT Press, 1968); Eric Paul Mumford, *The CIAM Discourse on Urbanism, 1928–1960* (Cambridge/MA: MIT Press, 2000).

6 Dieter Schulze, *Wohnbauten in Fertigteilbauweise (Baujahre 1958 – 1990) – Übersicht*. 2. Aufl., ed. Institut für Erhaltung und Modernisierung von Bauwerken e. V. (IEMB), (Stuttgart: IRB-Verlag, 1996), 37–42. Altogether a slab has ten staircases. Two flats are always connected to an interior staircase in between them. The elevators stop on the floors 3, 6 and 9, where they connect through a hallway with the staircases left and right on the entrance-side of the slab.

7 One- two- three- and four- room-flats result through the addition

The entire slab features functionally determined standard flats of one, two, three, or four rooms. These various flats are distributed in the floorplan according to different spatial necessities and are then vertically repeated.[7] The entrances to the slab in the foreground are placed at the rear facade.

Overall, the facade is clearly structured on serial repetition and sameness, it shows all standard living rooms and loggias in their functionally perfected sameness. It doesn't, however, give an indication to the differing flat sizes and towards which flats the rooms without the loggias belong to.

In front of the slab a narrow strip of grass runs in between it and a parallel running street with a parking area along the way. Behind the parking area, a lawn is crossed by some pedestrian paths. As shown in the photograph the slabs are identically repeated, despite their change in orientation and connected by this quite undefined interweaving of streets, pedestrian paths, and lawns.

b) *Differentiation*[8] on the other hand is trying to mediate repetition. The development of the differentiation approach towards sameness is one big triumph of smart optimization, flexibilization, and customized individualization of the past forty years.

An original object is *not* singularly, functionally designed and then serially and identically reproduced, but instead all instances are designed in a direct and intentional relation to all the other instances of the same family. Thereby, individuality for each is achieved through slight differentiation from all the others of the same family, which is supported by digital tools of design and fabrication that allow for a maximum of shared solutions within these differentiated instances. This is made possible by an understanding of form as fundamentally adaptable and dependent on chosen variables. Each instance therefore turns out unique, for the price of accepting functional compromises and a reduction of standards. There is no original anymore, because all instances are equally originary.[9]

In contrast to seriality, that was first established outside the field of architecture, differentiation was from the beginning on developed in close



Fig.2 "CityLife Milano Residential Complex by Zaha Hadid. Architects", Simón Garcia, 2016.

of the rooms of the narrow bands, as well as through handing over rooms on the entrance-side and through the loss of rooms to the elevator-hallways.

8 As Mario Carpo points out Greg Lynn introduced the term digital "differentiality" in order to characterize "new forms of serial variations in the digital age" (Mario Carpo, *The Alphabet and the Algorithm* (Cambridge/MA: MIT Press, 2011), 8). See: Carpo, *Alphabet*, 130, as well as: Greg Lynn, *Folds, Bodies & Blobs. Collected Essays* (Brussels: La Lettre volée, 1998) and Greg Lynn, *Animate Form* (New York: Princeton Architectural Press, 1999).

9 For a detailed history of the approach of digital differentiation that Mario Carpo termed as "the digital turn in architecture" as well as its relationships to technology and society see: Mario Carpo, "Ten Years of Folding", in *Folding in Architecture*, ed. Greg Lynn (Chichester: Wiley-Academy, 2004), 14-19; Carpo, *Alphabet* and *The Digital Turn*

relation to the discipline.[10] However, it still took some time to translate the non-pragmatic, curvilinear digital design experiments on differentiation of the 1990s into workable masterplans, housing blocks, flats, rooms, kitchens, and windows. The true dominance of the differentiation approach in housing slowly came at the turn of the century; since then buildings have to convulsively manifest difference on every level.[11]

The architecture of differentiation is contingent with a time in which almost all European cities stopped to build (and sold their) social housing, thereby outsourcing the maintenance of the housing stock to the forces of the free market. The emancipatory ideal of differentiation is that of unique individualism. Not only does this ideal reject collective values, it also lends itself to the abandonment of standards. Individualization, optimization, and smartness hereby more often allow for a minimizing of the allotted space instead of opening up possibilities.[12]

The *CityLife Apartments* housing complex in Milan by Zaha Hadid Architects with 230 luxury flats were realized from 2009 to 2014 by developers CityLife S.p.A., a company controlled by Generali Group (Fig.2).[13] The overall complex dynamically follows the outline of the site, like a perimeter block with interior courtyard; however, seven angled cuts produce seven angular buildings where three have a near 30-degree bend and all end on an angle. Simultaneously the complex features a sinuous roof silhouette that continues beyond the cuts resulting in varying building heights from 5 to 13 floors. Each of the seven buildings has a particular volume resulting from the two operations, differentiating themselves slightly from all the other volumes of the same family. The flats themselves are all different from each other in size and layout, spanning from two-bedroom to five-bedroom flats and double-height penthouses; however, the floorplans are at the same time very formulaic, sharing the same pragmatic designs of cores, inner organization, bathrooms, etc. with each other. It is in the balconies where the similar floorplans get obfuscated, for they are of various sizes and meander in and out from the building's volumes to various depths,

differing on all floors. The deviation of the balconies is additionally enhanced by the materiality of the facades, in which the main material of fiber concrete panels is combined with wood panels and glass for windows and railings. The facade is made up by an inner volume that is almost entirely wrapped around by almost always parapet-height horizontal bands that distract from the otherwise quite obvious vertically repetitious stacking of the floors. This verticality is further undermined by a slant of about 20 degrees, that is generally applied to all window-wall-openings. Accompanying this slant other more acute angles are introduced in the material-borders of the parapet.[14]

An overall high tension exists between the dynamism of the differentiation of the volumes of the various buildings on one hand and the inconsistent dynamism of the differentiation of the highly articulated balconies on the other. The facades don't show the demarcations of the various flats, but rather utterly undynamic separation walls of the few loggias perpendicular to the balconies manifest the division of flats. Yet the facades give an insight to how arbitrarily the flats might be differentiated, namely by featuring a wider or narrower balcony, sometimes none, with a little more tilted glass railing and a bit of wood paneling.

The photograph also shows how the buildings are set back from the perimeter line and how the whole estate is meticulously fenced in, despite being internally crossed by a public pedestrian street that continues an urban axis of the city of Milan. As a consequence, the interior courtyard that results from the perimeter block-like development is private.

c) *Dumb copyness* embraces repetition as a positive emancipatory quality. In contrast to recent critical housing proposals that wish to evade the contemporary dogma of formal differentiation by reverting to the historical model of simple seriality of the post WWII period, *dumb copyness* proposes a novel conception that terminologically grasps a totally overlooked formal quality of architecture:[15] maximalist intentional sameness. Thereby the conception of *dumb copyness* reaches back in history and opens up the possibility of critically re-reading and re-claiming the intentionally articulated formal sameness of public housing of French and Russian revolutionary architecture and that of Red Vienna from 1919 to 1934.[16]

The inherent architectural repetition is not disguised as unique or resting on functional necessity as in the two previously discussed approaches, but rather it is intentionally maximized. As in the case of differentiation, the instances are simultaneously designed in relation to each other with an underlying understanding of form as adjustable, yet this time not in order to create difference, but instead to establish the maximum formal sameness between them.[17] Here dumbness plays a crucial role, because the maximal sameness is achieved by shifting the adjustable forms out, where there are none of the legitimacies of *form merely by consequence*. When the forms become too elongated or too fat or too cumbersome to be legitimated through functional concerns or through dignified proportions of good taste, then they become both recognizable as formally articulated towards maximal sameness as well as dumb. Truly unfamiliar forms are also more dumb than curious, dramatic, or iconic ones. Dumbness is therefore an important distinction, because it manifests a non-heroic, non-monumental, non-spectacular as well as non-hierarchically-dignified and non-good-taste architecture. Since in the design process an estimably small number of instances, we suggest four, are placed next to each other the maximum

*in Architecture. 1992–2012*, ed. Mario Carpo (Chichester: Wiley & Sons, 2013).

10 The conception of a differentiated object was first termed *objectile* by Gilles Deleuze in his highly influential book for (digital) architecture *The Fold. Leibniz and the Baroque* from 1988 in direct reference to the research of architect and theorist Bernard Cache. In the French edition from 1988 as well as in the English translation from 1993 Deleuze cites Cache's book *L'ameublement du territoire* as forthcoming and adds the following comment: "Inspired by geography. architecture and the decorative arts, in my view this book seems essential for any theory of the fold"; see: Gilles Deleuze, *The Fold. Leibniz and the Baroque*, trans. Tom Conley (London: The Athlone Press, 1993), 144. It will be published only in 1995 in an English translation as: Bernard Cache, *Earth Moves. The Furnishing of Territories* (Cambridge MA: MIT Press, 1995).

11 Patrik Schumacher in the late 2000s conceptualized the differentiation approach under the term "parametricism" as a "new global style for architecture and urban design". See: Patrik Schumacher, "Parametricism – A New Global Style for Architecture and Urban Design", *AD Architectural Design – Digital Cities* 79, no. 4 (July/August 2009): 14–23; Patrik Schumacher, *The Autopoiesis of Architecture, Volume I: A New Framework for Architecture* (Chichester: Wiley & Sons, 2011). We use the term "differentiation" instead of "parametricism", since as a conception it is not so strictly bound to the use of digital technologies and a narrow formal register of mere curvilinearity, which allows to analyse

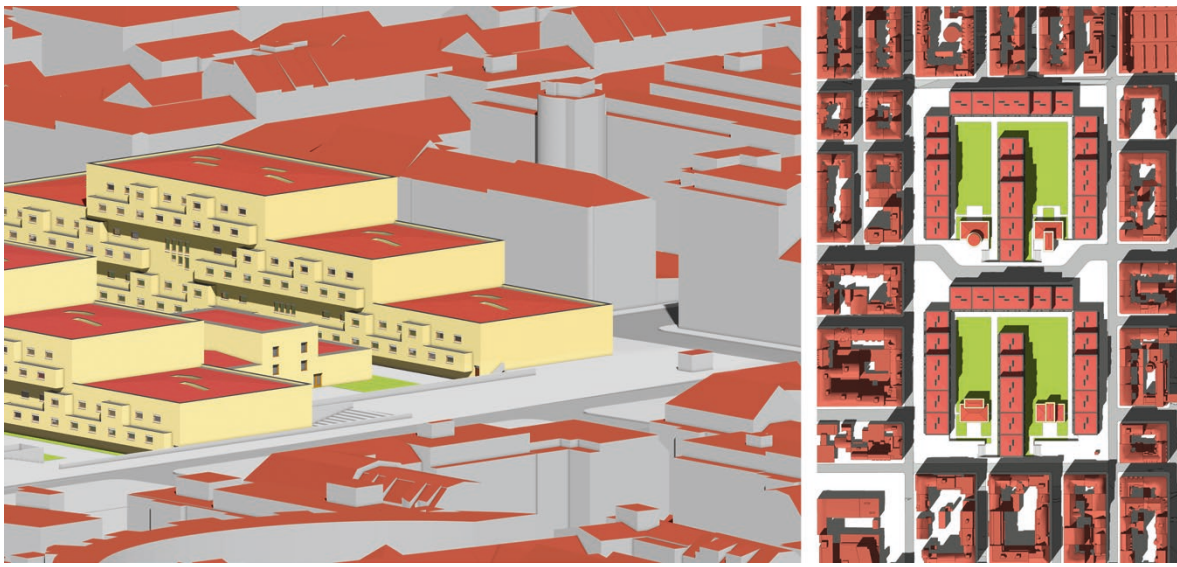

Fig.3 *Dumb copyness blocks with dumb copyness flats,* Büro Bietenhader Moroder, 2019.

mainstream housing architecture, that also reprises methods of deconstructivism and other forms of postmodernism.

12 For a critique of the digital architecture of differentiation as well as of parametricism see: *The Politics of Parametricism. Digital Technologies in Architecture*, eds. Matthew Poole, Manuel Shvartzberg (London: Bloomsbury Academic, 2015); Douglas Spencer, *The Architecture of Neoliberalism: How Contemporary Architecture Became an Instrument of Control and Compliance* (London: Bloomsbury Academic, 2016).

13 See the official website: "CityLife", Generali Real Estate, accessed January 3, 2023, https://www.generalirealestate.com/asset-portfolio/city-life/.

14 See: "Citylife Apartments /Zaha Hadid Architects," ArchDaily, accessed January 3, 2023, https://www.archdaily.com/785120/citylife-apartments-zaha-hadid-architects/.

15 For a critical architecture that embraces seriality for example see the projects of DOGMA: Pier Vittorio Aureli, Gabriele Mastrigli, Brett Steele, *DOGMA. 11 Projects* (London: Architectural

sameness and the dumbness of the forms is simultaneously established as maximum sameness and dumbness of them neighboring each other. Therefore, the resulting forms are blatantly embraced without any other principle.

The emancipatory potential of *dumb copyness* on urban settings, housing blocks, flats, rooms, kitchens consists in its post-functional openness and generosity that overcomes functional determinism as well as smart optimization and sub-standardization. The formal adjustments towards maximum intentional sameness and dumbness create an architecture beyond necessity and the intentionality and celebration of sameness propose an alternative to the idea of emancipatory architecture as a collection of customizable exceptions.

The *dumb copyness* housing settlement (*Hof*) that is shown here (Fig.3), is a project proposal for public housing in Vienna's tenth district, adhering to the long tradition of housing built and owned by the city under democratically elected city governments.[18] Eight of the same blocks are distributed in two sets of four. In each set three form a semi-court and one block occupies the center: [-. The two sets behind each other make up the urban setting: [- [-. The total setting contains ninety-six large collective flats. It borders on all sides directly unto the surrounding streets of the city fabric and contains within it various social infrastructures, partially inside the pavilions that mediate between the streets and the inner public courtyards behind them and partially in the depth of the blocks themselves. The settlement has a relation to the city that is similar to that of the Red Vienna housing schemes: Affirming the historic city as a collective space and as an urban structure much more than sun-oriented modernist slabs on green grass would, whilst at the same time rejecting some core tenets of liberal bourgeois urban development. The occupancy of the maximum envelope of the urban block, the founding principle of the liberal urban scheme of parcellated and privately developed land, is fully left aside. The housing blocks touch with dumb corners, leaving the corners themselves empty, which emphasizes their sameness. The overall heightline of the bourgeois perimeter block is both surpassed by the housing blocks in the highest parts and unfulfilled in the rest. The density of the urban fabric is respected trough generally following the perimeter; however, large inner

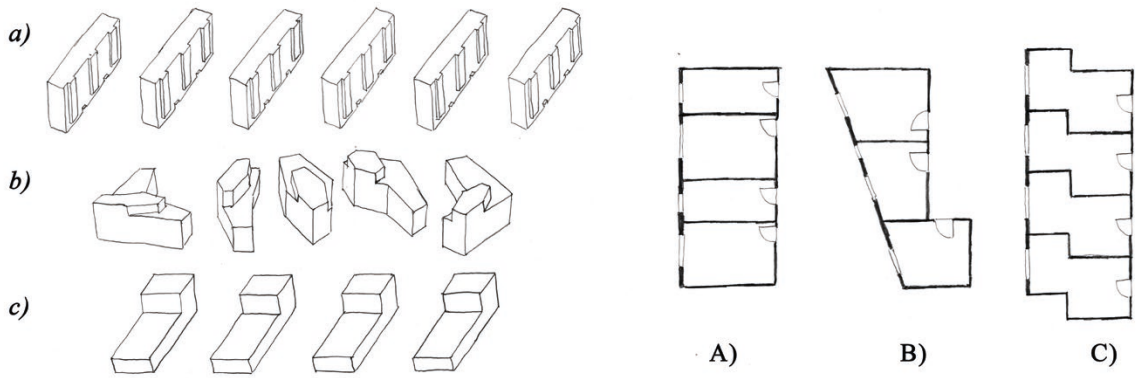


Fig.4 *Serial, differenciated and dumb copyness block volumes and rooms,* Büro Bietenhader Moroder, 2022.

Association Publications, 2013).

16 In our understanding copyness has occasionally been a topic in the history of architecture. But for itself intentional formal sameness is not per se emancipatory, since within these historical examples we find various other types of copyness: heroic, monumental, narrative, dramatic, etc. Therefore, we are focusing on a specific type of copyness, dumb copyness, that aims at a sameness of an inherently public and emancipatory kind.

17 The term adjustable form is defined by us: Buildings or parts of buildings, such as facade-protrusions, can be adjusted in their form, if their form is very clearly articulated with just a few elements. For example, a building can have the basic formal elements of a horizontal, lying part and a centrally placed towering part: ⊥. These parts can be adjusted to give the overall form different compositional emphases. The adjustment can either shift the dimensions in the direction of a clear hierarchy, in which, for example, the smaller horizontal parts are subjugated to the dominant central towering part, giving the form a dignified proportion. An emancipatory

court-yards tie the whole settlement together as one. This dominance of the settlement logic against too much contextualism is further emphasized through the shifting of the street that runs in between the two [- [-. Instead of the liberal dichotomy of public street and private plot, the urban condition within the settlement is fully public.

The *dumb copyness* blocks have a varying height stepping up symmetrically with 2-4-6-4-2 stories. Six identical flats are clearly readable on each longitudinal facade. Each flat contains twelve rooms, two large living rooms and two large kitchens, as well as further rooms in the depth of the volume. The sides of the block are blank and of such a width that it is clear that the flats only open to one side, therefore the entire *dumb copyness* block contains twelve maximally same *dumb copyness* flats. The flats are clearly demarcated in the facades with an unusual architectural element: horizontally expansive facade protrusions (Erker) that themselves have an intentionally same and dumb form _ı_ı_ that is clearly the same in all flats. A form furthermore, that binds the flats together as one, as it is not clear how they could be divided. The block itself however, is not just the result of the stacked flats as in the case of Jenga-container-architecture. The flats don't stack neatly and the block-volume is articulated as a continuous whole form with a continuous outer facade. As the block-form is in itself maximally the same as well as dumb, the maximum sameness and the dumbness of the block and that of the multiple flats within it create a tension that is unresolvable. Neither is the block the sum of its parts, nor are the parts subsumed in the totality of the block.

*Two Comparisons:* Following this study of three examples of specific projects we will further explicate the three different approaches on a typological level. In two direct comparisons, firstly on the level of housing volumes and secondly on the level of rooms, the difference in dealing with sameness will be laid out more schematically.

In the case of the architectural volumes on the left side in Fig.4, the form of the potentially endless serial housing blocks *a)* results from merely stacking serial flat units and adding circulation to it. The various forms of the differentiated housing blocks *b)* on the other hand derive from an also endless, iterative chain of intricate formal variations that articulates them in relation to each other. In contrast to both, the volume of *dumb copyness* housing blocks *c)* is achieved through simultaneously maximizing their dumb formal sameness in relation to each other: The vertical volumetric mass is articulated, but too low to formally counterbalance the too flat horizontal one, resulting in an un-harmonious maximum sameness and dumbness that is still easily buildable as a form of housing. The simultaneous design process with instances placed

adjustment goes in the opposite direction, where the parts are shifted to be in formal tension with each other. This tension makes the forms dumber and increases their sameness if they are multiples. The concept of adjustable forms is in stark contrast to the understanding of the differentiation approach that conceives of forms as complex assemblages that are fundamentally adaptable in all directions. The forms resulting from the differentiation approach have an almost infinite possibility of variation. Because of this complexity, they are not adjustable forms, too many things could be shifted, the effect of the changes towards the overall composition would be indeterminable.

18 See: Eve Blau, *The Architecture of Red Vienna, 1919-1934* (Cambridge/MA: MIT Press, 1999); Erich Bramhas, *Der Wiener Gemeindebau: Vom Karl-Marx-Hof zum Hundertwasserhaus* (Basel: Birkhäuser, 1987).

next to each other does not work with an endless number of them, but instead with a discrete number of instances, we propose four.

In the case of the rooms on the right side in Fig.4, the serial approach a) almost eliminates the form of the room itself, it is a mere consequence of a list of priorities: function, construction, use of standard elements, subdivision of space, etc. The differentiation approach b) is often quite overburdened by a lot of arbitrariness introduced by external factors: consequences stemming from the shape of the blocks and considerations of the facade with the aleatory window placement often overdetermine the rooms before the floorplans are even made. In many cases the variety of flat types further complicates the issue. The *dumb copyness* rooms c) have large dumb niches that intentionally increase their sameness and are overall not functionally deterministic, but feature a post-functional openness for multiple occupancy. They furthermore have a form that is more specific than a mere perpendicular subdivision of a larger space and with the sideways shift create rooms, that are more difficult to alter later, giving them a resistance towards changes, like downsizing the flats or other optimizations.

*Conclusion:* Finally, it can be concluded that *seriality* and *differentiation* were worked out theoretically and experimentally and found their purpose a couple of decades into their development. For seriality the dominance came with the post-war truce of technocratic governance, for differentiation with the end-of-history liberalism. *Dumb copyness* is a theoretical conception for a time in which public ownership of housing is understood as a political imperative. Same as the public housing of the interwar period, that answered to the crass speculation on urban land in the preceding decades, some form of public housing will emerge as a response to our current urban cost of living crisis. When the time comes, this anticipated public housing, however its politics is negotiated, will need its own architecture; an architecture that is recognizably public and so clearly emancipatory and blatantly common that it is dumb.

#affect
#feeling
#makingprocess
#material
#textiles

# The Second Skin: Sensory and Experiential Knowledge in Performing Arts and Fashion Design Practices

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Mara Trübenbach is an architectural designer and PhD fellow at the Oslo School of Architecture and Design, strongly interested in the intersection of design methods, materials and the performing arts in architecture. In 2019 she was selected to join the Marie Slodowska-Curie Actions funded international PhD training network TACK / Communities of Tacit Knowledge: Architecture and its Ways of Knowing. Mara graduated from the Bauhaus-University Weimar with an MSc in Architecture in 2018, having studied previously at the Peter Behrens School of Arts in Dusseldorf and at the University of Technology in Vienna.

This paper looks at disciplines outside of architecture to examine other ways of engaging with material and exploring what material can reveal about its interactions with human bodies. Coming from an architectural practice, my frustration with the tendency in architecture for less attention to be paid to feelings in relation to materials early in the design process led me to this study. Cultural geographers Gillian Rose and Begüm Başdaş, and sociologist Monica Degen argue that theorists, especially those who align with the Actor-Network-Theory (ANT), engage with feelings in a very limited way in that they understand feelings as emotions and that these emotions "are acknowledged rather than explored."[1] Further the authors criticize that there is less attention towards the relationship between "human subjectivity" and materiality.[2] Taking this as a starting point, my research focuses on how methods of knowledge generation that are not so easily grasped, because they are rather instinctive and informed by the senses, are recorded and communicated. Accordingly, with this text I do not seek to convey the negative associations and gendered implications associated with the term *emotional*; rather, I argue that being emotional is a form of being active and is necessary to recognize that action (related to material) is a form of re-action.[3]

In autumn 2022, I took the opportunity to meet four creative practitioners in person and talk to them about material. The creative workers come from three artistic disciplines: visual art, performing arts, and fashion design.[4] The reason for distinguishing between these three examples is that I wanted to learn how they engage with, speak about/with, and understand materials in different ways to recognize the agency of materials. In this text, I focus on my observations reflecting on the artistic collective Go Plastic Company based in Dresden/Leipzig that includes eight people from different creative professional backgrounds who experiment with contemporary dance, cineastics, and fashion design. My findings highlight their main shared characteristic in relation to emotions generated by textiles. I argue that textiles are the most intimate materials because they cover our largest organ—the skin—and thus form a second skin. Here, I take a look at the emotions that textiles trigger in relation to our bodies. According to cultural theorist and author Peter Stallybrass, "[t]he magic of cloth, [he] came to believe, is that it receives us: receives our smells, our sweat, our shape even."[5] Because of our bodily effects on textiles, the care of textiles seems to be crucial. Through this foray into creative professions other than architecture, I intend to gain new insights into how material can be understood and communicated. To this end, I am sharing excerpts of what I observed in conversations with these creative people in the fields of visual and performing arts.

# Setting the Scene

*The first run-through rehearsal begins. The audience stands outside the theatre. Usually, you go into the foyer of the theater building and wait for the show to begin, but this time it is different. A woman enters the outdoor space and gives an introduction as to what this evening is about: anger. She goes on to explain that one does not go to a performance to understand, but to feel. Ironically, I want to understand how to feel.*

*Members of the audience follow the instructions; each of them now makes a fist for a couple of seconds: first in the air, then against their own body and finally against a surface around them. As I too follow, I choose the floor beneath me and I notice the*

1 Gillian Rose, Monica Degen, and Begüm Başdaş, "More on 'Big Things': Building Events and Feelings," *Transactions of the Institute of British Geographers* 35, no. 3 (2010): 334–49, 337.
2 Rose, Degen, Basdas, 337.
3 Sara Ahmed, *The Cultural Politics of Emotion*, (Edinburgh: Edinburgh University Press, 2014), 4.
4 The artists are: Judith Raum, visual artist and researcher, Berlin; Alexandra Börner, fashion artist and lecturer, Berlin/Leipzig; Cindy Hammer, dancer and choreographer, Dresden/Leipzig; Jozef Wouters, scenographer and theater maker, Brussels. The recorded conversations were semi-structured, based on their work experienced by myself and afterwards transcribed.
5 Peter Stallybrass, "Won Worlds Clothes, Mourning, and the Life of Things," *The Yale Review* 81, no. 2 (1993): 35–50, 36.

*effect the surface has on my body. Unlike the fist in the air or against my body, there is something that reacts to the pressure I exert. This even enhances my resistance. The surface, which is asphalt, feels cold and stings the lower palm of my hand. What is left when I let go of the fist is gravel and dirt on my skin, which I gently wipe off. But there is something else: anger coming from the hands across the arms near my chest that was not there before. I experience first-hand how my body movements/ gestures in exchange with material, trigger my emotion. It's a gentle anger, an anger that reminds me of how it feels to be angry.*

*As we enter the building, we see four performers moving, breathing, and being restless, and we are told that we always have two images in front of us in our minds: one that we see, and one that evokes associations and memories, if not ours, then someone else's; we can be sensitive towards the latter by empathizing.*[6]

# Trust Building

I sit in Alexandra Börner's studio in Leipzig and am surrounded by sewing machines, mannequins, and textiles. She is a fashion designer and artist who is preparing for the performance *Mind the Rage*, described in the field notes above. Fashion designers are taught to create mood boards around a certain topic: Börner tells me that her current mood board focuses on the "lion" theme.[7] With the lion in mind, she starts to collect everything that somehow has to do with the concept of a lion and then creates chains of associations. Börner continues, and while she lists her associations—ranging from orange-red as a color to the cigarette pack that fell out of her father's pocket during a fight—she chooses not only objects but also situations that are associated with a certain feeling. The object that is then associated with that certain moment is the starting point for telling a story. Börner defines herself as a storyteller who "creates conceptions of human beings" by piecing together memories and impressions like a collage.[8]

The material that Börner then chooses depends on what it reveals in her body. The moment when Börner touches a piece of textile and tries to discover and work out the meaning of the material is something very intimate, as she only listens to herself (her body). Once the material triggers the feeling she is looking for, it becomes integrated in the piece: for her project *Toi Toys*—large-scale skewed toys–she was looking for something that makes her sad (Fig.1).

I ask her if she learned this technique of "listening" to material at university, and Börner suggests that trust was built with material during her studies. She learned to establish self-confidence and to dare to seek solitude with herself and the fabric. For her, trust comes as soon as she creates something three-dimensional—when she manages to make a three-dimensional object out of a two-dimensional fabric that holds on to the body. "A whole new world opens up to me." Börner tells me that in the first year of her studies she participated in an anatomy course. The fashion students were taught which muscle does what, what bones we have, because this is the framework fashion designers have to build upon. Börner emphasizes that it is necessary to know how a body and its locomotive system function in order to understand how everything is layered on top of one another. If she knows how the body works, for instance, that the crotch is wider when sitting than when standing, she can draw conclusions for the garment from this—solely through

6 This is an excerpt of field notes that I took during a rehearsal of the performance *Mind the Rage* by Go Plastic Company in Leipzig. The development of the production was partly followed by me between spring and autumn 2022 and when it premiered at the Lofft Theatre (Leipzig) in November 2022.

7 Alexandra Börner, "Interview," October 13, 2022. In possession of the author.

8 Börner, "Interview."



Fig.1. Dancer Cindy Hammer experiments with Toi Toys by fashion artist Alexandra Börner. Image: Alexandra Börner, 2022; courtesy: Alexandra Börner, Cindy Hammer.

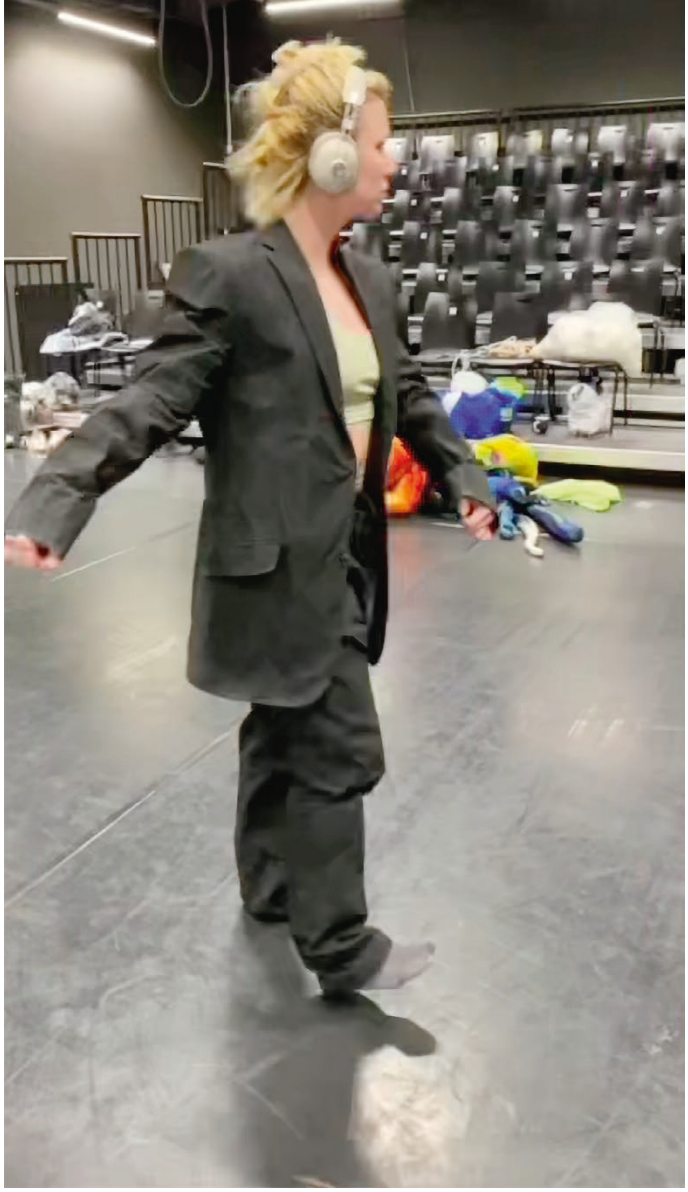

Fig.2 Dancer Cindy Hammer experiments with static material provided by fashion artist Alexandra Börner. Image: Alexandra Börner, 2022; courtesy: Alexandra Börner, Cindy Hammer.

body experience Börner can determine which material fits or just doesn't fit; or vice versa, she can challenge bodies by using materials that counteract the given bodily circumstances (e.g. a corsage).

There are different ways in which material reacts to the body, one of which is through sounds. The costume of the black static suit embodies this, in my opinion, brilliantly. Börner took men's suits and put them in a tub filled with water and glue. This process took a few hours so that the fibers of the cotton could soak it all in. After that, the cotton was static, and felt like paper making a similar sound. I first experienced this sound at a rehearsal in April when the dancer Cindy Hammer moved her body with the suit for the first time (Fig.2).

The unforgettable sound of the black man's suit in the production *Mind the Rage* overwhelmed me in two ways: first, because of how the dancer's body was distracted by the static textile on her skin; and second, by how the textile became a co-performer.

## Body as Archive

When dancer and choreographer Cindy Hammer develops a choreography, she tries to involve material as early as possible in the process, as she believes that "it is not about the search for a product, but about the engagement that implicitly produces knowledge over the years."[9] From the beginning, trust in the process is central. Before physically

9 Cindy Hammer, "Interview," December 7, 2022. In possession of the author.



Fig.3 Social media trailer for the performance Mind the Rage. Image: Alexandra Börner, 2022. courtesy: Alexandra Börner, Cindy Hammer.

engaging with material, however, the dancer needs an idea of what it may feel like to dance with the material. There are three modes: first, initial contact, which raises questions like "What does it do to me? How does it feel on my skin? What kind of intrinsic movement does it have?" [10]; the second is from a distance, when Hammer sleeps on it one or two nights and immerses herself in her body archive—accordingly, her body acts as a storage place that transmits knowledge saved as previously gained sensory, emotional and cognitive experiences.[11] Then, Hammer asks herself, "What are exciting movement sketches I could combine with it?"[12]; finally, there are materials that exist in the imagination and influence Hammer when she designs movement systems. Such materiality can be texture, a certain haptic, the size or volume, which have a great impact, and even frame what the movement ends up being. It is precisely this surprise of diving from imagination into reality and seeing what the material triggers that Hammer describes as a "joy of play" (Fig.3).[13] In her opinion, the most beautiful thing about the material encounter is the discovery.

Hammer speaks of "certain associative strands of thought" that are frankly shared with the other company members and that move them forward in the process of creation.[14] "On the one hand the material pushes you a bit, but on the other hand, it also kind of encourages you to say things a bit earlier, when you don't feel it's formulated yet. […] That's actually quite a supportive process for the decision-making, whether you're ultimately for or against it."[15] These sharing sessions are key to the learning and creative process. Hammer describes that materials are not only performative when they come into contact with a human body, but that materials themselves are performers and are activated by the interaction between human and non-human. "It's like an encounter."[16]

# Multisensory Storytelling

The human body is made up of chemical elements, such as hydrogen, oxygen, carbon, and nitrogen. A chemical reaction is the process by which chemical compounds give rise to other chemical compounds, as the atoms of the reactants form bonds and release energy—and this is the crux of making these bonds visible so that they play a role in knowledge building: new properties emerge. Across the board, Börner and Hammer highlight the impact material has on the decision-making process. I argue that their open attitude, based on experiential engagement with material, forms the base to welcome and integrate the impact of material in the creative process. Theater directors Anne Bogart and Tina Landau argue in *The Viewpoints Book: A Practical Guide to Viewpoints and Composition*, "When we know what a door is and what it can do, we limit both ourselves and the possibilities of the door. When we are open to its *size* and *texture* and *shape*, a door can become anything and everything."[17] An example of this is Börner's description of the chains of association and the assembling of human ideas that contribute to the making process of an object which creates the starting point of a story. The textile is indispensable here, because it is the first thing that comes into contact with the inner imagination and brings out feelings. It starts to *make* sense. These "cognitive experiences are stored in movements, gestures, and rhythm", and are one more reason to not necessarily convert the implicit knowledge that comes with the material into explicit knowledge.[18] Rather, it is a call to be aware of the shortcomings of where we perceive knowledge to reside and to integrate it into cultures of knowledge.

Subsequently, when I watch the performance *Mind the Rage* by Go

10 Hammer, "Interview".

11 The term *body archive* derives from dance studies, influenced by Michel Foucault's *Archaeology of Knowledge* (1972). See also: Inge Baxmann, "The Body as Archive: On the Difficult Relationship between Movement and History," in *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance*, ed. Sabine Gehm, Pirkko Husemann and Katharina von Wilcke (Bielefeld: transcript Verlag, 2007), 207–18.; or André Lepecki, "The Body as Archive: Will to Re-Enact and the Afterlives of Dances," *Dance Research Journal* 41, no. 2 (2010), 28–48.

12 Hammer, "Interview."

13 Ibid.

14 Ibid.

15 Ibid.

16 Ibid.

17 Anne Bogart and Tina Landau, *The Viewpoint Book: A Practical Guide to Viewpoints and Composition* (New York: Theatre Communication Group, 2005), 59.

18 Inge Baxmann, "The Body as Archive: On the Difficult Relationship between Movement and History," in *Knowledge in Motion: Perspectives of Artistic and Scientific Research in Dance*, ed. Sabine Gehm, Pirkko Husemann and Katharina von Wilcke (Bielefeld: transcript Verlag, 2007), 207.

Plastic, I see movements that were created under the influence of material, among other things. Certain feelings of the dancers and costume designer are also expressed to me, which have clearly emerged under the influence of material. The question of interpretation of exactly what emotions are triggered in me is a matter of subjectivity, but what seems important is the fact that through this conscious engagement with material I get an understanding of the artists' material knowledge and their associated feelings. I gain an insight into knowledge that cannot be put into words and is embedded in the *relation* between humans and the non-human material. In *The Body as Archive* (2020), a documentary film treating the dancer's body as an archive, it is affirmed that "[t]o think and [to feel] is part of the process of thinking."[19] This statement enhances my argument in that it includes feelings as an essential component of epistemology, in which knowledge formation has less to do with the mind and more with the senses and feelings that are awakened by material.

According to feminist writer Sarah Ahmed, "the object is not what simply causes the feeling, even if we attribute the object as its cause. The object is understood retrospectively as the cause of the feeling."[20] Conversely, this means that the inner attitude/approach adds "something", which one might call personality, to the object one is dealing with. This in turn means that the inside of our body forms the basis for storytelling, which is experienced externally by the audience through a multisensory experience. It is perhaps similar to when the speaker reads an audio book aloud and through characterization the story comes alive—partly through the speaker's own imagination, partly through the tone of voice they take, and partly through the interpretation by the listener, where the listener is invited to imagine too. This makes it seem all the more important to not necessarily convey the bodily experiences in words or pictures, but to find other ways of conveying them, in which feelings form the basis for knowledge. The disclosure of the personal process that the audience experiences in their own bodies as soon as they are included in the story as an active part, can therefore play an important role—not only in conveying knowledge about material, but also in understanding different values *through* emotions and imagination associated with them. Returning to Rose, Degen and Başdaş's critique that feelings are not sufficiently explored because ANT theorists mostly leave it at acknowledging emotions, I argue that this generated tacit knowledge can only be brought to light by attempting to convey the binary and intimate relationship through feelings. Conversely, if architects trusted material and its performative potential in the design processes, they could be more open to the unexpected—to the *joy of play*—and be surprised by *feeling* their second skin.

19 Michael Maurissens, *The Body as Archive* (Carré Blanc Productions, 2020), documentary film, 49 min.

20 Sarah Ahmed, "Happy Object," in *The Affect Theory Reader*, ed. Melissa Gregg and Gregory J. Seigworth (Durham, NC: Duke University Press, 2010), 40.

#wilderness
#landscape
#temporary
#makingprocess
#experiment
#performance

# Ode to the Orchard Amphitheater


## Andris Eglītis

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The creative thinking of Andris Eglītis is expressed in painting, sculpture and installations. He is fascinated by the relationships between nature and humans, and the perception of the real and material in art. His painting and sculpture usually result in site specific installations as a conjunction between material, tactile and virtual qualities. Eglītis has studied art at the Art Academy of Latvia, Manchester Metropolitan University, the I. E. Repin State Academic Institute of Painting, Sculpture and Architecture in Saint-Petersburg, and he has completed studies at the Higher Institute of Fine Arts (HISK) in Gent. Since 2009 Eglītis has held a teaching position at the Art Academy of Latvia. In 2013 he was awarded the Purvītis Prize for the exhibition *Zemes darbi* (Earthworks) at the Mūkusala Art Salon in Riga. Together with artist Katrīna Neiburga, Eglītis realized the installation *Armpit* (2015) for the Latvian pavilion at the 56th International Art Exhibition, La *Biennale di Venezia*, followed by *Armpit California Edition* (2016) at the Coachella Valley Music and Arts Festival, USA and the Will to Wish (2016) installation at the Kochi-Muziris Biennale, India. In the last few years Eglītis has taken part in the organization of the *Savvaļa* exhibition that he initiated in 2018.



Fig.1 *Savvaļa*. Image: Andris Eglītis. 2021.

*Savvaļa*, August, 2021

One woke up. It was a wet **(and beautiful)** morning outside.

A moment was spent arranging the day's tasks in priority order **(as per the principles of the regional state of affairs, formulated by Dairis, one usually accomplishes about 20 percent of what one has planned)**. One reached a decision to start off with building the orchard amphitheater where the evening conversation was to be held. To prepare for this, one first had to change and sharpen the cutting chain of the saw. Usually, this presents itself as an unpleasant activity and is delayed for as long as possible, but as it occurred to one that it was possible to combine this with the morning coffee, the task became all but inspiring.

After coffee and chain-sharpening, one drove a van with a utility trailer to one of the several piles of material collected from dismantled barns. **(In the spring, some disused barns in the vicinity were dismantled, with the leftover material to be put to use in the facade of the Grey Cube. Only the planks could serve this purpose, but we had to take everything there was. That's why there were old logs available here, lying around with no clear plan as to their use. The Grey Cube is an exhibition pavilion to be built on the hilltop.)**

Two five-meter logs were loaded onto the trailer, along with pieces of logs about ten meters long and two balks of timber, one six and the other three meters long. This material was taken to the orchard on the southern slope, where, with the help of the Young People, four 7.5 m balks had been taken the previous day. These had been sawn to be used as roof beams for the Grey Cube. Three had a cross-section of 10 x 20 cm and one of 15 x 20 cm.



Fig.2 *Savvaļa*. Image: Andris Eglītis. 2021.

(There were formerly four 10 x 20 cm balks, but the Young People had unwittingly wasted one of them, using it as the foundation of the artists' residence. As Noviks said, "Only in time does one come to respect the material." Forthwith, Dairis was called to cut a replacement, but he had no more logs of the required length remaining. For a long time, one was in dire straits over the chance of acquiring a substitute, but then one realized there were still the four 15 x 20 cm balks of timber remaining, which were to be used as lintels on the second floor of the right wing of the workshop. One of these was to be put to a different use—for building the roof of the Gray Cube—the idea was to saw off the excess 5 cm.

Pieces of timber that are 7.5 m long are rather exclusive stuff, and are the longest Dairis can cut with his bandsaw. To compare, as one called Skudriņš to ask if he had materials that were six meters long, the answer was, "Shut your eyes when you're dreaming." The longest available were 5.2 m. There are places you can buy 6 m timber as well, but that's the length limit, glulam balks notwithstanding.)

But the tire burst in the spring. The car had been extricated from the mud once again. One forgets whether a tractor helped or if this was carried out without any outside assistance. After changing into something drier, the heater in the van was turned to the max as one started towards the city. At some point, despite the heavy rain and bumpy road, one felt that the wheel was shaking excessively. After stopping the van, it became evident that the front tire had been torn apart. Then the floor jack was found to be missing, and with this one realized one would have to seek help, to hail a passing car or visit a nearby house. But first one had to prepare. After scraping off a layer of mud, it was discovered that the screws securing the iron frame fixing the spare tire had become rusty. Every 90-degree turn of the screw, carried out on one's knees in the rain and mud, required strenuous effort. There were two screws, about 8 cm long. After unscrewing the second, the power exerted by the rust, as opposed to that of one's efforts, prevailed (one's ability to apply further effort was close to being exhausted), with the screw bending down and rendering further attempts to loosen it unfeasible.





Fig.3a left *Savvaļa*. Image: Andris Eglītis. 2014.
Fig.3b right *Grey Cube in Savvaļa*. Image: Andris Eglītis. 2023.

One concluded that a cordless grinder would be the best instrument in this kind of situation. Of course, the tool had been left at home. And what chance was there of finding one in this neck of the woods? Seeing as no cars were passing by, one decided to go to the nearbest house, at a distance of about 100 meters from the spot. Entering the yard, there were two men whose look reminded one, all at once, of the illustrations from the book Mernieku laiki **(the Kaudzītes brothers'–its authors–erstwhile home was about a dozen kilometers from the place)**. The two were operating a bandsaw.

As one of them **(the master of the house)** went away to look for a floor jack, the other one was putting a *Makita* cordless chainsaw to use, cutting the ends off of some logs that were lying around.

"- It looks pretty powerful!

- Yeah, it was ranked the best by the *DIY* magazine, judging by a number of criteria. I would have a lot of stuff to submit to their crafts contest. I think I'd come out first, by far. I've made a lamp out of a birch burl and an oak tube… But I won't submit it, no.

- See, we've extended the bandsaw to 8.5 m, we welded and polished it; it's perfect. There's a barn that needs 8.5 m beams. What else can you do? You have to make them yourself.

- And what about you? It looks as though you're also a local fighter. As it should be. We won't submit to the city. Even though they're trying hard. Now they'll raise the land value tax to drive people out of their ancestral homes, so that everything would end up in the real estate market. And who rules the market? We know this very well.

- Do you maybe have a cordless grinder with you? One of the screws is bent.

- Yes, I do. It's at home, right across the hill. But first I have to cover the bandsaw, it's starting to rain again.."

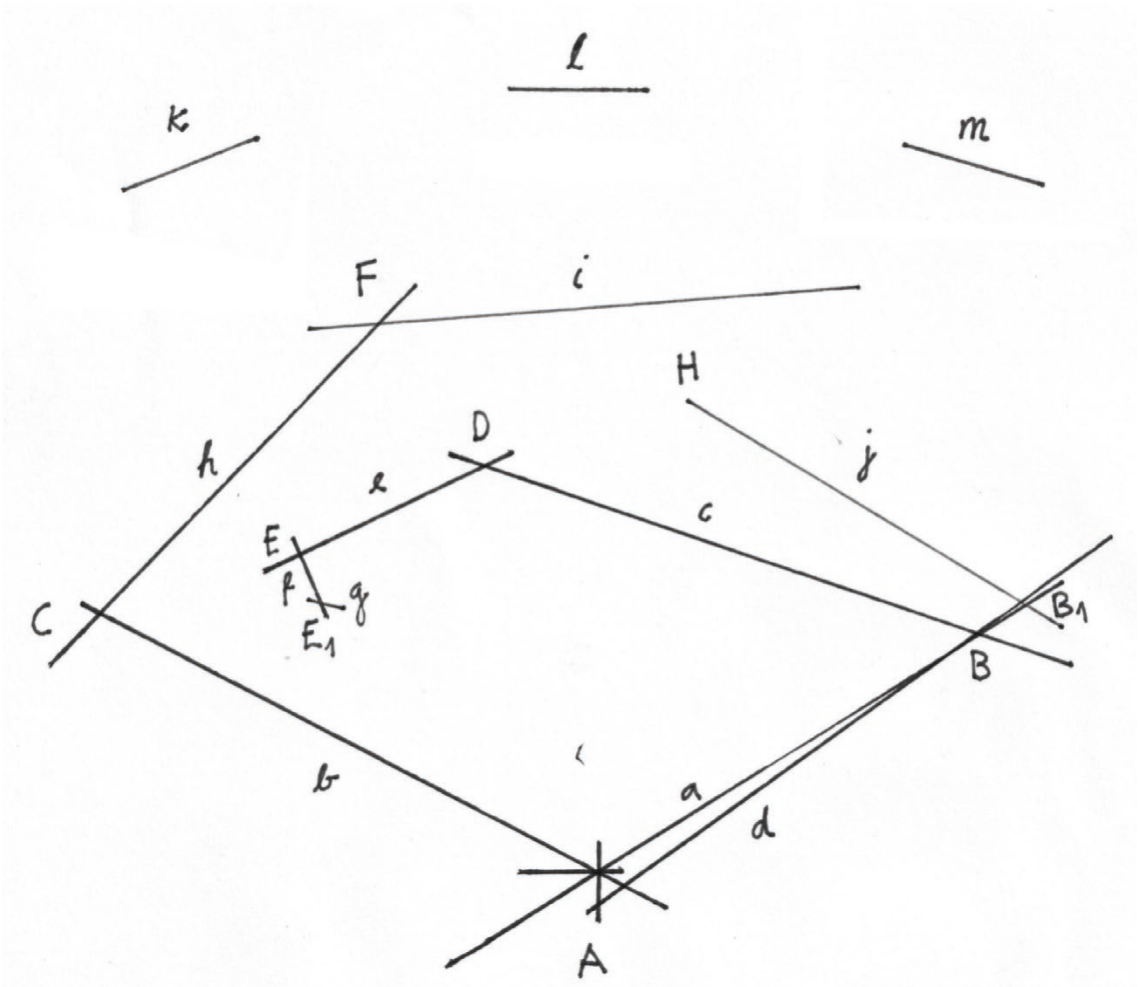


Fig.4 *Drawing*. Andris Eglītis. 2021.

The first floor jack; it was leaking oil; the second floor jack **(found after much ado)**; the grinder; washing the spare wheel in the ditch; the spare tire with rather low pressure; the inflator missing; oh, no matter, it'll last until Berzkrogs…

On the way, a mixed feeling arose as one realized one's similarity to these men. But the awareness that somewhere in these environs of the world there was a bandsaw that can work 8.5 m wood—now that was heartwarming. One had no inkling that, within a few months, this same awareness would prompt one to look for a saw just like that to cut materials for the Grey Cube.

The amphitheater in the orchard was conceived, roughly, as a rhomb-circle-spiral-branch-shaped staircase-like stack. It was clear that the first corner of the rhomb (point A) should be placed on the straight line going through the upper reading space, a line where the grass had been cut, and the plank to the fountain in the pond. Point A was located and marked with a 1 m log, placed perpendicularly against this straight line.

The first 7.5 m balk (*a*) was taken to point A and placed so that one of its ends would create an overhang of about 2 m from the log (Fig.4). The overhang created a trampoline of sorts, suggesting spatial tension and openness. After that, the stacks at the opposite end of balk (*a*) made it possible to stand on the overhang without worrying that the piece would start wobbling. Point B was located by shifting the opposite end of the balk and placing it on the ground on the hill, so that the balk ended up horizontal. When the level bubble settled right in the middle upon the very first measurement, one felt sure of having struck the right frequency. Through careful appraisals and after much shifting and lifting, a geometrically well-considered and compositionally tense amphitheater-like stack was constructed; at



Fig.5 Construction of the orchard amphitheater. Image: Andris Eglītis. 2021.

the same time, it looked somewhat like a bunch of logs hastily scattered about in the grass.

The entire construction stood solidly without any fastening, but, in order to prevent the parts from shifting and to add extra safety, every place where they touched was secured with a single screw.

All the materials that had been taken here were put to use. Not once was a saw used during construction.

One woke up once again; one came back from St. Christopher; the morning bustle began.

Next on the list of priorities was finishing the plank of the fountain, adding the missing boards. Here, the saw was put to good use. **(As early as the second beam, the freshly-sharpened chain ran against a screw.)** As Oskars came by, the work on the plank gave way quite naturally to blowing the *air pole* that Oskars had made, and the instrument reverberated sonorously in the calm, echoing against the wet edge of the forest and the low-lying rainclouds. The trumpeting between the edge of the pond and the echo was supplemented by working a bullroarer Oskars had made.

After the trumpeting, a little behind schedule, it was time for the daily qigong practice Solvita held in the mornings. One had gotten used to it over the past few days. It was decided that this morning the practice would take place on the square of the newly-built amphitheater. It seemed quite natural to do it standing on the overhang of balk (*b*). Following the visualization principles of the qigong, one felt that, through every point where the balk touched the ground, the earth's energy was concentrated at the end of the overhang of balk *a* by way of the balk arteries.



Fig.6 *Savvaļa*. Image: Andris Eglītis. 2020.

The day was off to a good start. Its remainder passed quite quickly as well. Perhaps, one even accomplished a bit more than 20 percent of what one had planned. As Oskars was shoring the big painting up onto the utility trailer, he shared the most beautiful engineering term one has heard to date, namely, *instantaneously variable system*. **(One later learned its full definition: "Instantaneously variable systems are systems that are geometrically changeable at the instant when they start to deform, becoming invariable afterwards. Such systems are characterized by great internal forces and displacements.")**

Half an hour before the scheduled event, it still seemed that participants would be few and far between, but as the discussion was about to start, a crowd of rather agreeable proportions had gathered there. One had to add several freestanding pieces of lumber to the amphitheater.

The talk was a swirl of joyously enthusiastic openness. For some reason, the audience avoided sitting on the balk (*c*). Perhaps it had been placed too close to the pieces (*a*) and (*b*), on which the speakers sat, even though the distance had been appraised very carefully during construction. But perhaps it was a regional thing, avoiding the front row. Logs (*k*), (*l*), (*m*) and other freestanding elements at the back of the theater were the most sought-after.

After the formal part of the discussion, there were a couple hours to kill until the performance. Passionately rousing conversation did not abate, dispersing into little crowds all over the place. Shortly before the performance, as one went to Noviks' clay sculpture, which had to be heated, in order to check on the fire and move the wheelbarrow used to transport the firewood, one passed the amphitheater. It was evident that one of the amphitheater balks was missing. **(How!? How is this possible!?!? Nothing could have broken off or fallen. It was impossible!!!)**



Fig.7 *Savvaļa Talk*. Image: Andris Eglītis. 2021.

Kirils was standing close by.
"- What happened? Did something fall off?
- No, no, we're taking the long balks to the Base so that people have somewhere to sit."

**(Wait, but the amphitheater was to remain here for a long and happy stay. The only thing left to do was to place something underneath the balk ends, so that they wouldn't get damaged.)**

- Oh, okay, alright then."

In order to make the process easier, a wheelbarrow was used; by placing the balk on top of it, about right to the middle, the 7.5 m piece of timber could be taken downhill using just two fingers for balance. The performance-reading was excellent. The balks placed on the floor of the Base divided the audience into two. Those sitting on the balks did not see Iveta's extemporaneous performance and didn't even suspect it had taken place, whereas those up higher were able to witness it…

Following the performance, the balks were again moved, with people invited to help carry them. One had an odd feeling in giving oneself permission not to take part in this procession. It was a wonderful evening and a fantastic night, during which, even though the amphitheater had not been here for long, one made the promise to write this ode.

In the morning, a *qigong* practice was once again held in the ruins of the amphitheater. This time the practice took place with our feet firmly **(as much as last night allowed for it)** on the ground.

Following the qigong session, there was chat and coffee in the ruins.



Fig.8 Image: Sabīne Vernere. 2021.

One concluded that the best state of matter for the amphitheater was for it to be in ruins. It had become a two-level terrace with an open view of the pond and the landscape behind it. The remaining short logs still marked the location of point A. The long balks had returned to the pile of materials. It was soon decided that 8.5 m beams would have to be used instead, so that the rafters of the Grey Cube create an ample overhang.

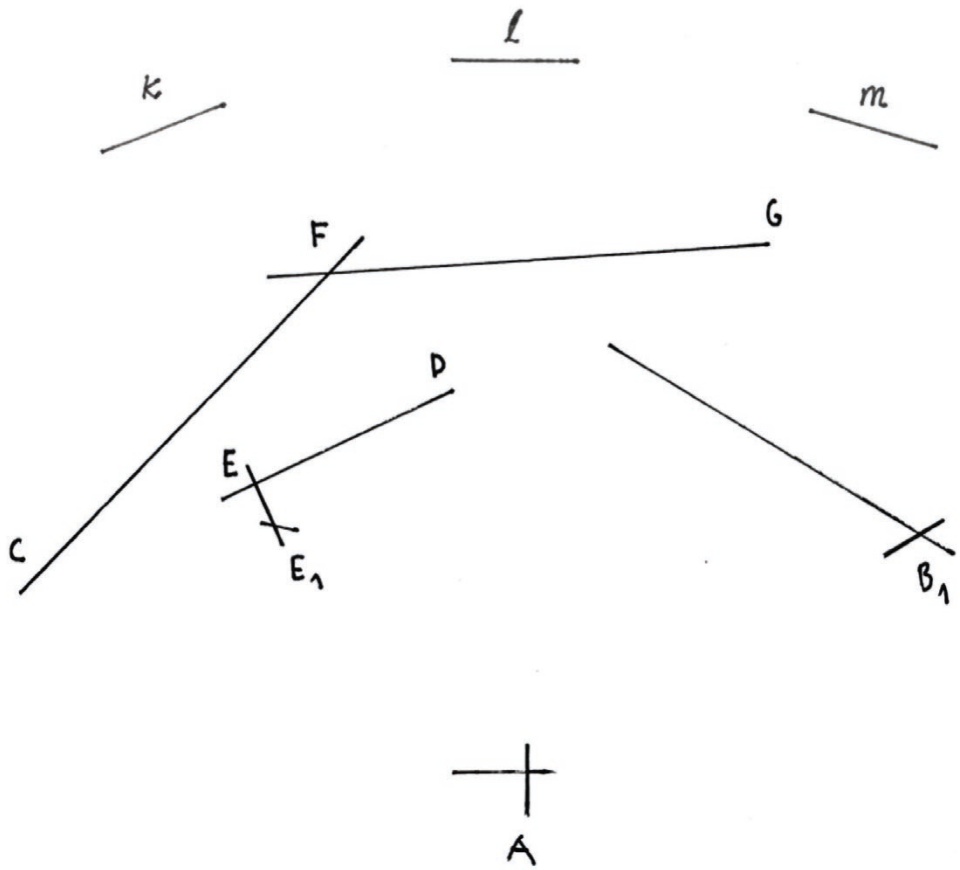


Fig.9. Drawing. Andris Eglītis. 2021.

*Savvaļa (Savage) is a place, an open-air exhibition and series of events, initiated by the Latvian artist Andris Eglītis in 2020. It is located in the Latvian countryside, Drusti, and started with the idea of creating an exhibition of local and international contemporary art amidst wild, untouched nature. Savvaļa has grown beyond its initial objectives, while maintaining the basic premise. Around Savvaļa's base station dozens of art works can be found; to see them all one has to hike through fields, forests, and swamps—the total trip takes several hours. Yet anyone can create their own route and stay as long as they want—everyone is invited to camp on-site, use the sauna on the lake, cook food in the open kitchen and read books in the library.*
*In 2022, on the central hill of Savvaļa, The Grey Cube was completed—a space to accommodate art and painting particularly. Concerts, poetry readings, performances and residencies are taking place during the summer. Savvaļa has become a place for events, experiments and friendships, a venue for different types of art and ideas. "For life to be liveable and for art to be meaningful," is one of the main statements kept in mind while creating Savvaļa. Whereas the main principle is seeing it all as a miracle.*

The transcript is published in Satori magazine as part of the Savvaļa Talks series.
"Savvaļas saruna: mežonīgie deviņdesmitie. Mākslinieku nezināmās biogrāfijas," Satori, September 24, 2020, https://satori.lv/article/savvalas-saruna-makslinieku-nezinamas-biografijas.
English Translation: Lauris Veips

#speculative design
#design framework
#embodied design
#participatory design
#design fiction

# Tangible Engagements with Possible Future(s) through Design Fiction

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Nesli Hazal Oktay is a designer-researcher and educator focusing on the impacts and interactions emerging technologies could deliver. She holds an MA in Interaction Design from the Estonian Academy of Arts in Tallinn and BA in Communications from Galatasaray University in Istanbul. Currently, she is a doctoral student and a lecturer at the Estonian Academy of Arts. As an educator, she has led several industry collaborations, and her subjects are shaped around interaction design and speculative design.

# Introduction

Traditionally, design has been conceived as a tool to "solve a problem". Often the traditional design processes begin with a design brief, followed by a problem to be tackled by designers within a period of time. Speculative design shifts this understanding and adopts a critical attitude while questioning and reflecting on existing approaches of always designing solutions.[1] Thus, speculative design is interested in "problem-finding" rather than offering solutions to today's problems. In this way, designers focus on generating discussions instead of offering solutions. Speculative design proposes that these discussions can be carried out through provocation.[2] By provoking certain groups of people on carefully chosen topic(s), speculative design intends to foster conversations. Through evoking conflicting emotions, speculative design thus raises questions in people's minds, and invites them to think, feel, interact, and reflect. In this light, imagination becomes one of the design principles of speculative design projects.

Design fiction is a design and research practice, coined by Bruce Sterling in *Shaping Things*[3] where he describes how design fiction differs from science fiction, the latter being entertaining and based on fantasy. One main difference between science fiction and design fiction is that they aim to tell a story in different futures. Hence, design fiction does not predict the future, but speculates on how things could be in order to critique and discuss possibilities.[4] Design fiction does not aim to be profitable or innovative, it aims to be discursive and provocative through narration and by inviting the audience to think and interact with our possible futures. In this way, design fiction does not foresee problems but rather looks at design as a way to generate informed viewpoints about our futures as means to discuss what could be the possible problems of our current social, technological, environmental, economic, and political trends.

As our future is dependent on the past and the current world that we live in, it is therefore essential for designers and design students to create strongly informed viewpoints on today's and yesterday's world. When speculations fail to make the links between the informed viewpoints and the design fiction visible, they risk being seen as less serious.

There are methods,[5] toolkits[6] and design education case studies,[7] and Dunne & Raby's *A/B manifesto*,[8] informing the design education scene with teaching approaches that encourage working with possible future(s) from a critical point of view. As an attempt to broaden the teaching approaches, this paper presents a design education method that leans on existing methods and qualitative data collection.

# Related work

Today various methods exist, highlighting ways in which design fiction can be used to engage with possible future(s) through tangible interactions. For example, Nägele et. al.[9] collaborated with a medical device development company and proposed "PDFi: Participatory Design Fiction with Vulnerable Users". This method was developed by using participatory design strategies with design fiction to personally ground, inspire and reveal the values and imaginaries of vulnerable individuals who rely on medical technologies for their health and well-being. Oktay and Pender[10] involved design practitioners and design students in the creation of "A Value-Sensitive Toolkit: Bringing Values into the Design Process to Design for Elderly", using design fiction and Bootlegging as the core of their approach. Ruecker et. al.[11] outlines a graduate class project where eight students were each tasked to work with a topic related to their thesis, and then to look 50 years

1 Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (Cambridge: The MIT Press, 2013), 2.
2 Dunne and Raby, 3.
3 Bruce Sterling, *Shaping Things* (Cambridge: The MIT Press, 2005), 30–31.
4 Dunne and Raby, 100.
5 Larissa Vivian Nägele, Merja Ryöppy, and Danielle Wilde. "PDFi: participatory design fiction with vulnerable users," in *Proceedings of the 10th Nordic Conference on Human-Computer Interaction (NordiCHI '18).* (2018): 819–831. doi:10.1145/3240167.3240272.
6 Mert Oktay and Hanna-Liisa Pender, "A Value-sensitive Toolkit: Bringing Values into the Design Process when Designing for the Elderly," *Human Computer Interaction and Emerging Technologies.* (2020): 23–30. doi:10.18573/book3.c.
7 Stan Ruecker, Juan de la Rosa, Faithful Oladeji and Rachel B. Melton, "Expanding Knowledge about the Past and Preferred Futures Using Systemic, Values-Based Mapping," *She Ji: The Journal of Design, Economics, and Innovation*, 6, no. 2, (2020): 254–274, doi:10.1016/j.sheji.2020.05.004.
8 Dunne and Raby, Preface.
9 Nägele et. al.
10 Oktay and Pender.
11 Ruecker et. al.

into the past of that topic and 50 years into its future, illustrating designs at each decade that would highlight the values of the period. "Expanding Knowledge about the Past and Preferred Futures Using Systemic, Values-Based Mapping", in this way, recognizes how values manifest historically, and teaches how to use mapping as a strategy to develop new knowledge on our future(s).

The method presented in this paper takes inspiration from these works to make possible future(s) more richly accessible and tangible for design students. In presenting alternative uses for the already existing methods, the paper formalizes a new method for generating speculative viewpoints and artefacts through design fiction.

# A Tangible Engagement with Possible Future(s) through Design Fiction

The method (Fig.1) has been designed and developed over the course of four academic years at the Estonian Academy of Arts (EKA), by the author, with the participation of 61 graduate and postgraduate design students in total.

The method turns into the rethinking of existing approaches and methods such as STEEP Analysis,[12] Bootlegging,[13] Futures Wheel Diagramming,[14] and Wizard of Oz Prototyping.[15] Although this method was created and developed as teaching material for design students, it can also enable designers, researchers, technologists, and other practitioners to study and work with speculative design. The method proposes the adoption of six activities, each informing the other.

*STEEP analysis* is the first phase of the method. During this phase, students immerse themselves in past, present, and future world(s) while considering the context and scope of the speculative design project brief. For example, if the brief is focused on work environments in Estonia in 2053, then students look into this topic for 1993, 2023, and 2053. During this phase, students are introduced to ways of doing desk research, semi-structured interviews, expert interviews, and observations. The objective is to understand what was happening yesterday regarding the theme, what is happening today, and what could happen tomorrow considering social, technological, environmental, economic, and political trends.

*Bootlegging* is the second phase of the proposed method where students synthesize and analyze their STEEP findings through a Bootlegging Brainstorming session. During this phase, ambiguity and surprise become the key elements of brainstorming. This brainstorming session does not aim to generate ideas as solutions but rather aims to ideate on reframing the brief according to the qualitative data gathered during the first phase.

*What-if creation* is the third phase where the results from the Bootlegging sessions are used to reframe the brief in the form of a "what-if" question. In traditional design education, re-framing design questions happen by asking "How-might-we" (HMW)[16] questions. HMWs propose the collaborative nature of design by asking "how-might-we" instead of "how-might-I". Furthermore, they presuppose that the question is solvable by asking "how" instead of "if". HMWs support design students in solving problems. In contrast, in this phase, the goal is to adopt a shift in mindset from "problem-solving" to being imaginative and discursive. Thus, students were tasked to generate "what-if" questions to open up the design space while focusing on "problem-finding".

*Futures wheel diagramming* is the fourth phase where the goal is

12 Hadrien Szigeti, Mourad Messaadia, Anirban Majumdar and Benoit Eynard, "STEEP analysis as a tool for building technology roadmaps," in *Proceedings of the eChallenges e-2011* (2011).

13 Lars Erik Holmquist, "Bootlegging: multidisciplinary brainstorming with cut-ups," *Proceedings of the Tenth Conference on Participatory Design (PDC 2008)* (2008): 158–161.

14 Jerome Glenn, *The Futures Wheel* (Washington: The Millennium project, 1994), Chapter 6.

15 Jay Bradley, Oli Mival and David Benyon. "Wizard of Oz experiments for companions," in *Proceedings of the 23rd British HCI Group Annual Conference on People and Computers: Celebrating People and Technology (BCS-HCI '09)* (2009): 313-317.

16 "Using 'How Might We' Questions to Ideate on the Right Problems," Nielsen Norman Group, accessed January 6, 2023, https://www.nngroup.com/articles/how-might-we-questions/.

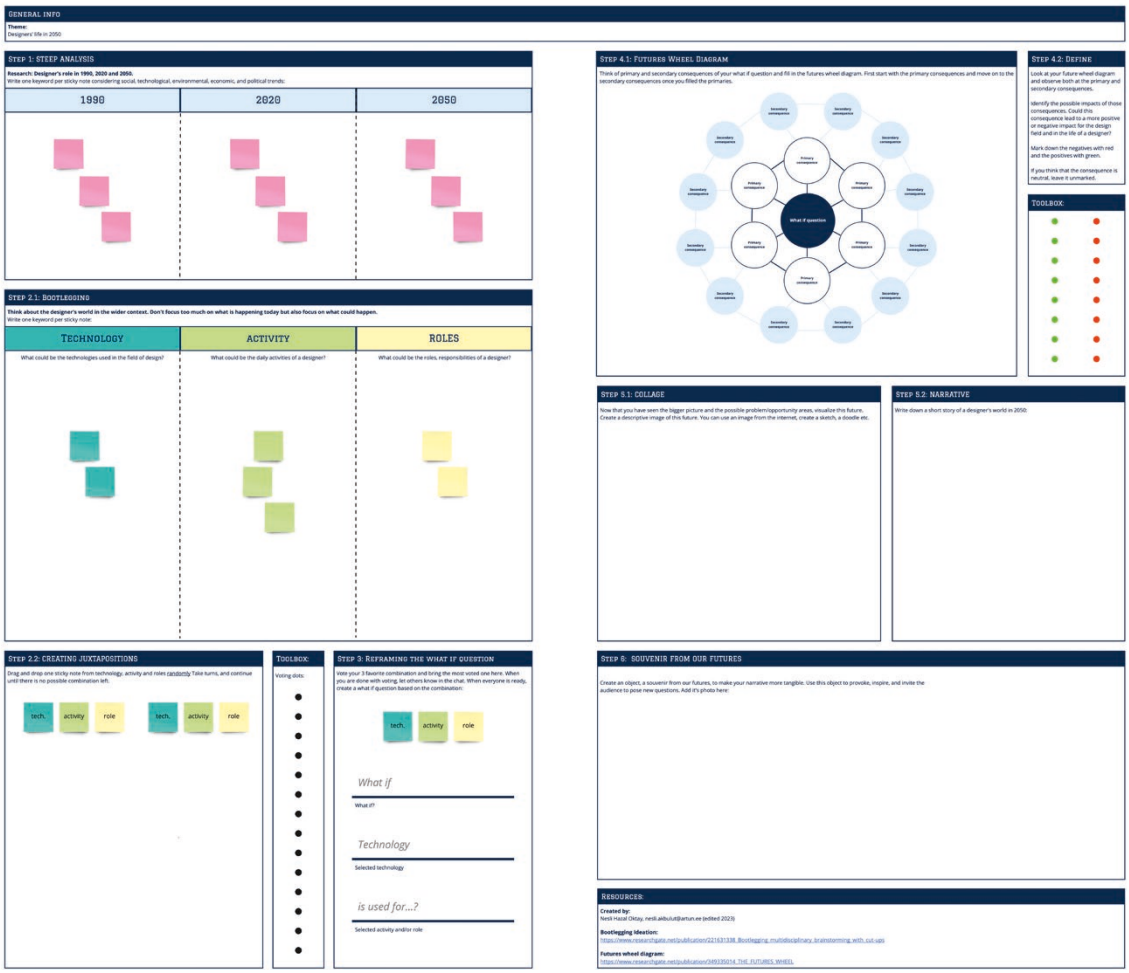


Fig.1 The method for tangible engagements with possible future(s) through design fiction. Image: Nesli Hazal Oktay.

identifying the consequences of the what-if question. During this phase, students engage with their what-if questions by identifying the primary and secondary impacts (if time limitations allow then also tertiary impacts) in a Futures Wheel Diagramming (FWD) process. During this phase, students reflect on the project and generate possible problems from possible future(s).

*Narrative creation* is the fifth phase where students choose their areas of interest. They translate the FWD into a visually stimulating collage. The goal is to represent the emotions and tensions that dominate the FWD. Then the research materials from the STEEP analysis are revisited and used as further input for the narrative creation, students write a story about the possible future(s) in a written format.

*Wizard of Oz prototyping* is the sixth and last phase where students make the narratives tangible through the making of artefacts, in our case called as souvenirs from future(s). The tangibility of the narratives becomes the core of this phase. Students first define touchpoints to make their narratives tangible. During this phase, students have access to various materials (Lego, textiles, paper, food etc.) that will help them create sensory souvenirs focusing on experiences, these are objects that the audience can interact with in different ways. Be it food, a diary, or a product, this souvenir should aim to transform the narratives into tangible interactions. The students are also tasked to roleplay as a tool to prototype the experiences of their souvenirs.





Fig.2 Artefacts created during a 4-week long course: Knitted jewellery pieces that would both serve an aesthetic purpose but also as protection for one's biometric data in our futures. Image: Birna Sísí Jóhannsdóttir.

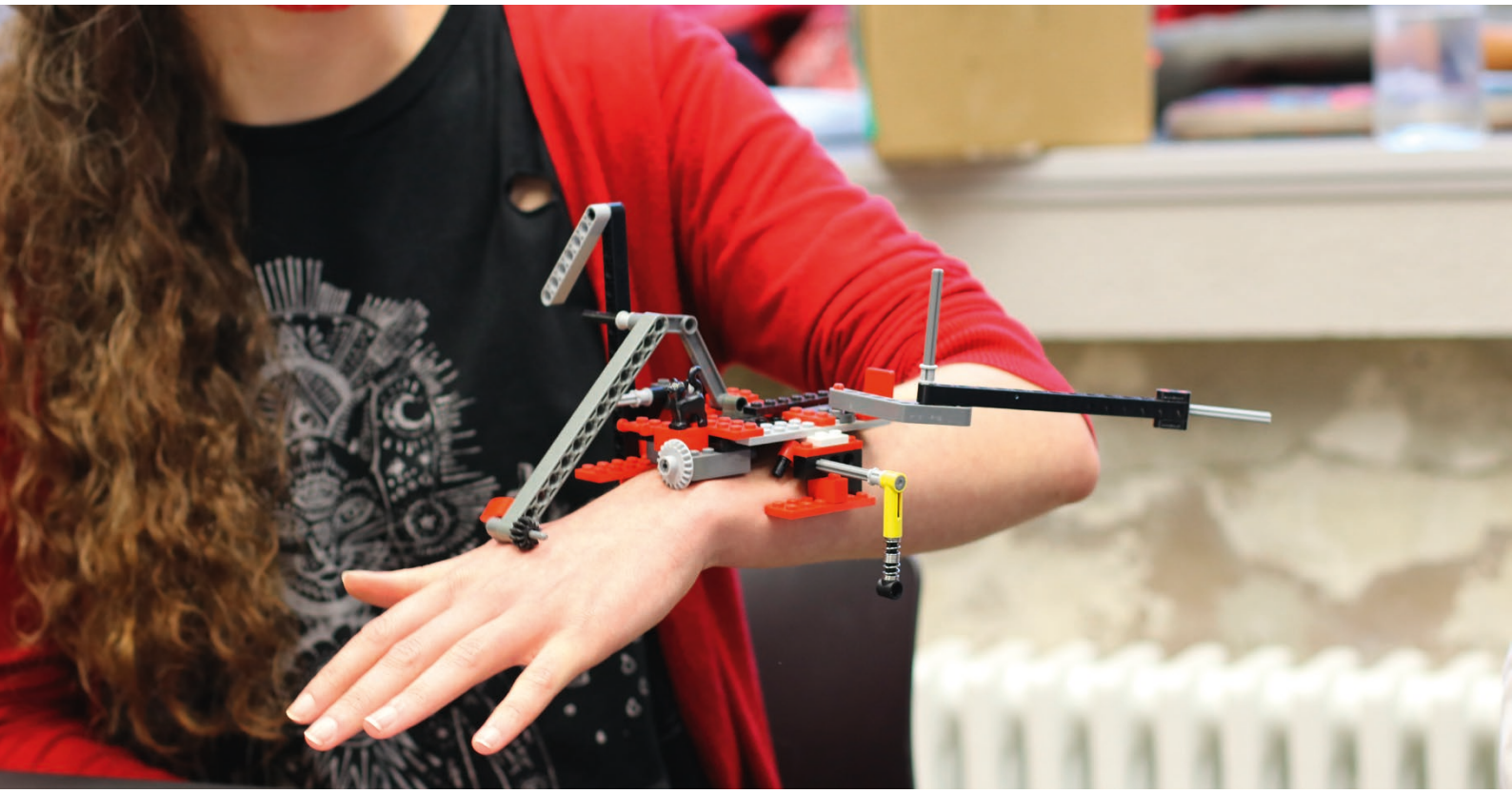

Fig.3 Wizard of Oz prototyping during a 3-day long course: Extending designers' senses with wearables in our futures. Image: Kaspar Orasmäe.

# Method in use

The method was used in EKA as part of the "(Introduction to) Speculative Design" course that was created and led by the author. The aim of the course was to construct a guided space for design students where they could practise the ability to apply a critical thinking approach in design. In this course, the author developed a course brief which was tasking the students to work in teams of 2–4 and look into trends, then develop hypothetical near-future artefacts and narratives on the topic given. In EKA, the method was used both in longer settings and fast-paced settings. The shortest course was three days long and the longest course was five weeks long. The courses were finalized with an exhibition of the souvenirs from the future(s) and an oral presentation of the design process. The stakeholders (interviewees, mentors, classmates) were invited to the discussion. If the course was held in collaboration with an industry partner, they were also invited and asked to share their feedback with students. Additionally, the method was used externally in a workshop setting.

In retrospect, even though the courses were not lengthy, the students gained new understandings on the translation of qualitative data into souvenirs from the future(s). At the end of the courses, thought-provoking objects (Fig.2 and 3) were created by students, inviting the audience and the readers to imagine possible problems for our possible future(s).

# Conclusion

The method proposed in this paper uses experimental methods such as Bootlegging, and Wizard of Oz

Prototyping as well as strategic methods such as STEEP analysis, and Futures Wheel Diagramming. Ambiguity becomes a characteristic of the process and results—but as Gaver et. al.[17] describes, this ambiguity becomes a source of design and provides an openness for possibilities while engaging students with the idea of translating qualitative data into speculative viewpoints and then to objects.

By looking at the question that guided the creation and development of this method, it can be discussed that this tool makes possible future(s) more accessible by enabling design students to define and analyse trends and then make links between today and tomorrow's world. Thus, they are no longer solely fantasizing about impossible future(s). The unexpected and ambiguous nature of the Bootlegging session enables students to go beyond foreseeing by moving from probable to plausible and eventually to possible. The method then makes the possible future(s) more graspable for design students by encouraging them to turn their narratives into tangible souvenirs from the future. Lastly, the method brings forward the importance of creating a guided playground while speculating on our possible future(s). Students engage in various activities and shape informed speculative viewpoints while being explorative and systematic.

*Acknowledgements*
*I would like to thank all my students who in some ways engaged with this method. With your feedback, and our inspiring discussions together, I was able to develop this method into what it is today. I would like to also thank the Design Faculty of the Estonian Academy of Arts for their indefinite support in the creation of my teaching materials.*

17 William W. Gaver, Jacob Beaver and Steve Benford, "Ambiguity as a resource for design," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '03)* (2003): 233–240. doi:10.1145/642611.642653.

#fiction
#speculation
#space
#extra-terrestrial
#gravitational aesthetics

# The Lithuanian Space Agency: Cosmic Imagination and Architectural Fiction

Julijonas Urbonas

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Julijonas Urbonas is a Lithuanian artist, designer, researcher and engineer, a founder of the *Lithuanian Space Agency* and an associate professor at the Vilnius Academy of Arts. Former Prorector at the Vilnius Academy of Arts. Former Director of a Soviet-era amusement park in Klaipeda. Working between critical design, amusement park engineering, performative architecture, choreography, kinetic art and sci-fi, he has been developing various critical tools for negotiating gravity: from a killer roller coaster to an artificial asteroid made up entirely of human bodies. In these projects he coined the term gravitational aesthetics, an artistic approach exploiting the means of manipulating gravity to create experiences that push the body and imagination to their extremes. His work has received many awards, including the Award of Distinction in Interactive Art, and Prix Ars Electronica 2010. His projects can be found in private and museum collections such as the Lithuanian Art Museum, the X Museum, Beijing and the Centre for Art and Media, Karlsruhe (ZKM).

What happens to imagination once it leaves Earth? Crossing the Kármán line, the boundary between the Earth's atmosphere and outer space, is disorienting. After all, imagination has evolved in the Earth's ecosystem, held by gravity and human care. Catapulted up there, imagination is confronted with the hostility of outer space, otherworldliness at its most acute. How can we attune imagination to such a departure from our terrestrial origins?

Even though the arts, science, fiction and religion—to name a few—have often been reimagined from the perspective of the cosmos (with the prefix 'astro' marking such a departure from terrestrial thinking), most of these domains of thinking and making have suffered from a certain degree of Earth sickness. For example, faced with humanity's survival, too often they simply search for a shelter in the cosmos that is merely a replica of Earth based on current human conditions or our recent history. The ground is lifted up, turned upside down, suspended in mid-air, and yet the sensual, psychological, and social planes are often, if not always, left earthbound. The majority of space programs around the world manifest such a terrestrial conservatism, often underpinned by material and (astro) ecological exploitation, colonialism, and warfare. The moment of history we live in has recently been labeled as the "Second Space Age", characterized by the emergence of an outer space economy, the (private) commercialization of space, an increase in space debris, interplanetary biocontamination, and the establishment of the astro-anthropocene.

Being concerned with such a crisis of cosmic imagination, I established the Lithuanian Space Agency (LSA), an astro-disciplinary initiative that aims to create a truly extraterrestrial imagination. A think-tank-cum-space-logistics-company, the LSA has been researching and developing poetic logistics of establishing alternative ways of being and imagining together both on and beyond Earth. Acknowledging the cosmos as the site of radical other-worldliness, the agency focuses on how we can get closer to the unearthly while also shifting perspectives on humanity to those of an alien. However, being aware of the near if not total impossibility of its mission and the cold indifference of the universe, the LSA believes that the only way to access the cosmic is through our capacity to imagine cosmically, employing techniques of pretence, make-believe, and simulation as vehicles to multiple cosmoses. This plural term lies at the core of the LSA's ethos: the cosmos is a multiverse with an infinite number of realities, including some that will never be accessible to us earthlings. As such, the LSA combines knowledge and tools from the multitude of scientific or artistic disciplines, but does not limit itself to disciplinary approaches and looks into ways to unlearn terrestrial thinking.

The conceptual background of the LSA is largely based on my decade-long artistic research into what I call "gravitational aesthetics". Looking into gravity's impact upon us, our thinking and imagination, I have developed a set of gravity-defying creative tools to tap into unprecedented sensual, psychological, and social domains. Embedding the tools into the combination of such fields as design choreography, vehicular poetics, amusement park engineering, performative architecture, art, and sci-fi, I have designed experiences that push the body and imagination to their extremes. The most recent materialization of this practice is the project *Planet of People*, a scientific and artistic feasibility study of an artificial planet made of human bodies. *Planet of People* is a quasi-real, multimodal fiction based on scientific feasibility studies as well as on various narrative devices combining digital animation, set design, interactive art, fiction writing, sci-fi music,

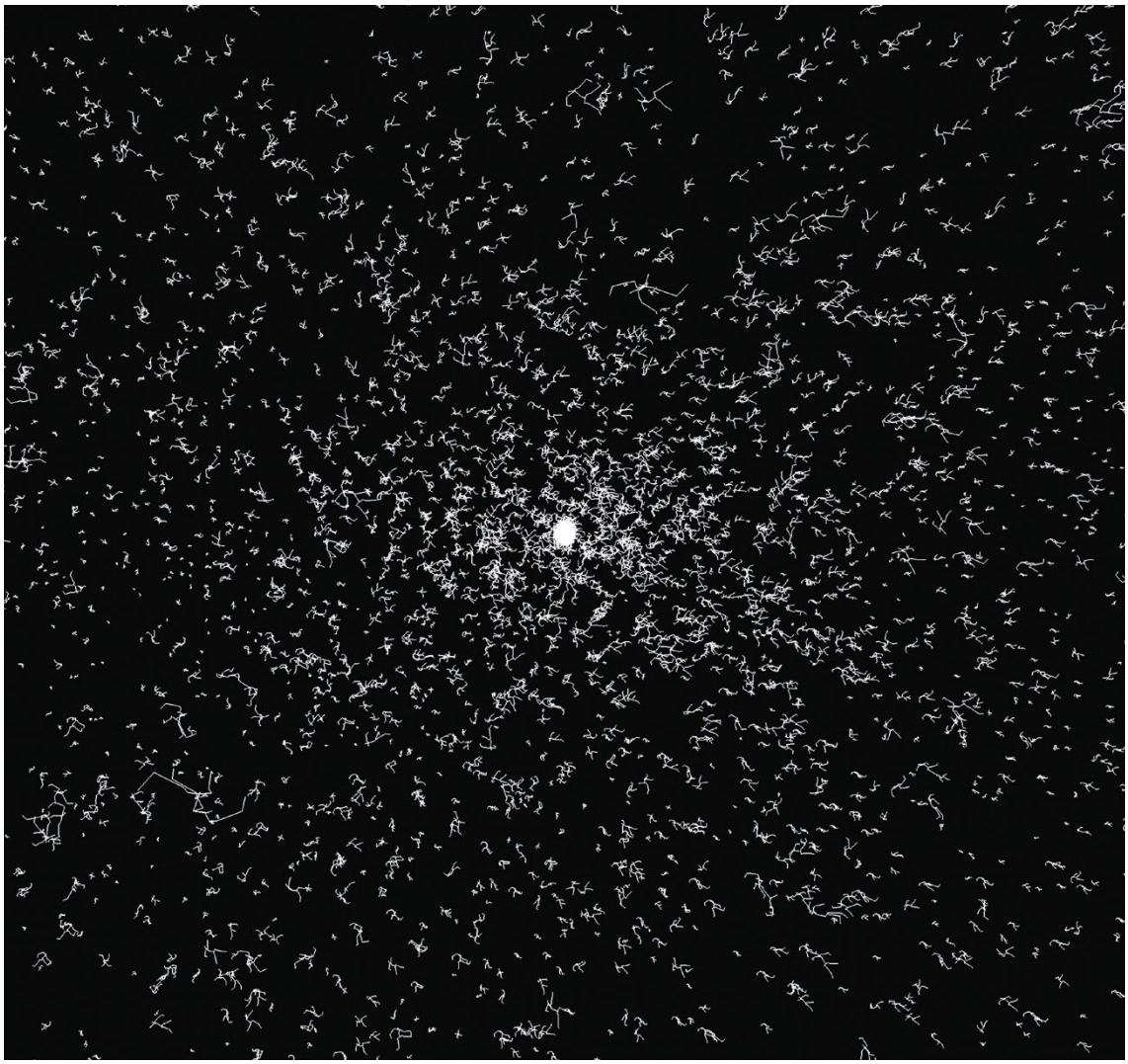

Fig.1 *Planet of People* digital simulation still, 2021 © Julijonas Urbonas and Studio Pointer*. Courtesy of the Lithuanian Space Agency.

etc. The project has been transferred to the LSA to advance its complex intellectual grounding, which spans astro-aesthetics, the eschatological imagination, the astro-anthropocene, extraterrestrial anthropocentrism and terraforming.

## Extra-Terrestrial Strip Dance or Back to Stardust

The LSA invites you to conduct a thought experiment: let's forget our earthly origins and the definition of scale, consider your body as a celestial body. Strip yourself from all social, racial, cultural, sexual, political, and even biological constructs. Such earthly attributes dissolve while suspended in space, detached from systems of judgement and classification prevailing on Earth. Now, let's catapult the body into outer space. Depending on particular astrophysical circumstances, your body meets galactic cosmic rays, solar wind particles, micrometeorite impacts, slowly disintegrating into tiny bits and coming back where they came from. All of us are made of cosmic dust after all, and hence are no different from stones, sand dunes, and asteroids.



Fig.2 Guided tour at the Lithuanian Space Agency's laboratory by Julijonas Urbonas at the Biennale Architettura 2021, Venice. Image: Aistė Valiūtė & Daumantas Plechavičius.

# A Planet from Human Bodies

What if we catapult more bodies, many, many more, say, the whole sextillion ($10^{36}$), a rough equal to the minimum weight of a smallest planet? Let's consider a more concrete location in outer space: one of the Lagrange points. These are locations in space where gravitational forces and the orbital motion of two celestial bodies like Earth-Sun or Earth-Moon balance each other out. Having no gravity, being super cold, a vacuum, and pitch black (some of them), these points are perhaps the closest analogues to what could be considered as nothingness. A cloud of the human bodies floats there freely until their weak gravities (any object with mass has gravitational force) pull them towards each other, slowly coalescing into a blob. The meat asteroid starts to decompose itself, releasing enough heat to boil and liquidise its core. Plumes of hot meat and bubbles of trapped gases periodically rise through the asteroid crust and erupt volcanically from the surface, eventually calming and freezing human landscapes all the way through.

# A Human Being on the Scale of a Planet

Would it be a dead "Planet of People"? The naked, unprotected human bodies would die long before meeting other floating astro-mates after all. However, such a contemplation is rather terrestrially biassed—life and death in outer space are no different from each other, speculative astrobiology would say. What "life" it would be for such beings is something that we can just speculate or probably cannot even comprehend until we become them. What if we consider this huge blob of human biomass as a new living being? The organic matter or what is left of it would be bombarded by space radiation and solar winds, damaging or transforming DNA, provoking mutations and extra-terrestrial evolution. All which would lead to the formation of a life form the size of a planet or at least human panspermia.

# Colony of Astro-Cyborgs

Actually, there is a quite well-known cyborgian conjecture that proposes a no less radical take on the definition of "life" in outer space. Originally the term "cyborg" was coined to define a modified human who could survive the hostile environment of outer space. Having a population of such cyborgs suspended in the nothingness of the cosmos, what would they do there? What would their life look like? If there is no longer need for breathing, eating, sleeping, or defecating, would such phenomena as culture, art, architecture, love exist?

# Inversion of Vitruvian Architecture

One of the core issues that has given birth to the field of architecture is gravity. What happens to architecture if gravity disappears? What if the other core issue—human beings—would disappear as well? Architecture gets disoriented in outer space. Even more confusing is the idea of human becoming architecture. The fundamental spatial definitions such as "up" and "down", or "vertical" and "horizontal" no longer make sense. What does an upright posture mean when legs lose their footing? Heads and butts become equal. The cosmos is indifferent: the human body is the same as space debris, a comet, a star, or a human brick to be used for constructing a new celestial structure.

# Monument to Humanity out of Humanity

What could such a thought experiment mean here and now? Let's get down, back to Earth. It feels apocalyptical. Pandemics, climate change, deadly asteroids, atomic war, aliens—and these are only some of the possible scenarios. But the scenarios for saving humankind are considerably fewer: the colonisation of other planets, space stations, and cryo anabiosis (suspended animation by freezing). The "black swan" theory says that such events can happen unexpectedly and suddenly. In the worst-case scenario, if we have to come to terms with the end of our planet and history, what human legacy, apart from space debris, will we leave in the Universe? One could consider analogues of the golden phonograph record, on which are recorded images and sounds of Earth's life and culture,




Fig.3 Installation view of the Lithuanian Space Agency's laboratory by Julijonas Urbonas at the Biennale Architettura 2021, Venice. Image: Darius Petrulaitis, courtesy of the Lithuanian Space Agency.




Fig.4 Installation view of the Lithuanian Space Agency's laboratory by Julijonas Urbonas at the Biennale Architettura 2021, Venice. Image: Darius Petrulaitis, courtesy of the Lithuanian Space Agency.

sent in the space probe Voyager. However, nothing can be a substitute for a human being. If placed in certain locations of outer space, a body could be frozen and preserved for millions of years—a human astro-fossil. Or is it a manifestation of anthropocentrism at its finest?

## Mental Time-Traveling Agency

These paragraphs are just a few signposts to several parallel realities and timelines of a *Planet of People*. Time is relative there, but not some sort of Einsteinian spacetime or some String multitemporal thing. Each of us possesses a unique kind of mental time-machine AKA imagination capable of transporting us to diverse time dimensions.

In order to facilitate the temporal diversity of its projects, the Lithuanian Space Agency has been developing various time travelling assists—a sort of cerebral lubrication for the mental time machinery. One the most prominent and successful is a custom engineered 3D scanner that scans human bodies and transposes their 3D models into an astrophysical simulation, where they can see how their bodies, in interactions with other bodies, form a new celestial body. Part of the project *Planet of People* invites the public to catapult themselves into a multitude of different timelines that are displayed on special screens. All of these simulations are sped up, representing different spatiotemporal circumstances. For example, in them, you can see yourself being assigned with a specific orbital motion, floating in the emptiness of space. Each body of ours is unique in its shape, center of gravity and other physical characteristics—all of which make up a unique choreographic presence in space. Realizing having such an extraterrestrial presence, the participants start getting loose, slowly striping themselves from the Earthly preoccupations and biases, and imagining what their body can do up there that it cannot do here on Earth. It is a sort of mirror to an extraterrestrial reflection of yourself. In another simulation you can see yourself bumping against other bodies and connecting into unique spatial configurations. The simulation provides an unprecedented contact dance that is only possible in the absence of gravity. Have you ever tried huddling up with other bodies in armpit-heel-chin- chin-forefinger composition? And at the same time considering this very act of connecting with other people as a means of planetary architecture?

## Architectural Fiction or an Expanded Notion of Sci-fi

As the "planet" grows, so does the number and diversity of such questions. Thus, the *Planet of People* also functions as a unique narrative and discursive platform. As an interactive architectural fiction, the project invites everybody to become a co-architect of the planet made out of human bodies. It is a sort of an expanded form of an architectural narrative, powered by deployable structure engineering, kinetic furniture design, speculative material science, extraterrestrial choreography, interactive arts, astro scientific research, and corporate vocabulary—all in tandem to provoke a critical form of cosmic imagination.

#symbiotic design
#symbiotic products
#material design
#hybrid materials
#design for circular economy
#circular products

# Hybrid Materials and Symbiotic Objects: Between the Grown and Made

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# Introduction

According to Berrien Moore III, the so-called new everyday life in the Anthropocene is characterized by uncertainty, unpredictability, chaos and unstoppable change.[1] Given these characteristics, should we not consider this era as an unprecedented anomaly? It's essential, then, to understand the Anthropocene in the context of both sustainable and less sustainable modes of production and recycling. This requires a lens that accounts for socio-political and cultural shifts, especially the transition from humanism to posthumanism and a move towards post-anthropocentrism. In such a setting, the survival of the human species depends on improving the environment. This existence is no longer one-sided; it is mutual, symbiotic, and interactive.[2] Some environmental philosophers propose that as humanity progresses, we should transition from the narrative of the Anthropocene to that of "Symbiosis," a term derived from the Greek for "living together."[3] Scientifically, "symbiosis" signifies a relationship wherein entities coexist for mutual benefit.[4] To transition from the Anthropocene discussion, introduce the concept of the "Symbiocene" era, emphasizing humanity's potential shift towards mutualistic coexistence with nature.

The Symbiocene emphasizes that all life is interconnected, challenging the notion of wholly self-sustaining individuals. The survival of humanity and maintaining a holistic environment is not solely a technological challenge but encompasses cognitive, emotional, cultural, and philosophical dimensions. As humanity increasingly impacts the planet—destroying ecosystems, altering climatic patterns, and disturbing natural processes—an exclusively anthropocentric approach becomes untenable. Given the current ecological crisis, prioritizing nature-centric designs becomes crucial. A shift away from strict anthropocentrism is vital, as we recognize the co-evolutionary relationship between humans and nature.[5,6]

A collaboration with living materials can facilitate the concept of "Symbiomimicry," as proposed by Albrecht. This novel design approach blends symbiosis with biomimicry. Instead of merely benefiting humanity, it fosters mutual interactions among all life forms on Earth.[7]

Bio-art and the design of living materials have emerged as burgeoning fields of alternative art and design worldwide.[8] One instance is the development of artificial muscle technology, which incorporates a variety of flexible, material-based artificial muscles activated by external stimuli such as pressure, voltage, light, magnetism, and temperature.[9] Another noteworthy project is the 'Performative Light Project' led by Dr. Bahareh Barati, a postdoctoral researcher at TU Delft. Together with MSc graduate Tim van Dortmont, they delved into the luminescent properties of microorganisms, particularly the Pyrocystis fusiformis strain of bioluminescent algae, in response to human interaction. A purpose-built shaking device, designed to test various movements like rotation, pulse, and vibration, enabled them to correlate the input with the resultant luminescence. This study epitomizes a unique partnership where organisms and microbes functioned as co-contributors, bridging the gap between what nature cultivates and what humans create.

This paper, representing the aforementioned experimental research, seeks to address several pivotal questions:

1. How might human-designed object shapes impact the 'choreography' of living materials, and how might these materials respond or adapt to this new structural reality?
2. Which material properties emerge,

1 Paul Falkowski, Robert J. Scholes, Ed Boyle, Josep Canadell, Donald Canfield, James Elser, Nicolas Gruber, et al, "The global carbon cycle: a test of our knowledge of earth as a system," *Science* 290, no. 5490 (2000): 291–296.

2 Francesca Ferrando, "The party of the Anthropocene: Post-humanism, environmentalism and the post-anthropocentric paradigm shift," *Rel.: Beyond Anthropocentrism*, 4 (2016): 159.

3 Glenn A. Albrecht, "Negating solastalgia: An emotional revolution from the Anthropocene to the Symbiocene," *American Imago*, 77 (1) (2020): 9–30.

4 David C. Smith et al., *The biology of symbiosis*. (Edward Arnold Publishers Ltd., 1987).

5 Christilene du Plessis and Raymond J. Cole, "Motivating change: shifting the paradigm," *Building Research & Information*, 39 (5), (2011): 436–449, doi:10.1080/09613218.2011.582697.

6 Dayu Zhang and Shuo Tang Co-Evolutionary, "Multi-Objective Multidisciplinary Design Optimization For Hypersonic Vehicles," *International Conference on Computer Information Systems and Industrial Applications* (Atlantis Press, 2015): 784–787, doi:10.2991/cisia-15.2015.212.

7 Glenn A. Albrecht *Symbiomimicry. Psychoterratica* Wordpress: https://glennaalbrecht (2015).

8 Andrew Lapworth, "Theorizing bioart encounters after Gilbert Simondon," *Theory, Culture & Society*, 33(3) (2015): 123–150, doi: 10.1177/0263276415580173.

9 Chao Zhang, Zhu Pingan, Lin Yangqiao, Tang Wei, Jiao Zhongdong, Yang Huayong Yang and Zou Jun, "Fluid-driven

and which are rendered obsolete?
3. To what extent can we push the boundaries of previously explored material parameters?

By posing these questions and embedding living materials and microbes in the design process, this research endeavors to provide valuable insights into the future of symbiotic design practices.

Wheatgrass, mycelium, and bacterial cellulose (specifically from the Acetobacteraceae family) can grow in various media, provided specific conditions are met.[10,11,12] These living materials are employed in art and design—for example, in jewelry, building materials, and paper—as well as in medicine for drug and psychoactive substance production.[13,14,15,16] Additionally, these materials are utilized for manufacturing sustainable packaging, insulation, soundproofing, and structural building elements.[17,18,19,20,21] Living materials are used for vegan leather, and temporary replacements for treating human skin burns.[22,23] Though the natural growth of materials like wheatgrass, mycelium, and bacterial cellulose is integral to their function, it's often not viewed as a part of the design process. Consequently, the growth processes and cultivation techniques of these materials remain under-researched. This gap in understanding restricts our ability to develop them into complex shapes and redesign objects, limiting their potential applications.

This prompted us to experiment with the aforementioned living materials, exploring novel growth methods using biological, mycological, and microbiological research techniques. An overview of the application of living materials in contemporary art and design.Living materials have paved a transformative path in contemporary art and design. Wright and Baracco delve into "Designing for Repair," underscoring sustainable architecture.[24] Zhou et al. harness plant roots for digital biofabrication in product design.[25] Maurer envisions fungi as future-centric material.[26] Heisel et al. innovate with load-bearing mycelium structures.[27] Bandyopadhyay et al. champion bacterial cellulose for eco-friendly packaging.[28] El Gazzar et al. merge bacterial cellulose with biodigital architecture.[29] Lastly, Pasquero and Poletto articulate the post-Anthropocene era's bio-digital aesthetics.

The examination of existing examples revealed knowledge gaps in diverse cultivation techniques, prompting us to undertake cultivation experiments. Despite the extensive scientific knowledge surrounding living materials and their growth media, its integration into design remains nascent. While scientific discoveries offer profound insights, their direct applicability to product design can be elusive as theoretical findings often remain untested in design contexts. Employing a Material-Driven Design (MDD) approach to curate material experiences and testing this scientific knowledge in experimental design can provide invaluable insights into the development of symbiotic objects. However, current research only scratches the surface of potential applications and cultivation techniques.

To address the identified knowledge gap, this experimental study leverages existing insights into cultivation media, adapting them for design experiments. The uniqueness of these experiments lies in their execution, grounded in the personal experiences of material design and the tacit knowledge amassed in a specific designer's studio. Essentially, this endeavor seeks to manifest a distinctive form of scientific expression by transferring methodologies from the scientist's laboratory to the designer's studio. The overarching goal is not only to evaluate the available scientific knowledge on the growth medium of living materials within a design context but also to explore the potentialities and limitations inherent

artificial muscles: bio-design, manufacturing, sensing, control, and applications," in *Bio-Design and Manufacturing* 4 (2021): 123–145.

10 Ann Wigmore, *The Wheatgrass Book: How to Grow and Use Wheatgrass to Maximize Your Health and Vitality* (Penguin, 1985).

11 Maria E. Antinori, Marco Contardi, Giulia Suarato, Andrea Armirotti, Rosalia Bertorelli, Giorgia Mancini, Doriana Debellis and Athanassia Athanassiou, "Advanced mycelium materials as potential self-growing biomedical scaffolds," *Scientific reports*, 11(1) (2021): 1–14.

12 Manabu Iguchi, Shinya Yamanaka and Arief Budhiono, "Bacterial cellulose—a masterpiece of nature's arts," *Journal of materials science*, 35(2) (2000): 261–270, doi: 10.1023/A:1004775229149.

13 Maura C. Flannery, "Weeds on the lapel: Biology and jewelry," in *The American Biology Teacher*, 69(1) (2007): 44–48, doi: 0.2307/4452081.

14 Taruun Jami, Sukhdeo Karade and Singh, L. P., "A review of the properties of hemp concrete for green building applications," *Journal of Cleaner Production*, 239, 117852 (2019), doi: 10.1016/j.jclepro.2019.117852.

15 Ch Ververis, Kyriacos Georghiou, Nikolaos Christodoulakis, Photeinos Santas, and Regas Santas, "Fiber dimensions, lignin and cellulose content of various plant materials and their suitability for paper production," *Industrial crops and products* 19, no. 3 (2004): 245–254, doi:10.1016/j.indcrop.2003.10.006.

in co-designing hybrid materials in symbiosis. Here, the co-design process is interpreted as a collaborative creation using living materials. In the subsequent section, a hands-on study detailing the cultivation of biomaterials is presented, focusing on two pivotal growth conditions: 1) growth mediums and 2) predetermined structures.

# Growing mediums

In this study, living matter is characterized by the ability to move and regenerate, but is limited to organisms that do not have a central nervous system and are therefore incapable of feeling pain—plants, fungi, and bacteria. The test conditions were experimental without high-quality technical equipment, but rather trying to test and apply scientific knowledge in a designer's studio environment. The iterative process to generate a set of results took about six months.

# Wheatgrass

The first task was to find out which medium wheatgrass likes the most and how it affected the formation of the root structure of the plant. Two human-made structures were used as growth structures. Various mixtures of growth media were made from:

- ☐ soil,
- ☐ white clay,
- ☐ potato starch bioplastic,
- ☐ soil mixed with potato starch bioplastic,
- ☐ white clay mixed with potato starch bioplastic,
- ☐ recycled cellulose fiber with potato starch bioplastic.

Wheat cultivation samples were watered every other day and stored at room temperature without additional light or heat sources.

# Mycelium

Oyster mushroom spores (*Pleurotus ostreatus*) were used during mycelial culture experiments. It is a culture that is easy to grow indoors, so it is recommended for beginners. These experiments were focused on the mycelium, the fungal root system, rather than the fruiting bodies. Spores were mixed with different substrates: fibrous hemp, sawdust, dried grass and wheat, to see which material fungi bind with the best. After a few days, the fungus began to grow very rapidly and aggressively on all substrates except wheat which got moldy.

BacteriaThrough an analysis of targeted literature and searching for specific properties of various bacteria, the well-known bacterial cellulose (*Acetobacteraceae*) was identified.[30,31,32,33] It was a perfect material for this study because it could be grown safely in a studio or at home. This type of bacteria oxidizes sugars and ethanol and produces acetic acid during fermentation.[34]

A large volume nutrient medium (SCOBY) for the co-cultivation of bacteria and yeast was prepared according to recommendations. Two tablespoons of green tea leaves were poured into one liter of hot water and mixed with four tablespoons of sugar. After several hours of straining the tea, pouring it into a large container, and letting it cool, around 2kg of sugar and a pack of green tea was used. An eighty-liter (710 x 460 x 300mm) container was almost half filled and allowed to cool overnight. The next day, the SCOBY culture was placed in a container with kombucha liquid. The container was covered with cotton cloth and left to grow. After two weeks, the first sample of bacterial cellulose was removed from the medium and allowed to dry on plywood for several days following recommendations.[35] The plywood was chosen because it is supposed to absorb excess moisture and dry

16 Peter A. De Smet, "The role of plant-derived drugs and herbal medicines in healthcare," *Drugs*, 54(6) (1997): 801–840, doi:10.2165/00003495-199754060-00003.
17 Rajeev Abhijith, Anagha Ashok and Rajendran C. Rejeesh, "Sustainable packaging applications from mycelium to substitute polystyrene: a review," *Materials today: proceedings*, 5(1), (2018): 2139–2145, doi:doi.org/10.1016/j.matpr.2017.09.211.
18 Mitchell P. Jones, Tien T. Huynh, Chaitali Dekiwadia, et. al, "Mycelium composites: a review of engineering characteristics and growth kinetics," *Journal of Bionanoscience*, 11(4) (2017): 241–257, doi: 10.1166/jbns.2017.1440.
19 Mathew Pelletier, Greg Holt, John D. Wanjura, Bayer, et. al, "An evaluation study of mycelium based acoustic absorbers grown on agricultural by-product substrates," *Industrial Crops and Products*, 51 (2013): 480–485, doi: 10.1016/j.indcrop.2013.09.008.
20 Eugene Soh, Zhi Yong Chew, Nazanin Saeidi, Alireza Javadian, Dirk E. Hebel, et. al, "Development of an extrudable paste to build mycelium-bound composites," *Materials & Design*, 195, 109058 (2020), doi: 10.1016/j.matdes.2020.109058.
21 Noam Attias, Ofer Danai, Nirit Ezov, et. al, "Developing novel applications of mycelium based bio-composite materials for design and architecture," *Proceedings of building with biobased materials: best practice and performance specification* (2017): 6–7.
22 Rainer Jonas and Luiz F. Farah, "Production




Fig.1 Creative wheatgrass growing process. Images: Austeja Platukyte, 2022.

and application of microbial cellulose," *Polymer degradation and stability*, 59(1–3), (1998): 101–106.

23 Richa Gupta and Dushyant Dave, "Biomaterial: A sustainable alternative to animal leather and synthetic material," *Annals of the Romanian Society for Cell Biology*, 25(6), (2021): 7317–7331.

24 Lousie Wright and Mauro Baracco, "Designing for repair," *Landscape Architecture Australia*, 159, (Architecture Media Pty Ltd, 2018): 59–74.

materials evenly. The first sample was relatively thin and stuck to the plywood, making it difficult to remove from the panel. Finally, a thin but robust, translucent and moisture-resistant sample of bacterial cellulose material was grown. For the second time, it was decided to extend the fermentation process and try to grow a thicker sample of the bacterial cellulose. It took a month to grow but was thick enough, heavy and difficult to transport from the container to the metal mesh surface where it was being prepared for drying. The exact process was repeated three times. However, the fermentation time was reduced to three weeks.

# Findings on the growing mediums

Although wheatgrass growth on metal wire mesh in white clay and potato starch mixtures was adequate, the best experimental results were shown when wheatgrass was grown on both structures in the soil mixture. Experiments growing mycelium helped discover that a sterile environment is not always required and that oyster mushrooms (*Pleurotus ostreatus*) can grow rapidly and aggressively on all substrates, except wheat. Many samples of bacterial cellulose were ruined because they got moldy, but the

most informative finding was the non-interventional method. The material got moldy when the designer was in the studio all the time, but the bacterial cellulose improved significantly after being left alone for two to four weeks.

# Designed structures

Metal chair structures were used as the designed objects in this part of the study. They weren't chosen at random, but to show iconic everyday objects functioning as symbiotic designs. Since the chair structures were donated, the objects are also based on the idea of upcycling. The test conditions were experimental without high-quality technical equipment rather than trying to test and apply scientific knowledge in a designer's studio environment. The iterative process of various experiments lasted from two days to one month.

# Wheatgrass

After the initial growth of living materials in different media on a linen cloth and metal mesh structure, the wheatgrass started to grow directly on metal frames, observing how the shape of a designed object affects the choreography of wheatgrass and how the material adapts to the new structural reality. Wheatgrass was grown on a) a metal structure in a mixture of soil and potato starch, b) on a linen cloth attached to a metal structure, c) on a metal wire mesh in a mixture of soil and d) on a linen cloth which at the beginning was placed on a flat surface and only after the germination was attached to a metal structure. Frames with wheatgrass seeds were watered every other day and kept at room temperature without additional light or heat.

This experiment showed that wheatgrass is not adaptable to growing under all tested conditions, but example d) gave the best germination and the most lush growth results. Currently, wheatgrass experiments continue with Charles Darwin's theory of plant root behavior by cultivating the root system into a solid body element using a special method.[36]

# Mycelium

After testing different mushroom growing media, a unique mycelium growing bag was designed by placing it directly on the metal frame and molding the soft part for the seating object. After just a few days, it could be seen how the white root system had colonized the entire bag, gradually connecting the pieces of hemp to each other. Although no holes in the bag were left, mushrooms began to grow through the cracks in the edges of the bag.

Growing the fungal substrates directly on the metal frame provided a lot of new information that could be applied to further studies on fungal culture and living hybrids development in a design studio environment. After removing the object from the bag and seeing the first results, it was found that the growth of the fruiting bodies can weaken the mushroom root structure. he bag must be very tight, without any holes, otherwise, fungi will start to grow through the holes, and this weakens the internal structure of the mycelium roots. We also noted that when the fungus encounters the plastic film, the surface of the fungus is smooth and nicely formed, but where it encounters the paper adhesive tape, the fungus structure is relatively weak.

# Bacteria

After preliminary experiments on the growth of bacterial cellulose on specific media, wet cultures were transferred to the surfaces of metal mesh and metal sheet frames to see if they would conform to non-planar geometries.


25 Jiwei Zhou, Bahareh Barati, Jun Wu, Diana Scherer and Elvin Karana, "Digital biofabrication to realize the potentials of plant roots for product design," Bio-Design and Manufacturing, 4(1), (2021): 111-122.

26 Juliana Maurer, Fungus as material of the future (Sandberg Instituut, Thesis, 2019).

27 Felix Heisel, Karsten Schlesier, Juney Lee, et. al, "Design of a load-bearing mycelium structure through informed structural engineering," World Congress on Sustainable Technologies (WCST-2017): 45-49.

28 Smarak Bandyopadhyay, et. al, "Bacterial cellulose based greener packaging material: A bioadhesive polymeric film," Materials Research Express, 5(11), (2018): 115405, doi: 10.1088/2053-1591/aadb01.

29 J Nadine T. el Gazzar, Alberto T. Estévez, Yomna K. Abdallah, "Bacterial Cellulose as a Base Material in Biodigital Architecture (Between Bio-Material Development and Structural Customization)," Journal of Green Building, 16(2), (2021): 173-199, doi: 10.3992/jgb.16.2.173.

30 Xingjian Xu, Wenming Liu, Shuhua Tian, Wei Wang, Qige Qi, Pan Jiang, Xinmei Gao, Fengjiao Li, Haiyan Li, Hongwen Yu, "Petroleum hydrocarbon-degrading bacteria for the remediation of oil pollution under aerobic conditions: a prospective analysis," *Frontiers in microbiology*, 9, (2018): 2885, doi:10.3389/fmicb.2018.02885.

31 J. Woodland Hastings, Catherine J. Potrikusv,



Fig.2 The creative process of growing mycelium. Living hybrid with a grown seating part (left) and the fruit bodies of the fungus Pleurotus ostreatus (right). Images: Austeja Platukyte, 2022.

After growing for three weeks, the sample was allowed to dry on metal mesh for two weeks, where it reacted with the metal and oxidized. The sample is fully color-changing and opaque, but strong enough to be further shaped by bending.

A second bacterial cellulose sample was placed on a metal grid and sheet frame. After about a week of drying, the SCOBY cultures appeared to be completely dry and "overmold" the mesh structure to form living hybrids. Where the metal frame and wires make the most important contact with the surface of the bacterial cellulose, they repeat the surface of the metal mesh, suggesting the possibility of using metal pigments directly on the kombucha cultures to create different patterns and drawings.

# Findings on designed structures

Experiments with growing wheatgrass on metal structures have shown that when the roots are slanted, they need a supportive base to grow. The growth of wheatgrass seedlings in the vertical position was much worse than that in the horizontal position. Experiments growing on designed structures have shown that wheatgrass is not adapted to growing in all conditions. After experiments in which mycelium grows on a chair structure, it was found that fruiting bodies growth via the mushroom root system can weaken the mycelial structure. To grow a living material on a designed object, it is considered appropriate to use modular elements that follow the tendency of mycelium to connect individual parts of the object. Experiments with drying bacterial cellulose on metal mesh showed that the SCOBY culture reacted to the metal and oxidized. It can be said that the technique of drying on the metal mesh can be used to design various patterns or paint directly on kombucha mushrooms with metal pigments.

# Conclusion

Drawing from the experimental study outcomes, when biomaterials merge with man-made structures to form hybrid materials and symbiotic objects, we've delineated a series of technological recommendations. These are crafted to guide designers, artists, and innovators towards the principles of symbiotic-centrism, ensuring a harmonious environment for both humans and nature during the design of circular products. The subsequent recommendations are framed as both enabling and constraining conditions for designing within a circular economy, specifically in conjunction with wheatgrass, mycelium, and bacterial cellulose.

Subhash C. Gupta, Manfred Kurfürst and John C. Makemson, "Biochemistry and physiology of bioluminescent bacteria," *Advances in microbial physiology*, 26, (1985): 235-291.

32 Razieh Ghasemi, Faezeh Fatemi, Mohammad Mir-Derikvand and Mahsa Zarei, "Evaluation of mtr cluster expression in Shewanella RCRI7 during uranium removal," *Archives of Microbiology*, 202(10), (2020): 2711-2726.

33 Dinesh Gupta, Michael S. Guzman, Karthikeyan Rengasamy, Andreea Stoica, Rajesh Singh, Tahina Onina Ranaivoarisoa, Emily J. Davenport, Wei Bai, Beau McGinley, J. Mark Meacham and Arpita Bose, "Photoferrotrophy and phototrophic extracellular electron uptake is common in the marine anoxygenic phototroph Rhodovulum sulfidophilum," *The ISME Journal*, 15(11),





Fig.3 Creative bacterial cellulose growing process. Images: Austeja Platukyte, 2022.

Enabling Conditions:
1 The growth mediums for living materials are adaptable for use in a low-tech designer studio setting.
2 The materials exhibit flexibility in their growth requirements, facilitating their use in experimental processes for insights.
3 Sterility levels, often emphasized in scientific literature, aren't strictly necessary.
4 Established artistic cultivation methods have proven conducive for growing living materials within a designer's studio.

Limiting Conditions:
1 Not all designed conditions are suitable for the adaptation and growth of living materials.
2 Extended growth durations limited the scope of testing, confining the study to singular design structures.

The findings of this study underscore the potential for integrating existing scientific knowledge into design practices, marking a progression towards symbiotic design. These results can catalyze future investigations, applying similar experimental methodologies across diverse design structures, thereby expanding research in the realm of symbiotic object design. Recognizing the potential of cultivating living hybrids paves the way for innovative designs focused on natural habitats. Such designs would foster symbiotic relationships, harmonizing human and natural environments.

*Acknowledgements*
*We thank our creative assistants and co-authors—wheatgrass, mycelium, bacteria, and all unseen and unknown living matter for collaborating on the practical experiments while analyzing the relationships between grown and made, creating symbiotic design objects. We will be ever grateful to all living materials who passed during an unsuccessful growing process. This paper is published thanks to the project "Circular Design as a Tool for Circular Economy Business Model Development within Manufacturing Companies", No.: 09.3.3-LMT-K-712-19-0167, funded by the European Social Fund according to the 2014–2020 Operational Programme for the European Union Funds' Investments, under measure No. 09.3.3-LMT-K- 712 activity.*

#landscape
#place
#self-identity
#material culture
#textile

# The Magical Place: Exploring the Artists' Embodied Experience of Landscape Expressed in Textile Medium

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Rita Broka is a visual artist and researcher who draws on textile material, semantic conventions, and the multiple, complex cultural discourses with which the medium is entangled. She is particularly interested in the multisensorial experience of the natural setting and organic material. Currently, Rita is working on her PhD Thesis at the Art Academy of Latvia and as a research assistant at the University of Latvia in the State Research program project "Landscapes of Identities: History, Culture, and Environment" (IDEUM).



Fig.1 The Habitat. Absorbing the Yellow. Invasive Species *Solidago canadensis*, photo series, Ikšķile, 2020. Image: Rita Broka.

The aim of the essay is to revise the idea of landscape as a distanced view, moving attention from purely visible scenery to the tangible matter of the surrounding environment as perceived in the interaction of all the senses. The text is tightly woven around the key terms of "textile medium" and "landscape" accentuating the physical substance of the experienced place and the way of artistic expression intermediated by site-specific fibres, textures, forms and dyes. The study is conducted by applying various methods of qualitative research—art-based research, autoethnography, field notes, interviewing, and an examination of artefacts with particular attention to the multisensory and emplaced aspects of selected artists and the researcher's own experience. According to Barbara Bender, landscapes are not just "views" but intimate encounters. They are not just about seeing but about experiencing with all the senses.[1] To use Kenneth Olwig's conceptualisation,[2] a "substantive understanding" and feeling for landscapes—not "landscape as scenic text", but the story, in which all the senses come into play. Following that, to access the materiality of an object, it is precisely those qualities that cannot be reproduced; for example, in photographs—the feel, weight, smell, and even sound—which are essential to consider landscape as a real substance. The unexplored field where the notion of landscape can be extended outside the well-established framework of visuality is textile. (Fig.1)

1 Barbara Bender, "Contested landscapes," in *The Material Culture Reader*, ed. Victor Buchli (Oxford: Berg, 2002), 141–74.

2 Kenneth Robert Olwig, "'Recovering the substantive nature of landscape," *Annals of the Association of American Geographers* 86, no.4 (1996): 630–653.



Fig.2 Essence of the Place. Linen, natural dyestuff, *Solidago canadensis* collected in Ikšķile area, 2021. Image: Rita Broka.

To live is to live locally, and to know is, first of all, to understand the place one is in.[3] Textile dyeing with traditional methods using nearby available dyestuff can be considered a part of living locally. Every culture has its own textile dye traditions, which have been handed down through generations, reflecting local flora, geology and climate and informed by medicine, history, botany, economy and sometimes even religious practices.[4] This site-specific ancient practice is consistent with Pierre Bourdieu's notion of *habitus*, which conjures up a world of routine and repetitive social practices through which people experience and understand their place.[5] Every plant in the world has some sort of colour. Hues vary depending on the season, the geographical and climatic conditions, including temperature and precipitation, and the quality of the soil. Dyes obtained from local sources indicate the physical substance of the landscape. (Fig.2)

3 Edward Casey, "How to get from space to place in a fairly short stretch of time," in *Senses of Place*, eds. Steven Feld, Keith H. Basso (Santa Fe: New Mexico School of American Research Press 1996), 18.

4 Cardon Dominique, *Natural Dyes: Sources, Tradition, Technology and Science* (Archetype Publications 2007).

5 Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977).



Fig.3 Ilma Austriņa, Selection of dyed yarn for the conceived tapestry. Image: Rita Broka, 2022.

According to Diana Young, the idea of colour involving only the visual component is a limited and culturally-bound concept. Colours can also be implicated with senses that are conventionally separated in the West, such as odour and tactility.[6] This is directly attributable to the yarn. Historically, the weaver had strong interrelations with their inhabited setting, and locally available fibre material and plant dyes determined the form and content of their handmade textiles. Thus, the weaving as the emplaced action emphasises the mutual relationship between landscape, maker, and material. Where the colour of the dyed yarn can be considered both the subject matter and the principal body of the woven object. (Fig.3)

6 Diana Young, "The Colours of Things," in *Handbook of Material Culture*, eds. Cristopher Tilley, Webb Keane, Susanne Kuchler, Michael Rowlands and Patricia Spyersage (London: Sage Publications Ltd, 2006), 173–186.



Fig.4. Ilma Austriņa at the loom, Kalsnava. Image: Rita Broka, 2019.

Furthermore, a weaver as a part of the loom enfolds and extends physical abilities, beating cloth and throwing the shuttle. The feeling of the wool sliding through the fingertips, twisting onto the spindle in endless repetition, becomes a powerful metaphor, locating the mind and allowing it to spin into memory and storytelling.[7] In this context, it is possible to focus on the haptic (to touch or grasp, from the Greek *haptikos*) and indicate the multiplicity of interaction between different internally felt and outwardly oriented senses[8] consequently embodied in the woven image. (Fig.4)

7 Diana Wood Conroy, "Textile, Technologies and the Sensorial Turn," in *The Handbook of Textile culture*, eds. Janis Jefferies, Diana Wood Conroy, Hazel Clark (London : Bloomsbury Academic, An imprint of Bloomsbury Publishing Plc, 2016), 361–367.

8 Mark Paterson, *The Senses of Touch: Haptics, Affects and Technologies* (New York: Berg, 2007); Mark Paterson, "Haptic Geographies: Ethnography, Haptic Knowledges and Sensuous Dispositions," *Progress in Human Geography* 33, no 6 (2009): 766–788.



Fig.5 Magdalena Abakanowicz, *A Fibrous Forest*. Exhibition view, *Magdalena Abakanowicz Every Tangle of Thread and Rope*, 2023, Tate Modern, London. Image: Rita Broka, 2023.

Following Constance Classen, touch, in contrast to other senses such as sight, annihilates distance and physically unites the toucher and the touched.[9] For example, for textile artist Magdalena Abakanovich (1930–2017), the crumpled surface of the burlap evokes the hardness of tree bark from her childhood forest, which she still considers a magical place. Abakanowicz's use of burlap highlights the significance of touch rather than sight to provoke the audience's affectivity and emotionality. Abakanowicz stated that "woven forms grow with a leisurely rhythm like creations of nature; like them, they are organic".[10] (Fig.5)

Robert Hay," Sense of place in developmental context", *Journal of Environmental Psychology* 18, (1998): 5–29.

9 Constance Classen, *The Deepest Sense: A Cultural History of Touch* (Illinois: University of Illinois Press, 2012), 141.

10 Magdalena Abakanowicz, *Abakanowicz: organic structures* (Sweden : Malmo Konst Halle, 1977).



Fig.6 Edīte Pauls-Vignere, *The Green Land* (1970), detail. Tapestry, mixed technique. Image: Rita Broka, 2023.

The specialised attitude to the particular place and landscapes as a fundamental source of imagery can also be found in the oeuvre of the Latvian textile artists of Rūdolfs Heimrāts School.[11] The woven landscapes of these artists exemplify how an individual's relationship with a particular setting can be materialised through reproduction in textile medium, particularly in tapestry weaving. Most of these works can be considered as physical examples for theories of perception where the landscape is not only a material, observable entity but is also associated with habits of sight as the way we see[12] where specifying artistic vision, according to John Wylie, is not just *what* we see, but *how* we see.[13] (Fig.6)

11 Direction in Latvian Textile Art that emerged in the 70s of the 20th century under the leadership of Professor Rūdolfs Heimrāts (1926–1992).
12 Daniel Cosgrove, *Social Formation and Symbolic Landscape* (Totowa, NJ : Barnes & Noble, 1984), 32.
13 John Wylie, *Landscape*, (London: Routledge, 2007).



Fig.7 Aija Baumane. *The Landscape* (2014). Tapestry. Image: Rita Broka, 2023.

The concept of *sense of place* is often mentioned when describing an individual's relationship with a particular setting. Robert Hay used a mix of social surveys and ethnography to investigate the importance of time and duration of stay concerning the sense of place, and suggests that if a person resides in a place for many years, mainly if that person is raised there, then they often develop a sense of place, feeling at home and secure there, with feelings of belonging for the site being one anchor for their identity.[14] In this regard, the creative work of textile artist Aija Baumane (1943–2019) exemplifies how the lifelong connection with a family property became an inexhaustible source of landscape-related images, forming a core of artistic expression. (Fig.7)

14 Hay, "Sense of place in developmental context."



Fig.8 Dzintra Vilks. *Farewell to Piebalga* (2020). Tapestry, mixed technique. Image: Rita Broka, 2022.

For the artist Dzintra Vilks (1948), the move from the city to the countryside meant a new phase in her creative work. The uncultivated environment of her obtained land and the rural lifestyle transmuted into a personal territory that in turn naturally formed everyday experiences and influenced the outcome of her creative process. The constant substructure and ordinary perceptions of inhabited landscape, enriched by the embodied knowledge of tacit feelings, occurred as integral parts of the woven images. (Fig.8)

To sum up, places can be thought of as being made up of a range of factors which include the topographical, cosmological, and spiritual as well as the built environment and peoples' emotional and psychological engagement with place and consequently with the landscape. It acquires a special expression in the case of textile art. Apart from purely visual images, landscape in the textile medium can be represented as an organic unframed unit, filled with the unmediated magic of multisensorial reflections of an experienced place. The impression of the landscape can be reconstructed by extracting the natural dyes of local flora, water and soil. It can be physically rebuilt by weaving in fibrous structures of pliable matter of tapestry.

*The article is written based on research in the project "Landscapes of Identities: History, Culture, and Environment" (No. VPP-LETONIKA- 2021/1-0008), National Research Programme "Letonika—Fostering Latvian and European Society".*

#noticing
#urgencies
#care
#social justice
#entanglement

# On the Art of Noticing

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People often come together in times of urgency, offering solidarity and support to human needs. These are practices of mutual aid, emerging in reciprocal support networks by everyday people in response to urgent, life-threatening situations that require direct action. Yet beyond the urgency of immediate action, what are other relations to urgency and urgent matters? By committing to systemic change, how can we develop the stamina and commitment beyond the urgency to move forward to practice the "art of noticing"[1] in a damaged world? In this article, I intend to speak about urgencies and their temporalities, using examples from my artistic practice and work as a researcher and educator within an art academy and beyond.

# Housing Activism, Solidarity, Mutual Aid

I will begin with the opening sequence from *Dignity/Dignidad* (2016).[2] It is a film I directed and produced together with Spanish housing activists from Platforma de Afectados por la Hipoteca (PAH), "Stop Desahucios" (Stop Evictions), and residents of a recently occupied building in Móstoles, a municipality in Spain located in the Community of Madrid. *Dignity/Dignidad* is a film about strategies for reclaiming in times of crisis, particularly the Spanish eviction crisis. The film depicts a rapid succession of building takeovers by activists in cities throughout Spain. During each action, a small group of people publicly enter a building amidst gleeful shouts of an encouraging crowd. They unfurl colorful banners out of the windows, over balconies, and along the building's facade. Hand-painted banners display slogans like "We rescue people, not banks," and "No people without houses, no houses without people." People peek out the windows of the newly occupied building, wearing masks, and waving defiantly. In the final scene, a woman reads a speech, shouting through a megaphone, amidst the boisterous onlookers. She declares that the building where she now stands is in the hands of the people, renaming it *La Dignidad* (Fig.1).

An urgent situation demands an immediate response and direct action. One example is opening an empty building to people in precarious housing situations and with nowhere to go. In 2013, a Spanish housing activist association, the PAH, launched a nationwide campaign to reclaim empty apartment buildings, using them to rehouse individuals and families evicted from their homes. Given the name Obra Social[3], or Social Work, the activists participating in the campaign targeted thousands of vacant residential properties in cities throughout the country. Currently owned by the banks, these buildings were relatively new, constructed in the last five years before the 2007/2008 global financial crisis and subsequent collapse of the Spanish economy, when many people in Spain lost their jobs[4] and then their homes. During this period, banks took over the properties from bankrupt developers who had defaulted on their investment loans. As banks accumulated real estate, they also received massive government bailouts, making ample use of public funds via taxpayers money.[5] And yet they continued evicting people. The PAH and other solidarity groups, such as Stop Desahucios (Stop Evictions), decided to use these buildings to relocate families and individuals with housing difficulties using the following logic: if the banks belong to the public, the houses do as well.[6]

The PAH is a right-to-housing movement, politically independent, non-violent, and leaderless, launched in Barcelona in February 2009. Citizens, first with rising interest rates and later unemployment, facing increased financial difficulties could not make their mortgage payments. In proportion

1 Alexis Shotwell summarizes Anna Lowenhaupt Tsing's art of noticing as recognizing what is there, observing directly, without filters, analytics, or pre-conceptualizations. Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton, New Jersey: Princeton University Press, 2015), quoted in Alexis Shotwell, *Against Purity: Living Ethically in Compromised Times* (Minneapolis: University of Minnesota Press, 2016), 97.

2 *Dignity/Dignidad*, directed by Michelle Teran (2016; Madrid/Bergen: Synsmaskinen,) Vimeo, accessed January 2023, https://vimeo.com/manage/videos/201434221.

3 "Hoy presentamos nuestra nueva campaña contra la criminalización de la ocupación," @ObraSocial_PAH, Twitter, 3 April 2009, 1.03 a.m., twitter.com/ObraSocial_PAH/.

4 Ada Colau and Adrià Alemany, *Mortgaged Lives*, English trans. Michelle Teran (London: Journal of Aesthetics & Protest, 2014); "Shattered Dreams: Impact of Spain's Housing Crisis on Vulnerable Groups," Human Rights Watch, May 27, 2014, https://www.hrw.org/report/2014/05/27/shattered-dreams/impact-spains-housing-crisis-vulnerable-groups.

5 Íñigo de Barrón, "Spanish bank bailout cost taxpayers €41.8 billion, Audit Court finds," El País (January 11, 2017), https://english.elpais.com/elpais/2017/01/11/inenglish/ 1484125815_626310.html.

6 One way the PAH applied this logic was in the campaign "Si Bankia es nuestra, sus casas también" (If Bankia is ours, then so are their houses) where they used the slogan to demonstrate the link between the Spanish bank bailouts, the thousands of empty homes owned by Bankia, and evictions of families carried out by the bank. See, for example, Planeta Eskoria, "Si Bankia es nuestra, sus casas también," YouTube, October 23, 2015, https://www.youtube.com/watch?v=j03UG8kIm9c.

7 Many campaigns are well documented on the PAH website. "Plataforma de Afectados por la Hipoteca: De la burbuja immobiliaria al derecho a la vivienda," Plataform de Afectados por la Hipoteca, accessed January 19, 2023, https://afectadosporlahipoteca.com/.




Fig.1 The *Obra Social Manual*. Collective Recuperations. Original Spanish version by the PAH. English trans. Michelle Teran (London: *Journal of Aesthetics & Protest*, 2015), 28.

to the dimension of the problem, the mainstream media and the government barely registered the growing mortgage and eviction crises faced by thousands of families. A small group of activists (including Ada Colau, the current Barcelona mayor) established the PAH to fill the gap in insufficient measures within the government for dealing with the housing crisis and to make visible the abuses of power by the financial system. Since it began, the PAH and initiatives like "Stop Desahucios" have led the fight for the right to housing using different tactics and campaigns.[7]

In Móstoles, the housing activists occupied the building, renaming it *La Dignidad* (or Dignity). They decided to act when they realized that more people coming to the weekly housing assemblies at La Casika (a squatted cultural space ten minutes walking distance from the building) were either already homeless or about to be evicted the following week. After a brief research period involving psychogeographic footwork, and several reconnaissance missions, they found a potential candidate for the takeover. Their target was a newly constructed building owned by Bankia[8] (one of the largest

8 Bankia has the dubious honor of carrying the most evictions out of all other banks. See for example: "La PAH cierra una veintena de oficinas de Bankia en Catalunya, para exigir soluciones tras años de rescates, corrupción y ninguneo a las personas que estafaron," PAH Barcelona, accessed January 19, 2023, https://pahbarcelona.org/es/cronica-bankia-la-entidad-lider-en-desahucios-sigue-dando-la-espalda-a-la-ciudadania/.; "Bankia ejecuta más del 80% de los desahucios que se producen en Madrid," El Confidencial, accessed January 19, 2023, https://www.elconfidencial.

com/espana/2012-05-13/bankia-ejecuta-mas-del-80-de-los-desahucios-que-se-producen-en-madrid_231959/.

9 Michelle Teran, Teana Boston-Mammah, and Johanna Monk, eds. *Situationer Workbook/Cookbook*, (Rotterdam: Research Center WdKA and Publication Studio, 2021), 188. See also: "Mutual Aid Disaster Relief is a grassroots disaster relief network based on the principles of solidarity, mutual aid, and autonomous direct action," Mutual Aid Disaster Relief, accessed March 14, 2020, https://mutualaiddisasterrelief.org/about/.

10 Marc Herbst and Michelle Teran, "Everything Gardens! Working Notes Towards a Solidarity Economy," in *Situationer Workbook/Cookbook*, 118.

11 "Social Practices COVID-19 Teaching Resources," Beyond Social, accessed January 19, 2023, https://beyond-social.org/wiki/index.php/Social_Practices_COVID-19_Teaching_Resources.

12 Teran, Boston-Mammah, and Monk, eds. *Situationer Workbook/Cookbook*.

13 In Social Practices, we look at critical Social Practices programs in Higher Education, autonomous learning spaces and cultural initiatives, international networks, alliances on learning otherwise, and decolonization activities in our academy and beyond. For example, "About the Africa Cluster (ARAC)," Another Roadmap School, accessed April 23, 2022, https://another-roadmap.net/africa-cluster/about-this-community/about-the-africa-cluster-arac; "Gudskul," Gudskul, accessed January 22, 2023, https://gudskul.art/en/home/; "#12 Anti Gentrification for mental health," Anti-gentrification School, accessed October 18, 2022, https://antigentrification-school.noblogs.org/; "Ecologies of Transformation," Sandberg Instituut, accessed January 22, 2023, https://sandberg.nl/temporary-programme-ecologies-of-transformation; "Pirate Care, a syllabus," Pirate.care.syllabus, accessed February 22, 2022, https://syllabus.pirate.care/; "An introduction to the GTA," Global Tapestry of Alternatives, accessed January 15, 2022, https://globaltapestryofalternatives.org/introduction; "Practical Futurism and the Local Otherwise," BAK, accessed January 22, 2023, https://www.bakonline.org/prospections/practical-futurism-and-the-local-otherwise-black-quantum-futurism-camae-ayewa-and-rasheedah-

banks in Spain), and located close to the train station.

The group entered the premises in 2014. Almost a year later (when I arrived), fifty individuals and families (many with children under the age of ten) considered La Dignidad their home. During that period, I experienced and participated in several solidarity efforts by a local network of residents and housing activists. These included, among many others, bank occupations and street protests, anti-eviction solidarity efforts in the apartments of soon-to-be evicted families, and accompanying (extremely nervous) individuals to meetings with bank managers. In La Dignidad, residents established and maintained a food bank and helped a couple set up running water in their bathroom. In addition, people came together to distribute furniture and kitchen items for recent arrivals, host a lock-picking workshop for learning how to break into a building (and helping the *Obra Social* campaign grow) and held weekly assemblies to help people with their housing problems.

These solidarity efforts are practices of mutual aid, a term which suggests a reciprocal support network, often one in which people exchange care and resources in times of crisis and emergency. Mutual Aid Disaster Relief, a grassroots disaster relief network operating throughout The United States, offers its definition:

> "Mutual aid entails what's often called solidarity, not charity. It isn't a handout from some top down entity or someone's paid employment. It embodies a spirit of empathy, generosity and dignity. When we engage with mutual aid, we are gifting each other the beginnings of a new world premised on reciprocal voluntaristic and egalitarian social relations. We are collectively self determining, self organizing and starting to self govern, how to supply each other with what is what we need, as well as desire all the while, cultivating beloved communities of care."[9]

In mutual aid, people living within a community or local setting—such as a neighborhood or a residential building—create networks that have people's well-being at heart. Community members share skills, services, food, medicine, emergency funds, and other resources within a decentralized solidarity infrastructure.[10] These are communal practices of caring for and tending to within the cracks of a hyper-individuated, uncaring, neo-liberal system.

# Social Practices During the Pandemic Crisis

This community-engaged response has been most evident during the recent global COVID-19 pandemic. And I would like to devote some words to collaborative research developed with colleagues and peers working mainly in the Social Practices department at the Willem de Kooning Academy (WdKA) for art and design in Rotterdam. It takes the form of the crowd-sourced document *Social Practices: COVID-19 Teaching Resources* chronicling the many solidarity efforts and mutual aid practices generated or found during the 2020 global pandemic. *Social Practices: COVID-19 Teaching Resources* is an online wiki[11] and the second part of a two-volume book, *Situationer Workbook/ Situationer Cookbook*.[12]

But first, a few words on the Social Practices department at the WdKA. In Social Practices, we address a shift in pedagogy inside and outside mainstream educational institutions to tackle social, economic, and ecological justice issues.[13] Global conditions necessitate a willingness to unlearn and relearn, to consider ways of learning otherwise.

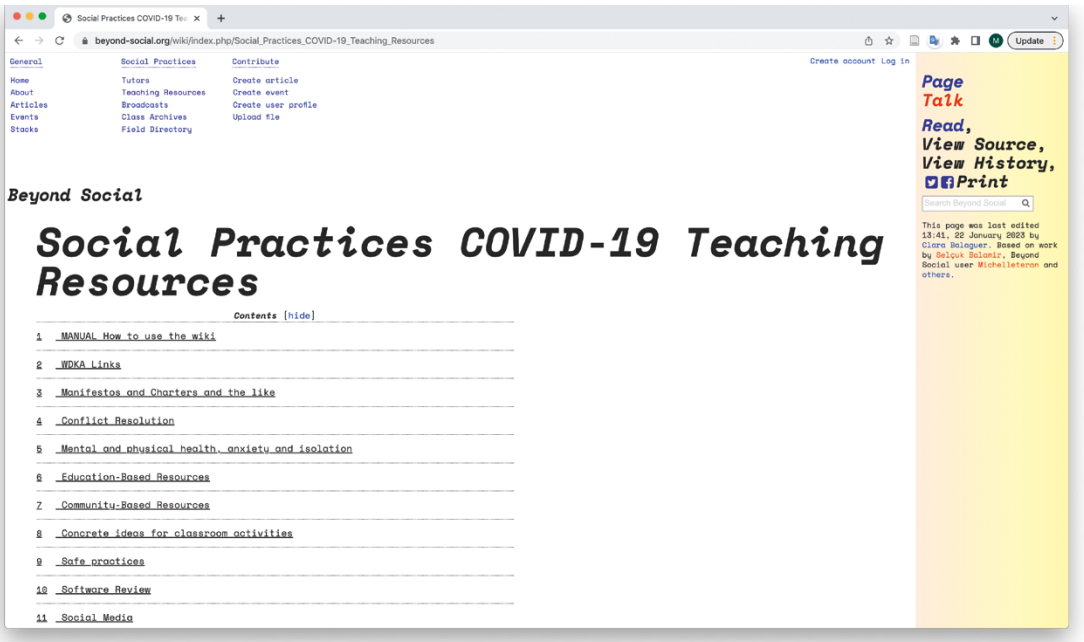


Fig.2 *Social Practices COVID-19 Teaching Resources*. Compiled by teachers and researchers at Willem de Kooning Academy (Rotterdam: Beyond Social, 2020).

These considerations call for an ecology of practices created by connecting different fields of knowledge, showing the transformative power of collective learning, and collective dialogue based on a paradigm of interdependency.[14] We orient our work around the body, specifically the collective body, cultivating forms of attentiveness and recognition towards knowledges, values, and frameworks of understanding based on humility, reciprocity, attunement, and respect. And to collectively practice a politics of care and pedagogy of active hope in order to meet the challenges of our times and for future generations.

In March 2020, our school shut its doors, and we went into lockdown. The adrenaline was high, and the situation was chaotic. The education management team at the school asked teachers to revise their curricula and shift to online education (without pause, without delay) but without immediate resources and tools. Several of us began exchanging resources, mostly software recommendations and classroom activities for online teaching. Initially, we added the references to a WhatsApp group already used by Social Practices teachers. As the tentative trickle of links quickly transformed into a raging torrent of information, the group decided to migrate the work to an Etherpad document (a non-hierarchical online writing platform where everybody is immediately an author, editor, and administrator). It became, after that, a shared writing environment open to all.

Amidst the panic and rush of the immediate here-and-now, there was little time (or even care provided for an overtaxed teaching staff) for pause and reflection. There was, however, a question that kept materializing amongst the teachers and researchers: How do we consider our role as social practitioners in these uncertain times? Within a pedagogical work that focused on social relations, orienting the (collective) body in the world and what it meant to be connected, what might be the relational practices of learning and living during a lockdown? What was a social practice during pandemic? One way of addressing this question was to take note of which categories appeared in the shared document. The open accessibility provided by the writing platform meant that anybody could create new sections and populate them with references they considered socially relevant topics for teachers and practitioners alike.

phillips-in-conversation-with-jeanne-van-heeswijk-and-rachael-rakes/; "The Black School: An experimental art school teaching radical Black politics," The Black School, accessed May 10, 2022, https://theblack.school/home/; "Welcome to Unitierra," Universidad de la Tierra Oaxaca, accessed January 22, 2023, https://unitierraoax.org/english/; Alfrida Martis en Ali Şahin, *We Have to Change*, (Rotterdam: Willem de Kooning Academy, 2022).

14 As discussed in my keynote lecture: "To Learn in Common (Which is Politics), Emergent research on transformative pedagogy," Kunstinstituut Melly, accessed January 19, 2023, https://www.kunstinstituutmelly.nl/en/engage/567-keynote-michelle-teran-to-learn-in-common-which-is-politics.

15 See, for example, "The People's Solidarity Brigades," accessed January 20, 2023, https://d1v9s1lz35l5g3.cloudfront.net/; "Mutual Aid Los Angeles Network", accessed March 20, 2020, https://www.mutualaidla.org/; "Employees of Hcm City Company Provide Free Rice to Disadvantaged People", Vietnam News, accessed April 25, 2020, https://vietnamnews.vn/society/674873/employees-of-hcm-city-company-provide-free-rice-to-disadvantaged-people.html; Mariajosé España, "Coronavirus: Traileros Recibieron Una Sorpresa Al Pasar Por El Puente

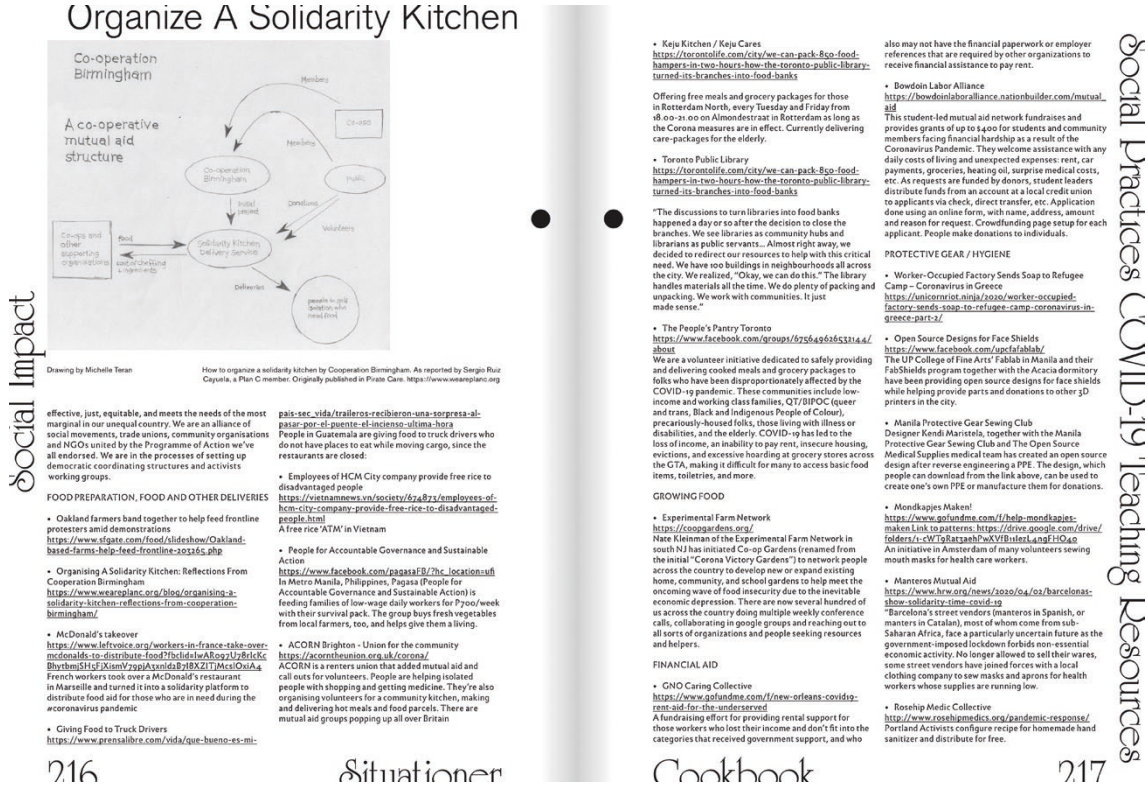


Fig.3 Example of a page spread in the *Situationer Cookbook*, from *Situationer Workbook/Cookbook*, eds. Michelle Teran, Teana Boston-Mammah and Johanna Monk, design by Hardworking Goodlooking (Rotterdam: Research Center WdKA and Publication Studio, 2021).

Many of my colleagues shared in this collective endeavor, and new categories surfaced in the shared online document. A suggested title for a new (still empty) section was soon brimming with references sourced from local and international groups and communities in times of urgency. In the first weeks of lockdown, we documented how to set up neighborhood support systems, such as writing letters to neighbors and building local solidarity pods for sharing and distributing resources. We collected examples of different safety practices (how to self-quarantine, mask making techniques, how soap kills the coronavirus, how to do safe grocery shopping, how to build a DIY emergency washing station, etc.). Our group gathered information on mental health and depression. In our joint research, we sourced examples of mutual aid actions set up by initiatives from around the world; solidarity kitchens, food banks, food distribution and delivery, providing financial aid, and distributing free masks, soap, and sanitizer. We registered global campaigns calling for rental freezes, suspending all mortgage and bill payments, and the right to stop working. Some initiatives were relatively new and formed in response to the present crisis. While others were well established, representing ongoing community care practices and solidarity initiatives geared towards caring for vulnerable populations.[15]

Our group assembled manifestos and charters (some even authored by teaching staff members) advocating solidarity for those in precarious situations, with unstable incomes and uncertain housing realities, issuing calls for community accountability to those experiencing the most acute consequences of an exploitative system. Vulnerable workers trapped in life-threatening work environments, in slaughterhouses and Amazon warehouses, the unemployed, and the undocumented. Refugees living in poor conditions in refugee camps and migrants held at border crossings. Exhausted bodies calling for a pause, to rest, to be supported, to collectively grieve[16] (Fig.2 and Fig.3).

El Incienso," Prensa Libre, March 22, 2020, https://www.prensalibre.com/vida/que-bueno-es-mi-pais-sec_vida/traileros-recibieron-una-sorpresa-al-pasar-por-el-puente-el-incienso-ultima-hora; Niko Georgiades, " Worker-Occupied Factory Sends Soap to Refugee Camp - Coronavirus in Greece, Part 2," Unicorn Riot, April 28, 2020, https://unicornriot.ninja/2020/worker-occupied-factory-sends-soap-to-refugee-camp-coronavirus-in-greece-part-2/; Cayuela Ruiz, "Organising a Solidarity Kitchen: Reflections from Cooperation Birmingham," Plan C, May 5, 2020, https://www.weareplanc.org/blog/organising-a-solidarity-kitchen-reflections-from-cooperation-birmingham/; "Kadıköy Solidarity Network Promotes Solidarity," SDG Action Awards, accessed July 12, 2020, https://sdgactionawards.org/2020/07/11/kadikoy-solidarity-network-promotes-solidarity/; "Mutual Aid and the Rebuilding of Chinese Society-Part 1," Lausen, accessed July 21, 2020, https://lausan.hk/2020/mutual-aid-and-the-rebuilding-of-chinese-society-part-1/; "Pagasa- People for Accountable Governance and Sustainable Action," Facebook, accessed May 15, 2020, https://www.facebook.com/pagasaFB/?hc_location=ufi1;




Fig.4 Scene from the film *Dignity/Dignidad* by Michelle Teran (Madrid: Synsmaskinen, 2016). Image: Michelle Teran.

Révolution Permanente, "Workers in France Take Over McDonald's to Distribute Food," Left Voice, April 13, 2020, https://www.leftvoice.org/workers-in-france-take-over-mcdonalds-to-distribute-food; "Pandemic Response: Hand Sanitizer Update," Rosehip Medic Collective, accessed June 18, 2020, https://www.rosehip-medics.org/pandemic-response/; Kartik Raj, "Barcelona's Show of Solidarity in the Time of COVID-19," Human Rights Watch, April 2, 2020, https://www.hrw.org/news/2020/04/02/barcelonas-show-solidarity-time-covid-19; "COVID-19 Global Housing Protection Legislation & Housing Justice Action," Anti-eviction Mapping Project, accessed June 23, 2020, https://anti-evictionmappingproject.github.io/covid-19-map/; "Resources to Stay Physically and Mentally Healthy During the Coronavirus Pandemic," Stay Healthy

While attempting to condense into a few paragraphs this extensive research, it strikes me how the potential for a caring infrastructure is already there. Invisible to some, blatantly apparent to others, and then within a disaster or crisis, it becomes visible to many. One might think that in an emergency, people act in individualistic, self-serving ways. Yet, what happens is quite the opposite. Individuals come together and offer each other solidarity and mutual support.[17] And one is left to ponder: In the apparent aftermath, what remains? And how might long-term sustainable care practices, rooted in places where we live, help build up community, foster alliances, and act as a counter-proposal to individuated, neoliberal ways of living?[18]

## Mutual Aid and Collective Grief

Dean Spade, lawyer, writer and trans activist, offers some thoughts to this question. Referring to his mutual aid work over the past two decades he writes:

> "Mutual aid work plays an immediate role in helping us get through crises, but it also has the potential to build the skills and capacities we need for an entirely new way of living at a moment when we must transform our society or face intensive, uneven suffering—which is already here—followed by species extinction."[19]

Mutual aid practices such as delivering groceries and medicine, serving food, sewing masks, providing legal and

Links, accessed March 26, 2020, https://docs.google.com/document/d/1xuOFtTlby9sdkM6VI-J6yHe8df2BHo1w8idSezFxjRjw/edit?fbclid=IwAR1mYttUN-1QDqOBT1CEQJ90zhiyP8S-rnjMb11Xdhqto4a8vsFEEHV-VjndV0; "DIY Emergency Handwashing Station Instructions Zine," Indigenous Action, accessed April 10, 2020, https://www.indigenousaction.org/diy-emergency-handwashing-station-instructions-zine/; "Amazon Workers Hold Wildcat Strike, Demanding Paid Leave and Safety Measures," Democracy Now!, accessed April 25, 2020, https://www.democracynow.org/2020/4/22/headlines/amazon_workers_hold_wildcat_strike_demanding_paid_leave_and_safety_measures.

16 See, for example, "Our COVID-19 Demands," United Voices of the World, accessed March 11, 2020, https://www.uvwunion.org.uk/en/know-your-rights/covid-19/our-covid-19-demands/; "#StayTheF-- Home A Movement to Stop the COVID-19 Pandemic," Staythefuckhome, accessed March 12, 2020, https://staythefuckhome.com/sfw/; Cross Border Feminists, "Cross-Border Feminist Manifesto: Emerging from the Pandemic Together," *Spectre*, https://spectrejournal.com/cross-border-feminist-manifesto/.

17 Rebecca Solnit describes this phenomenon extensively. See, Rebecca Solnit, *A Paradise Built in Hell: The Extraordinary Communities That Arise in Disasters* (New York: Penguin Books, 2009).

18 Herbst and Teran, "Everything Gardens! Working Notes Towards a Solidarity Economy," 118.

19 Dean Spade, "Mutual aid will help us survive the Biden presidency," *Roar*, November 20, 2020, https://roarmag.org/essays/dean-spade-mutual-aid-excerpt/.

20 Dean Spade, *Mutual Aid: Building Solidarity During This Crisis (and the Next)*, (London: Verso Books, 2020), 9; Oishik Sircar, "Mutual aid is present in every crisis: An Interview with Dean Spade," *Jindal Global Law Review* 13, 191–220 (2022), https://doi.org/10.1007/s41020-022-00173-w.

21 Teran, 2016.

22 Malkia Devich-Cyril, "To Give Your Hands To Freedom, First Give Them To Grief," in *Holding Change: The Way of Emergent Strategy Facilitation and Mediation*, adrienne maree brown (Chico: AK Press, 2021), 70.

financial aid, mental health support, and anti-eviction campaigns are immediate necessary forms of direct action to help people get through troubled times. Mutual aid, however, is not just some temporary band-aid solution. Instead, it asks us to take notice of our current system and the existing structures that bring about violence and harm to bodies, the environment, and the planet.[20]

I will briefly return to the occupied building in Spain by recounting another scene from the film *Dignity/Dignidad*. This scene takes place in the front patio area of La Dignidad. It is around 9.00 a.m., early morning freshness, birds awakened, chattering. Somebody wrote a sign using a black felt pen on a torn salmon-pink construction paper and taped it on a pillar: "Please. Respect this space. Don't make it dirty. It is for everybody. La Dignidad community." A single woman, wearing a black t-shirt with a red stop sign logo that says, "Móstoles Stop Desahucios," sits on a chair next to the pillar with the gaffer-taped sign. A second woman sits in another chair, out of view. She asks the first woman: *Como llegaste?*— How did you arrive? Some of the residents have decided to interview each other. Forming pairs, each interview begins with the same question: How did you arrive? As the interviews proceed throughout the day, so do the stories of arrivals to the building. People tell their stories of eviction, homelessness, economic precarity, terminal illness, and domestic abuse.[21] These are stories fraught with acute trauma, worthy of professional support and guidance. Nobody is a professional here. Nevertheless, they are taking on the heavy emotional labor of collective care by hosting a space for listening and being heard. After the boisterous action of a building takeover, with the banners, cheering, and the excitement, is the aftermath that we witness in the interviews. It is a temporary breathing space, to stop, take a pause, and listen (Fig.4).

"Thanks to my friends here, life still goes on... I'm doing very well now. And very happy", says one of the interviewees, registering a slight surprise at her sudden revelation. Her words, once uttered, charge the air, creating an anticipatory widening to a more vulnerable space. There is a gentle tenderness in this exchange. It makes a gap in the normative flow, a pause, to hold space for all things lost, pain experienced, and violence witnessed. This moment of coming together is also a highly urgent matter, and it moves at a much slower pace, following another rhythm, pacing, and relationality of building community and meeting others. It creates a space for collective grief.

"How do we bring ourselves to grieve in ways that nurture agency, accountability, and action?"[22] asks activist and writer Malkia Devich-Cyril, reflecting on their profound research on collective grief and social transformation. For Devich-Cyril, collective grief can offer the transformative potential for action and change. Grief is not just about wallowing in the pain and sorrow of loss. It creates a moment to listen to what the world is saying—listen deeply and take note without letting panic or anxiety take over, and then act on what the world is saying. Living in a moment of total infrastructural collapse within an unequal system and immense loss, built on the backs of expendable bodies, extractive policies, and a life-threatening paradigm of unending progress, what would it take to use this endless sorrow from which to act? Suffering can either stop you in your tracks or call you into action if appropriately metabolized. And what if we, as social practitioners, and agents of social change, were to make room, in our social movements and classrooms, for bereavement and collective practices grounded in grief? This inclusion, built on a pedagogy of collective care and active hope, could help to develop stamina and commitment towards action and change in a damaged world, for present and

#urgency
#affect
#atmosphere
#experience
#aesthetics

# Practicing Amid/ Upon/With Urgency

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# Practicing Amid Urgency

Michael Kimmelman, the architecture critic for *The New York Times*, writes in his foreword to the book *Structures of Coastal Resilience* (2018) that "there is no bigger challenge today than the management of coastal ecologies."[1] He goes on to state that "with climate change, this challenge has begun to take on an existential dimension, threatening the whole global economy and the stability of nations."[2] Singling out coastal ecologies as the society's most pressing issue at hand is a contentious statement even inside my world—that of landscape architecture. Challenges are many and varied, overlapping and entangled, always already socially and politically charged and can therefore never be addressed in isolation. And yet, Kimmelman's claim is a prime example of how the present times of urgency figure as an enveloping condition of existential threat, caused chiefly by the changing climate and perpetuated by the lack of urgency in responding to growing material and ontological uncertainty. As the set of possible futures decreases, urgency grows and so do calls for action—we hear of urgent threats, urgent warnings, urgent responses, urgent needs, urgent changes, urgent talks, urgent help, and the list goes on. It is not that we lack sufficient vocabulary to eloquently describe what we judge to be a matter of life-and-death, it is that we continue to place trust in urgency's mobilizing potential. At its most basic, the perceived value in labeling something as urgent is communicational: invoke the word and the information will travel faster, spread wider and reach deeper—or that, at least, is the intention.

Urgency's currency is *felt* importance and yet it seems that rather than impressing upon an individual, today's ever greater calls for urgency only lead to ever increasing urgency fatigue. With every repetition, urgency's affective intensity, its rhetorical capacity, and informational[3] value diminishes to the point where the use of the word is little but a familiar refrain.[4] Acting urgently, and with urgency, has now become a moral and cultural imperative, yet the concept itself has acquired stasis and numbing stagnation. Urgency no longer arises as a temporary interruption and a distinct event calling for immediate attention, as a difference which makes a difference.[5] It now provides the background of instability one is expected to quietly learn to live with.

Etymologically, *urgency* derives from the Latin verb *urgere*, which stands for "to press hard, push forward, force, drive, compel, stimulate," also "to weigh down on," and hence "to insist, impel."[6] These terms describe the workings of power. Urgency, then, is not only temporal but also authoritative, establishing hierarchies of concern and affecting our disposition to act. Here I follow philosopher Brian Massumi's understanding of power as what makes bodies do what they do, or, in other words, power as what increases or diminishes our power of existence—our "potential to move, act, perceive, and think."[7] What the global rise of right-wing populist movements underscored by the contemporary elevation of feeling over fact draws attention to is that what makes bodies do what they do is for the most part not a purely rational argument but rather how that argument feels.[8] Being truthful is no guarantee of being convincing. And urgency is no different: more than a state of emergency evidenced by cold hard facts, it is an affective force that moves through—holding the power to carry us, propel us, and convince us that something pressing might, after all, be at stake.

In confronting environmental urgency, landscape architecture has historically been burdened with what Rob Holmes calls *landscape solutionism*—a

1 Michael Kimmelman, "Foreword," in *Structures of Coastal Resilience*, by Catherine Seavitt Nordenson, Guy Nordenson, and Julia Chapman (Washington, Covelo, London: Island Press, 2018), x.

2 Ibid.

3 Here I follow Gregory Bateson's definition of information as affective significance, as qualitatively felt weight that turns an infinite number of differences we encounter into bits of significant information. (In: Gregory Bateson, "A Re-Examination of "Bateson's Rule," in Gregory Bateson, *Steps to An Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (New Jersey: Jason Aronson Inc, 1972), 381–400; Gregory Bateson, "Form, Substance, and Difference," in Bateson, 453–69; Gregory Bateson, "Pathologies of Epistemology," in Bateson, 481–90).

4 In *Regarding the Pain of Others*, Susan Sontag observes a similar pattern in responses to wide dissemination of "shock-photographs" of war: "Shock can become familiar. Shock can wear off." (In: Susan Sontag, *Regarding the Pain of Others* (New York: Picador, 2003), 82).

5 Bateson, "Form, Substance, and Difference", 459.

6 *Online Etymology Dictionary*, 2020, accessed 22 May, 2023, https://www.etymonline.com/word/urgent?ref=etymonline_crossreference.

7 Brian Massumi, "The Political Is Not Personal: Affect, Power, Violence," in *Couplets: Travels in Speculative Pragmatism* (Durham; London: Duke University Press, 2021), 315.

8 Michalinos Zembylas, *Affect and the Rise of Right-Wing Populism: Pedagogies for the Renewal of Democratic Education* (Cambridge: Cambridge University Press, 2021).

tendency to rationalize complex landscapes by recasting them as neatly defined solvable problems.[9] The solutionist mindset still weighs heavy, and it is the technical environmental reasoning embedded within its approaches that gives today's spatial practitioners their professional credibility, operational power, and, oftentimes, much pleasure. When the future and the environment are approached as distinct problems and technical challenges to be solved, science and engineering come to hold the promise of providing a satisfactory, albeit short-term, answer. Yet, what the discipline finds more difficult to acknowledge[10] is that there is an irrational or more-than-rational side to urgency, a side that feels before it thinks, probes more than it proves.[11] What Donovan Schaefer writes about contemporary power holds for urgency too: "It is hooked not to our transcendent rational consciousness, but to our animality."[12]

The above image (Fig.1) is a still from a British coastal conservation film made in 1965 entitled *The Vanishing Coast*. Unlike what its title might lead you to expect, the film does not speak about the environmental threat posed by the changing climate but rather warns of the aesthetic threat caused by uncontrolled spread of shacks and caravans that were, in the 1960s, blamed for disfiguring the bucolic beauty of the British coast. The film ends with the above image and the following words: "There is not too much of the coast left nor too much time to save it. The pressure grows. By the end of this century, there may be four times as many cars and seventy million of us. And England will not have stretched an inch. What happens then? What happens to this, so far still innocent? In the future it may not be such fun to be beside the sea unless we cherish our vanishing coast."[13]

At the time, the aim was for the viewers to be spellbound by the conviction and urgency in these words, affected to the point of action. The desired action was of monetary nature—the film's closing credits explain that "the film is a contribution to Enterprise Neptune, a campaign to save the seacoast. The National Trust seeks to raise £2,000,000 to buy the finest remaining stretches for the recreation and enjoyment of future generations."[14] As part of a wider campaign, the film commented on the loss of coastline to spreading coastal development—to the "invasion by chalet"[15]—resulting from the British growing love for the sea. It proposed something odd and unheard of: for a better quality of life in the long term, the public was asked to reconsider where and how they spent their leisure time, time that increased thanks to the then present-day rise in the standard of living.[16] It was argued that in order to protect the coast as "the very fabric of [the British] national existence"[17] and therefore, to act for the greater good of the nation, individual (and collective) hard-fought leisurely patterns of behavior needed to change. What was needed, aesthetically, was for Enterprise Neptune to tap into the British psyche by being intensely *felt*. The campaign pulled the right strings in the cultural and collective subconscious and, rather remarkably, raised its initial fundraising target by 1973.[18]

# Practicing Upon Urgency

If the British coast was in the latter half of the previous century about to vanish under the pressure of "the threat from within…the threat of people who [were] desperately anxious to enjoy the coast,"[19] it is now threatened by something even less docile—the rising seas. Climate change (a threat from without) and accelerated coastal erosion mean that, for many, the day-to-day's most pressing urgency is quite literally the ground that they stand on.

9 Rob Holmes, "The Problem With Solutions," *Places Journal*, July 2020, accessed 22 May, 2023, https://placesjournal.org/article/the-problem-with-solutions/.

10 The challenge of resisting the reduction of environmental design to a mere act of problem-solving has been throughout the last decades discussed by many. See, for example: James Corner, "Ecology and Landscape as Agents of Creativity," in *Ecological Design and Planning*, eds. George Thompson and Frederick Steiner (New York: Wiley and Sons, 1997); Elizabeth K. Meyer, "Beyond 'Sustaining Beauty': Musings on a Manifesto," in *Values in Landscape Architecture and Environmental Design: Finding Center in Theory and Practice*, ed. M. Elen Deming, (Baton Rouge: Louisiana State University Press, 2015).

11 "*Proving* glorifies a finite "truth" and shuts down the process of inquiry by which knowledge grows deeper and changes over time. *Probing*, on the other hand, involves active engagement with ambiguity and instability. It implies both a curiosity and a situated context for that curiosity. It requires engagement and experience." (In: Karen Lutsky and Sean Burkholder, "Curious Methods," *Places Journal*, May 2017, accessed 22 May, 2023, https://placesjournal.org/article/curious-methods/).

12 Donovan Schaefer, "It's Not What You Think: Affect Theory and Power Take to the Stage," *News from Duke University Press*, 15 February 2016, accessed 22 May, 2023, https://dukeupress.wordpress.com/2016/02/15/its-not-what-you-think-affect-

theory-and-power-take-to-the-stage/.

13 *The Vanishing Coast*, directed by John Taylor (1965).

14 Ibid.

15 "Enterprise Neptune To Save Coastline," *The Illustrated London News*, 21 August, 1965, 34.

16 "If we abandon [protecting the coastline], we might just as well abandon all the plans for a better standard of living. Because, without some remnants of the countryside which has inspired and warmed the hearts of generations of British people, life in these islands is going to be reduced to the level of animals on a factory farm..." (In: H.R.H. The Duke of Edinburgh, Patron of Enterprise Neptune, "The National Trust: Enterprise Neptune. Excerpts From Speeches Made at the Lord Mayor of London's Luncheon to Launch 'Enterprise Neptune' Given at the Mansion House on 11th May 1965," (London, 1965), 4, Central Hall: 'Enterprise Neptune' exhibit (FPC-15), The Natural History Museum Library and Archives.).

17 Ibid.

18 Lawrence Rich, *Enterprise Neptune: An Illustrated Souvenir* (The National Trust, 1990).

19 J. F. W. Rathbone and F. T. Willey, "Britain's Vanishing Coastline," *Journal of the Royal Society of Arts*, 114, no. 5115 (1965): 209.

20 UK Parliament, "The Most Important Issue of Our Time, Opposition Calls to Declare Climate Emergency," *News from UK Parliament*, 1 May 2019, accessed 22 May, 2023, https://www.parliament.uk/business/news/2019/may/mps-debate-the-environment-and-climate-change/.

21 "UK Landscape Architects Declare Climate & Biodiversity Emergency," *UK Landscape Architects Declare*, accessed 22 May 2023, https://uk.landscapearchitectsdeclare.com/.

On May 1, 2019 the UK became the first country to declare a climate emergency,[20] and a year later, the UK landscape architects followed, publishing a list of action points and insisting on the urgent need for practical action in response to climate breakdown and biodiversity collapse.[21] "Central to uses of the term emergency is," as geographer Ben Anderson writes, "a sense that something valued [...] is at risk."[22] Moreover, what the focus on emergency presupposes is that what we are dealing with is a temporary situation which is presumed to have an end, given we predict its progress and halt it in time. But as many before me have argued, climate change does not work like this. For geographer Harriet Bulkeley, climate change is not a discrete problem requiring a solution but rather "a condition that is constituted through specific forms of socio-spatial relation and in turn constitutes the politics, ethics and meaning of particular socio-spatial orderings."[23] The emphasis on the relational here is important: it allows us to see that our understanding of climate as intimately, even exclusively, tied to climate science and its abstractions, has its limits. Bulkeley writes that "climate's politics, its ethics and sensibilities are made in relation to multiple socio-material entities and situations,"[24] and not only, or even principally, in relation to science. It follows that the ways in which climate is configured powerfully act upon the kinds of events and responses that are, in the context of the climate crisis, recognized as urgent.

Understood relationally, climate is a product of socio-ecological dynamics—part meteorological variable, part scientific knowledge, part a host of practices, entities, and events that delineate how climate relates to everyday lived experience on the ground. While the climate crisis is seen as a matter of utmost importance on national and global levels, the lived experience of those most affected by the urgency of its frightening prospect paradoxically often turns out to be one of prolonged waiting. Urgency has a preference for the large scale of infrastructural systems and ecological performance, and rarely takes seriously the scale of the human body. Urgent bodies are thus discredited and compared with the objectively urgent large-scale futures seen as impulsive, irrational and subjective. Geographer Elizabeth Olson shows that "bodies are today rarely legitimate sites for claiming urgency,"[25] despite the fact that urgency is principally known by the body. The scale of the human body is the middle scale of experience and relation. This is the realm where values—those that matter socially and culturally—are shaped, expressed and fought over. It is where relations worthy of our focus and attention take place and where a connection with the world is established. Urgency, as the feeling of something mattering, is in the context of everyday life more than a product of rational assessment—it is "a thing of the senses."[26]

# Practicing With Urgency

My intention here is not to deny that there exist imminent dangers and actual problems that do require an immediate, instrumental response. Rather, it is to suggest that there is a need to acknowledge the role of experience and embodied evidence in what comes to pass as urgent, in what might truly come to count as both an opening and a break.

Urgency brings together thinking and feeling, rationality and affectivity in equal measure. As politics shows us, affect is a double-edged sword, implying both threat and potential. It is not something to be blindly trusted and, as Ryan Dohoney puts it, its persuasive force is "not [...] something to be celebrated in itself, but [rather,

to be seen] as an ontological condition to be attuned to in hopes of building better bonds and composing better worlds."[27] The concept of affect is hard to define, and I expect it to sound foreign to the uninitiated. At most, the space constraints of this paper allow me to clarify that affect speaks of change in capacity that occurs when bodies (of all kinds) encounter one another.[28] It also allows me to provide a more familiar analogy—think of an ecological disturbance. A widely accepted definition of disturbance explains that "a disturbance is any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment." [29] Not unlike affect, disturbance is conceptualized as a relation of transformation and a catalyst of change. It is an integral process of any ecosystem that causes either destructive ecosystem shifts or beneficial environmental fluctuations that maintain or enable environmental heterogeneity.

And it is this change and becoming that makes me turn to affect (as disturbance) and suggest that if part of what we strive for with our urgent interventions are new forms of common life and a transformative politics, not mere environmental fixes, then returning reason to its affective ground and appealing to an audience on an aesthetic register of experience is a worthwhile project. Arguments that exclusively rely on the knowledge of abstract reason only go so far. The urgency of creating and entering into a new relation to the future needs to be *felt* before it is intellectually processed as the correct course of action. To be able to build affective and rational commons, an appeal to urgency depends on its affective landscape. It is effective only when it is made affective—when its relational constitution is capable of feeding-forward by manifesting different qualities of movement that outline trajectories of what a body can do.

Urgency is produced, and, like any intricate composition, it cannot be divorced from the circumstances within which it develops. While it is unpredictable, relational and emergent it can, at least in part and, at least sometimes, be guided.[30] How it is configured in relation to, in this case, ecological processes as well as a host of socio-material entities and forces is crucial to how it is experienced, to what it enables or disables. As designers involved in how experience is arranged, we too often forget that "this is a whole realm of practice itself, one that requires its own apprenticeship."[31] As spatial concepts, constitution, composition, and configuration express the need for keen attention, situated experimentation, and learned skill. They also make clear that what is in question is a relationship of reciprocity: one's capacities to affect (*upon* urgency) are intertwined with one's capacities to be affected (*amid* urgency), and vice versa, which turns practicing *with* urgency into an exercise in attending and responding to the dynamism of affective stakes.

22 Ben Anderson, "Emergency Futures: Exception, Urgency, Interval, Hope," *Sociological Review* 65, no. 3 (2017): 465.
23 Harriet Bulkeley, "Navigating Climate's Human Geographies: Exploring the Whereabouts of Climate Politics," *Dialogues in Human Geography* 9, no. 1 (2019): 3.
24 Ibid., 16.
25 Elizabeth Olson, "Geography and Ethics I: Waiting and Urgency," *Progress in Human Geography* 39, no. 4 (2015): 521.
26 Kathleen Stewart, *Ordinary Affects* (Durham; London: Duke University Press, 2007), 84.
27 Ryan Dohoney, "A. N. Whitehead, Feeling, and Music: On Some Potential Modifications to Affect Theory," in *Sound and Affect: Voice, Music, World*, ed. Judith Lochhead, Eduardo Mendieta, and Stephen Decatur Smith (Chicago: The University of Chicago Press, 2022), 282.
28 Felicity J. Colman, "Affect," in *The Deleuze Dictionary*, ed. Adrian Parr, 2nd ed. (Edinburgh: Edinburgh University Press, 2010), 11.
29 P.S. White and S.T.A. Pickett, "Natural Disturbance and Patch Dynamics: An Introduction," in *The Ecology of Natural Disturbance and Patch Dynamics*, ed. P.S. White and S.T.A. Pickett (New York: Academic Press, 1985), 7.
30 Jordan Crandall, "An Actor Prepares," *CTHEORY*, no. 1000 Days of Theory (2008), accessed 22 May, 2023, https://journals.uvic.ca/index.php/ctheory/article/view/14517/5362.
31 Peter Connolly and Shaun Rosier, "Another Approach to the Aesthetics of More-Than-Humanness," *Kerb Journal* 28 (2020): 43.



Fig.1 Film still from *The Vanishing Coast*. (Documentary directed by John Taylor, produced by Pilot Films and National Benzole Company, 1965. Reproduced with permission from BP Video Library.).

#radioactive contamination
#ecology
#landscape
#nature
#photography

# Opium Poppy, Saueramp, Foxtail Grass and Wild Oats

Susanne Kriemann

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Susanne Kriemann lives in Berlin and Karlsruhe. She is an artist, professor of Fine Art Photography at the Karlsruhe University of Arts and Design (HfG) and co-founder of the artists' initiative ABA Berlin. Kriemann explores photography in the context of social history and ecology. Her practice comprises field research, archival research and experiments with technology and materials. She has exhibited internationally, e.g. at The Wattis Institute, San Francisco, Kunsthalle Wien, Townhouse Gallery, Cairo, Power Station of Art, Shanghai, Stedelijk Museum, Amsterdam, and at the Museum für Kunst und Gewerbe Hamburg. She has published seventeen artist books since 1998.



Fig.1 Susanne Kriemann. *Wild Carrot*. C-prints on ceramic paper, 110 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.

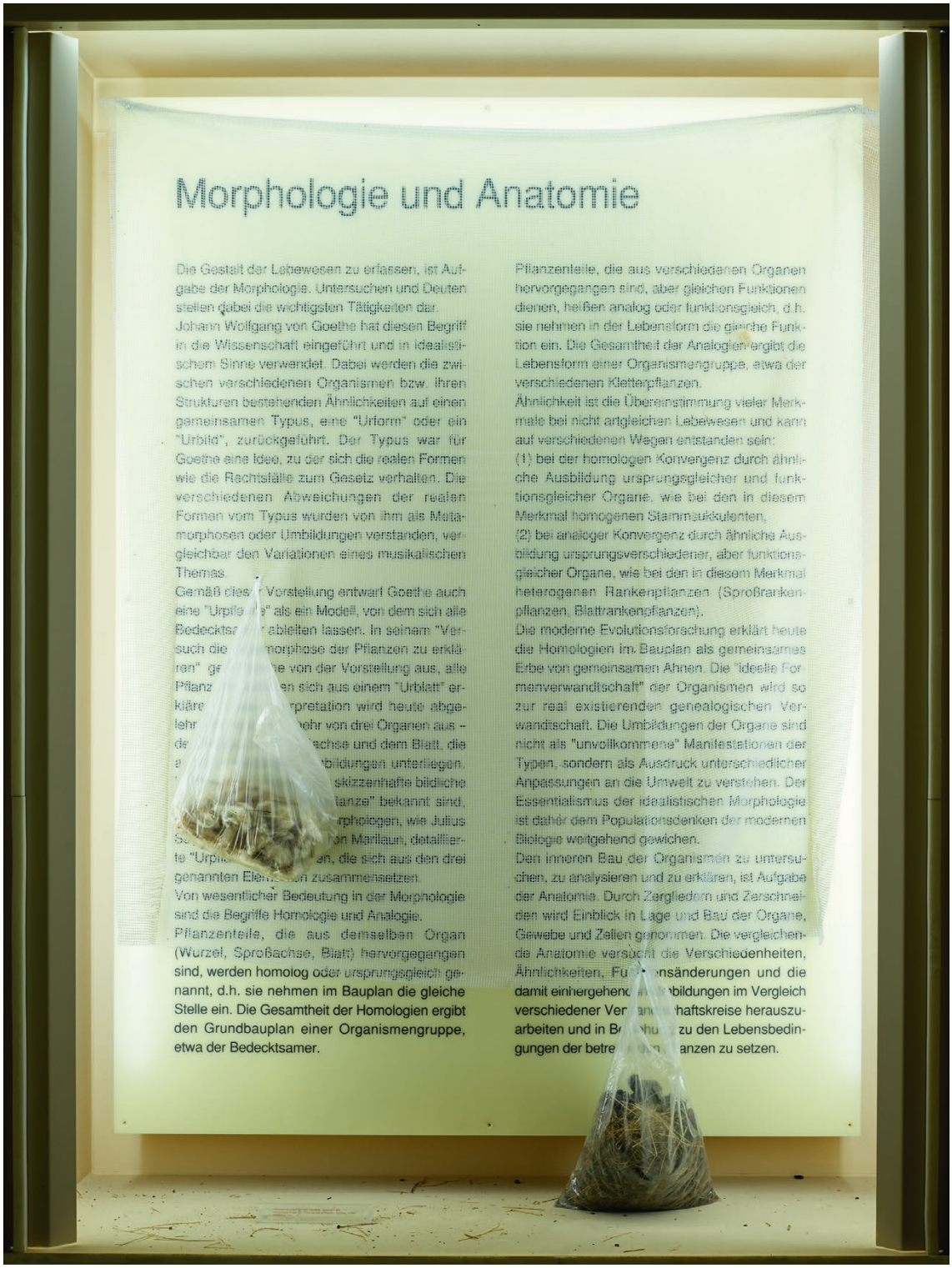


Fig.2 Susanne Kriemann. *Sheep's Dung & Wool*. C-prints on ceramic paper, 110.9 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.




Fig.3 Susanne Kriemann. *Opium Poppy*. C-prints on ceramic paper, 125.9 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.




Fig.4 Susanne Kriemann. *False Chamomile*. C-prints on ceramic paper, 112 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.



Fig.5 Susanne Kriemann. Saueramp. C-prints on ceramic paper, 126 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.




Fig.6 Susanne Kriemann. *Foxtail Grass & Wild Oats*. C-prints on ceramic paper, 126.4 x 154 cm, weeds, various materials, 2019. Image courtesy of the artist.

Opium poppy, saueramp, foxtail grass and wild oats are plant species and part of a landscape that has been in constant change since 1946. Heavy uranium mining activities by the Soviet-German company SDAG (now GmbH) Wismut resulted in radioactive spoil heaps and lakes that are now being rehabilitated by various means, e.g. plants that accumulate contaminants from the soil. Geo-textiles are being used to slowly dry out the polluted mud lakes and to bind the radioactive particles. The banked mounds are slowly being returned to the earth which will take many years starting from the 1990s all the way to the 2040s and possibly even longer.

These continual changes to the volumes in the landscape and the afterlife of radionuclides and heavy metals are the conceptual starting point for Susanne Kriemann's investigative and creative work cycle *Pechblende. Library for Radioactive Afterlife* (ongoing since 2014). The series of photographs *Wild Carrot, Sheep's Dung & Wool, False Chamomile, Opium Poppy, Saueramp, Foxtail Grass & Wild Oats* are part of the cycle. The artist documented weeds from the former uranium mining fields of Thuringia and Saxony then exhibited them in the showcases at the Botanical Museum of the Freie Universität Berlin in 2019.

The images depict a situation through a visual language that plays with the artistic device of *trompe-l'œil while* at the same time setting up analogies with our experience of surrounding matter that is radioactively contaminated. Since radioactivity is "monstrous, because it is inaudible, invisible, odorless, and intangible", which, as Martin Repohl demonstrates, categorically alters our relationship to the world even when it is not radioactive: "Now we can no longer see or determine if a fragment of the world—for example a landscape, a flower, or an apple—is toxic and deadly, or harmless and beautiful."[1] Over the years, Kriemann has developed a radically bolstered idea of photography that investigates new systems for registering events and geological periods.

1 Hartmut Rosa, *Unverfügbarkeit*, trans. A. Booth (Wien/Salzburg: Residenz Verlag, 2018).

# Imprint

(BUILDING) NEW PERSPECTIVES through Practice-led Research in Art, Design and Architecture. Symposium Proceedings
Editors: Liene Jākobsone, Dietmar Köring, Eva Sommeregger, Dina Suhanova, Māra Traumane
Art Academy of Latvia, Riga, 2023

ISBN (print version): ISBN 978-9934-630-13-2

ISBN (digital): ISBN 978-9934-630-14-9
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Conference Dates: 10-11 November 2022
Design: Eva Sommeregger
Layout: Ints Vikmanis
Fonts: Modum, Raleway
English proofreading: Džefrijs Grīnvalds

Organisers:

Art Academy of Latvia

L M D A INSTITUTE OF CONTEMPORARY ART, DESIGN & ARCHITECTURE

Supporters:

IDEUM Identitāšu ainavas: vēsture, kultūra un vide

VPP Valsts pētījumu programma

STATE CULTURE CAPITAL FOUNDATION

*(Building) New Perspectives through Practice-led Research in Art, Design and Architecture* was the first international symposium organized by the LMDA, the Institute of Contemporary Art, Design and Architecture of the Art Academy of Latvia, on 10-11 November 2022. Conceived as a trans-disciplinary event, the symposium aimed to challenge the binary divides and homogenizing conventions of scholarly research in the humanities and creative disciplines by incorporating experimental, multidisciplinary and speculative practice-based forms of inquiry. The publication reflects the diversity of critical, discursive and methodological approaches presented in the four sessions of the symposium: **Building Assemblies. (Post) digital and (Post)human Frameworks**; **(Re)Building the Practice. New Mindsets and Tools**; **Building on Crisis. Emerging Spatial Practices in Times of Urgency**, and **Debates of Landscapes and Identities. Landscape as a Resource**. The fifteen selected papers in this publication highlight the importance of differentiated, interdisciplinary, practice-led research in developing critical thinking, transforming and redirecting creative practice, and initiating change that is urgently needed in the face of current uncertainties brought about by technological, ecological and epistemological challenges and shifts in political power.

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