Mend, Blend, Attend:

Advancing Artistic Research

13th SAR International Conference on Artistic Research

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Mend, Blend, Attend: Advancing Artistic Research

How is artistic research situated today and how can it be advanced in different social, academic, and art worlds? Encompassing a variety of art and design practices from the fine arts, media arts, performing arts, music, theatre, circus, dance, design, architecture, and contemporary craft, artistic research aims to acquire and communicate knowledge and an understanding about specific materials, environmental, and social phenomena. Merging practical knowledge with theoretical and methodological approaches from the fields of art and music history and theory, performance studies, media studies, curatorial and museum studies, communication sciences, philosophy and sociology of art, as well as interdisciplinary fields such as the environmental humanities, feminist and gender studies, science, technology, and social studies, artistic research processes, and outputs are oriented toward different academic and non-academic publics. With this flexible set of skills for research creation, artistic research expands traditional knowledge and educational frameworks, adding new layers of insight and abilities at the intersections of theory and practice, academia and society. Given this interdisciplinary and intersectional sensibility, artistic research is in a unique position to confront uncertainty. The dire grievances brought on by the Covid-19 pandemic and the climate crisis, exacerbated by the devastating violence in Ukraine, Syria, Afghanistan, Columbia, Iran, Ethiopia, Palestine and beyond, demand more than utopic gestures or technological optimism. Challenged by the significant tensions of our times, artistic researchers are tasked with applying diverse forms of embodied knowledge to craft new tools for (post)crisis conviviality and radical kindness.

The 13th International Conference on Artistic Research sought to recognize the uncertainty of our times and engage with future-oriented responses to current social, cultural, ecological and economic challenges through manifold means of high-level practice and reflection in the arts. Initiated and co-organised by the Society for Artistic Research, the 13th International Conference on Artistic Research was a networking event within the international field of artistic research. Taking place from 30 June through to 3 July 2022, for the first time in Germany at the Bauhaus-Universität Weimar, the conference consisted of a twenty-four-hour online event and three days of live, on-site events, which attracted more than two hundred international researchers and seventy contributions, including workshops, online talks, research presentations and keynote lectures. The conference was structured around three main thematic clusters that brought together the state-of-the-art in artistic research to creatively respond to current global crises: Mend, Blend, and Attend. The conference was accompanied by the artistic programme, 'Spooky Actions at a Distance', consisting of four group shows and five performances and interventions. This series of events was the first comprehensive public presentation of practice-based research in art and design in Weimar, and a milestone for the Bauhaus-Universität Weimar.

In its conceptual development, the conference explicitly followed three policy documents as guidelines for excellence in artistic research: the *Frascati Manual* with its criteria for novel, creative, uncertain, systematic, transferable, and/or reproducible research (OECD 2015); the *Vienna Declaration on Artistic Research* (SAR et al., 2020); as well as the recent recommendations of the German Council of Science and Humanities (Wissenschaftsrat 2021) on postgraduate qualifications at universities of art and music. Along these lines, the conference offered a unique platform to encourage discourse and exchange, and to test out the stipulations of the *Frascati Manual* and *Vienna Declaration* with the aim of advancing an understanding of artistic research and stimulating new collaborative capacities and interdisciplinary scholarship. Using these guidelines, the conference committee, made up of members of the executive board of the Society for Artistic Research, the Faculty of Art and Design of the Bauhaus-Universität Weimar, enabled conference participants to share materials and methods, demonstrate latest technologies, reflect on participatory approaches to working with different audiences and collaborators, and present the results of longer-term projects beyond the scope of singular exhibitions or performances.

This publication offers a glimpse into the conversations, topics, and practices of artistic research presented at the 2022 SAR conference. Consisting of fifteen extended abstracts, twenty full papers, three contributions by keynote speakers, and documentation of the conference's artistic programme, the publication not only includes the event's key contributions, but also outlines new encounters in reporting, visualising, and disseminating the conference's processes and outcomes, capturing important highlights and insights that reflect the breadth of artistic research as a field of inquiry. Our aim with this publication is to make these research expositions accessible beyond the context of the conference participants and wider artistic research community, and to increase the impact of the Society for Artistic Research.

At the same time, the project serves as an overview; a contribution that transfers the current state of international artistic research into a comprehensive presentation and at the same time functions as a pilot project for the conception and design of future conference volumes in the field of artistic research.

Three Attractors

To confront the multiple crises of our times, action is required. For this reason, we chose three verbs as themes for the conference: mend, blend, and attend. These three areas of focus were used to facilitate the selection of positions presented. Rather than assigning the contributions to the three, we consider them to be attractors: forces that draw variations and attention into their proximity. Within this framing, we pick up the 'share, dare, care' threads from the 2021 online conference in Vienna to honour their legacy.

Mend
Covid-19 drastically deepened and at the same time exposed the racial, ethnic, class, and gender inequalities of societies across the globe. How can artistic researchers deal with the ruptures and damage and develop new practices of mending, in order to design an altogether different future? What practices of grieving and repair might help us move forward? How can rupture, and 'wear and tear' be acknowledged as part of a historical fabric? And how can new practices of mending contribute to concepts and communities of repair and remediation?

Blend
In view of the increasingly complex social, technological, and environmental challenges faced, artistic research offers a potential alternative; a decidedly open, hybrid, and fluid means of dissolving disciplinary boundaries. How can artistic research foster diverse and forward-looking encounters, sensitive interactions, and reflective collaborations? In turn, how can we create productive interferences, friction, and interplay between different techniques, methods, and methodologies? And what new practices of interdisciplinary blending result from knowledge transfer during such troubled times?

Attend
Proposing a research culture of 'attending to', we are interested in citational practices that swerve the canon and recalibrate the gravitational pull of historical hierarchies often embedded in knowledge production. What would it take to recognize overlooked presences? How can we attend to unacknowledged influences of artists, places, events, and things that escape or have been denied citation? With this attractor, radical attention was placed on the various forms and formats of attending to one another, through an exploration of practices such as peer-reviewing, data-sharing, knowledge transfer and non-linear forms of publishing in artistic research.

Conferencing as Conversation
Organising any event during a pandemic is akin to building on unstable ground: one has to tread with due care. And no matter how thoughtful the planning — an unforeseen shift of matter might nix the work, and one will have to start all over from scratch. The concept of the conference thus integrated hybridity from the very beginning, including an online event for a twenty-four-hour 'long conversation', which offered a variety of successive presentations accessible from different time zones. However, when the planned date approached in early spring, the number of Covid-19 cases began to rise and quarantine and social isolation measures were again put in place. As a result, the conference was postponed to the summer, leading to no small amount of additional coordination work, and demanding a high degree of flexibility from all participants, contributors and team. In consideration of the outgoing attractors, the shift in formats was necessary to lower the health risks for everyone involved. Even at the very last minute, staff, speakers, and moderators fell ill and were unable to travel. In order to mitigate this level of uncertainty, the conference was designed to be decentralised and partly online.

Online Long Conversation
For twenty-four-hours an online 'long conversation' enabled artistic researchers worldwide to create impulses in a succession of presentations spread across the different time zones. The expanded-dialogue format allowed for a large number of people to experience a variety of positions, and actively participate in discussions. This experimental moderation method followed the logic of a collective collage, based on the surrealist method *cadavre exquis*, in which collaborators co-create a composition in sequence. The 'long conversation' asked of the presenters to moderate the discussion of the speaker immediately prior to them before launching into their own presentation. Encouraging a mode of 'attending' to the research of others, the long conversation simultaneously integrated insights into one's own presentation, thus interweaving call and response elements of presenting. The twenty-four-hour online format also offered a low threshold in terms of access, and opened up the conference to artistic researchers who did not have the means or opportunity to join on site in Weimar.

Transition
An hour-long hybrid transition session linked online and on-site parts of the conference, wrapping up the 'long conversation' and initiating the on-site gathering. Conference committee members met for the first time in person on stage for a round table conversation about the past, present and future of artistic research and its impacts on society, the artworld, and interdisciplinary scholarship.

On-site
The second part of the conference fostered a decidedly different pace and atmosphere, celebrating the intensity of physical co-presence. This three day gathering was among the first opportunities for artistic researchers to come together again as a community after the pandemic. A decentralised spatial concept accommodated workshops, sessions, and SAR special interest groups under consideration of health restrictions, group sizes, and airy spaces. Performative walks and interventions established connections and resonances between the respective venues.

Spooky Actions
'Spooky Actions', the artistic programme presented by students and alumni of the PhD Programme Art and Design at Bauhaus-Universität Weimar, combined various event formats over the course of several weeks. It made the broad spectrum of approaches and positions of practice-based artistic research in the environment of the Bauhaus-Universität Weimar visible. The project focused specifically on diversity and variety, which was reflected both in the number of positions shown and in the design of formats. The leitmotif of the events was the phenomenon of 'spooky action at a distance', a concept stemming from quantum physics. It describes the entanglement of particles that while light years apart, are somehow still able to transform their properties in unison with one another, as if connected through a mysterious communication channel. Elements of ambiguity, borderlines, and connectedness at a distance related the different formats to each other.

After the pandemic experiences of distance, decentralisation, and remoteness, we may have become better accustomed to the idea of non-locality and the strange ambiguity of knowledge creation that comes with it. Through exhibitions, screenings, and performances, ‘Spooky Actions’ invited visitors to discover approaches to artistic and design research within a decentralised spatial framework. It explored (post-)pandemic ways of relating to one another and the world around us, looking to new rituals and practices of co-presence and unexpected channels of communication. ‘Spooky Actions’ combined the hyperlocal (site-specific performances) with group exhibitions, to the more diffusive experimental formats of digital space.

At the Bauhaus-Universität Weimar, a curious and open attitude toward research in art and design is not without precedent, it enjoys a long tradition. The structured doctoral programme in art and design is particularly significant in this regard. With this practice-based study programme, the Faculty of Art and Design plays a pioneering role. It offers a double qualification with an equally practical and academic graduation. ‘Spooky Actions’ aims to make the doctoral programme and, beyond that, the artistic and design research at the university visible through interconnected formats at several locations.

Part One: Keynotes

What can artistic research learn from

from
loss in
property
design
different
future?

Intermediary Reflections *Otso Aavanranta*

> [The] subjective in-between is not tangible, since there are no tangible objects into which it could solidify; the acting and speaking can leave behind no such result and end products. But for all its intangibility, this in-between is no less real than the world of things we visibly have in common.
> (Arendt 1958: 183)

Abstract
This text will unpack some key aspects of the author's enquiry into the *in-between,* beginning with questions concerning inter-musician intersubjectivity, and followed by a more general reflection on what might be revealed through shifting the vantage point of analysis from posited objects and categories, towards the spaces around and in-between them. This text narrates a selection of the author's questions and discoveries, arising out of the interplay between their praxis of duo DJ co-musicianship, and related theoretical explorations. The enquiry builds on Bernard Stiegler's notion of 'epiphylogenesis', the process exteriorisation and retention of human knowledge in a technological milieu. The text works toward linking epiphylogenesis with imagination, understood as an individual actualisation of a shared, culturally constructed commons. From there, the text discusses how co-imagination might be mobilised as part of an artistic research apparatus, as a gesture that reveals, or hints at the ineffable qualities present in the in-between.

Introduction
This is yet another story that begins with sound. Sound as a primary connection to the world, through 'maternese' (Ammaniti and Gallese 2014), and listening (Voegelin 2010). Sound also plays an essential role in the formation of social and collective identities (Seeger 2004). The intersubjective, enactive, and action-perception oriented nature of sound amounts to a kind of magnet that draws me — and some of my colleagues, I assume — towards sonic realms and their associated crafts; music-making, musical instruments, studio practices, sound art, and listening. Over time, I came to favour sound over other artistic mediums due to its capacity to assist in the creation of a shared space of attention and reaction, a kind of force-field of sensorial immediacy and bodily understanding, operating in the pre-verbal domain through the act of touching and being touched. The experience of a few decades of immersion into group musicianship have nourished my appreciation of what is at play when body-minds meet in sound. In my

enquiries, the sensorial exploration of rhythm and sound have been accompanied by its possible conceptual parallels, and a venture through theoretical-technical domains, such as musical semiosis, embodied music cognition, and music technology.

In theoretical discourse a gradual shift of focus from agents, actions, and objects towards the spaces in-between them has taken place. Starting from the case of 'musicking' (Small 1998), with sound viewed as a socially constructed field in-between players, the enquiry took its first direction towards ethically-oriented approaches, such as the 'interhuman', as first articulated by Martin Buber (Buber 1970), as well as 'resonance', in the subsequent work of Hartmund Rosa (2019). From these initial points of reference, the enquiry has extended its exploration into further levels of abstraction, in search of spaces and ways to think through notions of the in-between. In course of which, the process became a navigation of discrete units of meaning, a zig-zagging through labyrinths of *différance* and the evanescent play in-between posited meanings.

From psychology we inherit the term 'intersubjectivity' (Stern 2005), but one might instead take a broader epistemological view and shift the object of analysis away from subjects and objects, towards the milieux and spaces of the in-between. In light of such a shift, how might one then perceive, think, and operate in a world that was not constituted of subjects and objects? This presents its own challenges, since humans appear to be cognitively conditioned towards an object-oriented bias. In a quasi-automatic manner, perception carves out objects from an enactive interplay of stimuli and internalised presuppositions. Language, our conceptual apparatus, operates by casting a grid of contrasting or oppositional categories slicing the world into a set of discrete meaningful units of operation. However, in practice, the world is hardly reducible to such a neat system of abstracted classification. As Giesen puts it, an 'unclassifiable remainder' (2015) occupies the spaces in-between established units.

In this text I will attempt a formulation of some of the key aspects of my inquiry into the in-between, building primarily on Bernard Stiegler's thought on the technical milieu as a central aspect of being and becoming human. In the domain of artistic practice, this development builds on an example of shared praxis — an electroacoustic deejaying duo, I initiated with my colleague Alejandro Montes de Oca. 'The 4-Hands Electroacoustic DJ's' project has been running for several years, and is closely associated with our parallel practices of reflection and subsequent theoretical developments (Lähdeoja and Montes De Oca 2021).

An accompanying research catalogue acts as an audio-visual companion to this text, with an example of the '4-Hands Electroacoustic DJ's' practice:

https://www.researchcatalogue.net/view/2130856/2130857

Beyond Subjects
Subjects and objects populate the musico-cultural landscape. As one makes their way through musical formation and acculturation, one inherits a taxonomy of agents and artefacts: pitch sets, harmonies, temporal divisions, sonic objects, historical narratives of 'what', 'when', and 'who'; works, bodies, postures, instruments, and so forth. Gaining competence and

mastery over the constitutive sets of elements produces the effect of seeing through them. Their absolute value becomes a relative one, solidity transforms into plasticity. Enquiry and analysis accommodate a process of deconstruction in which subjects, objects, and value systems lose their sharp contours and start to gradually dissolve.

The most basic cultural presumption about music — making is that musicians express themselves through playing sounds, affecting listeners by doing so, and musical instruments merely serve as tools for this self-expression. This view comes often as a given, something of a self-evident cultural norm. This is what we might call a subject-centred model, whereby agent-subjects are connected to one another through an exchange of signs and signals. This kind of setting could be studied via a set of interaction analysis methods, such as 'performance cues', for example — which take into consideration indicators of synchronisation and mutual influence. Semiotic models such as the tripartite analysis of Jean-Jacques Nattiez, involving the levels of 'poiesis', 'neutral text', and 'esthesis' (Nattiez and Ellis 1989), and which operate on the same ground, reinforcing the image musical meaning of a one-way flow from a "creator-agent" directed towards listening 'receiver-agents'.

The subject-centred view of musicianship has already been substantively challenged by social-constructivist theories of music and creativity (Small 1988 and Sawyer 2014), ecological views emphasising action-perception loops (Maes et. al., 2014), as well as agent-environment enaction that problematizes the notion of a subjectivity that is delimited and separable from its environment (Berthoz 2000, Varela et. al., 2017).

One possible step forward is to further dissolve the monopoly of agency taken as a given by human subjects, and instead look at how the environment is populated by different kinds of beings and phenomena that exercise influence on the wider course of events. Human action mixes with, and becomes entangled with its environment, which is evidently populated and shared with non-human beings and things. For example, in a study on DJ beat production, Mads Krogh (2018) demonstrated how the materiality of a music production studio may affect human action and interactions, and play an active role in the compositional process. In this view, the 'instruments of music' hold an influence over the music in a similar manner as the musician does, and the situation can be described in terms of a dynamic network of human and non-human agencies, actors and actants, quasi-objects and quasi-subjects.

The 'actor-network theory'-influenced view offers a possible opening into a situation replete with ontological heterogeneity, through re-setting the stage for agents of multiple types and their relations. While such an approach focusing on actors and networks tells us something about the agents and relations at play it remains largely silent about the actual limits and borders of these agents, their porosities, ontological intertwinings, and the milieu that they either constitute or are immersed in.

A world constituted of agents and relations still suggests a solid mass into which analytical entities are carved out and organised according to a bloc-chain model. Such a view misses much of the interpenetrations, fluidity and shared substance evoked by Tim Ingold in his attempt to formulate a 'world without objects' (Ingold 2015: 13), and which are manifest in

the intersubjectivity of music and in the broader sense of human interplay. There is an urgent need to rethink conceptual tools that take into account the milieu, the in-between, as well as ways to articulate operations therein. However, venturing beyond the referential field of posited objects leaves one adrift at sea; what and where are the handles to grasp, stairs to step on, landmarks to map, concepts to work through? The interhuman, seems more readily comparable to a kind of hollow space, with few landmarks to offer orientation.

Towards the Milieu: Epiphylogenesis

As mentioned, an opening towards the in-between is offered in the work of Bernard Stiegler, with his concept of *Epiphylogenesis,* especially relevant in our case, being of technologically-mediated artistic practices. The term is a neologism coined by Stiegler, a portmanteau of *phylogenesis* — 'the evolutionary history of organism', and *epi,* meaning 'in addition'. In essence, *epiphylogenesis* means an 'anthropotechnical co-evolution of body-minds and tools'. Humans exteriorise their cognitive abilities onto an external technical medium, which in turn contributes to a shaping of the human. On multiple occasions, Stiegler has posited the view that technics and technology constitute a material retention of knowledge and memory, an artificial organ and humanity's essential vector of evolution. In his 2015 book *La Société automatique* (French original), *Automatic Society,* Stiegler writes:

> ... the noetic souls that are psychic individuals have expressed their expectations by tertiarizing them, that is, by projecting their retentions outside themselves and other psychic individuals, and in the form of traces through which they *spatialize* what they are living through and have lived through *temporally.* These traces are the hypomnesic tertiary retentions with which and through which these psychic individuals transindividuate themselves [...]
> (Stiegler 2018: 35)

Stiegler goes as far as affirming that hominization — that is to say, the process of becoming human — is entangled with technics, to the extent that technics and the human are viewed as constitutive of one another. Technics constitutes a fundamental body of knowledge, upon which our human civilization is founded and from which it constantly draws on:

> Hominization is immediately engaged with and as the technicization of life, inasmuch as the biological organs of the technical living being are not sufficient to guarantee its survival, and inasmuch as, in order to survive, this new form of life must invent artificial organs that in return 'organologize' its cerebral organ.
> (Stiegler 2018: 160)

Humans transfer knowledge to objects and phenomena that we fabricate, whose presence constitutes a shared memory, a collective 'retention'. In Stiegler's language, this is referred to as a form of 'prosthesis, or externalised memory'. A quintessential example of a mnemotechnic artefact, is the book, in which an author's knowledge is exteriorised for others to read

and learn. Musical instruments constitute another example, incorporating as they do, the grammar of a musical system in their very physical structure.

With Stiegler's epiphylogenesis, we are able to better identify a truly medial entity, a layer of objects and technics that are in-between humans, and are essential to our sense of humanity. They constitute nothing less than authentic medial entities of the in-between.

Praxis

At this stage, let's seek some grounding in the shared sound praxis of myself and my friend and colleague Alejandro Montes de Oca, as referred to at the beginning of this text. Beyond the written description here video examples of our duo DJ work can be found via the following link:

https://www.researchcatalogue.net/view/2130856/2130857

The praxis is electronic music co-improvisation on a shared digital DJ deck. The project originated within a music and technology related research project which focused on intersubjectivity in electronic music. In practical terms, it's about cooperating with a digital DJ deck, improvising live by playing with sound samples and from sample libraries that we had amassed, and using the DJ-deck's technical affordances to shape the sounds.

In more analytical terms and in reference to Stiegler as discussed previously, the Dj deck is a mnemotechnical artificial organ par excellence, whose memory we access in the act of playing. The deck holds not only the sonic matter itself, it also retains the musical grammar, as well as the affordances of working with it. The two human body-minds, via their hands and fingers, connect to a technological body of knowledge. While manipulating the DJ deck, the four hands work within a milieu of cultural knowledge constituted by a shared pool of norms, ideas, techniques, gestures, aesthetics, and desires.

Moreover, the artificial organ constitutes a point of juncture, both materially and sensorially. The buttons, faders, and controllers of the DJ-interface provide the means for our forty fingers to operate their joint digital rhetoric. The gestures and sound streams get mixed, entangled, and ultimately results in a single stereo output in which it can be very hard to distinguish who is doing what. The artificial organ becomes the common ground with which the body-organs can sculpt sonic plasticity, from equal standpoints. The DJ interface is a playground, a collaborative platform, a theatre of operations, one in which the notion of self-expression becomes dubious, even obsolete. My personal experiential account of this co-deejaying praxis instead points in the other direction, towards a dissolution of the self — or the selves — disaggregated in a shared stream of sound.

Imagination as In-Between

But what are the duo deejaying body-organs reaching for?

In Peter Szendy's book *Phantom Limbs, on Musical Bodies* we find a splendour of intellectual adventures on bodies of all shapes and sizes that haunt the edges of music's conceptualizations. While developing a reflection on the composition of music-making bodies, Szendy refers to

Marie Jaëll, a late nineteenth-century piano virtuoso, in these terms: 'Marie Jaël, faced with trees that raise their fat leafless branches, was struck to see the gigantic mental image of her two hands suddenly appear' (Szendy 2015: 102). Let's imagine these vegetal body-organs of trees reaching for the sky. Reaching for light, carbon dioxide, and space. Now, holding this sight in our imagination, let's substitute our duo's deejay hands for the image of trees, reaching out for the DJ platform's controllers. What are these DJ-musicians' hands reaching for? What kind of nutrients, luminosities, and spaces?

Coming back to Stiegler, to the prosthetics and epiphylogenesis of the shared body of knowledge, which in our case has taken the shape of a digital DJ interface, we may suggest that beyond the retention of factual data layers that format, encode, and grammatize the musical discourse, there is yet another domain of common ground, poetic and the properly artistic, which is made up of both sound and imagination.

As our body-minds come together in *musicking* within this 4-hands deejaying praxis, we reach for a sonic desire, a potentiality of vibration, a sonic imagination. The action-perception loop that ties us in concentrated listening and reacting, projects us towards a common desire for sound. We are hungry for delicious sounds, thriving sonic gestures, subliminal frequencies, and grooves that take shape in a shared imagination, and are mediated by the artificial organ. Our common ground is in the aesthetic understanding of an ideal sonic gesture. When deejaying side-by-side, the actuated sonic matter radiating from the speakers gets mixed with imagined and desired sonic events. Imagination drives us while the actual sound feeds us. There is continuity between the auditory and the imaginary.

'We meet in the realm of imagination' writes Dorthe Jørgensen (2018), referring to the way in which author and the reader coalesce in an imaginal space that the written words have provoked. Here, instead of words, we ride a signal path that starts from our bodies' kinetic functions, through the technological and artificial body-organ, towards a shared sonic domain where the real and the imaginary juxtapose and feed into one another.

As it appears to me that alongside the technical milieu that Stiegler focuses on in his account of epiphylogenesis and 'tertiary retention', there is an immaterial common ground which tethers it to the technology's materiality. Looking at the different levels of *the in-between* that are present in our co-deejaying situation, the technological platform constitutes a materially obvious anchoring point to a range of immaterial phenomena at work in our co-musicianship. This immaterial field of co-action can be thought to embed a shared code of musical praxis, incorporating elements that are, at least: aesthetic, epistemic, semantic, behavioural, agential, experiential, and, most importantly a part of our prospective: imaginary. In short, a socio-cultural common ground, or an immaterial commons passed on through oral tradition, cultural codes, bodily schemata, myths and shared narratives; might this be what we call a 'sociotechnic'?

Porous Subjectivities

As we commingle in the actuation of our sonic imaginations, our subjectivities dissolve, become porous. Our entities are shaped in their function of the shared body of imagination and sound, constructed by the grammar and

code embedded within the artificial organ. Waves in, waves out, the musician breathes together with the social body, and discusses with their peers near or far, those who might be living or dead. Music-making is a milieu in which one participates, affected by all the sounds that have been voiced before, and influenced the totality of that wonderfully cacophonous collection of sonic proposals.

In the act of co-playing, one enters a shared stream of sound and imagination, plus a stream of sonic gestures that extend back into history, across the globe, and across sound-emitting species. Both entries contribute to a sense of porosity, or blending, of one's self and sense of sonic agency. In the most concrete and visceral manner, the self-contained individual is put up for question in the act of co-sounding.

The worldly embeddedness of the cognising organism has been examined at length within the phenomenological traditions of philosophy. Insight into the reciprocity of the world and the cognisor have been offered by Maurice Merleau-Ponty, in particular through his notion of the 'flesh' (*chair*), unpacked by Bas de Boer and Peter-Paul Verbeek in the following terms:

> To sustain the idea that the touching and the tangible, and the seer and the seen are always interconnected with one another, but do not end up being completely identical, Merleau-Ponty introduces the notion of flesh. This notion articulates that in an act of vision, our look seems to be "in a relation of pre-established harmony with [the visible things], as though it knew them before knowing them, [...] and yet the views taken are not desultory — I do not look at a chaos, but at things — so that finally one cannot say if it is the look or if it is the things that command" (Merleau-Ponty 1968: 133). This relation of harmony makes it that perception is not an activity of the subject that allows for carving out specific visibles in an otherwise incomprehensibly chaotic field — this would be to introduce a form of transcendental subjectivity, and neither does the activity lie on the side of the object that independently carves out its own distinctive space of existence. Rather, there is a prior enmeshment of the seer and the seen: "he who sees cannot possess the visible unless he is possessed by it, unless he is of it" (Merleau-Ponty 1968: 134f.). This "it" that both the seer and the seen "are of," is what Merleau-Ponty terms the flesh.
> (De Boer and Verbeek 2022: p. 193)

In another philosophical tradition, the Madhyamaka, or 'middle way' Buddhist school of thought has developed conceptual means to strip cognisable entities of their 'thingness', pointing out how a perceived entity is a congruence of an external entity and an internal projection. Things do not exist independently as they appear to our cognition, our being-in-the world is fundamentally active, as we contribute to shaping the appearances that one cognises (Garfield 1995). If one is active in the creation of one's surroundings, then the notion of separated individuality and sharply delimited subject-object relationships stand on an assumed shared ground that no longer holds.

Participating In

Zoom-out and taking these DJ hands (Figure 2) as a symbol for a larger view on culture, one that suggests a participatory action on the material and immaterial commons. Just as these hands do, each of us with our artistic agencies operates through and in relation to our shared immaterial-cultural-bodies. One can evoke the figure of the Bricoleur, as depicted by Claude Lévi-Strauss. The French term 'bricolage' refers to the ability to recombine whatever is at hand to fashion something new. Bricolage operates with a set of 'found objects' by enquiring about their actual and possible relations. Lévi-Strauss' describes the bricoleur at work: immersed in a dialogue with the things she encounters, and tinkering with the functions and effects of events and things. The established relationship to the environment is dynamic, enactive: '[The] bricoleur builds up structures by fitting together events, or rather remains of events [...] which it never tires of ordering and reordering in its search to find them a meaning.' (Lévi-Strauss 1966: 22).

From an intersubjective perspective, one might extend the image of the individual bricoleur to include a network of them — an assemblage, or coming together of parallel and reciprocal agencies of individual bricoleurs, operating on a given, common field of art and imagination. The process — reordering, rearranging bits of culture and generating new meanings, carving out different possibilities of that field. The relationship is dynamic, a constant negotiation of becoming, in all of its dimensions that may concern the individual, the commons, and their relations. That dynamism echoes Gilbert Simondon's notion of transindividuation, expanding the idea of individuation — of perpetual self-becoming and directing it towards a collective dimension. This gives rise to psycho-social dynamics in which the I is transformed by the We and the We is transformed by the I (Crogan 2010).

Apparatus: Enmeshment of the Imaginary and the Concrete

I would now like to turn towards the notion of research apparatus in artistic research, as developed by Elke Bippus in the 2013 Orpheus Institute series book *Experimental Systems and Future Knowledge in Artistic Research.* Bippus develops a view on artistic apparatus as experimental setups that promote an exploratory attitude towards the world, an activity that investigates things but also brings into play manifold possibilities, rendering them negotiable (Bippus 2013).

This is exactly what the duo-DJ practice Alejandro and I have been developing is about. The DJ practice began in 2018 as a hands-on exploration of electronic co-musicianship. It was devised intentionally for that task — neither of us had any prior DJ practice. The DJ platform was a found object in our university's storage, and we were drawn towards the physical entanglement it offered. Thus, the practice has been conceived expressly as a research apparatus with which to work together on the in-between of music making.

We have conducted an iterative and experimental practice on the DJ deck, consisting in playing, discussing, documenting, writing, reflecting, performing, and publishing. The technological device forms the crux of a multidimensional and exploratory work that concerns the flows, territories,

hesitations, discontinuities, negotiations, unions; a dance of hands of a duo bricolage, or transindividuation in process.

The research apparatus has several parallel modes of existence and corresponding outputs. For example, it may exist as a sonic, aesthetic apparatus, and, in parallel, as a platform for experimentation and development on electronic co-musicianship tools. I would like to propose that, essentially, the function of such an artistic research apparatus can be framed as one of *revealing*.

Revealing

> The Koinobori — Japanese carp windsocks, shown in figure 3, and documented in a Japanese garden in Helsinki, seem to crystallise the idea of revealing to me: - something unseen rendered visible through its effects. One can think here of the sciences, revealing unperceivable phenomena through its sensors and theories — electromagnetism, being one example. At the same time, what one perceives here is not data to be interpreted, but rather a more direct, poetic, qualitative encounter, in this case, with the latent choreography of fish and wind and in turn of being moved by it. Once the parallel with dance is established, I might ask: what is it that moves the dancers in a human choreography ? And what does human choreography reveal?
> (Aavanranta 2023)

Returning once again to the apparatus, I am interested in the idea that artistic research apparati might have a function of revealing, mediating between the ineffable and the formally cognisable.

One can ask many different questions to the apparatus, and, depending on the question, the apparatus will reveal different perspectives or entities. The revealing itself operates through different media, and speaks in a range of languages. In our case, the revealing has brought about a new way of making music — for me, at least. An expansion of sonic practice and vocabulary. Given that we work on our own sonic material, it has also given shape to a new organisation of sounds, by now, intimately known to us — a new grammar, corresponding to the device's organisation — that is, it's mnemotechnics.

This dance of hands that we have documented on video on multiple occasions, shows a trans-individual plasticity at work — we had no map to follow, nor stated objectives or conscious structure, the situation was entirely one of improvisatory flux, and yet, there were moments when there was a palpable coherency, that revealed hints of a shared sonic imagination, an overlap in sonic desire.

Also, by seeking out correspondences between our experiential knowledge of co-deejaying and the conceptual domain, our praxis has slowly revealed a space of reflection, on the in-between, the likes of which I am trying to open up for you right here, today. Via the practice I have described, I was able to identify concepts and theoretical structures that correspond to what I have experienced — discrete entities that you might say, taste the same!

In more general terms, artistic practices are essentially liminal, with a core connection to that which is ineffable. Art is capable of speaking the

unspoken, and producing effects that make the non-obvious felt. Through their sensorial and cognitive repercussions, artworks, and the processes of their making offer indirect access to the dynamics of intermediary spaces that escape definitions and delimitations. Artistic practices can potentially act as a medium through which to bring forth a meaningful body of knowledge from these evanescent spaces of the in-between.

> There is a difference between between and in-between. [...] "Between" articulates a divided world that is already carved at the joints. [...] "In-between", by contrast, is a movement of generation and dissolution in a world of becoming where things are not yet given. Between has two terminals, in-between has none.
> (Ingold 2015: 147)

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I

II

I Otso Aavanranta (Lähdeoja) and Alejandro Montes de Oca, 4-Hands Electro-acoustic DJ's, work documentation of a shared co-deejaying practice, 2019, University of the Arts Helsinki, Otso Aavanranta (Lähdeoja)

II Otso Aavanranta (Lähdeoja) and Alejandro Montes de Oca, 4-Hands Electro-acoustic DJ's, work documentation. As the hands operate a shared bricolage on the DJ deck's material and sonic affordances, so do the participants' sonic imaginaries access and rework a shared, immaterial sonic commons, 2019, University of the Arts Helsinki, Otso Aavanranta (Lähdeoja)

III

III Japanese garden in Helsinki, Finland. *Koinobori,* Japanese carp windsocks, giving salience, shape, and poetics to the invisible dance of airflow, Otso Aavanranta (Lähdeoja) A video documentation is available at: https://www.researchcatalogue.net/view/2130856/2130857

Artistic Entanglements with Mourning

Berhanu Ashagrie Deribew

Abstract
In contexts where the mainstream language of politics consistently fails to maintain interdependency and solidarity among communities and the land, it becomes imperative to utilize the social sphere as a platform for contemplating and engaging in political transformations. This article delves into an ongoing artistic research project that explores the concept of mourning as an aesthetic, pedagogical, and political language and practice, with a primary focus on Ethiopia. As a lasting effect of the ghosts of violent pasts, a culture of fear has been cultivated, resulting in armed conflicts, a root cause of large-scale violence, displacement, and the deaths of innocent people. These ongoing precarious circumstances have instigated feelings of indignation within communities, resulting in various responses from individuals and groups, spanning from expressions of grief to that of rage. While the latter implies a destructive force and irreversible damage, the former seeks out instead the potentialities of collective mourning. In light of these, this text intends to share entanglements with artistic research practice engaged with the notion of mourning as a means to foster collective thinking, both despite and because of differences.

Keywords: violence, collective mourning, witnessing, embodied practices, artistic research.

The power of mourning can facilitate and sustain a political community — a crucial state of mind among collectives that informs and maintains various struggles in different places and times. Most powerfully, the Women in Black movement demonstrated the political meaning of mourning — how the death of others becomes a means to come together and stand against a system that has sustained itself by glorifying killings (Athanasiou 2017). My artistic project with mourning and engagement with its practices is done with the intention of responding to precarious times, to care, transform, affect, and be affected by the conditions of one another. Therefore, I am interested in connecting the responsibility of mourning with its socio-political power and the possibility of becoming an active agent and witness of its practices. In this context, I am interested in the many models of

community formations based on vulnerability and loss that have guided various communal and political struggles worldwide, such as the Black Lives Matter, and other movements rooted in grief but which point towards vision and dreams of a better collective becoming.

Collective mourning is fundamental, because all of us — in one way or another — are affected by precarious conditions. Judith Butler made a humble proposition that, despite the many differences in social background, location, history, ethnicity, gender, and economic and political situations, mourning provides a common ground and possibility to identify with one another by way of the shared experience of what it is to have lost somebody, that makes it possible to appeal to 'we' (Butler 2020: 20). I recognize such tenuous 'we(s)' as a powerful opportunity, and an opening through which to imagine and activate an altogether different form of solidarity — a means to 'become-with' one another beyond the symbolic realm (Haraway 2016: 4).

Collectively lamenting victimizations must not be understood as somehow shadowing the grief and indignation of communities, but rather a way to recognize each other's pain and suffering, and develop a collective political thinking geared towards a common struggle. It is crucial, and at the same time a highly complex endeavor to meaningfully activate the power of mourning in communities, many of whom live in precarious socio-political conditions in which state actors and political elites brutally manipulate the fragile relationships on which they depend. In Ethiopia, the ongoing reality — or more appropriately, realities — has seen the violent politicization of differences over the last three decades under the ethnic federalist system, which has resulted in displacement, and armed conflicts. Rooted in a violence which claims to be a naturalized part of the nation-building processes. As a result, new, ideologically biased, instrumentalized interpretations and revisionist historical narratives have proliferated, and incendiary rhetoric has started to take hold in the minds of many. As a result, social values of co-existence, interdependence, and solidarity have been critically affected. Extreme political polarization has become a common attribute among Ethiopian political elites, a polarization which has actively been reproduced among the country's youth and into wider society. Ethnic nationalism, thus, rendered the country into a battleground, dominated by the three majority groups in their struggle for supremacy.[1]

The absence of reflective dialogue and careful listening have further contributed to a neglect of the predicaments that all disenfranchised ethnic minorities have had to face. Instead, regional borders became charged sites of contention, and ethnic differences began to be equated with estrangement, something unbridgeable — as if they had never shared a broader past of living together in respectful relations. Based on divisive arguments of ethnic otherness, individuals and families were forcefully and violently forced out of some regions. Such a 'single root' fixed understanding of identity has always had the potential to generate devastating human consequences beyond measure (Glissant 2020: 58–60).

This disturbing reality has meant Ethiopia is ranked among the nations worst affected by internal displacement,[2] with some lands considered

1 Article 39 of the Ethiopian constitution clearly refers to the unconditional right to self-determination, including the right to secession. However, with the exception of Eritrea, which demanded a referendum and established an independent nation in 1993, no official demand from any other region for a referendum has been made.
2 The internal displacement ranking is referred to in the: *Global Report on Internal Displacement* – IDMC. 2018.

‘seizable’ and some lives ‘disposable’. (Mbembe 2019: 78–80). Thousands of innocent people were slaughtered in regions like Oromia, Benishangul, Tigray, Amhara, Afar, and Somali. These sad ongoing realities repudiate a shared past and do great harm to the collective hope for *buen vivir* (good living).[3] The possibilities for *buen vivir* necessitate respectful relations among humans, animals and plants, biodiversity and water, ancestors and future generations. It means a collective life, one that is engaged in a struggle against fears of violence and dispossession, and that generates more rallies and allies through common struggles.

In March 2019, an Ethiopian Airlines Boeing 737 MAX 8 crashed shortly after take-off from Addis Ababa. The remote location of the crash was near a small village where poor farmer families live. One year later, some of the families and friends of the deceased passengers visited the crash site to place flowers, finding that the residents of the nearby village had already gathered to perform an annual ritual to honour those who perished. Despite being strangers to the victims, the poor farmer villagers performed all the timely mourning rituals throughout the year, dedicating their time, energy, and meager resources to honour the lives lost. It is a tragic irony that those poor villagers come together to mourn the loss of strangers while others are actively engaging in violence against each other over differences despite the interdependent lives sustained for a long time.

Armed conflicts slowly turned into civil war. Thousands of innocent people were killed and brutally displaced during the two years of war in the Tigray and neighboring Amhara and Afar regions.[4] Many are still struggling to survive, and live with the ongoing fear of violence and death. The lack of any meaningful collective concern and genuine involvement of political elites, the state, the media, and the diaspora community have in their different ways overshadowed the suffering — hunger, mass starvation, violation of female bodies, displacement, and migration, the destruction of everyday life and infrastructures have become less and less of a concern than the narrative of who controls more power in the process. The level of precarity experienced for some exceeds the frame of moral or ethical questions, rather the immediate priority for many is directed at matters of survival.

On top of unresolved claims of violence in the past, we entered another cycle of violence relying on what Glissant (2020: 58–60) calls a ‘single root’ identity. Only during the last few years, the illusion of imagining a ‘community without strangers’ (Mbembe 2019: 6) resulted in thousands of people being brutally killed through unspeakable murder. More than a million people are being displaced from the land they have lived in for generations and, yet, were not afforded the necessary security and support from the state. Through this ongoing precarity, the responses of individuals and groups range from expressions of ‘grief’ to that of ‘rage’. Whereas the latter implies the danger of destruction and irreversible damage, the former seeks out the potentialities of transforming the indignation into a coming together of collective healing. In such precarious conditions, the indignation of communities should facilitate the claiming of the right, and most importantly, the responsibility to openly and collectively lament victimizations.

3 The concept of good living is adapted here as it is explained and discussed by Boaventura de Sousa Santos in his book, *Epistemologies of the South: Justice against Epistemicide,* 2014.

4 The recent war in the northern part of Ethiopia was brutal, more than half a million people lost their lives and millions have been displaced from most of the regions involved. The major actors in the war were the Tigray Regional Force, the Federal Defense Force, the Amhara Regional Force, the Afar Regional Force, and the Eritrean Defense Force, which was invited by the federal government.

The recent unfolding of political events in Ethiopia has demonstrated that where a few political elites fully control communities’ socio-political relationships, the power of the social is undermined. The political interests of a few elites can be mistaken for those of an entire community. In such manipulative situations, it is often difficult to break the influence of the few over the many, and collectively respond to the precarious socio-political conditions and move towards the possibility of imagining collective healing. Even though every community has experienced losses and is directly affected by the ongoing precarity, the possibility of coming together, despite and because of differences, seemed impossible through mainstream political rhetoric.

As a resource for politics, collective mourning should not be understood as a healing process from the scars of violence and victimization. The violence of the past is a scar, one that is impossible to heal. The scar — to borrow Moten and Harney’s concept — is a ‘debt’ that will never be paid off (2013: 150–157). What is crucial, is the recognition of the suffering in all its entirety and an acknowledgement of the forces that generated the pain in the first place. Collective mourning, in this case, can be imagined as a means to partially heal from the active and infectious wound of loss — so that we can prepare to collectively recognize and learn how to live with a problematic past, and yet still maintain relations in the present. Therefore, mourning by itself can not be considered a solution for socio-political fractures, but rather a means to facilitate political communities prepared to engage with unknown tasks that are significant to a collective becoming.

Transforming grief and sorrow into a political medium does not imply surrendering to passivity; instead, it can be viewed as a gradual progression that edges us toward identifying with the experience of suffering itself (Butler 2020: 30). In such a case, mourning as a resource for politics prepares the path for a different kind of revolution — one that sustains itself through careful listening, witnessing, and respectful relations among humans, non-human agents, and the environment. My artistic practice takes as its point of departure the insight that working with such affective states for political causes should not only be imagined through the mainstream languages of politics and knowledge, but should be more centred around embodied practices within communities.

Most mourning traditions contain performative and ritualistic elements that have the potential to become aesthetic, pedagogical, and political languages and practices. Mourning traditions within various communities and contexts offer rich possibilities for further reflection, engagement, and development of critical languages. Christina Sharpe, for example, has examined a particular mourning tradition and developed a methodology with the concepts of ‘the Wake and Wake-work’ to advance critical conversations with and about the past and ongoing precariousness of Black lives in the United States (Sharpe 2016: 1–24).

In Ethiopian mourning traditions, there is (at least was) a collective understanding that no one is meant to grieve alone — under any circumstances. This shared understanding should refer to the importance of being with others and sharing affective feelings during loss. To facilitate feeling with the other and to transfer, contaminate, or circulate the affective state of loss, there were mourning traditions like ‘ሙሾ’ *(Musho)* that involved pro-

fessional mourners. The tradition of *Musho* is fully performative and demands the professional mourner's physical and psychological presence that is constantly transferred to the mourning attendants. The performative potential of the professional mourner is, beyond performance, an embodiment with a complex potential to be explored (Giorgis 2013: 101–20).

A mourning practice called 'መርዶ' *(Merdo)* is used to inform a person or a family about the loss of their beloved one who died somewhere else. It is considered that such passing information of losses is to be an event to be attended. It is always unpredictable to imagine how a person might react to the unfortunate news of their loss, so such moments of a person and a family confronting the reality of loss are considered to be accompanied. There is also a collective mourning tradition known as 'ዉሎ' *(Wulo)* that facilitates a coming together to mourn delayed or deferred loss. When a loss is not discovered at the time of loss because of different practical reasons related to place, time, and communication gap, such as during wartime, communities dedicate one full day to accompany the person or the family to witness the loss and grieving process collectively.

Traditional community formations based on loss have always been reliable support structures during vulnerable times. Most importantly, there are solid traditional mutual-aid associations for funerals and bereavements in rural and urban contexts, called 'እድር' *(Edir).* Such traditional mutual-aid associations usually accommodate heterogeneous communities without exclusion of social background, political interest, living standard, gender, age, language, and religion. *Edir,* as a means to come together during times of loss, has the power to build trust and maintain respectful relations among the community in precarious times.

Furthermore, there are shared social norms based on vulnerability, such as 'ጡር' *(Tur)* or 'ነግ በኔ' *(Neg bene),* that have widely promoted the value of 'ርህራሄ' ('Care') among the society. These are fundamental normative principles governing associated life shared by various linguistic communities in Ethiopia (Ayalew 2022). Such shared understandings should activate the power of indignation as a moral emotion that arises in response to perceived injustice, unfairness, or wrongdoing that are becoming everyday realities in Ethiopia.

In places where the mainstream languages of politics and distorted political ideologies continuously fail to restore and maintain interdependency and solidarity among communities and the land, it is crucial to use the social as a space for thinking through and engaging with political transformations. In this respect, embracing embodied practices and situated knowledge offers a different form of thinking within precarious and divisive socio-political conditions. Such an approach is crucial to reconstitute the social as an antidote for major political fractures.

I was involved in a collective artistic research project, 'Dispossession: Post-participatory Aesthetics and the Pedagogy of Land', (Baldauf et al., 2021) facilitated by the Academy of Fine Arts Vienna and funded by the FWF-PEEK project fund.

This two year long project focused on six sites of dispossession, mainly in the 'global South'.[5] The research practice embraced and explored theories of the 'rearguard',[6] where we tried to bring together communities,

5 In the context of the research project, the Global South is not considered in relation to a fixed geography, but in respect to places with exposure to violence.
6 The theory of the 'Rearguard' is developed and articulated by Boaventura de Sousa Santos for artistic and intellectual engagements, mainly in the context of the Global South. See: *Epistemologies of the South: Justice Against Epistemicide* (Boulder: Paradigm, 2014).

nature, histories, struggles, sites, and non-human agents through the ethics of initiating and following. By exploring the theories of the rearguard and learning from the potentialities and problematics of participatory art, my part of the research 'Care and Become' engaged with and articulated a notion of 'coming-together' — as a form of aesthetic practice of the oppressed.

As part of my artistic research project, 'Care and Become', I initiated several experiments in collective mourning in Addis Ababa, where I facilitated different forms of engagements and encounters in the urban context. The collective mourning experiment was mainly initiated through attempts to recognize the problematic past and look into the ghosts of violence haunting contemporary social relations. I invited creative professionals from different fields, social backgrounds, and political interests to join the entanglement with mourning. We tried to question and respond to how a desired 'we' can be imagined through precarious living conditions where difference is at the centre of socio-political relationships. In such a desire to learn for healing and responsibility, bodily, emotional, cross-cultural, intergenerational, and spiritual engagements are imperative, as they provide a space for grief and mourning (Sifuentes 2021: 12). Taking such responsibilities, we tried to imagine different 'we(s)' that can problematize kinship's ongoing divisive understanding and function.

I emphasized a few crucial notions and engagements through my artistic research practices. The process of organising the coming-together in mourning was imagined and shaped through community formations on the bases of vulnerability and loss. Such engagement elevated a desire to recognize, engage, and embrace situated knowledge and embodied practices, where multiple knowledge can be explored, examined, and accommodated. The notion of organising, as a shared process of curiosity emphasizes the fundamental significance of commencing with the insights, encounters, and connections developed through communal approaches to organising, as both a means of political engagement and generating knowledge. In the context of militant research practices, organising has effectively facilitated research practices on different socio-economic and political issues like community struggles, migration, studying, unemployment, solidarity, and so on (Shukaitis, et al 2007: 11–33).

I tried to initiate and follow the encounters through a series of relations throughout our collective entanglement, borrowing the concept of 'initiation' from dance and performance studies that link leading and following. 'To follow is to take the initiative of engaging with the leader and demonstrating through engaging that the leader is always the one who, by leading and because of leading, must follow' (Lepecky 2013: 21–38).

I imagined all of us to be guests and hosts simultaneously. Making an effort to involve and accept others in a co-production of knowledge for recuperation demonstrates a pledge to persistent hospitality. Each of us was familiar with one another, somehow — strange simultaneously. In the context of queer-decolonial pedagogy, Mauro Sifuentes discussed the concept and commitment of 'Host-Guest' as a crucial quality to create balance in collective learning encounters by recognizing differences. (Sifuentes 2021: 13–14). We had the experience of standing as a guest in someone else's world, and hosting others in our own. There will always be a limitation in

such forms of collective learning and healing engagements — but even within the limitations, we can only share a lot.

We walked together to sites of dispossession, where the desire and violence of urban development took place in Addis Ababa between 1884 and 1886. We intended not to reach point B from point A but to walk together with a cause to entangle. We walked together as an embodied practice, accompanied by different exercises, like silence, listening, and storying. "*Walking-with* is a form of solidarity built on reciprocity and mutuality, walking and listening, talking and doing. Walking-with can be a way to walk in alliance with a land, a community, a cause, a history, or as a form of civil disobedience." (Sundberg 2014: 41). Our embodied experience with walking together generated affective and embodied forms of relationality with each other, history, loss, and landscape.

We told each other stories of care, trust, hope, loss, and vulnerability. To creatively facilitate the storytelling engagements, we used the *Association Cards for Living in Ruin,* inspired by the *OH Cards,* created by Canadian artist Ely Raman, and adapted by Willful Weeds Research Group. The *Association Cards for Living in Ruins* are tools to initiate story-telling. Composed of a set of cards with images and a set of cards with words, they invite those who hold them in their hands to create different narratives, descriptions, and stories. Words and images on the cards are polysemic: no fixed meaning is attached to them. Images can spark a multiplicity of narrative associations. In combination with a word, an image can create a third meaning or emotion that would not be held by the image and the word on their own. (Baldauf et al., 2021: 108). What stories would 'You' tell with an image of a 'monument' and the word 'care'? or an image of a 'book' and the word 'crack'?

We engaged in ritual-making practices at Mount Entoto, which was the site where the notion of urbanity first generated violence in and around the city space of Addis Ababa. In communities where the violent past continues to haunt, acknowledging and attending to the existence of ghosts is a crucial component of the struggle in the healing process (Tuck and Ree 2013: 647). Our engagement with ritual-making allowed us to explore various mourning practices and embodied experiences, which helped to generate and sustain relationality among humans, history, ghosts, and sites.

We practised mourning gestures in Meskel Square, the primary public square in Addis Ababa with a complex history of struggle and violence. Our gestures evolved into messages with significance, requests for comprehension or analysis, and inspirations to initiate conversations while engaging with bodily experiences. Thus, our gestures were meaningful and practical, embodying political acts. Anusha Kedhar discussed that choreography, movement, and gesture are not peripheral but central to the politics of protest (Kedhar 2014). Living in highly controlled and militarized urban spaces, there is always an urgency to develop systemic ways of protest and forms of refusal, for which our mourning gesture performance in public space can be an attempt to practice a systemic form of protest.

We had *WULO* ውሎ *Wulo,* a collective mourning practice that brings people together to deal with delayed or deferred losses. We engaged in full-day mourning performances at three urban sites linked to problematic past and present experiences of dispossession.

Care work and maintenance have been essential aspects of our collective interdependence. Many mourning traditions incorporate care work as a crucial responsibility towards healing, which we embraced while consciously eliminating gender roles. By taking care of one another, we fostered a sense of togetherness. In addition to working together, we shared food and drinks daily, creating a foundation of trust and maintaining our relations.

Through these and various other means, we engaged with the notion and practices of collective mourning to activate different senses, perceptions, and imaginations. However, these engagements were not considered artworks; they were approached as practices that would not be perfected. Thus, it was crucial to recognize the impossibility of achieving a particular outcome, which allows for focusing more on the quality of the process. In that conception, artistic research practices can significantly engage with situated knowledge and embodied practices as aesthetic, research, and political practices, even though there are multiple challenges that require careful understanding and engagement.

In places with precarious socio-political conditions and exposure to violence, witnessing is crucial — as a means of speaking for-and-with the other. Margarita Palacios tells us that there should always be room for 'witnessing' through a careful form of being with the other beyond the symbolic realm (Palacios 2013: 145). Such intentions of speaking with the other require a 'responsiveness' (Butler and Athanasiou 2013: 104–125) that allows oneself to be dispossessed by the precarious conditions of the other. It remains a challenge to negotiate multiple, often contradicting interpretations of violent historical events, and identify the multiple entry points for these societal narratives, while holding the conflicts in this constellation. In facing such challenges, we prepare ourselves to become active and accountable witnesses, so as to pave the way for a different form of solidarity.

The desire to think and work with notions and practices of mourning as a collective form of witnessing should enable imagination toward a politics of solidarity. Being and becoming in solidarity with others is often commonly associated with a shared mindset and political interests, social needs, moral obligations. However, Gaztambide-Fernández tells us that the most relevant to decolonizing efforts is a conception of solidarity that hinges on radical difference, while insisting on the incommensurability and interdependency of the relationships between them. Solidarity can thus be imagined as a quality of human relations premised on the relationship between difference and interdependency, rather than mere affinity and a rational calculation of self-interests (Gaztambide-Fernández 2012: 46). For that, we must rethink and relearn how to live together, both with the troubles of the past and problematic present, towards imagining a solidarity that holds one another indignant, accountable, and responsible.

Such a conception of solidarity requires moving beyond binary thinking to develop collective imaginations toward finding ways that promote social justice and equality. In situations where difference is actively fueling violence, it is essential to challenge dichotomous and dualistic divisions between victim and perpetrator, oppressed and oppressor, powerless and powerful, marginalized and privileged. Moreover, it is crucial to consider how collective thinking can shape different 'we(s)' that transcend the struc-

tural influences and control of power inherent in such dichotomous formations.

Many artistic research engagements have actively incorporated collaborative and participatory practices. In such collective entanglements, especially dealing with violence and victimization, any initiative that places the artist at the centre of the relationship should continuously be put into question. There will always be challenges and limitations in such tasks and responsibilities of working with victimized communities, requiring different languages to address and attend to collectively. Embracing such uncomfortable responsibilities allows us to imagine multiple we(s) through collective thinking, towards engaging with the possibility of worldmaking after precarity.

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I

II

I Berhanu Ashagrie Deribew, *Care and Become (Ritual-making)*, 2019, Addis Ababa.
Photo credit: Habtamu Gebremeskel
Copyright: Berhanu Ashagrie Deribew

II Berhanu Ashagrie Deribew, *Care and Become (Vocal Exercise)*, 2019, Addis Ababa.
Photo credit: Desalegn Worku
Copyright: Berhanu Ashagrie Deribew

III Berhanu Ashagrie Deribew, *Care and Become (Mourning Performance)*, 2019, Addis Ababa
Photo credit: Habtamu Gebremeskel
Copyright: Berhanu Ashagrie Deribew

ECNO
TECNO
CAMON X
WARAN STATIONERY
ESSORIES

Metabolizing the Dead: The Politics of Energy

Rolf Hughes and Rachel Armstrong

Abstract
Rolf Hughes (creative writing, artistic research) and Rachel Armstrong (architectural design, medical sciences) have used artistic research methods to collaborate across disciplines since 2016 when they composed *Handbook of the Unknowable* and the Palais de Tokyo post-circus experiment *The Temptations of the Non-Linear Ladder* as a counterpoint to the dominant conquest-based narratives that frame aspirations for the human settlement of space. Since then, they have collaborated on a range of projects — from co-authoring books, to performances, installations, scientific research projects, and teaching. In this performative presentation they explore the potential for the regenerative fabric of soil to incubate new futures for human settlement on our home planet through its ability to loosely stitch unlike bodies together through the continual, but patchy flow of electrons. The text in this manuscript is the performance script for the keynote delivered in Weimar by the authors on 3 July 2022 for SAR22. The reading was accompanied by eighty projected slides (RA) and live music (RH).

Keywords: metabolism, energy, life, microbe, communities, bodies

Many things are monstrous, but nothing is more monstrous than mankind.
from *Antigone* by Sophocles

Mary Shelley is sitting alone, watching the fire in the grate.
Everything is in perfect equilibrium.
The logs have been aflame and crackling for hours. They do not seem to burn up.

[*Pause*].

Is she going mad? Has time stopped?
If we incinerate energy without consuming the world's resources, the ravenous appetites of the Industrial Revolution would be suppressed.

If this were even possible, it implies a revolution greater even than that advocated by her husband, Percy Bysshe Shelley, the radical poet soon to die at the age of twenty-nine, in a boating accident in 1822.
She opens her notebook. *What if life itself could solve this? Might the same animating forces that enliven a body also course through the metal arteries of machines?*
She is troubled by recollections of packed rooms, metal electrodes, dissected flesh, forced convulsions. Her memory contains images too terrible to consider. And yet, they must be considered.
The dog barks — somebody at the gate perhaps? At this hour?
Could I, Mary Shelley, daughter of philosopher and political theorist William Godwin and famed feminist Mary Wollstonecraft, discover a technology that might draw a life force into itself, transforming the very impacts of human development so they become symbiotic exchanges within nature? Might such a discovery restore the very soul of our species?
Mary is still a teenager. In the teenage brain the world perpetually remains to be made. Hope and despair are wrestling in her thoughts.
As nature demands, the fire now consumes the pages on which her thoughts were impulsively scribbled. Eventually, even the embers die.

I

The ancients described life as primal matter in a state of flow.
For Thales life was water.
For Anaximenes air.
For Heraclitus fire — being always in the process of becoming all things, while all things were always returning to this elemental state.
Moses has a vision of a bush that burns but is not consumed by the flame.
Does he see a miracle? Or does he see life as an expression of processes rather than a hierarchical collection of things?
What burns, best burns through creative transfer, without incineration.
[*SFX: crackling sounds*].
The first modern principles of material chemical transformation, or 'metamorphosis', originate from alchemy.
These chemical causes-and-effects are all around us, and pass through us, joining hands for the synthesis of flesh through its growth and division into new life forms.
During the eighteenth-century, scientists made a break from the old traditions replacing the alchemical term 'metamorphosis' with 'metabolism'.
The Greek word for change — metabolism — is a basic form of life-exchange, or animal economy, responsible for the assimilation of foodstuffs into living flesh and the elimination of waste.
When things flow through us, and are completely assimilated into our bodies, do we stay the same? Or do we lose ourselves somewhere along the way?

Rachel Armstrong and Rolf Hughes, 'O, she's warm!', *Cracked Hermione,*[1] 2018, an assemblage of organic, metal, and mineral components (marble stones, gold leaf, rose petals, blood-iron salts, pearls, agar gel, sodium hydroxide, Perspex casing, spoken word sound composition, recording), Newcastle, UK, Rolf Hughes.

Fermenting bodies send signals via networks.

You see it all.

Clinging to the webs of life;
roots, dung, corpses,
rotting waste, pollution,
decomposing food, wetland soils,
necrotic tissue. Shit everywhere.

It's a form of magic, this clasp of compost.
It summons the dead into an exothermic embrace.
I must grasp it while I can. Embody it.
Make it my own. My own toxic bones.

By the 1850s Louis Pasteur's chemical view of metabolism established how cells could be understood through their chemical reactions and metabolic pathways. If it was possible to describe life as a chemical entity, then life might also be made from its ingredients.

The alchemical recipe for life seemed close at hand.

At the end of the nineteenth-century simple experiments were performed that aimed to generate life from fundamental ingredients. German chemist Moritz Traube attempted to create 'artificial cells' and Swiss zoologist Otto Bütschli produced, what he thought were single-celled organisms, from droplets of strong potash solution added to extra virgin olive oil.

1 *Cracked Hermione* [material artifact by Rachel Armstrong, poem by Rolf Hughes, 2018] for the *Women in Power National Trust Cragside Film Project* (2018) directed by Benjamin Wigley. Referencing Hermione in Shakespeare's *A Winter's Tale*, *Cracked Hermione* is a 'brick dialogue', which discusses the craft of building soils by hand on another planet to link the cycles of life and death.

Providing glimpses to other worlds, Alexander Oparin wondered whether these explorations could reveal the secrets of biogenesis. In 1924, he claimed that life on Earth developed around four billion years ago through gradual changes of organic molecules within a 'primordial soup'. In his view, the complex combination of lifeless molecules, joining forces within small oily droplets, could eventually assume more complex living characteristics like self-replication, selection, and evolution.

While simple lively materials could be produced, the actual vitalizing mechanism that linked chemistry with biology remained elusive.

At the heart of this struggle to chemically define biological systems, was modernity's inability to express the principle of flow in a way that could be easily isolated, measured, and interrogated.

This is why it clung to structure.

The discovery of DNA as the information molecule of biology and rise of new tools to develop the science of molecular biology, turned the cell into a living computer.

While genetic codes have been hacked to change their function, we still can't build life from scratch.

Our task now is to resynthesize biology; to put the organism back into its environment; connect it again to its evolutionary past.

It is time for biology to enter the nonlinear world.

[*SFX: non-linear music*].

II

You stick your seed in the ground
anticipating this sweet moment,
this troweling in the dark

to exhume, to have, to hold,
from this day,
for better, for worse,
for richer, for poorer,
in sickness, in health,
until death—

For years we have thought of soils as either 'dirt' or as a functional material without paying attention to their unique character, and spatial qualities. Today, for the first time, we can observe living soil directly rather than through its extraction and dismemberment.

What we find is that soil's composition is turned over every day by the activities and metabolism of all the organisms within it. The ground is not inert; it is a fountain of energy flowing through a network of particles, microbes, plants, and animals.

William Bryant Logan observes that each acre of soil produces a horsepower's worth of energy every day.

The voracious appetite of this community requires food from the dead and will digest almost all organic material it receives.

The complex, three-dimensional structure of the soil generates micro worlds that can be likened to our continents, oceans, and mountain ranges.

Each micro-territory establishes exactly where the soil microbes can go and what food they can access.

A soil bacterium that is only ten microns away from a mountain of organic matter but on the other side of a dense cluster of minerals, cannot digest it. In microbial terms, this potential feast is literally, on the other side of the world.

III

The dead are not quiet. [*SFX: unquiet music*]
The rich chemistry of their bodies is a great resource to the biosphere.

Restoration:

Mary Shelley's stitching dream

What? Transfer is dynamic, yes.

Yes, it holds bodies relationally.

Stitching holds bodies by form.

Once stitching starts, life can be created.

It needs to be created with care.

Stitching is all about detail.

It helps us imagine how relationships are created.

Stitching is relational, Dr Frankenstein.

It's all about—

What? Yes, rasping
uprooting
ripping
avaricious soil
aerial roots—

The greed of it all!

I am kneeling in a landscape;
heather, poppies, beetles,
a blackening harvest ripening!

[*Pause*]

The dogs stay away while I stitch.
It's the blood, I'm told.
You stick your seed in the ground,

anticipating this sweet moment,
this troweling in the dark.

To exhume. To have. To hold.
[*Pause*]

From this day.
[*Pause*]
What?
for better, for worse,
richer, poorer,
sickness, health,
until—

[*Slight pause*]

Until death—

Until death do us part.

[*Pause*]

We sat together in your sunlit kitchen.
We spoke of life, the movement of our thoughts.
You said, "Our stitching and unstitching has been as naught."
You had ribs then, marrow bones,
You knew how to kneel or break stones.
I'll stitch you back together, you know.
It's the slippery blood that slows my hand.
But I'll stitch you back together, my love.

[*Pause*]

Why do you grow quiet at the name of love?
Why is the light in your window no longer lit?
I strove to stitch you into the fibres of my heart.

[*Pause*]

Your unborn breath.
Stuck in unborn lungs.
Never to exhale.

Life, unreleased.

[RH]

IV

[*SFX: frogs*]

Equating 'life' with electricity, Luigi Galvani sought to demonstrate that frog dissections contained 'animal electric fluid'.

Obtaining this vital essence by attaching a brass wire to a frog's leg, he induced a spark of electricity by touching the leg with a steel scalpel. On doing this, the muscles strongly contracted, confirming the presence of the fluid.

To find out exactly what was causing this activity, Galvani wanted to harvest an even greater source of electricity. Attaching a wire to a frog's limbs with inserts of two different kinds of metal (brass and iron), he placed this apparatus outside during an electrical storm. As he expected, the two forces were compatible and the limbs jumped and twitched in the presence of the storm.

Regarding this new animal electricity as intrinsic to all living organisms, Galvani thought he had discovered life's vital force.

Galvani's experiments raise an early ethical question for science: should we treat the body under investigation as an indifferent machine, or as a sensitive being? Having deemed such ethical considerations irrelevant to the scientific project, pseudo-science was subsequently at liberty to channel its cruelty onto human subjects. Gathering. Sorting. Ordering.

Building upon this controversial theory, his nephew, Giovanni Aldini took his uncle's theories to an extreme, performing bizarre electrical experiments to audiences in packed operating theaters. Connecting the freshly deceased corpses of sheep, dogs, oxen, and even recently executed convicts to an electrical power source, he delivered a series of charges that caused the bodies to shake and convulse. Aldini's favorite routine was to shock corpses so that they sat bolt upright for his audiences. His most infamous demonstration took place at Newgate Prison in 1803, where Aldini delivered a high-voltage source of electricity to the recently hanged body of George Foster. A spectator described the scene:

> On the first application of the process to the face, the jaws of the deceased criminal began to quiver, and the adjoining muscles were horribly contorted, and one eye was actually opened. In the subsequent part of the process, the right hand was raised and clenched, and the legs and thighs were set in motion.[2]

Those who witnessed these spectacles, like the young Mary Shelley, were convinced that the dead could be brought back to life.

[*SFX: theremin music*]

> I laid a charred heart in a box and fed it with ambrosia, honey, sweet meat morsels.
> On Mondays, I opened the box, inviting it to inhale.
> On Tuesdays, I said my prayers, my elbows on its lid.
> On Wednesdays, caressed by the sun, it sat on the sill.
> Yet nothing grew from this black heart.
> I look on it still:
> The coal neither stirs, nor rots.

2 'George Foster' (2000), The Ex-Classics Website: https://www.exclassics. com/newgate/ng464.htm [Accessed 18 July 2023].

> It loves me.
> It loves me not.

The quest for concentrated forms of power is as old as humankind.

Four thousand years ago in Northern China, black rocks were found to burn like a log.

A similar kind of stone that washed up on the shorelines of Northeast England, was used in Roman Britain to heat the public baths and was taken back to Rome as a powerful fuel. When the western Roman Empire collapsed in 410 CE (Christian Era), and the Dark Ages overtook Europe, the energetic potency of coal was nearly forgotten.

The growing metropolitan population made it harder to find firewood, and by the year 1200, coal was a popular source of fuel in London.

With the invention of the first steam 'Newcomen' engine in 1712, demand skyrocketed.

The Industrial Revolution's huge factories harnessed unlimited coal supplies and industrial-scale electrical generators, to meet its escalating demand for electricity.

As cities across the world were lit by arc lighting, their electrical supply was turned into a commodity for homes and factories by Thomas Edison in 1879, who devised a centralized metering system.

In view of such energy abundance, with rich profits for the marketeers, capitalists could be free to do as they willed, without natural limits.

Although coal was energy dense, it could not satisfy the Industrial Revolution's modernizing ambitions. Averaging twice the energy content of coal by weight, crude oil hydrocarbons further accelerated the development of industrial manufacturing complexes.

With the invention of petroleum-based combustion systems, this new energy substrate dubbed 'black gold', quickly became the world's most important energy source.

Beyond combustion, crude oil had many additional chemical benefits. Its carbon molecules could be turned into catalogues of potent products for consumers, ranging from shiny silk-like materials like viscose; to fibers stronger than steel; stretchy threads, faux leather, non-foamy detergents; selective poisons that could kill broad leaved plants — while leaving grass for the contemporary lawn untouched; insect repellents, and treatments for all kinds of ailments, from blood pressure to head colds.

Percy Bysshe Shelley observed that such potency — which carries the prime creativity and power of life — needs a moral framework, as 'Power, like a desolating pestilence, Pollutes whate'er it touches.'

V

Rachel Armstrong and Rolf Hughes 'Larded with sweet flowers/Which bewept to the grave did go/With true-love showers.', *Caustic Ophelia*,[3] 2018, an assemblage of organic, metal, and mineral components (tulip petals, copper, pebbles, Liesegang chemistries, gold leaf, blue copper salts, red and green iron salts, caustic soda, agar gel, Perspex casing, spoken word sound composition, recording), first exhibited at the 'Adaptive Architecture' Exhibition, Nottingham Trent University (2018), Rolf Hughes.

Let us acknowledge it.

[Play audio recording from *The Brick Dialogues*][4]

The whole world becoming stone.

To commune with the living world, the cycle of life through all its gifts, including those within the realms of the dead, must be embraced.

Your eyes, poor Ophelia! Blasted. Ecstatic!

Donna Haraway (2016: 11) notes that the Old English word '*guman* later became *human,* but both [terms] come soiled with the earth and its critters, rich in humus, *humaine,* earthly beings as opposed to the gods. In Hebrew, Adam is from *adamah* or "ground".'

3 *Caustic Ophelia* [material artifact by Rachel Armstrong, poem by Rolf Hughes, 2018], is a Perspex 'brick' and 'open coffin' for Ophelia's organic material body. Slowly decomposing in the gallery, the tragic heroine's material namesake becomes soil as she 'drowns' in her soft surroundings. Through headphones, the audience hears multiple voices released by the composting process. Responsible in many different ways for transforming Ophelia's materials into some form of 'new' life, these nonhuman agents transform Ophelia's tragedy into a new beginning through the composting process. Audio: https://exlab.bandcamp.com/album/the-brick-dialogues [Accessed 30 April 23].

4 *Caustic Ophelia* (The Brick Dialogues) audio recording: https://exlab.bandcamp.com/album/the-brick-dialogues [Accessed 18 July 2023].

these petals I plucked from the wind
mulching — turning to rot, or—?

The modern, ideological view of the body imagines it mechanical, ageless, enduring in ways that resist this natural trajectory. Regarding death as nature's failure, modernity proposes that, through technological developments, humanity can overcome biological limitations to become immortal. This is an optimistic but naive worldview, as the seeds of our destruction and, ultimately, resurrection have been sown within us—at the time of our conception.

The blue bacteria.
Blasted mulch.
She's drying out.
Dying to dry out.

An open coffin within which many rivers—

For every cell that possesses human DNA, another has a completely alien, microbial identity. Fifty percent of the cells in a healthy person's body are microbial. Inhabiting the most intimate surfaces of the human body, they form a rich ecosystem, or microbiome, whose proper functioning is vital to their host's wellbeing. Integral to human physiology the human microbiome assists in digesting food, makes mood-elevating substances, provides a first-line defence against harmful microorganisms, and even produces oils that make our skin supple.

Ophelia!
What?
Nothing.
Nothing will come of nothing!

You might observe that these microbial communities are *fair weather friends,* since they are not faithful to their symbionts and hosts. If they are to remain good citizens, then, they must be actively policed — a role played by our 'immune' system.

When our immune system fails, then the multicellular communities that make up our bodies, start their journey towards a different, highly distributed existence.

When the umbilical cord of life is cut, then a new phase of metabolism begins, dramatically changing the happy mutual state-of-affairs between human and its microbiome.

Unlike the sudden rupture from liquid to air-based breathing of birth, the metabolism of a corpse slowly slides through different phases of transformation, so that it becomes more open to the environment.

This permeability characterizes the early stages of decomposition.

Good night, ladies. Good night, sweet ladies.
Good night.

Provided our remains are not incinerated, the energy-intensive processes which regulate cell boundaries are jettisoned, and we leak nutrients into the surroundings. Led by microbes, the former order of the multicellular body falls like a pack of cards.

This artificial heart.
What of it?
It's not nothing.
Good night, good night.

Rachel Armstrong and Rolf Hughes, *Metabolizing the Dead: The Politics of Energy,* 2022, SAR keynote, Weimar, Ang Bartram

[*SFX: heartbeat*].
After the heart stops beating, the circulation collapses.
Red cells can no longer carry oxygen to the tissues.
White cells usually slip between tissues to ensure that the human ecosystem is working towards survival. But now they are rendered impotent.
Left unchecked, gut bacteria at the junction between the small and large intestines start a concerted rebellion. Organising themselves as the 'thanatobiome', they devour the very tissues with which they once collaborated.

Transforming the enzyme-softened tissues of the corpse into more digestible consistencies, the thanatobiome re-organises microbial communities throughout the cadaver, which act on it through stages of decomposition.

Eventually, organs turn to liquid and the whole body disappears as a coherent multicellular object.

Yet, it has not actually 'gone' anywhere.

Becoming a decomposition island, the biological generosity of the dis-

appearing corpse helps other necrobiotic communities forge relationships with 'living' metabolic ecosystems.

Thus, expired flesh returns to the metabolic networks of the living realm.

By acknowledging our deep symbiosis with microbes and upholding our contribution to the soils, we become good ecological neighbors.

Our very existence is stitched into nature's rich and varied tapestry.

Stitching is key to life. It brings different kinds of bodies into proximity, holding them in an embrace and raising the threshold for them to find ways of being together.

Sometimes stitching is a difficult process, where no new bonds are forged. At other times proximity makes new kinds of existence possible. Think of a tapestry.

In life, electron flows are threads, whose stitches comprise the rhythm of every biological process connecting us to the living world. Witnessed as a heartbeat, the blink of an eye, a footstep, the falling autumn leaves, sleep and death, they connect us to the classical material realm while entangling us with the paradoxically strange quantum realm, with access to super-natural dimensions.

Aldini's infamous demonstrations hint that our phantom electron flows have access to an 'afterlife'. Here the dead are not gone forever but are woven into the fabric of life around us, as environmental memories and occurrences whose material traces continue to shape events.

A Spark of Life

It is an assemblage of clay — pipes, joints, knuckles, extrusions — the edges being lit by a soft light, as of dawn, that gives grey curves, contours and corners a golden hue, these being stacked in columns at the base of a stairwell, skewered by a series of slim aluminium poles. Small children fancy they see little figures in there, while others see traces of bannisters and balustrades — phantom meetings between building, atmosphere, and shadow. In the time it moved, its different limbs were said to be loosely linked by string, slack ligaments. Some rods lost to souvenir hunters, skin and patina dissolved by human body heat. We will likely never be able to recreate the subtle measure of its original movements.

Others assert the structure was never other than it is, having come into the world already bearing the many forms of dissolution so evident to a trained eye. In this interpretation, it is said to be *perfect in its imperfections,* disease being at the root of its DNA (each smile a disguised grimace).

It would likely enjoy greater recognition were there an agreed name by which scholars, geologists, engineers, biologists, philosophers, and their ilk could nail it. As it is, researchers search in vain for a credible reference in our most reputable academic journals and conferences.

That it first appeared in a building dedicated to electricity has not gone without comment. People encountering it for the first time speak of a 'spark of life' and confess to feeling '(dis)charged' or 'static'. It disappears, sometimes for months on end, whereupon a sense of loss, of creeping listlessness, slowly descends. Nobody has ever understood what it requires for its comfort. It seems happiest when left alone.

I have been asked by the owners of the building to draft a proposal for ensuring its long-term maintenance at minimum expenditure. To do this, I felt the need to understand its purpose — its desires and motivations in life. I am unlikely ever to understand this. It does not respond to speech or any other form of information gathering. Obviously, it is unable to give an account of itself, lacking the necessary apparatus.

For this reason, at the end of the day, when the building closes, and the lights are methodically extinguished, I slip off my uniform and lie next to it. I lie next to it and, barely breathing, take its various elements — hinge, joist, protuberance — one after the other, into my warm mouth, enfolding each between tongue and palette, not for the purpose of exchanging pleasure between it and I, but rather to understand, on another level, this territory we supposedly share, and which nonetheless remains so alien, so unfathomably irreducible, each to the other.

[RH]

Can we stitch together the threads of life in new ways — not with wires, but with soft flesh and the catalytic surfaces of semi-rigid materials, like bones and clay?

What kind of creature would we make then?

Microbes have always stitched the world into a living form. They continue to do so.

If we could entice them to help us have a different future, then our dependency on machines would be reduced and we would live on — closer to the living world.

If it's a machine, it is unlike anything most people would imagine.

It's a husk, a shell. A home for microbes that flourish within its cavities.

It is living architecture — 'a microbial economy that explores our livability with the natural world'.

Made up of different bioreactors, which form a city for microbes as vast as a well-stocked bookcase — specific types of communities are housed within.

Each settlement is designed to have different metabolic characteristics that potentiate the lifeworld of its neighbors.

Capable of circular resource synthesis, this living architecture consumes the organic flows that people reject everyday — gray water, urine, liquidized waste — transforming these into new resources — cleansed water, biomolecules, bioelectricity!

To know the mind of such a machine, we must align with its electro-active thoughts.

This is why another prototype, the Active Living Infrastructure: Controlled Environment, or ALICE apparatus, must be developed to directly visualize the electrical flows produced by the biofilms in these chambers. By using electron flows to form a human/microbial communications system, participants might 'interact' with microbes by feeding or warming them. Such acts of *tending to* the living components of this machine would invite new rituals for exchange and establish routines for forms of hygiene that seek mutualistic relationships with microbes, instead of their eradication.

Such a device changes modernity's paradigmatic master-slave relation to the machine and banishes the ecocidal Reign of Hygiene, that considers all microbes foe. Instead, it is replaced with a relation of symbiotic care.

Could we love such a 'machine'? Could we live together?

By displacing ourselves, our egos, our expectations of what it means to be human, from the loci of all meaningful ecological, economical activities, our daily routines might be changed in ways that enliven natural systems. By stitching our lives to the potent microbial realm, we might start new dialogues — new kinds of living, other ways of being together, reconfigured relations between the living and the dead.

Our correspondences with microbes remind us that we are more than human flesh. We are leakier. Stranger. Kinder.

The body that once called itself 'human' now realizes that it is incomplete.

It finds itself in a new 'holobiontic' union with its most intimate neighbors, its proximate surroundings.

Stitching the tapestry of life.

Because the departed remain with us. They nurture us still.

When we feel they have vanished, look to the soil.

[*Play Cragside Otherside movie by Benjamin Wigley*].[5]

Five years ago, we were asked, 'What on earth has soil to do with artistic research?'

This is our answer.

Soil is cultural memory.

It is *far from* art.

It is *more* than art.

It is *nothing but* art.

Soil is the interface that registers the ambiguities between life and death.

Thank you.

*

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5 *Cragside Otherside* by Benjamin Wigley was produced in response to the National Portrait Gallery and National Trust's exhibition called 'Faces of Change: Votes For Women', a centenary celebration of women's suffrage. Movie: https://vimeo.com/305931155 Password: VOTES FOR WOMEN [Accessed 4 April 2023].

Part Two: Conference Papers & Extended Abstracts

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How can artistic research foster diverse and

Fabulation for Future: Why Create an International Committee to Save the Earth through Speculative Fabulation?

Fee Altmann and Christine Reeh-Peters

Abstract
Humanity is currently living through a time of multiple crises as it confronts the initial consequences of the Anthropocene. Just as climate change in convergence with the new coronavirus has provoked controversial debates about the future, the sudden visibility of a far-reaching interrelatedness between the biosphere, ecosphere, and technosphere has not only led to a shift in collective consciousness — a reassertion of the human ontological condition as one of interdependency, but also to a rerouting of physical life into the digital.

To find out how to meet these current ecological, sociopolitical, cultural, and ethical challenges with artistic and philosophical means, Christine Reeh-Peters and Fee Altmann initially conceived 'Fabulation for Future', an artistic research project in September 2021 at the International Summer School, hosted by the KONRAD WOLF Film University of Babelsberg. This nine-day online event provided the opportunity to reflect and laid the groundwork to develop projects for a digital exhibition (online from June 2022 to November 2024). The project's artistic research process designs a collective critical rethinking of the human condition aiming for artistic ways to generate post-anthropocentric worldviews for a sustainable future on earth, where human and non-human species coexist. Reimagining such a future through artistic research methods can only happen by involving diverse perspectives and agencies. The sustainable goal of 'Fabulation for Future' is thus to build a worldwide sympoietic network of thinkers, artists, and filmmakers. This network is conceived as collectively acting in the form of a fictive International Committee to Save the Earth through Speculative Fabulation while preparing discourses, artistic actions, fabulative concepts, speculative narratives, and films.

Keywords: www.fabulationforfuture.net, speculative fabulation, sympoiesis, paradigm shifts, post-anthropocentrism, poetic practices

CRP: Introduction
The following text is a transcription of the talk that we, Fee Altmann (FA) and I, Christine Reeh-Peters (CRP), gave during the 13th SAR Conference 2022 at the Bauhaus-Universität Weimar in Germany. The aim of this talk, which took place as a co-presentation, was to share our intentions behind the artistic research project 'Fabulation for Future'. In the written format, we maintain the dialogical flow as a reflection of the project's collaborative co-working process.

The website we refer to throughout will be accessible for several years, but not indefinitely. The project was initiated by us in September 2021, during the International online summer school Masterclass Artistic Research in Film and Philosophy hosted by the KONRAD WOLF Film University of Babelsberg. 'Fabulation for Future' designs a collective, critical rethinking of the human subject with the goal to find artistic ways of creating post-anthropocentric worldviews for a sustainable future. A future, in which human and non-human species and entities can coexist in 'sympoiesis'.[1] The project leads with principles of ecological coexistence and agential performativity, as well as the entanglement of all elements, matter, and meaning. The whole project process took place online due to the corona pandemic.

FA: The Project's Focus and Starting Point
Encounter and co-creation constitute the character of the international, transdisciplinary, artistic research project 'Fabulation for Future'. They are a prerequisite for designing, shaping, and formulating effective transformation processes in a global setting, which should be based on valuable shared experiences. They form the ground of a joint rethinking of our present situation in times of paradigmatic shifts affecting many fields and areas. They are also the material for the development of a philosophy of relation in the current context of our pluriversal cultural communities, which also fundamentally challenge the paradigm of the West.[2] Our future relations are the foundation, heartbeat, and breath of a shared space as habitat, based on the principles of coexistence and respect. In full confidence of the transformative agency of the arts, the project builds on and seeks to create a worldwide network of artists, filmmakers, and thinkers. They operate in the form of a fictive International Committee to Save the Earth through Speculative Fabulation, preparing discourses, artistic actions, fabulative concepts, and speculative narratives. After a nine-month process of sympoietic on-

1 The word *sympoiesis* is a neologism that means 'making-with' and was introduced by Donna Haraway (2018: 53).
2 The current world situation potentiates a paradigmatic rethinking. Examples of non-Western artists and thinkers who have developed new concepts of a philosophy of relation from different perspectives include Eduard Glissant or Felwine Sarr (Glissant 2009; Sarr 2016).

line co-working, the first artifacts are currently viewable in the digital exhibition named 'How to Become a Posthuman' online from June 2022 to November 2023.[3]

CRP: Crises and Posthuman Digitization Are Interconnected

This digital exhibition deals with a critical understanding of the contemporary human subject in a crisis-ridden world. Thereby the intention is to inquire into this situation of multiple crises which seem to be interconnected: first; climate change, second; the decimation of biodiversity and destruction of the multi-species habitats on earth — including the ones of the human species as well — and third; the corona crisis which has driven humans into accelerated digitization of everyday life and culture. Consequently, the exhibition also deals with and reflects on the new digital proximity between people, that is symptomatic of their increasingly posthuman way of life.

Triggered by these crises a new form of collective consciousness has been emerging: Humanity and its environment are actually facing the consequences of the 'Anthropocene', a term critically evoking an anthropocentric age. The negative impact on Earth's ecosystem infers human responsibility for the future of the planet. The task is to overcome a self-destructive relationship with the non-human environment that threatens not only the survival of other species on Earth but also that of humanity.

But why is this so? Contemporary philosophy such as speculative realism critically questions the idea of modern Western anthropocentrism and the role of the subject in epistemic knowledge processes (e.g. Meillassoux 2009; Gabriel 2020). Moreover, humanism in particular has been discredited in recent decades and is questioned in the context of critical posthumanism as an anthropocentric image of thought that focuses on the human being, designated as the white 'man' (Braidotti 2013). To oppose such philosophical anthropocentrism, we propose to place the idea of an intra-actively entangled world at the centre of consideration. The neologism 'intra-activity' was coined by quantum ontologist Karen Barad (2007) and means that all elements and objects, material and non-material, biological and non-biological, belong to a network of complexly correlative interdependencies and co-constitutive entanglements.

FA: Artistic Research as Poietic and Poetic Practice in Times of Transformation

The discourses around the Anthropocene evoke a pluriversality that shifts and re-evaluates the specific meaning of individual distinctions of existence on a collective level. The tension between power and its distribution, between dependency and autonomy is being reloaded and problematized, which is why perspectives of sharing and caring are currently being discussed with vigor.[4] Since, the survivability of humans is fundamentally

3 New concepts of ecologies of community and principles of collectivity were foregrounded in recent biennials in Sydney and Venice, as well as the last 'Documenta' in Kassel. They explore the artistic potential of such transformation processes. For a discussion and overview see the issue of *Kunstforum International* edited by Judith Elisabeth Weiss (2022).

4 In the geopolitical context, especially in the discourses of decolonization, different perspectives on care and self-care are recently reflected, for example by Bonaventura Soh Bejeng Ndikung or Boris Groys (Ndikung 2021; Groys 2022).

in question, it follows that so too is our historical paradigm as homo sapiens. In many ways, the Anthropocene, as its result, questions the human ability to act in the present with the conventional means, logics, systems, structures and processes, and ontological self-understandings in the interest of a sustainable future. Observing an enormous delay between understanding and action, we seem to be running headlong into our own destruction, and worse still, we are the ones causing this multiplicity of destructions, including those of other beings and entities. We are damaging the vital balance of a broader concept of 'habitability' (Chakrabarty 2021).[5]

This also drastically questions how knowledge is generated, described, evaluated, and finally applied. To whom or to what serves which kind of knowledge? Which concept on which meta-level must be changed? The project, therefore, investigates and focuses not primarily on the question of why, but on how emotions and sensations, thoughts, and actions in the present can be shaped and formulated through artistic and transdisciplinary practices. How can they be medialized, experienced, and communicated to bring the right changes in the present?[6] For me, the strength of the term 'speculative fabulation' as a widespread contemporary concept lies in its potential and possibility to be understood as a 'poietic' and poetic practice, that is, a practice of creation and emergence that can be used as a practice of shaping the future. It does not follow the logic of analysis alone, which usually results in a description or explanation but not in an invention. If the word 'invention' is understood from its etymological root as 'something that is to come', then the process which is needed is more about receiving, letting something pop up, than about production, which might describe the exact opposite. Speculative fabulation, as we propose it, is, like artistic research itself, an explorative and non-controlling attitude that opens us up in many ways and makes us receptive. The main catalyzer of change is herein the confidence that is persuaded of the inventive power of poiesis.[7] For me, this means, following an artistic practice in the realm of the aesthetics of performativity, a practice for processes of becoming in which the future within a poetic concept can take place:

So, if we imagine poiesis as a space and especially one of creation, we could call it a space of the IN BETWEEN (Altmann 2022).[8] On the one hand, it is limited by the moment before any significance, and on the other hand, its limit is the moment where everything already is defined. It is a space, in which forms and ideas — in image, sound, and space — emerge, take shape, and are experienced. They are co-shaped, received, and transformed by others — beings and entities — but they don't get completely established.

Art spans such an open space of projected experience, of possibility, in which concepts of our existence are projected, in which our being in the world is expressed, in which knowledge can arise and be transformed — or not. In a poietic space, I can encounter the unlimited world of the OTHER,

5 See the thoughtful discussion of habitability within a planetary concept of history and time by Dipesh Chakrabarty (2021).

6 See the new special interest group 'Co-Agency – Artistic Research as Transformative Practice' (SIG 7) of the Society for Artistic Research organised by Jens Badura, Prerna Bishoi, Anke Haarmann, and Mari Sanden. SAR website https://societyforartisticresearch.org/resources/sar-special-interest-groups/

7 Poiesis in Greek describes, among other things, making, that which is brought into being, and poetry. For the historical derivation, see for example the article in *Metzler Philosophie Lexikon*, edited by Peter Prechtl and Franz-Peter Burkard (1996 and 2008). Otto Neumeier (2015) touches on the relation between poiesis, praxis, and theory.

8 The text passage about poiesis and the INBETWEEN has already been published in the exhibition catalog *Community Building* by the arts and research collective top_OS (Altmann 2022: 29).

on this side of restrictive power relations, under unrestricted, anarchic conditions, and I can share ideas, experiences, and creative processes. In fact, it is this artistic IN BETWEEN, where I and the other enter into a poietic and poetic condition, and where renewal and change become possible, as art permanently rethinks what is existing now and drafts future scenarios of what could be.[9]

Let us imagine a poietic dimension of our actual situation. Let us consider this a fiction of futures, a practice of futuring that draws meaning on the surface of our senses, on our skin, and opens up onto a horizon of relations, of endless possibilities. Horizon is meant as a philosophical figure of thought, and it is in its inaccessibility that the anthropocentric perspective is refracted, its reverse side, its limitations, and implicit blind spots reflected. With the discourses around the Anthropocene in mind, we feel on this skin and experience in this landscape that the virus of the pandemic and climate change allow us to experience that authorship is not solely human. The virus and climate change as part of nature have poetic potential themselves. The authors within the Anthropocene also come from geo-, bio-, and ecological spheres, whose history unfolds within a geological, planetary, or even cosmological conception of time. The landscape of understanding that the virus and climate change open up for us, is not a mute surface of projection; after all, it is they who are the authors of a counter-narrative that in the mode of auto-correction, takes a wide-angle selfie with us in the context of a non-anthropological chronotopos.[10]

CRP: The Staging of the Committee as an Example of the Pandemic Image

'Fabulation for Future' was set up for a collective exchange between international participants who together enact a fictive International Committee to Save the Earth through Speculative Fabulation. The goal was to initiate a platform for transformation through critical aesthetic thinking and action, namely through the act of speculation and fabulation. Under the provocative premise to save the world, the committee aims to generate political, social, and cultural performance through experimental artistic praxis.

We have invited newcomer artists and thinkers from all over the world to form together the *International Committee to Save the Earth through Speculative Fabulation.* The committee enacts a fictive stance to save the world by forming a 'we'. A 'we' that matters as a socio-political reality; and that has the potential to form a sympoietic transdisciplinary network of all entities and beings. As already mentioned, due to the corona pandemic the committee deputies met online in September 2021. Their meeting was specially staged by us to underline the fabulative character of the digital meeting place. The committee used the online sphere as a site for exchange, for working together, and for the presentation of the research results in the form of an exhibition 'How to Become a Posthuman'. The committee never met outside the digital realm and this fact not only becomes symptomatic for the increasingly posthuman times but turned out to be the very aesthetic condition of the committee at that time.

9 The philosopher Stefan Winter (2019: 17–18) extracts three main competences of the arts which they are contributing to contemporary transformation processes facing the unknown within open systems: 1.) analysing and criticising 2.) projecting and designing 3.) drifting and navigating.

10 The concept of the chronotope was first developed in 1937 by the literature scientist Mikhail Bakhtin (1937 [1981])

The whole online process to prepare 'How to Become a Posthuman' created an aesthetic performativity and materiality all of its own, which I like to summarize with the neologism 'pandemic image'. That is a concept I have created for an artistic, post-cinematic praxis to come. A praxis based on a new relationship with the audiovisual, triggered by the corona pandemic and its concomitant acceleration of the digitization of everyday life. The resulting new digital closeness between people, established through the constant use of videoconferencing, just like in 'Fabulation for Future', is of special relevance for filmmakers and media artists. I say so because hereby the boundaries between filmmaker, spectator, and film character have become almost indistinguishable. When people are online, they are the three at once: filmmaker, spectator, and film character. The resulting images and audiovisual sites unfold new kinds of aesthetic means and possibilities, based on changing rules and methods for the filmmaking process in a post-cinematic sense. Through their online staging with moving backgrounds, that we created, the International Committee to Save the Earth through Speculative Fabulation turned into a vivid example of the pandemic image.[11]

FA: A Dada Committee as a Performative Aesthetic Figure

The artistic research project 'Fabulation for Future' can itself be understood as a piece of speculative fabulation touching the artistic ground of socio-political cultures and activism. The central idea hereby is an old gesture and figurative, artistic setting. The fictive International Committee to Save the Earth through Speculative Fabulation is a Dada committee, a speculative figure that we created as a simple idea and consequently proclaimed a global call in spring 2021. 'What if...' we said, 'what if we convened deputies for a fictive international committee to save the Earth through speculative fabulation?'. This question was a rhetorical one, a Dadaistic gesture: playfully, artistically, and yet radically placing the agency of figuration into the space of possibilities. That is to say, the fictive committee generates political, social, and cultural performativity through experimental actions as an act of trial and error. In the tension between the virtuality of imagination and the implicit actual as a possibility, future spaces become graspable through performativity as spaces of potentialities. The deputies assume a role and become agential figures themselves in this field. Thereby, the fictive committee establishes a draft process and formulates a premise — a speculative figure of thought: it initiates the process of a future-oriented fabulative, and figurative speculation as a poietic and sympoietic act in the process of world-building, thus creating performativity within the concept of aesthetics. The future is always now.

CRP: The Committee as a Speculative Figure of Worlding

Why do we call the International Committee to Save the Earth through Speculative Fabulation a fictive committee? In the first place, 'fictive' denotes an imaginary entity, but is to be distinguished from two closely related terms: 'fictitious' and 'fictional'. All three terms come from the fiction-word-group, whereby fictional is used most often in reference to literature, movies, and theater — as categorically belonging to the genre 'fiction'. Whereas fictitious is an adjective often employed to intentionally manipulate

11 See https://exhibition.fabulationforfuture.net/committee/

a given context. For example, someone must assume a fictitious identity to disguise who they really are. In contrast with fictional and fictitious, the word fictive not only implies something invented but inventive — making a point that is not merely imaginary, but which extends into actuality. For example, you might call your mother's best friend your 'aunt' when she has no biological kin-relation to you. This is a fictive kinship one which describes better the relationship with the friend of your mother. The 'aunt' in this context fulfills the role of the fictive figure: being neither fictional, nor fictitious. Analogously, the International Committee to Save the Earth through Speculative Fabulation is based on the idea of a fictive deputyship, stretching the use of deputy to more fittingly describe the meeting of experts in this given context. This committee functions as both a fictive entity as well as a figure, in the sense of Donna Haraway (2003: 1) and her claims about figures that they 'collect up hopes and fears and show possibilities and dangers. Both imaginary and material, figures root people in stories and link them to histories.' Kathrin Thiele (2020: 47) stresses the relationship between wording and worlding in Haraway's sense of figuration: 'Figuration as a thinking tool thus has a constituting function rather than a reflective one. Figures seek to influence the world.' [Translation by the authors]. In that exact sense we have created the figure of a fictive committee: as a thinking tool which has a constituting function and seeks to influence the world.

I think it is clear now why the fictive committee differs from a metaphor and why it matters in its meaning. Haraway (2003: 8) describes for example the figure of the cyborg as '[…] a creature of social reality as well as a creature of fiction.' The committee is fictive: we are enacting an inventive stance that is not only wording but worlding. Therefore, the committee is mattering as a social reality as well. It is worlding, related to the here and now, and to be continued. It is 'a fiction mapping our social and bodily reality […] an imaginative resource suggesting some very fruitful couplings.' (Ibid. 2003: 8) This committee and many more are dearly needed in order to preserve the survival of multispecies on Earth and the planet itself: by this token, the committee is a thinking tool for action through art. An action that is happening with aesthetic means and in a transversal way.[12]

FA: The Nomadic as Poetic Figure in Times of Uncertainty

The Anthropocene as a discourse in itself calls to wake up and has a sound; perhaps even a transitional sound, namely that of a lament to be heard time and time again in crises. I remember a Dada poem by Hans Arp from 1919 that stages a poetic requiem to an 'I' in crisis, saying: 'Kaspar Kaspar Kaspar, warum bist du ein Stern geworden, oder eine Kette aus Wasser an einem heißen Wirbelwind / Kaspar Kaspar Kaspar why have you become a star or a chain of water on a hot whirlwind' (Arp 1919, Döhl 1967: 115). [Translation by the authors]. One gets the sense that then and as now, of a narrative in which the existence of uncertainty is revealed poetically, manifoldly, and is effectively beyond our control. But it is also just a narrative of the fiction of powerlessness, disappointment, and disillusionment. This means lament and critique, however, also carry a positive side, that of a desire, longing, and a wish for transformation, reorientation, and reshaping. It is this shift from disappointment to expectations that opens up a poietic space and poetic potentials which are formulated in 'Fabulation

12 Transversality is a concept deeply rooted in Félix Guattari's work on opposing hierarchic vertical power relations and finds further application in Deleuze and Guattari's two-volume work *Capitalism and Schizophrenia* (Deleuze, Guattari 1987; Guattari 1984).

for Future'. Wishing is directed toward the future, projected into the unlimited field of opportunities to work with and not against the uncertainty. We can make the uncertain work for us, for our wishes and dreams, as the material of the future. Uncertainty is the currency of speculation. Uncertainty is what gives all of us fear and hope.

In common parlance outside philosophy, speculation is a procedure in the neoliberal game of capital accumulation. In this context, speculators are primarily agents in the money business in a system of oppression.[13] 'Fabulation for Future' therefore explicitly aims to be a platform, a landing page for future commons of uncertainty, a community of counter-speculators who create counter-narratives. The homo speculans is a protagonist but not only in the narrative of economic profit. There he is the main character in the neoliberal fiction of invulnerability. 'Fabulation for Future' instead illuminates and stages thinkers and practitioners in the arts as homo speculans, as antagonists of a neoliberal homo economicus and their narratives that embrace the transitive as a constituent performative element in the flow of time.

The International Committee to Save the Earth through Speculative Fabulation is as well a nomadic figure.[14] The deputies can throw up their tent anywhere and unexpectedly. Their transformative power lies in the unpredictability by which they appear. In the words of our deputy Marie-Andrée Robitaille: the 'Last Human on Earth (is a circus artist)'.[15]

Deputies of the International Committee to Save the Earth through Speculative Fabulation were in 2021:

Dovilė Aleksaitė, Dalia AlKury, Sanja Anđelković, Bianca Baldi, Jenny Brown, Elisabeth Brun, Belén Cerezo, Suvam Das, Raquel Felgueiras, Giovanni Sabelli Fioretti, Kausik Ghosh, Florian Goeschke, Vanessa Graf, Anouk Hoogendoorn, Kristin Johnsen, Paul R Jones, Dani Landau, Andrea Liu, Stacy Lo, Roksana Niewadzisz, Marie-André Robitaille, Gonzalo H. Rodriguez, Szilvia Ruszev, Sanja Särman, Marie Louise Juul Søndergaard, Alisi Telengut, Bela Usabaev, Joshua Wagner, Lisa Walder, Dörte Weig, and Wojciech Olchowski.

13 See the discussion about the potentialities of speculation in Aris Komporozos-Athanasiou's book (2022) about speculative communities in a financialized world.

14 The nomadic is a concept that has been discussed in philosophical discourses by Gilles Deleuze and has been discussed and developed by others, among them Rosi Braidotti (Deleuze and Gattari 1994; Braidotti 1994).

15 Marie-Andrée Robitaille is currently finishing her artistic PhD project 'Circus as Practices of Hope' in performative and media-based practices in choreography and in circus at Stockholm University of the Arts (SKH), Sweden. She is one of the deputies of the International Committee to Save the Earth Through Speculative Fabulation and has contributed also to the digital exhibition 'How to Become A Posthuman'. Her artistic and theoretical impulses inspired the 'Fabulation for Future' project and the members of the committee.

I

II

III

I Marie-Andrée Robitaille, *Circle as a Methodology/an Ethical Quest,* 17.09.2022, videostill, part of the online installation 'International Committee to Save the Earth through Speculative Fabulation' assembled by Christine Reeh-Peters / Fee Altmann, online exhibition 'How to Become a Posthuman', Marie-Andrée Robitaille, https://exhibition.fabulationforfuture.net/committee/ [Accessed 01 May 2023][16]

II Florian Göschke, *Sonic Fabulation: Rethinking Cybernetics In(Non) Human-Machine Interactivity,* 16.09.2022, videostill, part of the online installation *International Committee to Save the Earth through Speculative Fabulation* assembled by Christine Reeh-Peters / Fee Altmann, online exhibition 'How to Become a Posthuman', Florian Göschke, https://exhibition.fabulationforfuture.net/committee/ [Accessed 01 May 2023][17]

III Marie-Andrée Robitaille, *Multiverse,* 2022, videostill, part of the online installation *International Committee to Save the Earth through Speculative Fabulation* assembled by Christine Reeh-Peters / Fee Altmann, online exhibition 'How to Become a Posthuman', Einar Kling Odencrants https://exhibition.fabulationforfuture.net/committee/ [Accessed 01 May 2023]

16 Still of circus and performance artist-researcher Marie-Andrée Robitaille while giving her talk as deputy of the International Committee to Save the Earth through Speculative Fabulation.
17 Still of Florian Göschke as deputy of the International Committee to Save the Earth through Speculative Fabulation and still of Göschke's giant attending a Zoom conference during 'Fabulation for Future'.

Dizziness, Anxiety, and Climate Action: Reflecting on the Possibilities of Artistic Research from the Viewpoint of Compossible Space

Ruth Anderwald and Leonhard Grond

Dizziness destabilizes. A sensation of instability and uncertainty, it changes our relation to spacetime and can manifest as a moment of surprise, perplexity, or aporia. Thus, our artistic research widens the term 'dizziness' as an insufficient translation of the German *'Taumel'*. *Taumel* describes not only the subjective feeling of vertigo, light-headedness, or disequilibrium but also invokes the staggering motion of a dizzy body. Thus, it emphasizes that dizziness cannot be understood without its physiological basis of embodiment and its consequences (Anderwald et al., 2021). Therefore, dizziness is conceptualized as an unpredictable motion, or the sensation of such motion, which causes a

shift from the given to the uncertain. This shift destabilizes individuals, elements, systems, multitudes, and environments. The physiological reaction to unforeseen motion causes disorientation: 'One moment does not follow another, as a sequence of spatial givens that unfold as moments of time. There are moments in which you lose one perspective, but the 'loss' [...] is an object with thick presence.' (Ahmed 2006: 158). These moments, anxiety-inducing as they may be, are indicators of transformative potential. Thinking dizziness with philosopher Søren Kierkegaard allows us to understand states of dizziness and anxiety as providing the possibility of possibilities, creating a compossible space, an actual and theoretical spacetime where different — even contradictory — elements and motions may compound. Based on the concept of the compossible space and augmenting this concept by involving the fields of somaesthetics and somatic practices, such as Feldenkrais, this artistic research traces dizziness, anxiety, instability, and uncertainty as the potential for an intra-active growing together. Cognition and agency on the unstable grounds of dizziness, however, are precarious, uncertain, and difficult even if they allow for the emergence of new possibilities. The resourcefulness of dizziness, intrinsically linked to conditions of agency, freedom, and future, after Kierkegaard, is not without risk or destructive components. Looking over the edge into an abyss means looking into

one's possibilities and futures: 'The possible corresponds in all ways to the future.' (Kierkegaard 1980: 111). The perception of our agency is habitual but can be transformed by dizziness (Anderwald et al., 2019; Touam Bona 2023). States of dizziness allow us to reorient, but as they offer new directions, we must ensure that their path directs us toward the sustainable and generative (Ahmed 2006). The artistic research on dizziness challenges the habitual approach to certainty, stability, and balance as the supposedly steady and durable ground, in short, as the only possible grounding on which to build, to expose the dynamics of dizziness as a sustainable basis for creating generative perspectives for the immediate future.

States of dizziness do not happen to an isolated individual or element, nor do they appear on a clearly delineable frame or scope. As we become dizzy, we reach for anything promising us the possibility of regaining our equilibrium. Thus, dizziness must be explored in terms of liminal relationships involving the physical, psychological, spatial, and social embeddedness of the element, structure, individual or multitude affected by dizziness. Thereby, states of dizziness foreground what is usually conceived of as background, that is, the living, sentient body as the proprioceptive and sensory background of experience and cognition (Shusterman 2012). Moreover, relegated to the background are physical, designed, social, digital, imaginary, and

cultural environments, including notions of locus, territory, network, node, atmosphere, climate, energy, gravity, modes of motion, change and (societal, digital, spatial, cognitive, physical, silent or perceivable) transformation. Addressed as agencies, these backgrounds become objects of knowledge and operate as conceptual devices. As they transform, they enact transformation for all spheres and participants involved, impacting the dynamics and relations of living and non-living bodies, energies, atmospheres, algorithms, and the epistemes ensuing from their convergence (Touam Bona 2023). The perspective on the dizzying dynamics of backgrounds and their agency is crucial for understanding the climate emergency. Furthermore, such comprehension has the potential to advance a paradigmatic shift to reconsider what can be deemed 'productive' today.

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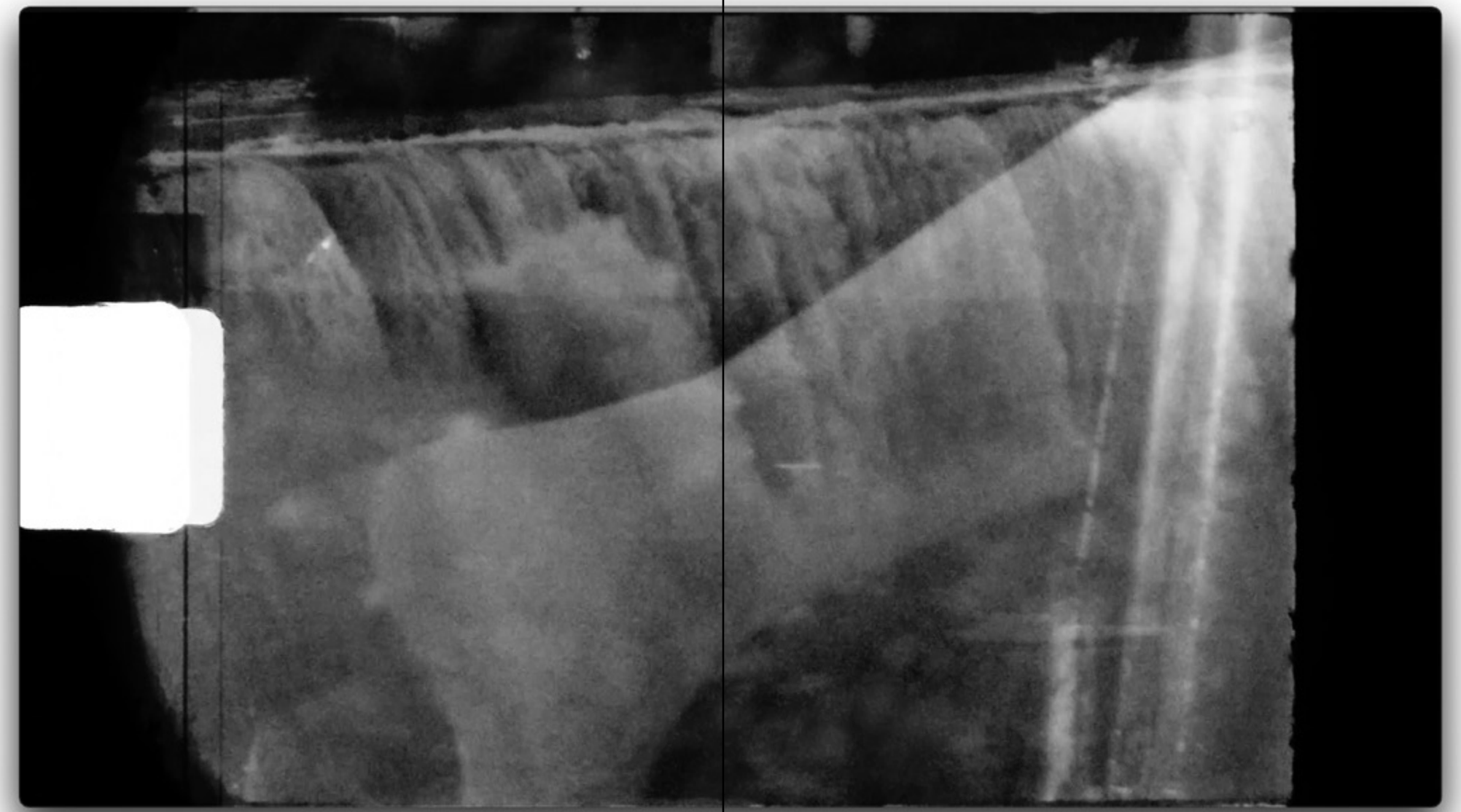

Ruth Anderwald and Leonhard Grond:
Tidal Balance. **Cinédoc Paris Films Coop, 2019–2023**

Montage as Artistic Research Method: Belgrade in Transition, Territory in Transit

Katarina Andjelkovic

Keywords: dialectic montage, territory in transit, artistic research, film, architecture, image

This presentation employs montage as an artistic research method through which to analyse the impact of transition on urban planning and design processes in the countries of the former Yugoslavia. Montage may be counted among the principal artistic strategies of modernity, as Martino Stierli claims. As a theoretical concept, montage has been discussed widely in relation to disciplines such as architecture or sculpture, film, painting, literature, and music. Within the context of my research project, montage is assessed as an alternative position in urban design, in which urban space is thought, and designed in closer alignment to the capacities of film; to manipulate reality, alter the mode of perception, and reconstruct the violent mutations of the territory. In this research, I propose artistic

means to engage with the transformative relations that are reflected within the territorial divisions, the juxtapositions of different spatial regimes, and the material conditions within the territorial entity in transition. My main focus is on how montage operates in the space of continuous translations between the knowledge base of film and the field of urban design through notions of continuity, fragmentarity, and heterogeneity. In the film *Sans Soleil,* Chris Marker presents a narrative that consists of scenes filled with illusions and associations, in which time and place escape any fixed relation. It can be observed in relation to pre-prepared solutions by Israeli and Arab investors who bring their own designs and implement them into the urban fabric of Belgrade. With an aim to clarify the seams, gaps, and flows of life in the city of Belgrade in transition (1990s–today), this research project is performed through an exercise in the creative reconstruction of what is seen on the urban planning map and recorded in situ, as the relationship between reality and fiction developed through the fragmentary technique. The possibility of operation in a dynamic environment between the materiality of the real and the immateriality of the cinematic space for the purpose of conversion from the cinematic to the real environment is not one of dealing with objects as materials, but instead releasing them as images (Rancière 2009). This said, I first of all, reflect on how montage operates. Secondly,

I examine how the concept of montage affected modern architectural thinking and the representation of space, through postmodernism, until today. Thirdly, I reflect on how montage, as embraced by the filmmakers and laid out mainly by film theorists, can be characterized as a technique inherent to architecture, and a fundamental basis of architectural practice, research and knowledge. I conclude that the filmmaker's ability to transform space-time relations from real space to the conceptual, gives the film image applications for understanding real spaces within the diversity of its perceptions. This research aims to overcome the negative connotations of applying characteristically traditional practice methods in the regulation of spatio-visual parameters of the urban environment in times of transition.

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Chris Marker, film still from *Sans Soleil,* © Argo Films, 1983

Workshop with a Pine
Annette Arlander

Abstract
This text is based on a workshop called 'Attending to Remarkable and Unremarkable Trees', that took place at the 13th SAR (Society for Artistic Research) conference at the Bauhaus-Universität Weimar, Germany 30 June–3 July 2022. The workshop had as its starting point the artistic research project 'Meetings with Remarkable and Unremarkable Trees' and focused on trees in the immediate vicinity of the conference. This text is centered on three letters or talks to a pine tree at the entrance to Park an der Ilm before and during the workshop. The videos and sound recordings are available on the Research Catalogue.

Keywords: tree, pine, meeting, pondering, writing to, talking with

Attending, Mending, or Blending?
This workshop takes as its starting point the artistic research project 'Meetings with Remarkable and Unremarkable Trees' in order to focus attention on trees in the immediate vicinity of the conference venue. Besides trying to mend our broken relationship to other beings that we share this world with and constantly blend in with trans-corporeal exchanges, this exercise in attention to trees can be used as a creative tool to assist concentration and focus, as well as a sense of embodied connection with the environment. The project's title refers to the photographic work of Thomas Pakenham, who in turn played on the title of a book by George Gurdjieff. The fields of critical plant studies and environmental post-humanities as well as the philosophical study of plant thinking and the scientific debates regarding plant intelligence seem like obvious contact points, although these fields are not always so welcoming of this kind of practical artistic exploration. Meanwhile, developed in the border zone between performance art, environmental art and digital video or media art, the project is in some sense lacking a proper 'home' to contend with and to expand from. Depending on your perspective you could ask: Why is the human body there to attract attention from the trees? Where is the exploration of new technology and biological processes? What is the critical focus, the analytic disclosure, the intellectual paradox pointed at? On a deeper level this presentation seeks to ask: What artistic tradition, field or discipline should this practice actually connect to, what artistic forerunners should it reference? And what consequences would those choices have on the further development of the project?

The above abstract can be found in the conference programme.[1] The following text is based on the workshop that took place on 2 July in Van der Velde Bau and in the nearby Park an der Ilm. The workshop was structured in three parts: an introduction, an assignment, and a conversation. In preparing for the workshop, I asked a pine tree for advice, and in this text, I will concentrate mainly on my ponderings with the pine tree, rather than the workshop as such or the contributions of the participants, although I will use my introduction to the workshop as material. But first a quote from the project description of *Meetings with Remarkable and Unremarkable Trees,* which explains the focus on individual trees:

> Although we are often accused of 'not seeing the forest for the trees', this project wants to look at the opposite danger, of 'not seeing the trees for the forest' and focus on individual trees. This is not to deny that trees form networks and ecosystems or symbiotic relationships not only with other trees but with fungi, bacteria, and all kinds of micro-organisms, and are in a constant exchange with their environment, as humans are as well. Nor the fact that forests or woods or substantial areas of trees are needed for producing effective carbon sinks, cooler and fresher urban air, flood resistance and more. Emphasizing individualism is a risky strategy in our current neoliberal capitalist society, where the importance of individualism is exaggerated anyway. It can nevertheless be useful to focus on singular trees, as an important first step towards decolonizing our relationship with 'nature'. As late ecofeminist Val Plumwood (2003) pointed out, colonial thinking tends to emphasize a very strong difference between 'us' and 'them', and to see 'them' as all alike, stereotypical, non-individualised. Thus, attending to particular trees might work as a way to help us see trees as life forms that we have much in common with, despite our undeniable differences. (Arlander 2020a)

Some of the questions evoked by and strategies used in the project are described in the book *Performing and Thinking with Trees* (Arlander 2022b). At the time of the conference, however, I was already engaged in a new project called *Pondering with Pines.* This new project is an attempt to narrow the focus to pine trees and to work in a deliberately trilingual manner in English, Finnish, and Swedish (Arlander 2022a). The focus on pines inevitably influenced my approach to the workshop as well.

Preparing with a Pine Tree
Looking for a suitable pine tree to perform with while preparing for the workshop I found a beautiful pine near the entrance to the Park an der Ilm, and wrote a letter to it, asking for advice:

> 30.6.2022. Dear Pine tree, I am so happy I finally found you, after all. There are not so many pine trees in this beautiful old park on Ilm in Weimar. And it seems to me that you are planted here, because you are probably a cembra pine. I come to you today to ask for advice. There will be a workshop about attending to remarkable and unremarkable trees — forget about the title, remarkable and unremarkable are human follies, but this idea of attending is what concerns me, and that might concern you as well. During the workshop the participants can choose any tree they like. I am obsessed with pine trees, or so it seems, simply because I am engaged in a project called 'Pondering with

1 See abstract and bio in the conference programme: https://sar2022.uni-weimar.de/people#Annette-Arlander

> Pines'. What I am wondering is, and here I somehow would like your advice, should I ask the participants to take photos or make drawings or write poems or in some other manner represent their chosen trees and their encounter with them? Or should I take advantage of the opportunity of inviting the participants to show the trees to each other, to take the whole group to see and meet each of the chosen trees? That makes the time needed for the final sharing longer, and thus the time needed for finding and choosing the tree as well as the time to experience the encounter with them shorter. And after all, as artistic researchers most of us are dealing with some form of representations and that is what our tools and methods produce. But, but… it would be nice to have a live encounter anyway. Perhaps I should leave it open for the group to decide, dependent on the weather? Or is that the lazy way, not to decide by myself and avoid the responsibility of the choice? What do you think? There is a lawn mower working hard all around us now, so I am distracted, sorry for that. I hope you don't find the noise as irritating as I do. Thank you anyway for this moment with you, and I hope to be able to come back and visit you later, when the mowing is finished. Thank you and take care.

The above text is added to the video *With a Pine in Weimar,* filmed with my phone, because I did not have my camera with me. I also recorded spoken notes addressing the same topic and transcribed them for the same page on the Research Catalogue. (Arlander 2022c)

> Dear pine or dear cembra pine, if you are a cembra pine. I tried to address you in writing, but now I will make a new attempt to address you by talking to you directly. There is a lawn mower working around the trees. And I hope it won't come here, closer. If it does, then I will come to you later. But the reason I visit you here at the entrance of the park, Park an der Ilm if I pronounce the name correctly in Weimar, Germany, is a workshop that is going to take place here in a few days that I am supposed to facilitate. My initial idea was to simply make a version of a workshop I've done previously through online instructions, inviting people to go out to a park and find a tree that feels somehow inviting to them, and then address that tree or ask that tree for advice — as I ask you know — either related to their research or whatever problems they feel like wanting to consider together with the pine or the tree. Because of course, the important thing is that it's my obsession to focus on pine trees. The participants can choose any tree they like, which makes it easier because there are not many pine trees here, but a lot of all trees of all kinds. Very beautiful. But I'm, what I'm wondering is how I should, how we should share what we have done? Should we share that, should I invite people to make representations of their encounters either drawings or poems or recordings or photographs or in some other manner, sort of, bring back something that represents or symbolizes the encounter they have experienced? Because after all, that's what most artists do, they create some sort of representations or objects or traces or whatever. But on the other hand, it would be so very seducing [sic], inviting to share the encounters by showing the trees for real if they are … somewhere in the vicinity. I'm sitting next to the main street here because you grow here by the entrance, but probably people would choose their trees further in the park. So, it might be quite a long walk to go and visit them all. I'm like in two minds. Of course, a lot depends on the weather, too. Or should I stick to representations and invite people to create a page on the Research Catalogue, uploading the stuff there. Or sending the stuff to me so I could upload it as part of the conference proceedings somehow, or as part of my project. I wonder if people would be willing to do that or if it would be more interesting to share the walk. When I'm sitting here, under you next to the trunk, and despite the nettles growing here, which are not so inviting, it feels very boring to think of going back indoors, so. But, on the other hand, there is a conference programme that we should stick to so we cannot be late for that. Maybe I have to play it by the ear and react to circumstances. At least I can claim that is your advice. I'm not sure if that is an advice that you now give me or is it something that I just wish to hear? The idea that I should leave it open and decide on the spot. But anyway, thank you for assisting me in formulating these considerations by providing the shade and the support, if nothing else, so thank you and bye-bye.

This pondering between representation and live exchange I will return to at the end.

Introduction to the Workshop

'What times are these, when a conversation about trees is almost a crime because it entails a silence about so many misdeeds!'
(Brecht 1939)

With the risk of resorting to clichés, I began with that Brecht quote, which I remember well as a translation into Finnish from my student years. After brief introductions I explained the structure of the workshop: 1.) a short introduction and presentation, 2.) an individual assignment to find a tree, attend to it in your own manner and 'document' the encounter, and finally 3.) meeting together, sharing experiences and 'documents'. I also repeated the basic facts referring to the conference theme: The workshop takes as its starting point the artistic research project 'Meetings with Remarkable and Unremarkable Trees' and will focus on trees in the immediate vicinity. Besides trying to *mend* our broken relationship to other beings that we share this world with and constantly 'blend' with in trans-corporeal (Alaimo 2010) exchanges, these exercises in 'attending' to trees or encounters with trees can be used as a creative tool to assist concentration and focus as well as a sense of embodied connection with the 'environment'.

The background to the workshop, the project 'Meetings with Remarkable and Unremarkable Trees' (2020–21) is in its title referring to the photographic work of Thomas Pakenham, *Meetings with Remarkable Trees* (1996), who in turn plays with the title of a book by Gurdjeff, *Meetings with Remarkable Men* (English 1963). This project, where I spent time with specific trees and posed for camera together with them, formed a counterpoint to those works, through questioning what is remarkable and what remains unremarkable, while focusing on individual trees. The medium in

this project was not photography, but rather performance for video and recorded voice. Instead of describing the project, which was realized with the support of the Finnish Cultural Foundation in 2021, I referred to the project blog and the project archive online (Arlander 2020a). By adding the word 'unremarkable' to the title the project questions what life forms are considered remarkable and what forms are bypassed as unremarkable or uninteresting, as plants often are. While some trees are considered remarkable for their age, size, location, stories, et cetera, others can become so if you visit them repeatedly or attend to them in a specific manner.

Attending is here used in the sense of paying attention, while in other cases it can also mean serving, helping, or taking care of. During the project I experimented with attending to trees by creating a relationship to them, spending time with a particular tree or visiting the tree repeatedly for instance by breathing, listening, and performing for camera with a tree, or by practicing the two-legged tree pose in yoga with trees (Arlander 2022d), writing letters to trees while sitting next to them (Arlander 2023) or recording talking to them (Arlander 2021). What other modes of attending to trees could we explore? I asked the participants.

And what about the context? Despite the prevailing plant blindness (Allen 2003), which to some degree extends to trees as well, there has in recent years been a veritable vegetal turn (Cielemecka and Szczygielska 2019) in fields like critical plant studies, environmental post-humanities as well as the philosophical study of plant thinking (Marder 2013) and the scientific debates regarding plant intelligence. Not all academic fields are welcoming of practical artistic exploration, however, nor are all artistic disciplines open to interdisciplinary experiments. Rather than summarizing current discussions in critical plant studies, I referred to my presentation of them in the publication *Meetings with Remarkable and Unremarkable Trees in Johannesburg with Environs* (Arlander 2020b) as well as *Performing and Thinking with Trees* (Arlander 2022b).

And the artistic tradition? Developed in the borderlands between performance art, environmental art, and digital video or media art, the project is in some sense lacking a proper home base to contend with and to expand. I repeated the questions in the abstract as possible criticism: Why is the human body there to attract attention from the trees? Where is the exploration of new technology and biological processes? What is the critical focus, the analytic disclosure, the intellectual paradox pointed at? I also mentioned the questions that really interest me personally, but were not a core concern of the workshop or for the participants, and therefore remain to be explored further in the future: What artistic tradition, field, or discipline should this practice connect to? What artistic forerunners should it reference? And what consequences would those choices have on the further development of the project?

To present some practical contact points and possible artistic references I mentioned the famous case of people writing love letters to trees, which had been given email addresses for the public to report problems related to the trees, in Melbourne (Burin 2018) and a public project deliberately collecting letters to trees instigated by the city of Vancouver.[2] In addition to these citizen engagements, I mentioned two art projects, Chelsea Steinauer-Scudder's (2018) suggestions for a practice of befriending

2 See the City of Vancouver's web page https://www.cityofvancouver.us/publicworks/page/letters-trees

a tree and Katie Holten's (Brady 2019) drawing of a tree alphabet, which enables writing in trees rather than to them.

I concluded the introduction by briefly mentioning my current trilingual project, *Pondering with Pines — Miettii Mäntyjen kanssa — Funderar med furor,* which focuses on pine trees (rather than trees in general), on pondering (rather than performing in general) and on talking — recorded on site (rather than writing, and then reading and recording the text later).

The core questions of that project, so far, I simplified into the following: What does it mean to ponder with pines? How can it best be undertaken? Here too, in the interest of time, I referred to material online (Arlander 2022a). The main thing was the assignment, formulated as follows:

> Go to a tree that seems inviting to you.
> Attend to the tree in the manner you feel appropriate.
> Represent the encounter in some manner.
> Share something of your experience with the rest of us on returning.

Waiting with the Pine

In the park, during the workshop, while the participants went out to encounter a tree of their choice and to try to represent that encounter in some manner, I spent the time waiting for them with the pine tree. I recorded a brief note at the beginning and another one at the end of the forty-five minutes that were assigned for the exercise.

> Saturday, second of July, quarter past three, or approximately quarter past three. Now we have started the workshop. There was an introduction in the room. And now all the participants have been sent away in the park to meet a tree and attend to that tree and perhaps represent that encounter in some manner. And I promised to stay here with you and wait for them when they come back, which is at the latest at four o'clock, so there is plenty of time. There is [sic] forty-five minutes to meet the tree and engage with it. I'm not going to talk with you, or record my talk with you for forty-five minutes, I just wanted to make this note and to somehow also try to acknowledge that you helped me in deciding how to design this workshop, which is very simple. The only task is to go out and attend to a tree and then come back and share something of the encounter. So, in that sense, if I would need to share something of our encounter, it could be this recording or this 'pondering'. But I also think that this [sic] is a good challenge for me to sit here with you or stand here or walk around with you for forty-five minutes and try to listen to you rather than talk (myself) all the time. So that's what I'm going to do now. And maybe talk to you later. Thank you.

> Saturday second of July approximately quarter to four. Now in fifteen minutes people will start returning. And I've spent half an hour walking around your trunk slowly back and forth looking at your needles and your pinecones, both male and female, and also dry needles that remain sometimes in clusters but also all kinds of leaves or berries or things from other trees that the wind has just brought to your needles.

> And I realized that it might be quite uncomfortable to have all that rubbish hanging on you without being able to shake it off. I mean, not only your own dry needles, but anything that might land on you. Probably the wind will shake off some of the dead needles, especially higher up but on the low branches it's clear that needles from higher up have fallen and were meant to reach the ground but stayed on the lower branches now, as an extra weight but also preventing sun and water and air coming to the living fresh needles. Or I don't know. But if I approximate the human experience or extend it to others, then I wouldn't like having a lot of rubbish in my hair on my shoulders, or actually anything there. But that's not very much thinking as a result of thirty minutes of hanging around with you. But on the other hand, it is a pleasant place in your shade. So why not? So, thanks again. Enough for now. Bye.

After forty-five minutes we gathered and decided to take a walk in the park, everybody presented their chosen trees to each other and shared something of their experiences. The workshop was therefore 'short and sweet', and according to comments it was a pleasurable and rewarding experience. The main reason was probably that the objective of the workshop was simple, to try to encounter or create a relationship with a tree. There was no additional need to produce something together, nor did I ask the participants to generate material for me, as sometimes is the case. Nor did I even compile a page of documentation, as I had initially planned. With hindsight I do regret that I did not take notes of our discussions, nor did I keep any record of the brief presentations. I do remember some fragments of the discussion, however. For example, a local participant described the difficulties that come with maintaining a historical park in its original condition while circumstances, the surrounding vegetation and the climate have all changed substantially — an aspect I had not considered before.

Conclusion...

The interesting theme that emerges from my recordings and conversations with the pine concerns the choice between live encounters versus sharing accounts or representations. That was not something I had reflected on as a problem in advance. With hindsight it seems obvious that live sharing and showing of the participants' chosen trees was the most preferable option. Because I am so focused on documentation, recordings, and representations of performances in my own work, either by video, sound, or text and preferably all of them, I had overlooked the need for live conversation and embodied encounters, which is a major reason for attending conferences in the first place. And of course, the real reason to spend time with living trees is to experience them in the places where they grow.

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I

II

I
Annette Arlander, *With a Pine in Weimar,* still from video (HD 16:9), performed and recorded 30 June 2022 in Park an der Ilm, Weimar, Germany

II
Annette Arlander, *Under the Pine,* photo (4 × 3) taken 1 July 2022 in Park an der Ilm, Weimar, Germany

and forward looking encounters sensitive interactions

sensitive interaction and reflective collaboration

What

Attentiveness, Attunement, and Transjectivity: The Documentary Encounter as a Possibility of Listening to Social Death

Katarina Blomqvist

Keywords: listening, documentary encounter, attunement, social death

Despite the fact that documentary media revolve around listening subjects, the question of listening in this realm is one that is surprisingly underexplored from a theoretical standpoint. Interviewing persons for creative documentaries usually takes place in a shared, coherent world. In the process, interviewees are considered as informants who are able to give testimonies of their lives. But what if the interviewees are frail older adults in long-term care, most of whom are even affected by cognitive impairment? What does this context reveal about the documentary

encounter and listening as an artistic practice? I explore the complexities of documentary encounters through the use of theoretical frameworks of philosophical practice, phenomenological thinking, and documentary theory. The research context is an assisted living facility for older adults, where most of the residents are affected by dementia. My artistic research accentuates how working with frail older adults with dementia demands a more nuanced understanding of listening, in which attentiveness, attunement, and transjectivity play a crucial role.

Interviewing persons for creative documentaries usually takes place in a shared, coherent world. Accordingly, interviewees are by default considered as informants who are able to give testimonies of their lives. But what happens when interviewees are frail older adults in long-term care, most of whom are even affected by cognitive impairment? What does this specific context reveal about the documentary encounter, and conventions of interviewing and listening as an artistic practice? Furthermore, the practice of listening in documentary media is one that is theoretically underexplored, even though documentaries invariably revolve around and constitute listening subjects (Leimbacher 2017).

The theoretical framework for my artistic research is composed of documentary theory, phenomenological thinking concerning listening (for instance Ihde 2007), and philosophical practice, also called philosophical consultation

(Weiss 2015). My research context is an assisted living facility for older adults, where most of the residents are affected by dementia. My artistic research emphasizes how working with frail older adults with dementia demands a nuanced understanding of listening, in which the concepts of attentiveness, attunement, and transjectivity are of central importance. It is noteworthy that in my artistic work I am dependent on the recorded speech of my interviewees, as I do not ordinarily incorporate my own speech into my documentary audio pieces.

Listening during a documentary encounter requires attentiveness, and it is an aspirational 'hearkening' to the thoughts of the interviewee that may fail to be literally or directly articulated, and thus is not something ever guaranteed. There is a joint attention around the microphone and indwelling in the interviewee's thinking. Attunement means responsiveness and reactiveness to another, and emphasizes the transformation needed for an artist-researcher to participate in the unfolding process, in which the content is shaped together with the interviewee.

In sum, what is the creative continuity of contact that I am aiming for during a documentary encounter? How is it possible to ensure the main characters are subjects, and not objects, in my artistic outcome? One way to explore these questions is to emphasize the bond that joins subjectivity and objectivity together, or by acknowledging the 'transjectivity' — the interplay

between them (Vervaeke-Mastropietro 2021). The core of my artistic practice centres around questions of listening — how one can 'hearken' or heed attention to the encounter with another human being and think together with interviewees regardless of their age and diagnosis. At the heart of this concern is transjectivity, which belies an element of connectedness, which requires not a first, nor a third-person perspective, but rather, a shift to a second-person perspective — 'You'. In addition, I continue to explore listening in the context of the documentary encounter, a shared process of meaning-making, replete with all its conventions, and layers of complexity.

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A Decolonial Intervention into Artistic Research in/through Sound and Co-Listening

Budhaditya Chattopadhyay

Abstract:
Basel, a quiet and walkable city in Switzerland is where artist Budhaditya Chattopadhyay again meets researcher Budhaditya Chattopadhyay, after their previous encounters, respectively in Copenhagen (Chattopadhyay 2017), Berlin (Chattopadhyay 2022a), Den Haag (Chattopadhyay 2021a), Kolkata (Chattopadhyay 2021b), and Beirut (Chattopadhyay 2022b). They indeed walk the talk, traversing across the central railway station pacing towards Markthalle, where they aim to have a relatively affordable social dinner. They talk intermittently as they walk through the city; some of their sentences drown under the traffic sounds, consisting of languid trams and easy cabs, low frequency rumbles of the bus engines running to EuroAirport, murmurs of passengers, and polyrhythmic patterns of the wheels of their trolleyed suitcases. This city looks like one in which the locals and the migratory remain disconnected. This is also one of the sites on which artistic research as a disciplinary field was proliferated on many occasions — though the field is still stuck in provincial Europe, in vain complacency. Today, this self-reflexive conversation between a migratory artist and a brown researcher is focused on sound and listening, and what it means to do artistic research. Like their earlier meetings, they resonate with each other with the thought that artistic research is rendered dynamic and generative when it is realized within a reciprocal, conversational mode. Also, such underscoring of the ephemeral orality destabilizes the field's Eurocentric discourses with an embodied decolonial intervention.

Keywords: artistic research, sound studies, decoloniality, Global Souths, reciprocity, conversation, auto-ethnography, listening

Artist: It is strange to meet you in Switzerland. Who would have thought we will meet here?

Researcher: Why is it strange? The free mobility we enjoy today is remarkable, even after a global pandemic that stalled the movement for a while. This ease with which we can transport our bodies from one city to another seems to overcome the colonial binary distinctions such as the 'first world' and 'third world'. We see the blurring of geographical boundaries in favour of an emergent planetary sensibility and publicness with a dynamic confluence of cultures. All we need to do is to apply for a visa and wait in the long queue in front of immigration booths.

A: Is this confluence of cultures so easy and uncomplicated?

R: Of course, there are still power hierarchies embedded in the way cultures collide even today but tend to merge more regularly than, let's say, the times of the cold war, or during the historical moments of the decolonial movements, due to the obvious social and political polarizations. But there has always been an undercurrent of mingling and solidarity, acceptance, curiosity for the others outside the social margin, personal engagements, and discovery, which are often hidden or overlooked under colonial hegemonies and the overwhelming power imbalances in the interaction between Global North and Souths. These few instances of friendliness and affective affinity can be seen manifestly in the ways in which smaller communities formed across the globe on the fringes of globalization. Specifically in the field of sound and music, sonic and musical practices traveled across borders, interacted, and coalesced. New radical forms emerged due to these subtler exchanges; they challenged hegemonic regimes which tried hard to enforce borders and demarcate territories between peoples, societies, and communities.

A: How do you locate these obvious hegemonic forces, largely born out of historical colonialism, active even today in the form of white supremacist acts, and neo-colonialisms?

R: If we focus on a narrower field, that is the academic world and the universities, and the arts and cultural institutions in Europe, we may find such hegemonic forces acting out in the ways in which white canonizations are made in knowledge production, erasure, and marginalization of non-white knowledge regularly occur through epistemic violence. Even if things started to slowly improve more recently after the Black Lives Matter movements intensified throughout 2020, it's a long way to go for European institutions and the people they serve. If we focus on the politics of canonization alone, we see very little has changed. Within Arts and Humanities, besides artistic research, sound studies have also established itself as a vibrant and productive academic field since the last decade, resulting in a profusion of scholarly and artistic works, including numerous publications, conferences, and major research projects: three consecutive compendia such as *The Routledge Sound Studies Reader (2012), The Oxford Handbook of Sound Studies* (2013), and *The Routledge Companion to Sound Studies* (2018) have been complemented with *Journal of Sonic Studies* and a number of other peer-reviewed journals that are dedicated to the studies of sound. These publications in the last decade established sound studies as an interdisciplinary field of significance receiving wider academic attention within media art history, cultural studies, musicology, digital culture, film, and media studies, et al. Sound art has also gained currency in the last decade, following a series of major exhibitions and publications dedi-

cated to it. Today, there is a growing public interest in both artistic research and sound studies disciplines and literature. In this canonical body of work, however, an astounding absence of artists, thinkers, and scholars of the Global Souths is evident. Let's measure how many non-western scholars participate in the canonical texts mentioned above. The answer is: that's just 2%! Clearly, the predominant attention has been invested in studying sound within a Euro-American artistic, medial, and cultural context. Sounds in South Asia, Africa, and the Middle East — broadly termed the 'Global South',[1] have largely remained underexplored, even though they contribute significantly to global outputs in audiovisual media, with South Asia being the largest producer. Yet sound studies, sonic arts, and related artistic research ignore the voices of artists, thinkers, and practitioners from the Global Souths. I have been vocal about this profound lack of representation on many occasions (2022b, 2023b).

A: Does that mean non-Europeans cannot think critically in the realm of sound and listening?

R: What do you think?? Of course not! If we try to assess some of the literature and aesthetic experiences of listening and sounding in South Asia alone, we find a different narrative. There are important treatises existing in South Asia, e.g., *Dhvāni theory,* with the potential not only to enrich the fields but radically reconfigure them by addressing some unresolved issues, e.g., temporality and chance. In two recent essays (2023b, 2023c) I have discussed the reasons why early figures in sonic arts, such as John Cage and La Monte Young changed the course of their artistic trajectories to redefine sound practice in the West after engaging with sonic practices and thoughts from South Asia. Drawing ideas from South Asian sound worlds and their aesthetic knowledge systems, Cage eventually developed a new form of sound works based on the ideas of indeterminacy whereby certain compositional elements, such as duration, tempo, and other musical dynamics were kept in a state of suspension and left open-ended for chance events. This approach already existed for thousands of years in Indian music and sonic traditions, such as Dhrupad performances and in its everyday listening cultures. But this was considered a novel intervention in Western sound worlds dominated by written scores. This intervention, arguably, was at the heart of the genesis of sonic arts or sounding arts — the way it was inspired by Cage's work among others, with a new sense of temporalities and spatiality. Besides John Cage, other canonical figures in the field of sound and music as well as sonic arts, were deeply influenced by South Asian sound practices and thoughts particularly Buddhist philosophical thoughts and ways of listening; namely Pauline Oliveros, Eliane Radigue, Terry Riley, Marian Zazeela, and La Monte Young, among many others. But when Western scholars and researchers, conditioned in the Eurocentric discourses write the history of sounding arts, they overlook contributions of non-Western artists and scholars such as Gita Sarabhai, who taught John Cage that compositions can be kept open for a divine intervention, and Pandit Pran Nath, who taught Marian Zazeela and La Monte Young for thirty years. If you would like to know more about this discourse on under-representation and ignorance, read my essay 'Re-sounding Souths' for CTM festival.[2]

A: This is a problem, isn't it? Their contribution to this significant history

1 I would add a suffix 's' to make it *Global Souths* to underscore the cultural plurality of the regions denoted here.
2 See https://www.ctm-festival.de/magazine/re-sounding-souths

of sounding arts and research has never received a thorough assessment despite their ideas and concepts being frequently borrowed in the West to expand its canonical palette through cultural appropriation and epistemic colonialism. If due attention were given to such moments of intercultural confluence new insights in artistic research could be revealed.

R: Indeed, because of this lack of scholarly attention and engagement with Europe's 'other', several pertinent issues remain unresolved in sonic and artistic research in, with, and around sound and listening, e.g., ideas of temporalities, selfhood and community, non-geometric spaces, histories of resistance to colonization in the listening cultures.

A: Don't you think that European institutions are entrenched in a superiority complex?

R: For European institutions and their Christian-/white- supremacist scholars enjoying easy canonization in their respective fields: all innovative inter-/cross-disciplinary scholarly arenas such as Sound Studies and Artistic Research were 'invented' in Europe and should remain so: white, Christian, and Eurocentric; all innovative excellences are only to be found in the Western world, and the Global Souths will just consume. This astounding lack of curiosity and respect for thoughts outside of Europe is normalized in the way conferences are organised, funds are distributed, and positions are selected. These white scholars often speak of 'decolonization', but that is used as a jargon for ticking the boxes for raising funds or showing off, rather than having a real connection to embodied decolonial struggles across the globe. They seem to be so drunk with themselves and happy in their ignorance that it is often difficult to make them realize that the idea of generating knowledge through grounded practice existed in many regions of the Global Souths long before European institutions coined the mouthful term 'artistic research' and hijacked it as a European phenomenon.

A: I understand your anger.

R: Thank you. Petty hypocrisy, and inert complacency anger me.

A: What is artistic research for you?

R: Artistic research is based on the assumption that artistic practice can make epistemic claims (Schwab 2014). However, little academic investigation considers artistic practice proper as a significant mode of 'scientific' knowledge production. Only recently has artistic research gained currency through gradual academic recognition (Biggs and Karlsson 2011; Schwab 2014; Schwab and Borgdorff 2014). But most of the academic researchers in the arts are not artists themselves; the process of knowledge production and transmission still commonly remains in the hands of non-practitioners — and these non-practitioners are overwhelmingly white and male. Artists proper, are often marginalized in the academia's institutional hierarchy. The reason might be that artists think and do in non-linear and idiosyncratic ways which the sciences often hardly understand or can accommodate in their systematic languages. As a core principle, my scholarly work advocates for change, arguing that more artists should claim their work as research creation in the arts, thereby contributing to the generation of new perspectives and thought streams — they don't always need to be systematically structured and logically bound. The growing need for practicing artists to actively intervene in arts-driven research (as well as

in writing and pedagogy) and add real-world knowledge through processual understandings of spaces, sites, environs, materials, sounds, images, found objects, and situations to debate is addressed in my work (2021). Artistic research in relation to sound studies denotes a critically informed and contextually grounded practice with sound and listening. The manifold epistemological insights emerge from the conceptual, methodological, self-reflexive, poetic, and scholarly inputs as a trace or documentation of the artistic research by embodied conversations between practice and theory, doing and thinking.

A: What can the Eurocentric field of artistic research and sound studies gain by examining sound practices and auditory cultures in the Global Souths to generate new and pertinent knowledge in the under-resolved areas e.g., temporality, spatiality, and subjectivity? How was it transformed by exchanges with Europe while going through a historical process of decolonization via a long and arduous struggle for independence in South Asia, and Africa?

R: In South Asian aesthetic theory alone, the topic of 'subjectivity' and 'selfhood' embedded in sonic phenomena has been discussed in-depth. From S.S. Barlingay's writing (2017), we know about the concept of *Sphōta,* which indicates, 'A sound changes into (subjective thinking) and language and acquires meaning only after a certain explosion of sounds' (Barlingay 2007: 27), as part of a self-involved mental association in listening. Such a perspective, if unpacked, could contribute greatly to the discourses on sound, hearing, subjectivity, and objectivity, for example. Another important addition to the studies of sound could be the idea of *Rasa,* one that John Cage studied closely and incorporated in his work *Sonatas and Preludes* (1948). In the domain of sound practice, *Rasa* is realized when the listening 'self' assumes a poetic mood with a reflective attitude in listening by engaging with the indirect, associative, or suggestive knowledge of the sound event rather than with the direct material knowledge as 'vibration' or 'wave'. This is one of its higher modes of being, endowing listening with a layered practice.

A: How do we gauge the profound ramifications of imposed Western colonial modernity on trajectories of such sound practices in the Global Souths (focusing on South Asia to begin with)? How to trace the knowledge flows from the other side by resisting colonial power structures?

R: Think about the shifts in sound practices in South Asia after the advent of recording technologies at the beginning of the twentieth century, for example. It was a crucial historical marker of colonial intervention and transcultural confluence towards a sonic/media modernity. As a reaction to these interventions, there was an emergence of the decolonial resistance in listening, in the form of the refusal of some of the musicians and sound practitioners to record their voices on media. To delve more into this history of resistance, read my essay 'Uncolonising Early Sound Recordings' (2021c).[3] It will provide an entry point to understand contemporary sound practices and research, including yours. You are also invested in decolonial movements and racial justice, drawing on such historical resistances against colonial power structures, aren't you?

A: Yes, I am. But I wonder how to trace critical intersections between South Asian or the Global Souths and Western sonic traditions, technologies,

3 See https://mast-nemla.org/archive/vol2-no2-2021/uncolonizing_early_sound_recordings.pdf

thoughts, and practices that developed an equitable sonic confluence. By acknowledging these confluences one can reimagine a decolonial sound studies and artistic research informed by a two-way exchange of knowledge. How do these reflect in the current sonic practice and research in the diaspora?

R: Your questions may productively complicate and reconfigure the state of the arts in contemporary artistic research around sound and listening. They break new ground by bringing South Asian sound thinking to Eurocentric sound studies, developing a potentially decolonial intervention into the field of sound studies and artistic research. This can be done by examining the transcultural confluence in sound media against the colonial mode of hegemonic 'othering' of sonic cultures and listening approaches by blocking them to enter sonic research, sonic arts, and a safely guarded privileged field of knowledge production in the colonially built structures of Western Universities and institutions. The decolonial polemic embedded here advocates for an equitable sound studies and artistic research playing fields, respecting practitioners and thinkers from the Global Souths, and duly acknowledging their contributions through critical engagement with their work.

A: As a diasporic artist with a history of uprooting from South Asian soil and land, my work nurtures an intercultural and inter-technological confluence as an embodied resistance to colonial and neo-colonial imbalances in power, manifesting in my media artworks, such as *Dhvāni,* which is a series of self-regulating, responsive, and autonomous installations driven by AI and Machine Learning. It incorporates ritual and traditional sound practices from South Asia, e.g., temple bells, Buddhist Gongs, wind chimes, and Ghungroo, among others. The project emerges from a research creation in re-listening to and re-telling of South Asia's rich cultural history to the world in the contemporary moment of planetary unrest, informing the AI-driven surveillance and controlled societies of today about values of inter-connectivity, community, and reciprocal ways of life, often found in the ritual practices of the Global Souths.

R: Sounds great! Can you share with me a reference link to listen, and see?

A: Okay, here is a link to the work.[4] It envisions a geological equity to hear the Global South, rendering the linear curves of Western-modernity-dominated sense of temporality a non-linear one by refocusing on memory, and revisiting local and traditional arts, and the indigenous cultural practices. This temporal mélange may help in finding answers to the crises of today, such as climate breakdown, and global inequality. In exhibiting *Dhvāni* the aim is to create fertile, evolving, and autonomous situations, which are relational, performative, and radically participatory, whereby the subjectivity of the audience is considered in an inclusive manner. This mode of co-creating and co-listening encourages a reciprocal approach to conceiving a shared and communal artistic experience. This is realized through a bio-mimic network of traditional objects, such as temple bells or indigenous wind chimes. Taking an Indian epistemology-informed approach to sound and transcendental listening (Barlingay 2007), the work underscores the role of the listener, inter-subjectivity, and situational context of the audience as the primary triggers towards construing an artistic

4 See https://budhaditya.org/projects/connecting-resonances/dhvani/

experience and examines the role of the listening 'self' against an overarching emphasis on artistic object embraced in Western art traditions. This shift in perspective and approach towards contingency and new temporalities helps develop an understanding of the role of chance and indeterminacy in artistic experience. Such an alien agency is addressed by creating temporal disjuncture for a 'divine intervention' as Indian musician Gita Sarabhai informed John Cage in 1946 helping to shape Cage's subsequent work with chance composition as you mentioned earlier. The aim of *Dhvāni* is to reflect on the idea of chance, interconnectivity, and co-dependence. These ideas are helpful to consider in a contemporary world marred by a global pandemic, climate catastrophes, and racial conflicts, helping to bridge the troubled waters of difference.

R: Staging such a sonic confluence creates an equitable field for artistic research and sounding art practice within a respectful and reciprocal mode of exchange — the first step in 'decolonizing' the field, though, like Rolando Vazquez (2020), I am also critical of the term.

A: From a Western perspective space-time in (sonic) medial discourses is often delimited by a Cartesian durationality on recorded media, dominated by a logical/causal mode of listening. Challenging this causal primacy, my artistic work unpacks pre-modern theories of *Dhvāni* and *Sphōta* from South Asian aesthetics you mentioned earlier, to offer an alternative perspective of decolonial listening, that I call 'Hyper-listening' and 'Co-listening'. These phrases underscore non-judgmental, inclusive, and contemplative listening modes. With a sonic auto-ethnography approach, I incorporate several traditional sounds e.g., temple bells, Buddhist gongs, and ghungroos that I grew up with; critical listening are made to their contemporary resonance in everyday practice and in the arts. I draw ideas from South Asian sound practitioners, e.g., sound professionals, artists, musicians, media, and visual artists working with sound, whose work explicitly engages with decoloniality, racial inequality, and strategies of cultural translation; the critical assessment of their work helps to level Eurocentric epistemologies with that of the Global Souths. In this qualitative method of intercultural sonic confluence, the contradictions and uneven convergences are revealed. Such sound practice can be traced and articulated (perhaps by you for your scholarly work) by drawing on epistemologies of the Global Souths, and investigation of the artistic process that involves technology tending to negotiate traditionally oral and temporally nonlinear auditory cultures in South Asia. This artistic position aims to conform to the culturally imperialist pressures of the European colonial powers by developing an embodied resistance.

R: You could also cite contemporary writings in South Asian aesthetics (Barlingay 2007). It will form this Counter-Canon of sound thinking to read media confluence and modernity from the East. The comparative study in listening perspectives between East and West may enrich the arguments on transcultural confluences, such as tanpura drones in traditional Indian Dhrupad music improvisations, and its appropriation in the American minimalist school of music, and in sound arts, or Deep Listening's (Pauline Oliveros 2005) roots in Buddhist listening practices. The critical review of counter-canonical literature generates a novel scholarly perspective on the subjective positioning of a listener that contemporary scholars are investigating in sound art studies (LaBelle 2006). You may consider critically examining the history of cultural exchanges between South Asia and Europe through scholarly work, referring to the Philosophy East and West journal, postcolonial studies (Spivak 1988) as well as writings of Marshall McLuhan (1962) who created binaries of visual-literary culture of the West vs. audile-tactile-sensorial-oral cultures of the East/Global Souths, advocating for visual culture/writing/recording/composing against improvisational cultures and orality of the East.

A: What about the future? Do you locate some shifts happening today?

R: The colonial mode of engagement with the Global Souths still operates today, even in 2023, when the world order is being radically reshaped. This colonial mode manifests in the form of soft undermining of non-Western thoughts, technological innovations and achievements, as well as pigeonholing knowledge and aesthetic expressions of the Global Souths in the European canon, which is primarily provincial but claimed to be universal (Chakrabarty 2000). The Global Souths' indigenous technologies and knowledge are deemed subaltern to designate the subordinated interests and positions of marginality. The term 'subaltern' here is a shorthand for denoting expressions of power relations manifesting in under-representation of the voices of the Global Souths in sound studies and artistic research, while celebrating cultural appropriation in sonic arts as I explained earlier.

A: What is an apropos methodology and impact of such a decolonial intervention?

R: The intervention can contribute to the larger body of scholarship enabling a close reading of modernity from the perspective of the East/Global Souths, by capturing the position and experience of sound practitioners and researchers from the Global Souths, critically listening to the 'confluences' or 'disjunctions' that shape modernity. This thought action re-examines a fundamental issue in the studies of a colonial model of modernity concerned with the cultural and technological transmission from the West to the East, and from the Global Norths to the Souths — but which fails to consider the reverse. Challenging this status quo, the methodology should advocate for an equitable knowledge exchange in the field of sounding arts, reflecting contemporary sound production. The primary contribution is that current works are seen as an East-West/North-South confluence that started at the end of the nineteenth century through cultural and artistic exchanges and technological transmissions — even though colonialists oppressed its recognition. This confluence can be re-examined as a mutually enriching interaction, which was undermined by colonial power structures. It can be traced by analyzing a wide range of relevant works that involve media technologies (e.g., sound recording) tending to negotiate traditionally oral Global Souths' sonic worlds conforming to the culturally imperialist pressure of the West to follow certain technological frameworks and medial dispositives. This critical approach will help understanding the intensified confluence of methodologies owing to (sonic) globalization, producing new knowledge in the studies of media modernity, and exchanges between Global Norths and Souths with a decolonial listening positionality. This new knowledge base will work as an innovative portal to study and uncover sonic and social inequalities across the globe, particularly in European societies in transition. Such new knowledge will immense-

ly enrich the discourses in artistic research in sound and listening studies, and contribute to an inclusive, transcultural media art history by addressing contemporary social issues of racial inequality. In Europe, currently there is an intense debate around decoloniality (Mignolo 2018; Vazquez 2020), decolonization of Academia and cultural institutions, social and racial inequality in the light of uprisings across the globe. I hope our conversations can consolidate this messy uprising and collective resistance.

A: We're now in Markthalle! I like this place for its vibrant eclectic energy, like an oasis.

R: Let's find a table and order some Afghani dishes? They are affordable, I think.

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Parameters for Understanding Uncertainty (P4UU): On Scientific Misuse, or What's the Use of a Sonic Detective in an International Interdisciplinary Scientific Experiment?

Rebecca Collins

Abstract:
'Parameters for Understanding Uncertainty (P4UU)' investigates how methodologies used in creative practice meet those in the physical sciences. The aim is to find innovative approaches to better communicate research processes involving invisible matter. 'P4UU' combines research into existing art/science collaborations with a sonic inflection with field research at laboratories where physical science experiments use sound technology for dark matter detection (e.g., the Canfranc Underground Laboratory and the Laboratory of Acoustics for the Detection of Astroparticles) to find unconventional research engagement strategies. Situated accounts of the aforementioned laboratories, in a disused underground railway tunnel or below sea level, can provide new angles on often impenetrable methods of particle physicists. Fieldwork in the form of site visits, interviews, autoethnographic writing, and workshops inform the investigation.

Advanced techniques of sonic detection and acoustic engineering are currently deployed within scientific experiments deep within the Mediterranean Sea. Interdisciplinary experts use this apparatus (dubbed the 'eyes and ears' of the sea) to investigate microscopic (and invisible) particles that comprise our universe. The usefulness of sound and the sonic as technique offer new angles and information for scientists, engineers, and acousticians. At the same time, bioacoustic investigators make use of the data to study the bioluminescent (light-emitting) behaviors of cetaceans and other creatures found in the depths of the sea. How might an artist-researcher make use of an invitation to engage with these research processes? What might such technological advances offer to aesthetic, and sonic modes of thought?

Whilst the technical nuances of such experiments and their hard data might be of limited use or usefulness for artistic research (with the exception of those making use of data sonification/visualization) in this paper I pursue the resonances, residues, remainders, and seemingly redundant details lurking within scientific research. I share a series of qualitative accounts developed whilst embedded as artist-in-residence amidst particle astrophysicists, acoustic technicians, and engineers working on the aforementioned experiment. Casting myself as a sonic detective, a figure developed in my previous collaborative work with Dr. Johanna Linsley for *Stolen Voices* (2014–2020), I attune to what wanes and emerges whilst I meet with, converse, and engage (over time) with experts closely involved with sonic-inflected discoveries. Furthermore, I engage with Sara Ahmed's notion of queer uses so as to attend to the nuances of scientific research infrastructure when put to use for a purpose other than that for which it was intended. In doing so, I argue how narrative techniques and descriptive acts can enable a means to linger or loiter, alongside underrepresented aspects of an investigation thereby making them more lively.

Keywords: creative/critical writing, listening, sonic, performance, art-science, sound

Soft Light & Remote Control

In a 1995 episode of the *X Files,* called 'Soft Light', a number of mysterious deaths have occurred (Gilligan 1995). The only evidence available to intrepid special agents of the unknown, Mulder and Scully, are scorch marks etched onto the carpet where victims of this unexplained conundrum spent their final moments. Whilst predominantly a case for the police (performed by Kate Twa in the role of Kelly Ryan, the new cop on the job) who just so happens to be Mulder's former student and calls the duo in for assistance. As the episode unravels, after several unnecessary deaths, it turns out that a physicist, in search of dark matter, has built his own particle detector in the basement of the science faculty. During the first trial of this apparatus, he accidentally burns his own shadow onto the wall. As a consequence, his shadow becomes an outline of his energy, consequently gaining malignant powers, and reduces whoever it comes into contact with into a pile of molecules. Victims, when exposed to the most minimal corner of the shadow, meet their spectacular end by being reduced to a burn mark, a process accompanied by a crackling electric blue (Cherenkov) light. As the physicist says: 'My shadow isn't mine. [...] It splits molecules into component atoms. It unzips electrons from their orbits, reduces matter into pure energy.' (ibid.). Despite Mulder and Scully successfully resolving this enigma in record

time the final scene shows the US military taking the scientist and their shadow into custody and subsequently occupying the lab that houses the detector. Given the parameters of this setup, as viewers, we are left to imagine what future use is to be made of this new technology and, to put it mildly, the outlook is considerably bleak.

Whilst this is just an example from popular culture, there is something ultimately disappointing about the episode's ending as it highlights the default for Western society to follow recognizable patterns of control that take the unknown, the mysterious, and the experimental, and slot them straight back into how we already think we understand our world.

A media theorist, in relation to her research on space science technologies, such as the Hubble Telescope, notes how televisual representations move away from the potential for difference, unknowingness, and uncertainty toward the knowable so as to frame such probing devices as tactics for remote control and ultimately into the domestication of outer space (Parks 2005).

The domestication of outer space.

Pause.

I am interested in making an argument for intellectual loitering amidst the unknown. I am keen to explore the potential for cultivating a mode of being that suspends definition or classification. Where relations or constellations become blurred via listening opportunities that arise within the context of a series of interdisciplinary encounters.

Over the past year, I have been fostering moments for intellectual companionship between artists and physicists to share inquisitiveness, hold agonism, and cultivate occasions for accompanied curiosity in relation to the unresolved mysteries of our universe. This is a work in progress in the context of an artistic research project, 'Parameters for Understanding Uncertainty', to investigate how research processes in creative practice can meet those used in particle physics.[1]

Pause.

Ongoing enigmas such as:

> Dark matter, an invisible unaccounted-for mass that assisted in the formation of the early universe and which continues to persist accompanying us in our everyday lives.

> Black holes, another astronomical artifact, unlike dark matter, are generated when too much matter clutters within a space too small to contain it. Nothing, not even light, is able to escape the gravitational purchase held by these unobservable entities.

> The quantum world where the act of observation interferes with what is observed forcing the microscopic quantum elements to obtain a position that, until the act of measurement occurs, remains uncertain.

To undertake this task, I cast myself as Sonic Detective for twelve months during which time I inhabited B14, an office on the ground floor of the Institute of Theoretical Particle Physics, a five-floor research centre within the grounds of the Autonomous University of Madrid. I have a black-

1 'Parameters for Understanding Uncertainty' (P4UU) received a Royal Society of Edinburgh Early Career Saltire Grant (no.1897). For further details see project website https://projects.ift.uam-csic.es/p4uu/ [Accessed 14 April 2023].

board, a chair, a lunchbox, a water bottle, and my own transport to ensure I can be there every day.

I'm searching for clues, levers, wormholes.

Importantly, I don't want to miss anything.

I listen in on scientific presentations divulging the latest results, detection methods, and directions for new physics, attend classes on qualitative and historical details of dark matter, participate in the day-to-day rhythms of the institute and loiter in the computer cluster area letting the breeze generated by universe simulation system cooling fans muffle my ears and tousle my hair.[2]

I record myself reading aloud outreach posters in the corridors of the building, I listen closely as members of the Institute give me one-to-one tutorials on quantum entanglement theory, and let a PhD student explain how we can overhear perturbations in gravitational waves following the collision of two black holes some 1.4 billion years ago.[3] I read a PhD thesis on 'Acoustic System Development for Neutrino Underwater Detectors' (Coscollar 2017) and participated in a weekly group meeting on dark matter detection led by David Cerdeño, my scientific collaborator on the project.

I discover there is a scientific research centre in a small mountain village in the Pyrenees. Actually, I've just come back from there, where I launched the 'Probe Procedure', a programme for high-energy physics doctoral students whose research investigates various aspects of astrophysics.[4] As part of the procedure, each person signs a contract in which they agree to probe uncertainty with me until the end of time, in exchange for a badge.

At the Institute, I curate and host a four-part series of interdisciplinary seminars.[5] To reach the venue, I tell audience members that to attend they need to cross the city of Madrid by train, then cross the main University 1970s campus, then pass through an area of abandoned cats to arrive at an area known as the Science Park.

The Science Park.

For the first session I invite a Spanish musicologist with expertise in the use of indeterminacy in the work of John Cage to speak alongside a physicist with expertise in the quantum world and the uncertainty principle in the work of Heisenberg.

For the second session, I invite the presenter of *Ars Sonora,* a weekly experimental sound art programme on Spanish National radio, to speak alongside a physicist who leads the Acoustics for Astroparticle Physics research group.

For the third session, I invite the founder of Arts at CERN to speak alongside the leader of ANAIS, an experiment to detect dark matter beneath the Pyrenees mountains.

For the fourth session, I invite an expert in particle physics and cosmology to speak alongside the founder of the Journal of Artistic Research.

Before setting up the sessions I ask for advice from those on campus who are already working on public events related to arts and culture.

2 A Sonic Detective, and the Act of Sonic Detection Features (Collins and Linsley 2024).
3 See https://www.gw-openscience.org/audio/ [Accessed 14 April 2023] for details of the sound data from Laser Inferometre Gravitational-wave Observatory (LIGO).
4 This took place at the Pedro Pascal Science Centre in Benasque, Spain on the occasion of TAE *(Taller de Altas Energias)* – Workshop on High Energy Physics, at the invitation of Diego Blas and David Cerdeño. See https://www.benasque.org/2022tae/ [Accessed 15 April 2023].
5 For the full list of invited speakers, the abstracts and video documentation, see https://projects.ift.uam-csic.es/p4uu/events/ [Accessed 15 April 2023].

They tell me it is best to set something up in the centre of Madrid. They say my venue is too far from the centre, it is in the margins of the city. No one will come.

No one will come.

Each event attracts over sixty people, a multitudinous interdisciplinary audience consisting of musicologists, Fluxus scholars, videographers, audio documentary makers, artists, engineers, mathematicians, physicists, radio presenters, composers, CEOs, sociologists, art historians, philosophers, media & communication experts, and curators.

At the first session a mathematician has an emotional reaction.

At the second session an artist proclaims 'This is Europe'.

At the third session a sociologist stands up to ask when interdisciplinary thinking will be standard across all areas of the university.

At the fourth session an audience member documents the choreography of hand gestures performed by each speaker.

I upload video documentation of each event to the institute's YouTube channel.

The first video attracts over 90,000 views, the second over 46,000.

Comments from the regular channel subscribers, used to more traditional formats for engaging with new physics include

'This is the downfall of science' and 'This is pure avant-gardism'.

I use the text to make T-shirts.

Pause.

I have undertaken two field visits, one led me to the bottom of the Mediterranean Sea where acoustic technology is listening in on collisions between high energy particles, and the second, which led me to a laboratory situated beneath the Pyrenees where cosmic silence is cultivated as a basic condition for the detection of dark matter. Before I give further insight into these two trips (sharing for the first time my preliminary notes), I wanted to clarify how in methodological terms this research is committed to generating 'situated knowledges' (Haraway 1988: 590) via an on the ground methodology that attends to, and is oriented toward, that which might otherwise be discarded in terms of its usefulness, or relevance.

Pause.

Acoustic Investigations in Astrophysics

In Gandía, a seaside resort near Valencia in the South of Spain, at the port, located in the maritime district of El Grau some five kilometres from Gandía's urban centre, I enter units four and five which are currently leased to the Acoustic Investigations in Astrophysics Research Group based at the Polytechnical University of Valencia.

Later I would learn that this formerly housed and exported coal for textile industries, then raisins, oranges, and agricultural products earning its name as the fruit dock.

The fruit dock.

Inside the unit sits a medium-sized test pool for underwater acoustic apparatus. I also find hydrophones, wetsuits, floatable devices, motors,

unidentified liquids, diving weights and equipment, cables, a port-a-loo and former prototypes related to scientific experimentation.

A light crust of salt water is visible on most items and the familiar smell of the sea hangs in the air. In the corner of the unit is a luxury portacabin where a researcher sits at their computer typing. This is the room housing further sonic scientific apparatus, including the particular thing I am most keen to see.

I'm here because I have heard of possibilities to detect dark matter through sound.

I am intrigued by the sensorial implications of an invisible matter which touches us yet which we are unable to sense and, more than anything which might favour haptic or sonorous detection methods.

The experiment is known as (Astronomy with a Neutrino Telescope and Abyss Environmental RESearch) or ANTARES and consists of:

Twelve vertical detection lines (detection units)

That are four point five metres long

With twenty-five storeys in total.

It sits, since 2008, at a depth of two and a half kilometres within the Mediterranean Sea.[6]

In reality the experiment not only listens but also detects the brilliant blue (Cherenkov radiation) light emitted when one particle collides with another.

Each vertical detection line is suspended by a submerged buoy and anchored to the sea floor in an area protected from maritime traffic.

Optical modules (a total of eight hundred and eighty-five), or as I prefer to call them, deep sea disco balls, a technology able to detect emissions produced by aforementioned collisions, sit at measured distances along each line. A network of electro-optical cables connects to an onshore hub housing the data.

Current and larger forthcoming deep sea experiments make use of acoustic technology by embedding hydrophones within their Acoustic Positioning System (APS). This precisely pinpoints, via a transceiver and receiver setup, particle interactions within the unstable underwater environment. The trajectory taken by (otherwise elusive particles) can be traced and, in most cases, subsequently identified depending on whether they are traveling from the earth's core, or whether they are cosmic neutrinos arriving from outer space.[7]

From outer space.

Beyond the direct application of acoustics in the positioning of the experiment in the underwater environment, I discover that the sonic (or acoustic) detection of high-energy neutrinos is still under development (Tortosa 2022).[8]

Detection, in the online version of the Cambridge English Dictionary, is said to describe 'the fact of noticing or discovering something' or 'the action or process of identifying the presence of something concealed.' (Cambridge 2023).

A criminologist might say detection requires discovery of a crime,

6 See https://antares.in2p3.fr/ [Accessed 15 April 2023].

7 Conversations with Miquel Ardid and Joan Martínez Mora at the Polytechnic University of Valencia were essential to my understanding of their work. Equally, slides from their talk *Telescopis submarins de neutrins: de les profunditats del Mar als confins de l'Univers* for the Astroparticle marathon in Gandía, 2021 were invaluable.

8 Conversations with Dídac Tortosa were essential to my understanding of how sonic technology is developing in this area.

identification of suspects, and a gathering of evidence.

A physicist might say 'only things that affect us in a detectable way can be observed' (Randall 2015: 17).

A sonic detective might say that to find things out, you might need to linger longer at the edge of uncertainty.

Pause.

Back in the luxury portacabin, removed from its storage spot on the top shelf I am shown the prototype of an acoustic array capable of emitting a false neutrino signal. The piece consists of a metal bar, about two metres in length with three, or optimally five, or even eight, hydrophones positioned at precise intervals. This artifact is able to emit the acoustic signature of the neutrino, a bi-polar thermo-acoustic pulse, that arrives, from the surface to the depth of where the telescope is situated and assists in calibrating the technology to indicate, were such a signal to arrive in the apparatus, the ability to overhear it.

Current data collected over the past fifteen years from hydrophones deep within the Mediterranean Sea suggest you are either listening to calls and conversations between dolphins and other cetaceans or you are eavesdropping on the unknown.

Eavesdropping on the unknown.

Pause.

I think about how the emission of a false neutrino signal propagated through the acoustic instrument assists in making an abstract and intangible concept more tangible, as does listening to the bi-polar sound wave when rendered to a hertz-rate audible by the human ear.

I watch an artist film documenting the care, attention, and close scrutiny afforded to ice archives from the 1970s as they offer clues to climate change (Schuppli 2019).

I consider how the sonic can act as a 'material witness' (Schuppli 2020) to the degradation of our planet.

I think about the words of an audio theorist who describes how it is much easier to empathize with living creatures that have eyes and limbs (sentience and technics), or with objects as these occupy fairly stable locations rather than ever-moving nondescript energies, to which I might add microscopic, barely detectable particles (Kahn 2013: 17).

Then, I hear the voice of a feminist sound artist, educator, and accordionist ask 'Why would one want to listen to sounds beyond our human range? Or sounds below our threshold of hearing?' (Oliveros 2011: 163) And of course, I believe they have a valid point, even more so as we become increasingly aware of the implications and reparations necessary from, as Alexis Pauline Gumbs notes, 'behaviors akin to practices of extraction whether these be of labour from bodies, peoples from their lands, minerals, or minute particles' (2021).

Which is when I think that perhaps it is more a question of *how* we pay attention to our forms of attention if, after all as soon as we investigate the very items, we set out to study, they change, the very act of interpretation alters what we might otherwise measure.

Pause.

Cosmic Silence

Eight hundred and fifty metres below Monte Tobazo, a mountain in the Spanish Pyrenees is Canfranc, a relatively small town in the northeast of Spain, some two hours by car from Zaragoza. Here I find the Canfranc Underground Laboratory dedicated to the investigation of unlikely events.

Unlikely events.

Located in the disused Somport railway tunnel (some 7.8 km long) on the border between France and Spain. Physicists and technicians, since initiating the lab in the 1980s, have been dedicated to experimental research on astroparticle physics, or what we are yet to know about the universe.

Cosmic radiation, naturally present in the atmosphere, impedes the detection of dark matter. Thick rock serves as a buffer to filter out unwanted interactions from experiments that are trying to tempt unusual and mysterious particles into their equipment.

In an online meeting prior to my field visit to the laboratory with the center's director, technician, and lead female physicists I am asked what it is exactly I am looking for and what exactly it is that they need to prepare.

At the meeting I say 'I know what I will need when I meet it.'

My host scientist from the institute, D, will step in at this point to soften how weird this might sound to people who are perhaps more used to the specific demands of the media and communications industry than the whims of an artist-researcher, let alone a sonic detective.

D will say this is her form of data collection, that he appreciates it is hard to read, and we cannot be sure what will come from it, but that is ultimately also part of the enquiry that is dedicated to parameters of uncertainty.

Pause.

The repercussions of this methodological position will continue to surprise me throughout the unfolding of the project.

People will try to indicate, demonstrate, and articulate aspects of their research that might be useful to me in a number of settings.

People will cast themselves in various roles and I will also, at various times, be cast in various roles.

At some point, when I host a three-day workshop for physicists and artists this becomes like a portal to multiple dimensions that, at some point later on, I will be keen to close, or at least contain.

Pause.

T, the technician describes that what they are doing is basic research, therefore, they do not know what they are going to find out.

T says, as they spend more and more time and more and more work hours finding nothing that this, he hopes, at least, their results (however useless) will indicate to others the path it is not necessary to take.

T will say you can cross out possible routes and that sometimes all it

needs is the adjustment of a parameter.

The adjustment of a parameter.

T will describe himself as 'just an engineer' he will describe how he troubleshoots all kinds of technical complications from the excess of dust produced by processes to clean copper, to the identification of gas filters which can increase radon readings.

Pause.

At the aforementioned workshop, someone will point out my role in all of this as a creative engineer, enabling, opening, and holding a space for interdisciplinary encounters providing the perfect excuse for the scientists I work with to turn toward alternative 'distribution[s] of the sensible' (Rancière 2004: 85).

A quantum world expert will state they are unable to close their eyes to engage in a creative practice exercise. At the request of the other artist with whom they are engaged in the activity to do this, not for themselves but for the sake of someone else, they will relish the opportunity to relinquish control.

A PhD candidate researching black holes will walk through a forest with their eyes closed in a creative practice exercise accompanied by another artist, they will, over the course of ten minutes, have walked in a perfect loop through a tangle of brambles, trees, and bushes, returning to the exact starting point of the exercise.

A physicist who's dedicated the past thirty years to the detection of dark matter will ask everyone at the beginning of his talk to use their own bodies as possible receptors of this mysterious matter, requesting that everyone try various means to extend their sensory capacities.

Pause.

I read an experimental novel (Brooke-Rose 1966) where the behavior of the characters revolves around the idea that people are also matter and, perhaps the boldest narrative twist, is that people are also energy. The plot hints at the idea that there might be particles of anxiety and that we might be shedding atoms as we live.

When I tell an award-winning performance artist about my project they react immediately, by trying to shake off any dark matter that might be attached to them.

Another artist I tell will shout back to me from the middle of a car park to verify whether I do indeed have any proof that there is a link between dark matter and anxiety. It's scientifically unconfirmed I'll say.

When I return to my office B14 at the institute, and back to the aforementioned experimental novel I discover that the author wrote the piece following an intense period during which she had read a number of scientific papers and studied advances in new physics, at the time, related to Heisenberg's uncertainty principle and the quantum world.

In the novel, one of the characters reminds the other that you cannot call people matter as individuals have minds, emotion, and mystery. There

is also a reminder, by another character, that people communicate through things. Ultimately, what I take from the text is that whilst attention and recognition are things people, or in this case characters deserve, the ultimate lesson of the fiction is that 'attention is the thing we have to recognize as paradoxically destructive to knowledge' (Jordan 2018: 276). The novel, devoid of pronouns throughout also, through its form and structure, tries to disrupt the world of things and the world of people. This form of disrupting hierarchies hints at the multiple combinations and recombination of particles and waves, within which people are also implicated.

I find a latent poetics, in the everyday, or mundane processes that each of the physicists have become accustomed to working on. As Ahmed suggests 'A phenomenology of usefulness would attend to how use involves a way of arranging worlds as well as ourselves' (2019: 26). And I think about this as I leave the underground laboratory after spending an afternoon saturated in cosmic silence (which turns out to actually be very noisy). As one of the lead physicists, M, turns to me at the end of the day to say she still hears and sees the laboratory as it was in its early days, before the office was built, before the toilets when really it was just an opening, just an adventure.

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Thinking/Sinking into the Folds of Craft and The Digital Turn

Tricia Crivellaro, Lynne Heller, and Dorie Millerson

Abstract
This transcript of a slide presentation analyzes the process of creating a virtual reality (VR) experience that translates the narratives of faculty, technicians, and students who work in craft across Canada. We surveyed the community to better understand their interaction, hopes, and challenges with digital ubiquity — tools, processes, and networks. We then used the stories and opinions offered to create a landscape, soundscape, and immersive interactive experience situated in the Canadian landscape and the architecture of the institutions involved. We discuss our learning curve as we shape the VR world to respond to the qualitative data we gathered with our skills and ambitions. We examine the conceptual impetus behind our choices in VR and the artistic decisions we made to create a piece that reflected us, our community, and values. We compare our usual methods of teaching and learning in craft-based situations with the joys and frustrations of digital immersion and reflect on our future aspirations.

Keywords: craft, digital, VR, pedagogy, data visualization, embodied learning

The following is the text from a slide show we presented at Mend, Blend, Attend, the 13th SAR International Conference on Artistic Research at the Bauhaus-Universität in Weimar, Germany, which discusses a virtual reality (VR) data visualization piece we created titled *Thinking/Sinking into the Folds of Craft and The Digital Turn.*

We are Lynne Heller and Tricia Crivellaro. Our colleagues Dorie Millerson, Kathleen Morris, Ted Carrick, and Owen Russell are not with us today but were pivotal in the creation of the work we are about to present. We principally identify as artists; Lynne is a post-disciplinary artist with an interest in both digitality and materiality. Dorie is a textile artist specializing in embroidery. Kathleen is a weaver and textile artist. Tricia is an experimental fashion designer, Ted is a music composer and producer, and Owen a game

developer. Dorie and Lynne are professors at OCAD University; and Tricia is a professor at Toronto Metropolitan University.

Initial Initiative: Craft and the Digital Turn
Our project is part of a larger initiative called 'Craft and the Digital Turn' (known as CDT) which is funded by the Social Sciences and Humanities Research Council (SSHRC), Government of Canada. The project team includes nine academics who teach in craft disciplines such as ceramics, jewelry, and textiles in five post-secondary institutions across Canada.

Our study focuses on questions of how digital technologies intersect and combine with traditional, mechanical, and hand fabrication processes, particularly the possible affordances of digital technology through embodied learning, a pedagogy of the whole body not just the intellect. The discourse surrounding these issues is complex. However, autonomy — the control of creative methods and output through materiality and tools — is a central concern throughout craft methodology.

We were thrilled to present at the Bauhaus-Universität Weimar because of the resonances between our project and the history of the Bauhaus. Ironically, the questions that we are grappling with today seem to echo the tensions and synergies found in the historical Bauhaus movement with its initial concentration on craft workshops and then its eventual turn to technology.

We considered the digital turn in craft from the perspective of tool use, networks, and pedagogy. We looked at precarity, embodiment, and issues of labor. And at times, to further engage with the research, we viewed craft through the lens of feminist theory. As part of our research, we collected stories of how academics and students articulate and understand the synergies between craft and digital technology, and it is these stories and their context that we endeavored to translate into a VR experience.

Imagining the Canadian Landscape
In analyzing our qualitative data, we are indebted to the work of Henri Bergson with his suggestion that both analytic and intuitive ways of knowing are essential for knowledge generation. Bergson argued that the perceptual experience of encountering stories, facts, and objects through immersion encourages alternative hierarchies of knowledge acquisition. We became interested in how we could communicate our findings beyond the bounds of conventional academic discourse to create an embodied and experiential way of disseminating our results. In doing so, we built a VR data visualization inspired by voices from the post-secondary craft community. We aimed to create a digital environment that specifically draws on the landscape of our vast country with the ability to navigate through institutions and objects while experiencing the sounds of the stories we have collected.

We were also inspired by Architect Charles Waldheim who believes that '[l]andscape is a medium [...] uniquely capable of responding to temporal change, transformation, adaptation, and succession' (2006: 39). Wadlheim argues that landscape is an analogue medium suited to open-endedness and transition. By using this notion of landscape as a framing mechanism and as a potential tool for innovation, our goal was to reimagine a Canadian territory where institutional histories would be grounded from coast to coast.

Collecting Voices of Faculty
The data we engaged with was drawn from two surveys conducted in 2020–2022. The first, directed at faculty and technicians across Canada aimed to establish a historical timeline of digital adoption and engagement in post-secondary craft programmes. Completed surveys were collected from fifty individuals working at thirteen institutions in seven provinces.

We asked faculty and technicians about their 'key moments' and observations of changes in their studios and communities over time. We imagined that the responses would enable us to develop a timeline of the digital adoption in academic institutions. Yet, survey respondents referred, instead, to their own experiences of time when they learned or how they built their own tools, and these observations gave us new imperatives for our data visualization. They expanded on personal growth as well as frustrations at the lack of time for training. They mentioned the need for new thinking in the ways digital is taught and used to create craft. For example, Frances Dorsey states: 'There is something lost when the maker does not have a deep manual and personal history with the material'. Aaron Oussoren wrote: 'In our labs, we tend to add new tech and then the RA's [Research Assistants] come in, and hack it, repurpose it, reconstitute it, break it'.

Collecting Voices of Students
The second survey was directed at undergraduate students in the Material Art & Design programme at OCAD University and craft-focused students at AUARTS. We asked about their experiences with digital methods as well as the shift to learning craft online during the pandemic. Sixty-nine student surveys were collected.

Student responses added another layer of information to our findings. Students saw the usage of digital processes as an opportunity for designing and modelmaking but expressed a deep desire to learn craft and digital methods in an embodied way with others in a physical space. Here is an example of one of the student responses that we particularly noted, it was submitted anonymously: 'Ctrl-Z, Ctrl-C, Ctrl-V. These basic, simple, universal commands save me hours and hours when working digitally.' The following student response was also intriguing: 'The mind drifts and the body festers.'

Certain themes emerged while we were analyzing the collected data, which were influenced by our discussions and required further challenging our own assumptions about the craft/digital. Using MAXQDA, data analysis software. We coded the responses from the faculty and students' surveys separately and then brought them together and re-coded them with themes.

Emerging Themes
Acknowledging an overlap in many of the experiences and voices collected, we chose to consider the survey responses according to five broad themes. We imagined those themes as different journeys to follow in the VR experience. We then expanded the titles of the themes to imply movement, suggesting new paths. Here are our five journeys:

- 'BetweenPlay' analyzes our attraction to digital tools and the undeniable dialogue and interaction between craft/digital.
- 'BeingHand' speaks to notions surrounding embodiment and the senses, what we often refer to as "the hand" in craft, the visceral desire for physical and sensual involvement with making.
- 'ThroughTime' examines the ongoing relationship of time and labor which in turn encourages innovation through tools, techniques, and methods.
- 'AwayLoss' which is the journey that most exudes a sense of melancholy, explores the traditional nature of craft and concerns over losing past practices.
- 'BecomingFuture' begins to imagine and articulate new directions for the future of craft and pedagogy.

Folded Time
In deciding on a VR interpretation of the qualitative data, we looked to philosopher Elizabeth Grosz who suggests that 'perception and memory both reveal the complicity of mind with matter' (2005: 96). This aphorism sums up an abiding interest of the project in exploring materiality and virtuality. How do we reimagine history/stories?

An intriguing theory to expand on for this artistic research is from Gilles Deleuze's interpretation of the Baroque fold. In his 1988 book *Le Pli. Leibniz et le Baroque,* Deleuze referred to continuous change and dissolution into infinity as expressed in folded objects. His contemporary interpretation of the fold emphasizes the transmutation of formal objects into temporal units.

One of our initial thoughts was to create elaborate folds where previously little-known archives wait to be discovered. We envisioned the use of fabric in the environment as a malleable, moving, and enfolding material, as a metaphor for hidden histories.

Textile in the Virtual
As textile became such a strong metaphor for us, we looked to the influence of the artists Christo and Jeanne-Claude who inspired us through their use of scale and wrapping to draw attention to landscape and large forms. In our case, we were not wrapping or tethering fabric but rather using textile to envelop both the participant and the topography. As the participants could either move around or through the folds of the fabric, we felt the need for it to move in a convincing way and focused on the importance of the texture of the cloth

Digital Craftsmanship
We were also inspired by fellow Canadian digital artists such as Willy Le Maitre, Ardak Mukanova, Slavica Ceperkovic, Jawa El Khash. These artists each offered us different examples of digital engagement. Le Maitre's use of procedural methods, Mukanova's cultural references, Ceperkovic's translations from materiality to digitality and El Khash's contemplation of craft through a VR lens, were all approaches that helped us to envision a process involving learning new software and speculative outcomes.

Principally using the game engine, 'Unreal Engine', commonly referred to as UE5, we found ourselves on a steep learning curve, unlearning and relearning as we worked sometimes alone, and often together in a shared effort to understand a new vocabulary and several complex processes. On top of the specificities of the Oculus headset and UE5, we also had to dig into tons of different programs (Houdini, Rhino, Maya, Blender, Zbrush, Photoshop, Mudbox, Cinema 4D, QGIS, SketchUp, AirLink, OculusLink) — we were struck by the digital skills required to build even one tiny thing and the constant need to jump from one software to another.

Learning What You Don't Know

It quickly became clear to us that we were fundamentally lost in this new world of game engine development. How do you begin to learn without first knowing the discipline's specific vocabulary? We had to heavily rely on YouTube tutorials. In order to find the right tutorial, we also needed the vocabulary that the experts in the field use. Find the word — find the answer. Well, at least sometimes. Investing in the wisdom and authority of YouTube videos was a dubious endeavor, fraught with its own second order challenges. Not only did we have to seek out the relevant keywords but also assess the competence of the person delivering the information. In spite of their positioning themselves as such, not all YouTube experts are in fact experts!

Learning a whole new vocabulary felt like a gradual initiation, tantamount to taking baby steps. New words such as 'exponential height fog', 'normal map', 'new world', 'world actor', 'chaos cloth', 'dynamic wind', and 'world partition' were entirely foreign to us. On the other hand, words we thought we knew such as flipbook, float, baking, cooking, collision, material, texture, and pawn, had entirely new meanings in the context of UE5.

Unknown Process

Graeme Sullivan discusses artistic research as a way of generating new knowledge by moving from the unknown to the known. Sullivan suggests that 'the process requires imaginative leaps into areas where our knowledge is lacking, which in turn can lead to critical insights that can change what we do know' (2009:48). This 'lack' as Sullivan argues, or perhaps, for our project, this new perspective allowed us to see the poetry embedded in the process. For example, our meetings began indirectly to sound like poetry — as we discussed how to make the world in glass, how to insert more than one wind or wondered how to listen to the sound of materials.

Break It Until You Make It

Being subject to constraints reinforced an intuitive approach to making. At times, we let ambiguity and intuition direct the project, so that we could organically grasp the not-intended, the not-planned; we had to make the most out of happy accidents and glitches. Legacy Russell, author of *Glitch Feminism: A Manifesto,* describes this process as follows: 'Glitch is thus an active word, one that implies movement and change from the outset; this movement triggers errors.' (2020: 29). For example: while debug lines are normally used for solving coding problems, we decided to keep them in our VR experience. Owen, our programmer, was dismayed.

The processes and artifacts of programing lent themselves to our aesthetic choices. For example, we developed a landscape material that combined topographic material with the basic grid that is always present in 3D programs as a guide for placement of one's objects. Another example of this is our decision to have our menu display the boxes that indicate the collision boundaries of the spheres you use to change journeys. Owen also taught us to embrace log errors as they are a necessary part of the programing process — almost as a badge of honour.

Building Topography

Topography was a critical part of our concept. We started with a map of Canada and then created a collage of nine overlapping landscapes of the provinces. We used data derived from laser imaging, detection, and ranging (LIDAR) measurements to create textured height maps. We were quickly confronted with the challenges of using LIDAR grayscale imagery. As we jumped from open topography databases to an open-source geography program, we increasingly felt as if we were attempting to become geographers.

Navigating into the Folds

As mentioned, it was an early focus for us to put a fabric-like material within the space. We started by using layers to create a semi-transparent surface and then we used a 'wind' tool to help activate it. While moving through the folds, it is possible to observe the shadows and lights passing into the digital cloth. Interacting with the folding drapery was a crucial step in our creative process. We also found that viewing the moving fabric became an unexpected source of calm and solace in comparison with the technical frustrations and exhaustion of the digital learning process. The fabric took the status of a hideaway, one that we could inhabit for at least a few minutes.

Scale and Perspectives

Working in 3D on a 2D screen is a challenge. At times, we struggled to understand how to shift between the six perspectives of top, bottom, front, back, left, and right.

Scale is relative, always, but particularly when navigating inside a computer. We would import objects into our environment only to be unable to find them because they were either too small to see or so big, we were inside them without even knowing it. Once selected and found, we would enjoy the absurd process of making gigantic and tiny objects.

We initially added mannequins/avatars in our landscape to find the right scale. When we put on the headset to look at the world we were creating, we couldn't find them. But we did see some odd artifacts in the landscape and falling through the air. We hadn't realized that the wind that was blowing our fabric was also affecting all the skeletal meshes in our world. The odd objects falling from the sky were, in fact, the mannequins. Much to our dismay, their bodies had been twisted and contorted by the wind. The work already had an uncanny, dystopian aura to begin with, but with the addition of these mutilated bodies, it edged its way into horror — not what we were going for. Needless to say, the mangled bodies did not make it into the final version.

One of the toughest aspects of working in 3D is the interface of a flat 2D screen. One is always fighting the perspective. Translating three-dimensionality is a physical skill that takes time to acquire. The sensitivity needed in selecting what to move and how, along with the awareness of depth and perspective is, similar in respects, to craft skills, a discipline that can only be mastered through time and repetition.

Institutions as Landmarks & Placeholders

We wanted to visualize some of the educational institutions to help ground their locations in relation to the accumulated data and voices. We positioned the five Canadian institutions involved in our project: NSCAD University, OCAD University, Sheridan College, Alberta University of the Arts (AUArts), and Emily Carr University of Art + Design. We made a choice to use only the outlines of the buildings, so as to suggest the idea of seeing into and through the walls — the open structures as metaphor, that of an unknown future for academia.

Assemblage & Sculptures

Craft has always been intimately connected to technology; however, in crafts-based making the emphasis on hand/eye/ear coordination leads to an embodied approach (Groth 2017; Koskinen et al., 2015; Nitsche et al., 2014). Existential and artistic concerns surfaced in our research about loss and the increasingly threatened nature of embodied craft as it shifts from the hand/mechanical to digital tools and processes. In the surveys, concerns were raised by faculty and technicians over the potential loss of hands-on experimentation and play inherent in craft practice as the focus shifts more to digital design and making.

It was fundamental for us to bring in tools and objects, representative of craft and digital making, into our VR experience. We stacked up the 3D models to create towering sculptural columns that augmented the buildings. Bringing the tools outside the institutions was intended to highlight their importance and to encourage the participant to look upwards and reflect on the forms. In our experience of creating this project, the process of assembling these columns felt much closer to the experience of making something physical than many of the other aspects of designing the virtual space.

Traveling through Sound

In her book *Time Travels,* Elizabeth Grosz suggests that 'the only access we have to the past is through a leap into virtuality, through a move into the past itself, seeing that the past is outside us and that we are in it' (2005: 103). It begs the question: Could the participant move through the gathered stories and data? A selection of quotes from the surveys became objects in our virtual environment and we positioned them along our five journeys. While navigating a strand, the participant moves into and out of the quotes. We recorded five people reading the quotes and added the name or ID number of the survey respondents for each quote. This form of identification signaled the academic genesis of the project and at times seemed at odds with the experiential nature of the work.

Making an experiential soundtrack was crucial for us. A meticulous amalgam of edited sounds and spoken-word recordings was designed to envelope the participant in a space that was both meditative and inspiring. While our composer, Ted Carrick, initially employed analogue sound arrangements, the core of his 'making' was grounded in learning and crafting with UE5. In a virtual environment, voices and sounds also become 3D objects — no mono, no stereo, but an infinite number of speakers. Ted had to visualize the sound as an assemblage of floating elements, which required him to engage in an unfamiliar process of placing sonic components within a digital space. Allowing the various tracks to remain in place when the participant moved their head (and headset) was particularly challenging. Ted noted the understated difficulty of this endeavor: 'In an immersive space, it's really important that the sounds don't follow you around!'

Some might appreciate the layered score as an echo of the repetitive nature of craft, while others might focus on the thought-provoking wash of voices. Regardless of the specific reception, the score acts as an embodied vehicle pushing the participant to 'wander', both in the physical and mental sense, through craft and its digital turn.

Reflections: Unfolding

We got used to navigating the five journeys included in our VR experience by going up, down, under, around the topographic environment and through the moving fabric. We went beyond the surface of the landscape — 'one can never really get to the end of a virtual world. It unfolds in front of you.' (Heller 2020). This unfolding/folding process led us to start building underneath the landscape and inspired the addition of a DNA helix structure which could hint at complexity and roots.

In summary, our VR research project is still very much a work in progress. We hope to observe and capture participants' experience to help us develop it further. Our initial aspirations included trying to find ways to capture the interconnected and overlapping nature of the stories collected perhaps by entangling or knotting the five journeys.

We also hoped to explore ways the participant could touch the objects and landscape in the space. Could the columns be made interactive? Could a participant add elements to them or even find out how they work? We will need to further consider the pace of moving through the space and how to interact with the quotes. Perhaps a tangible word or form is needed to help ground the story being told. We still have a lot to explore.

A Framework for Digital Craft

In conclusion, building in the digital realm was a sublime experience, although not one without its challenges. At times, our creative process felt like it was sorely missing the physicality of craft and materiality. We came to this project as textile artists and educators, well-versed in craft methodology in which materials and processes are at the core. In VR, we were beginners once again, with all the heartache, frustrations, and excitement that new learning brings.

And what of the tension between data visualization and artistic making? Working with qualitative data in a VR environment illuminated some limits — our own limits of knowledge as well as the limits of making in the virtual

space. As writer Legacy Russell argues: 'We want a new framework [and] the digital world provides a potential space where this can play out. Through the digital, we make new worlds and [we] dare to modify our own.' (2020: 11).

By learning, re-learning, by embracing errors and glitches, and by reimagining the Canadian landscape, we created a data visualization that humbly suggests a speculative framework for the future of craft and the digital turn.

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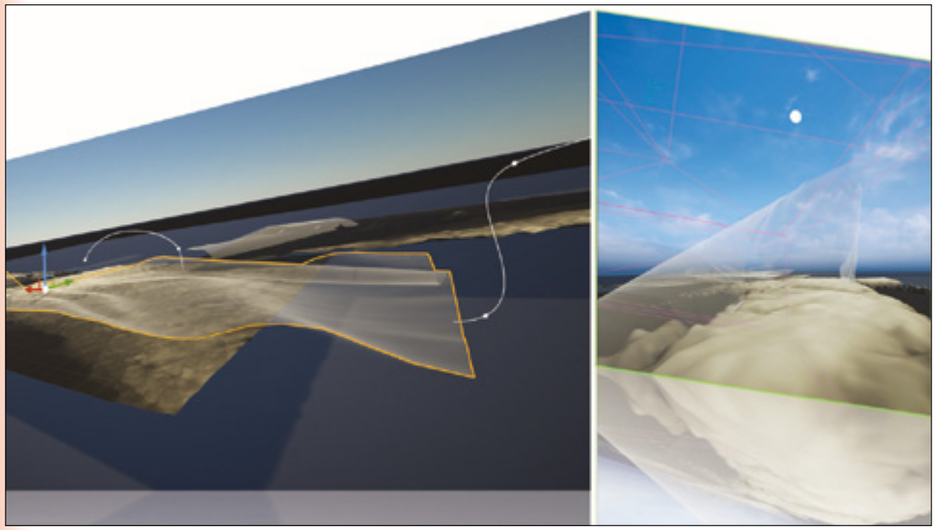
I

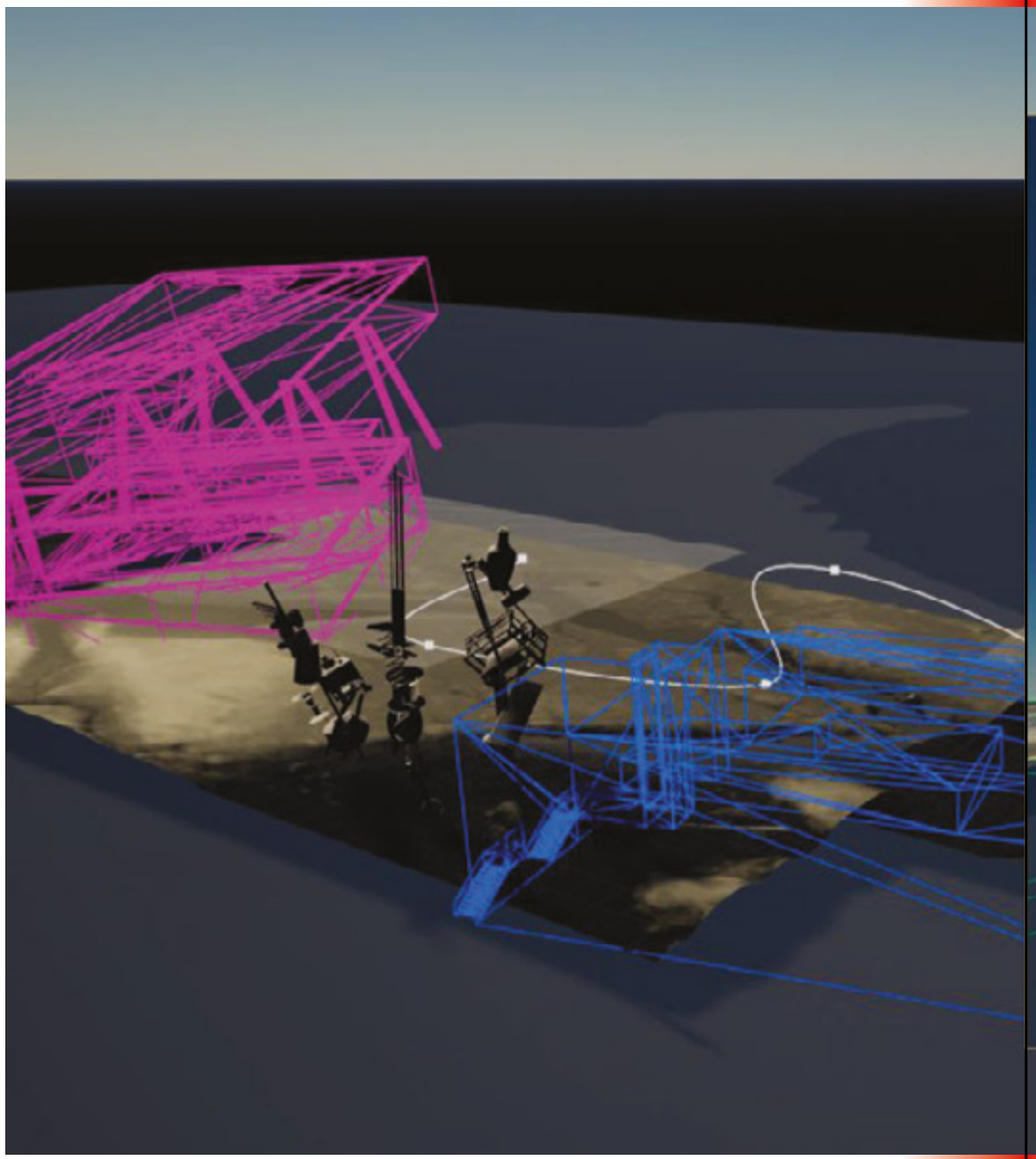


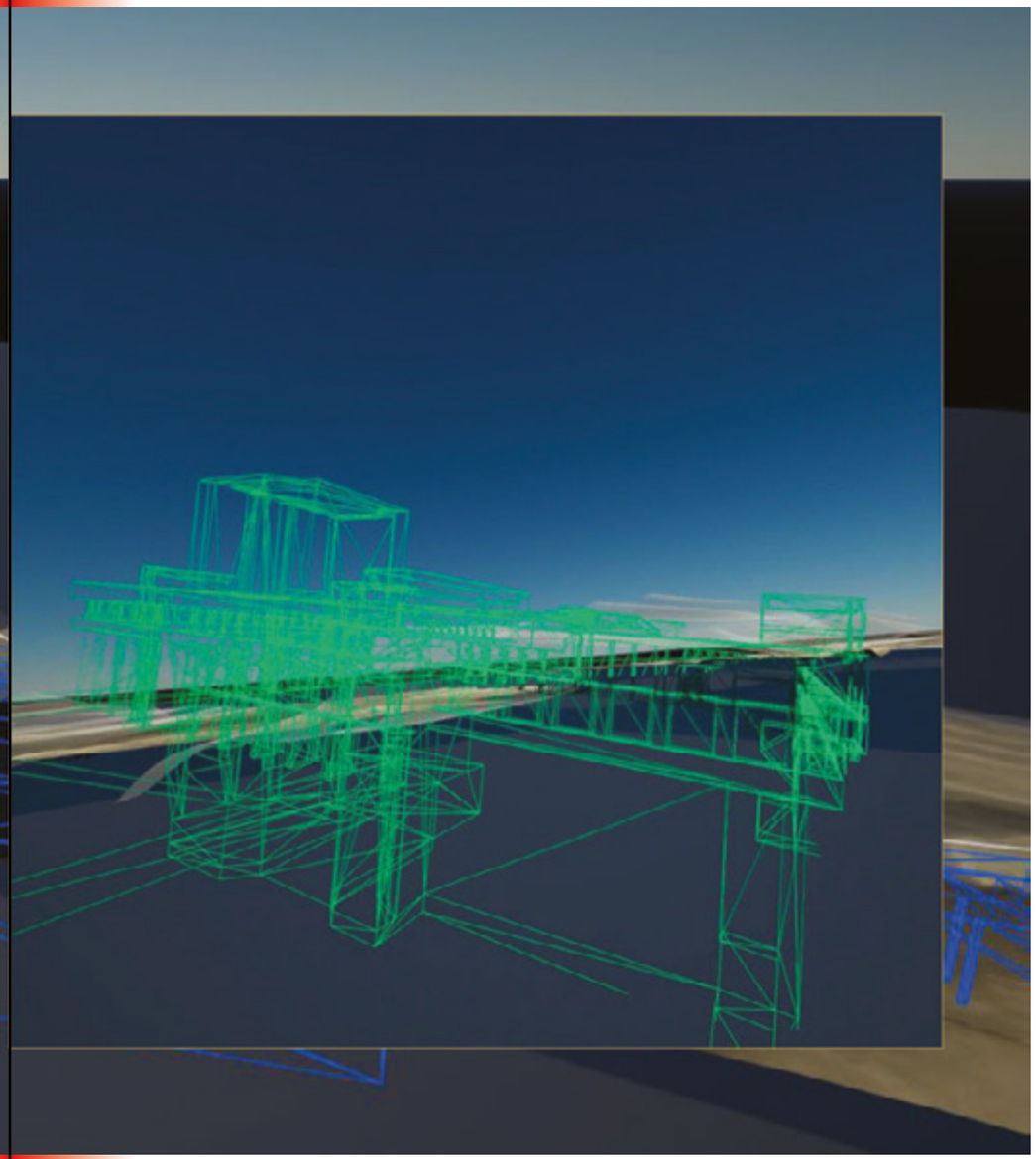
II

I CDT Team, *Slide 24,* 2022, VR Screen Capture, Variable, OCAD University, Toronto, ON, Canada, T. Crivellaro

II CDT Team, *Slide 8,* 2022, VR Screen Capture, Variable, OCAD University, Toronto, ON, Canada, T. Crivellaro

III CDT Team, *Slide 18,* 2022, VR Screen Capture, Variable, OCAD University, Toronto, ON, Canada, T. Crivellaro





III

new practices interdisciplinary bridging

blending of result from knowledge transfer in troubled

transfer in troubled times? Proposing a research culture

‘Fish Belong in the Ocean’: Animal Rights Activism in Video Games

Pascal Marcel Dreier and Thomas Hawranke

Keywords: animal rights activism, computer games, digital protests, empathy, transgressive play, virtual animals

The representation of animals and animality in video games has rapidly increased in the last decade. Commercially successful games now portray animals as powerful companions to human protagonists (Abend and Hawranke 2016; Dreier and Hawranke 2020) or even allow players to experience the game world from the perspective of the animals (Fuchs 2020; Hawranke and Weber 2023). Animals in video games are ubiquitous. At the same time, the gaming space itself has transformed: from a rigid ‘magic circle’ that pauses the everyday, to a playful conglomerate of navigable everyday real-time spaces, e.g. threads, forums, YouTube, Instagram, eBay,

etc. (Consalvo 2009). This expanded magic circle of play allows for protests to be carried out, documented, and shared within the game in the traditional sense (Schofield 2020), as well as linking protests from outside to the gaming space, thus tying resistance and advocacy for others to the cultural reach of games. From a historical perspective, the gaming space is a resonance body for protests, whether they are pacifist performances in the space of *Counter-Strike* or the implementation of alternative gender forms in *Quake* (Clarke and Mitchell 2007). This contribution attempts to read animal rights activism and the protest space of video games together.

As a starting point, we analyse three moments of digital animal rights activism in video games: 1.) protests through actions in video games, 2.) the appropriation and exploitation of the triple-A fame of industrially produced entertainment products, and 3.) the creation of playable additional content that provides an alternative to existing animal narratives within the game. From here, we will delve into various questions: What is activism in video games? How do forms of protest and activism change through videogames? And how can video games be used to promote active animal protection?

In the course of these questions, we want to sharpen concepts such as activism (Jones 2009) and animality in relation to video games. The term activism relates to taking action: this

can range from very loud practices such as demonstrations on the streets with widespread media coverage to more local, easily overlooked practices which can be called ‘Quiet Activism’ (Pottinger 2017). We define activism, based on thoughts by Giraud (2019), as the effort to meet the responsibilities that are uncovered by new narratives of entanglement and use this as a working definition to develop our analysis of activism in video games. This approach aims to show that, instead of reacting loudly and angrily to current planetary disasters, a powerful resonance space can emerge in moments of silence and empathy (Karr 2015) that employs ludic elements in the sense of radical care already present in video games.

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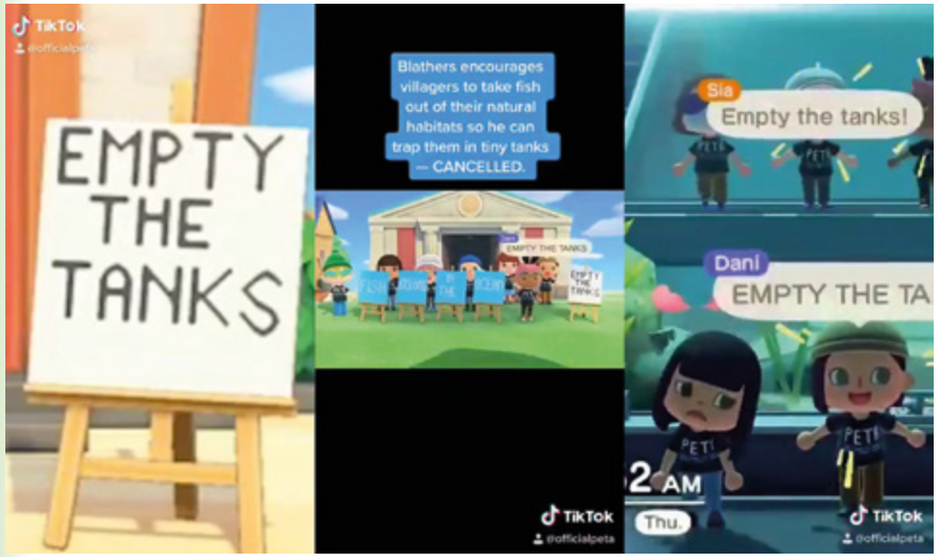

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Listen2intuition: Mathematics | Arts | Society

Tamara Friebel and Klemens Fellner

Abstract:
This text presents aspects of an interdisciplinary project bridging mathematics and arts. We will emphasize the role of intuition crucial both to mathematical research and artistic creation, and in particular composition. Structures from on-going mathematical research were step by step appropriated by an artist/composer using visual art and design software and finally composition principles. In this way, new music was composed using uniquely formed degrees of freedom and constraints. This artistic crystallization process led in return to concept-based ideas, which translated back into a mathematical research proposal; thus confirming a true eye-to-eye interdisciplinary process.

Our contribution will span from the mathematical background over the design of 2D graphics and 3D objects to scores and performance samples. The content is shaped by our experience of two pop-up exhibitions engaging 150 visitors ranging from four to eighty years old and a broad range of educational backgrounds and interested them to the extent that many of them stayed on average around one hour. This was enough to encourage shifting thought processes, and for some a rekindling of interest in mathematics and/or new music, stimulation drawings, dance and research. Altogether BLEND in a very special and optimistic form.

Keywords: interdisciplinary, mathematics, intuition, composer, eye-to-eye, pop-up exhibition

1. The Collaborative Mind

Our research project titled 'The Collaborative Mind of Arts and Maths' provides insights into the interweaving of mathematical and artistic thought patterns from current research in Graz. We are a team that formed at University of Graz under the auspices of an 'unconventional call', between disciplines of ones' choice and we researched under the title of 'Mathematics and Arts: Towards a balance between artistic intuition and mathematical complexity.'

Intuition enables communication across seemingly distant disciplines as a common catalyst: composition, visual art, and mathematical research. From the outset of our collaborative process, we tried to nurture a triangular

dynamic, where the inner-mathematical dialogue related to the inner-artistic dialogue to create the outcome of our mathematics and arts dialogue. It was a shared desire that we support each other in our daily work, and in our areas of expertise, in order to allow for the emergence of a new form of dialogue, one that we could not have anticipated.

1.1 Pop-Up Space and Interactive Exhibition

As part of the Kulturjahr Graz celebrations in 2022, we were able to run a pop-up exhibition so as to reach a wider audience and to interact with our local community. The approach from the curators was 'Wie wir leben wollen, How we want to live', and we embraced the unique notion of not being afraid to bring complexity and our intuitive flow dynamic into the public eye. We ran our exhibition in an old shop front, next to a thriving organic café, which we turned into a workshop environment, and offered guided tours with interactive elements. As part of the preparation, we first of all had to scrub the place down clean, from top to bottom, and deal with some hefty five years of accumulated dirt, all part of our initiation! In getting our hands dirty, we felt we were able to get back to the essence, time invested in an alternate way, and soon after the shop's two rooms were prepared, we were able to make our synthesis of art and conceptual work into a reality.

The process itself, of finding a space to enable the work to be presented in an inventive way, had already begun in earnest when we searched the city for an empty shop front, many of which were becoming available in the wake of the global pandemic that had turned the once thriving local businesses on their heads. One shop front that particularly interested us had been converted into a Covid-19 testing centre and so was no longer available. The spaces we ended up finding were simply part of a dynamic process of seeking out a vibe where our exhibition might temporarily fit. It should be noted that since our exhibition ended, which ran for four weeks over July and September, the space has since been turned into a thriving new café, and it has literally speaking, been handed a new lease of life! And our exhibition will continue in the newly established Maison Poincaré in Paris in 2024, as part of the refurbished former Marie Curie Institute. These rooms have been prepared by architects/designers, so it will be an entirely new context for our exhibition.

2. Triangulations

An initial starting point was Karin Baur's mathematical work on frieze-patterns with exponential growth. If one takes a look at some of these diagrams without having the knowledge or expertise as a mathematician in algebra, there is still a basic essence that one is able to grasp somewhat intuitively, due to the relative simplicity of the starting point. There is a so-called triangulation, which means that there needs to be a relation always of three points, no matter how complex the subsequent variations.

In geometric terms, a 'triangulation' is a subdivision of a planar object divided into triangles. Topological triangulations do not require edges to be straight — unlike the classical triangles we know from school. Instead, any non-intersecting edges connecting three corner points are considered sufficient to form triangles, and as a result — topological triangulation.

2.1 Rubber Geometry: On the Elasticity of Boundaries

Another intuitive name for this is 'rubber geometry' since lines may be arbitrarily reshaped so long as they don't intersect. The exhibition presented various expanded notions of this, for instance, through a performance in which five singers are centred around a flute player in the middle, and attempt to communicate with one another through their voices and instruments. Considering the diagram in Figure 2, it becomes possible to articulate in some depth the complexities surrounding an act of intuition, in this case a performative one.

The top left of Figure 2 shows a topological triangulation of corner points on an annulus (the area confined between an inner and outer circle). In order for this to match up there must be a balance between the outer and inner circles, in this case it is thirteen triangles, and thirteen points. It becomes apparent if you've missed a triangle, since the numbers of points and triangles will not add up. It is possible to read such a diagram in myriad ways, in particular when an artistic and intuitive viewpoint bends the rules of topological triangulations themselves as if they were rubber.

The mathematical foundations of these topological triangulations are rooted in current research on abstract cluster algebras. Their interpretation as so-called topological (i.e. 'rubber-walled') triangulations inspired an aesthetic exploration of the elasticity of boundaries and constraints.

A piece of music created in the process — preceded by visual compositions — addresses quasi-typologically by means of singing voices, instruments and electronics respectively, a new form of intuitive complexity for the musician and composer, but also one in which it is not necessary to understand its genesis in order to engage with the composition.

2.2 A Further Thorough Mathematical Description

In algebra, a quiver Q is an oriented graph, possibly with loops and multiple edges between vertices. A quiver encodes interactions between mathematical objects (its vertices), where arrows describe the direction of the interaction.

Quivers and their mutations have become very popular in algebra, as they play a key role in the theory of cluster combinatorics, developed first by Fomin[1] and Zelevinsky.[2]

A key source for quivers in this context — quivers without loops and 2-cycles — are triangulations of surfaces. Among them, annuli are of particular interest: the associated quivers are manageable, yet the triangulations provide infinite type cluster structures which have interesting dynamics.

2.3 Attractive Privacies of Breathing Borders

By focusing on the limitations imposed by patterns formed while working with triangulations (where each unit has a maximum of three vertices and no superfluous points), a constrained environment is used to find architectures in which non-convergence of form is optimized. By combining the patterns of growth — represented by the 'diamond rule' a formal constraint is used to generate finding a 'loft form' within the rubber geometries — where the curved-line-of-thought process for the mathematician is used as a defined NURBS (non-uniform rational B-splines) curve, containing an

1 S. Fomin, A. Zelevinsky, Cluster algebras. II. Finite type classification. Invent. Math. 154 no. 1, 63–121 (2003).
2 S. Fomin, A. Zelevinksy, Cluster algebras. I. Foundations. J. Amer. Math. Soc. 15, no. 2, 497–529 (2002).

inherent new geometric quality for an architectural form.

What does all this mean?

In the diagram above on the right you can see different hierarchies of musical relationships evolving between voices (soprano, alto, tenor and bass) and a flute. For Tamara Friebel, as a composer, it uncovers a new methodology through which to understand the psychological means of 'relating' to various instrumental forces with a greater, heightened sense of intuitive communication. Through guided diagram sketches as pictured above, and in myriad further sketch phase diagrams,[3] the piece attempts to 'evolve on its own', through an opportunity to 'hear' different relations of sounds. The composer records/scripts various readings and reformulations of these relationships, working together with musicians to intuitively build up the score, while using the diagrams as a guide to orientate the overall form and detailed compositional structure.

Topological triangulations give rise to rich numerical structures called 'frieze patterns'. Different triangulations can lead to either arithmetic or exponential friezes, in which borders can be bent, just as they can be in the underlying topological rubber geometry. By focusing on the limitations imposed by patterns formed when working with triangulations a constrained environment is used to find compositional architectures where non-convergence of form is optimized.

After exploring architectural forms, sticking to these constraints, Friebel became interested in the metaphysical nature of these 'borders of non-convergence'. It seemed a natural evolution to explore what these borders meant with regard to sound. As sound is at its most malleable with the voice and it is at this point that the composition, *Attractive Privacies of Breathing Borders, in one solitary universe for SSATB* (Soprano 1, Soprano 2, Alto, Tenor, Bass) and flute was born.

In a workshop in Canada at a festival on contemporary music and voice, five singers from the Ensemble 'Neue Vocalsolisten' arranged themselves as in the diagram, with the flutist positioned in the middle. They attempted to organise themselves as a collective, using their voices to imagine sound moving from these points of relation to each other, along these triangulations, going through the annulus. The diagrams which Friebel had developed attempted to unlock a musical flowing into the infinite potential of the annulus. It is noticeable that Friebel's choice of language is carefully weighed to prevent dictating the events, it should instead be an intuitive uncovering that is only possible through a collectively conscious effort, a process that can be understood in terms of collective dreaming, a mode of being aware that was first hypothesized in Jungian thought, at least within a European context, but which has long since existed on other continents in multiple forms for millennia.

The composer was astonished to learn that her sonic interpretation of the diagram — a scripted notational score, was uncannily similar to that of the musicians improvisations from the same diagram, and both approaches shared many of the same musical elements.

This example serves as an eye-to-eye collaboration process, one which reaffirmed our work ethic, curiosity, and intuitive investment in these processes.

3 Tamara Friebel, 'Attractive Privacies of Breathing Borders', Research Catalogue (2021) https://www.researchcatalogue.net/view/245841/245842/2/0 [Accessed 14 April 2023].

3. Illuminations

3.1 Artistic Research and Composition

Illuminations[4] was a commission from the festival Imago Dei, where Nadja Kayali (artistic director) asked Tamara Friebel to transform the Minorite church architecture into sound. On the eve of commencing this work, Kayali and Friebel were sitting in the train to Krems, contemplating a thought from the Islamic mystic Rabia von Basra:

> I want to pour water into hell
> And put fire in paradise,
> That these two veils can disappear
> And no one will worship God out of fear of hell
> Or in hope of paradise,
> But only for the sake of his eternal beauty.

The following came to the composer's mind:
This thought ran through my veins as I walked into the Klangraum Krems for the first time, a church now emptied of all sacred imagery and relics, with the exception of a few icon paintings and bright gold stars on the ceiling.

It was cold and warm at the same time, and I wanted only to be given the chance to 'hear' a piece emerge from the proportions of this shell, from its architecture with strong lines and defining supports, holding its ancient form. A piece which has no fear or no desire to be anything, but to sense an 'eternal beauty', in Rabia von Basra's sense, something which is imminently strong without trying, a naturalness of bliss.

We do not hear any text sung from Rabia von Basra in this performance, but there is a genuine thought or intention which runs itself in the veins of this work. Beej mantras are secretive on one level, they can unlock the power of the universe for a seeker on the path, but for those who are new to these sounds, they seem ancient and unusual: a lingering hope that there is language of the gods emerges, when one contemplates what sages have found in these sounds.

3.2 Today's Perspective on Composing through Interdisciplinary Means

Are there ways that we can reflect the state of art today within the arts and sciences? The challenge in interdisciplinary work lies in the potential risk of oversimplifying the contributions from different disciplines. This necessitates the need for us to embrace a greater level of trust and understanding that transcends our personal ego and intellectual pretensions. By doing so, we can collectively develop a fresh perspective and envision new possibilities that lead to unexpected manifestations. This is one of the crucial understandings which we have gleaned in the course of our research project.

The wider questions of how do we find an audience, one that could be outside of the new music community, is a challenge for us to open doors to enable others to learn and to appreciate new music and the abundance of possibilities that sound and composition offers.

The dialogue in this Minorite Church is in many ways a neutral space where all spiritualities and religions have their own free space to breathe and collide and to find a language of interconnectedness despite jarring

4 Tamara Friebel, 'Illuminations' (2022) Premiere Preview Video https://www.youtube.com/watch?v=jyv1h0-dUJk&t=132s

differences which have been evident over the centuries. This research project of interdisciplinary thought has given space to allow one to find archaic threads which may run through to current thoughts, and allow certain analysis or intuition to be able to offer insights that weren't available in other eras, but which are now opening the doors to revelation. It isn't an era where freedom of speech can be dominated by 'not that anymore, but just this', to actually a freedom for the myriad of ways we have dwelled on this earth to be cherished, heard and embraced in a new way.

This leads us on towards understanding why *beej* mantras from Sanskrit were at the heart of this composition. The analysis of the Minorite church, despite its being emptied of iconography, led Friebel to see a striking relation to the chakra systems of the body. This had already been uncovered in Chartres cathedral, apparent in the plan of the body of the church, as is known widely to be categorized 'notre dame' her lady, or the universal essence of the feminine energy, the goddess that dwells in this part of the mystic theology of the catholic heritage. We ought to remember correctly that at this point, there was no catholic/protestant distinction, and here this discovery surprised her, and reminded her of the mystical force of similarity that was once present in all seekers of the path in past eras.

The starting point for Friebel was to analyse and draw a series of proportional diagrams on the arches of the church. This led to the creation of a so-called 'chakra-set'. Precisely because an object which appeared whilst analyzing these structures using 3D programing tools, which includes NURBS (non-uniform-rational-b-splines), it revealed to her the underlying and obvious structure of the church plan which had a proportion system of six centers and the seventh centre at the top.

In this case, the artistic research, which employed tools in programing language available only in the last twenty years, has meant that our analysis can offer a level of sophistication that didn't exist before. This will continue to be a theme of interest as we uncover in which way AI tools will seek to benefit our lives and the joy of creation, without taking away the means for us to communicate and bring good vibes to our work and artistic enterprises.

The working process draws compositional strategies specifically from the architectural forms, using 3D models and drawings to create an understanding of proportions inherent in the spaces. For example, you can take the internal proportions of a church, study the inherent structures which were derived centuries ago, and these studies form a body of language, which can be translated into object formations. This forms the compositional language which the sounds then become embodied in.

An exhibition in the Chapter House of the Minorite Complex displayed the process, (see Figure 3) and allowed an audience to find an access to the score, what was behind the work, without it being necessary for them to experience the premiere. But it allowed a deeper engagement from another perspective, with 3D models, architectural drawings, videos, a three metre score, and sound excerpts.

This approach has been made possible through The Collaborative Mind process that we were very glad to present here at the SAR22.

Acknowledgements

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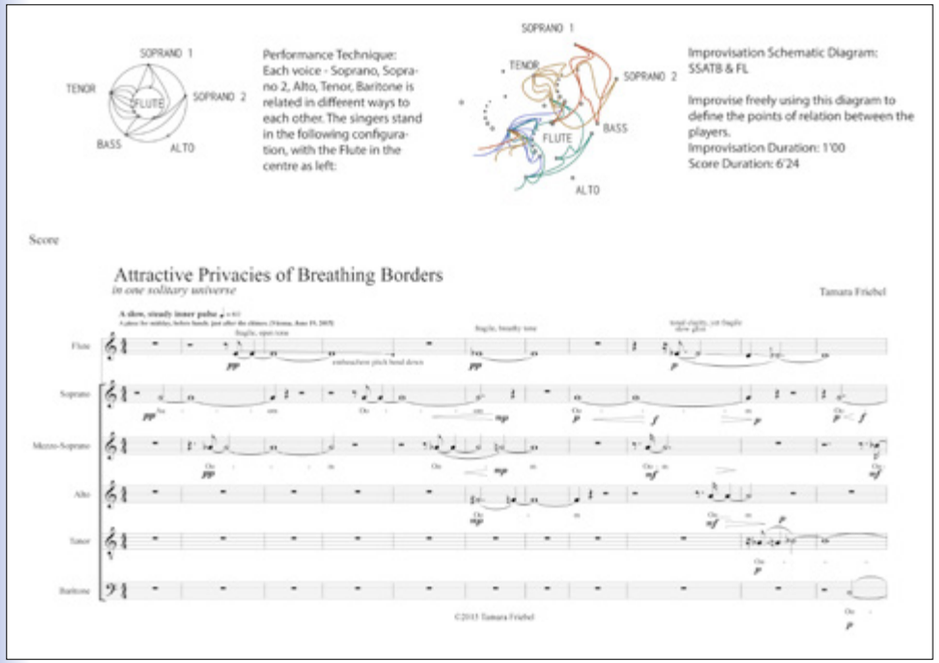
I

I Tamara Friebel, pop-up exhibition 'Listen2Intuition', 2021, Kulturjahr Graz

II Tamara Friebel, *Attractive Privacies of Breathing Borders in one solitary universe,* 2015, musical score

III Tamara Friebel, *Selected elements of the compositional process for Illuminations,* Minorite Krems,[5] 2022, Renders, Klangraum Krems, Kapitelsaal

5 Tamara Friebel, 'Illuminations' (2022) Exhibition Video https://www.youtube.com/watch?v=NqWAYYn0-qQ&t=1s



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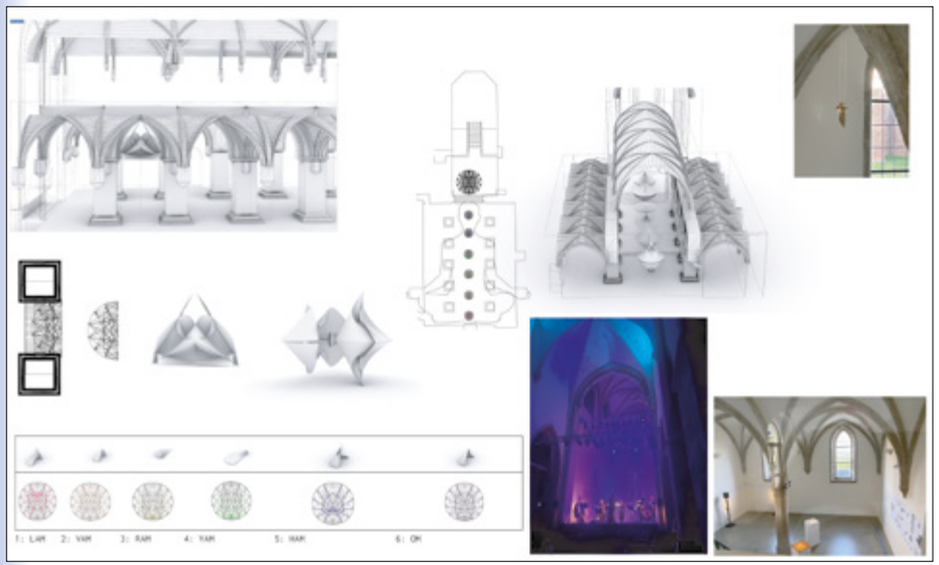

III

Frascati's Razor: Inquiry, Knowledge, and Expression in Compositional Experiments

Jan Giffhorn

Abstract
The criteria of the *Frascati Manual* (OECD) set the international standard for research and development. Regarding the role and functions of the arts, however, certain aspects and attitudes of the *Frascati Manual* are problematic. This becomes particularly apparent regarding the juxtaposition of 'knowledge' vs. 'expression' and 'performance' vs. 'research', as stipulated and respectively implied in the manual under paragraph 2.67.

The article addresses this issue with the help of a compositional experiment. The experiment investigates the interaction of sound and harmony in three short compositions of eight bars. Against a theoretical background of L.B. Meyer's theory of 'sound terms' and 'sound stimulus', the experiment asks to what extent sonic alterations and randomizations can complete fragmented harmonies.

The results suggest that knowledge and expression as well as performance and research are not opposites, but complementary, as exemplified by artistic research. Frascati's classification only makes sense if one follows a purely philological understanding of music and art.

Keywords: music, composition, experiment, Frascati, knowledge

1. Introduction

The OECD's *Frascati Manual: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities* in its 2015 edition remains a defining force for science and research activities. It not only defines research and development, but also exemplifies core scientific concepts and basic approaches that have come to be regarded as the international standard.

Controversial, however, are the manual's normative, not to say apodictic positions in respect to the relationship between the arts and sciences. This also has vast implications for the field of artistic research, which is itself still subject to contestation from all sides (e.g. AEC and CILECT et al., 2022; Bast 2020; Cramer and Terpsma 2021).

The following is an attempt to make a constructive contribution to this discourse and aims to illustrate and identify aspects that may come into conflict with the manual when dealing with compositional experiments. The *Frascati Manual's* juxtapositions of 'knowledge' vs. 'expression' and 'performance' vs. 'research' will be the primary focus.

We will start with a short recapitulation of some crucial principles and conditions which are stipulated in the *Frascati Manual.* Subsequently, we will briefly deal with Leonard B. Meyer's theorems from his 1956 book *Emotion and Meaning* (2008) in order to theoretically position the compositional experiment which is about follow. The relationship between expectation vs. realization will play an important role, as will Meyer's notions of what he calls 'sound term' and 'sound stimulus'.

In the compositional experiment, we will investigate the effect of sonic alterations — their harmonic implications and interplay with listener expectations. Finally, we will reflect on how effectively the *Frascati Manual's* demarcations of 'knowledge' vs. 'expression' respectively 'performance' vs. 'research' holds up to critical engagement, and how feasible and indeed, compatible they are when it comes to approaches of artistic research.

2. The Principles of the Frascati Manual

Research and development (R&D) in the *Frascati Manual* is basically determined by a number of criteria: 'novel ' ('To be aimed at new findings', OECD 2015: 2.14ff), 'creative' ('To be based on original, not obvious, concepts and hypotheses', OECD 2015: 2.17), 'uncertain' ('To be uncertain about the final outcome', OECD 2015: 2.18), 'systematic' ('To be planned and budgeted', OECD 2015: 2.19), and 'transferable and/or reproducible', ('To lead to results that could possibly be reproduced', OECD 2015: 2.20).[1]

Under 'R&D and artistic creation' (2.64), the manual distinguishes three layers concerning the arts: 'Research for the arts' (2.65), 'Research on the arts' (2.66), and 'Artistic expression versus research' (2.67). 'Research for the arts' develops 'goods and services to meet the expressive needs of artists and performers' (OECD 2015: 2.65), whereas 'Research on the arts', as an apparently more traditional form of scholarship, 'contributes to most of the studies of the arts (musicology, art history, theater studies, media studies, literature, etc.)' (OECD 2015: 2.66). Under the section titled 'Artistic expression versus research' (2.67), the *Frascati Manual* states:

> Artistic performance is normally excluded from R&D. Artistic performances fail the novelty test of R&D as they are looking for a new expression, rather than for new knowledge. Also, the reproducibility criterion (how to transfer the additional knowledge potentially produced) is not met. (OECD 2015: 2.67)

This is remarkable, both because of the emphasized distinction between knowledge and expression — 'looking for a new expression, rather than for new knowledge', (OECD 2015: 2.67) and because of the implicit assumption that performance and research are opposites.

In any case, this constellation already seems to rule out a *conditio sine qua non* of artistic research: art as a method is excluded. This is in stark contrast to artistic research, as Henk Borgdorff paradigmatically defined it in *The Conflict of the Faculties* (2012):

1 The numbers refer to the numbered paragraphs in the manual, not to the chapter numbers.

> We can justifiably speak of artistic research ('research in the arts') when that artistic practice is not only the result of the research, but also its methodological vehicle, when the research unfolds in and through the acts of creating and performing. This is a distinguishing feature of this research type within the whole of academic research. (Borgdorff 2012: 147)

This is clearly at odds with the *Frascati Manual's* disposition which does not allow for that kind of 'methodological vehicle'.

In addition to that, one may question the notion that '[a]rtistic performances [...] are looking for new expression' (OECD 2015: 2.67). It remains unclear what 'new' expression is supposed to be. One could ask, for example, how 'new' expression might differ from 'old', 'ancient', 'contemporary', or perhaps even from 'future' expression. Thus, aesthetic, social, and scientific judgements blend in 'new expression' due to a hidden presupposition of notions such as 'style' or 'craft'.

In his critique of the *Frascati Manual's* influence on artistic research, Gerald Bast goes so far as to say that core terms of an art debate have been 'hijacked' (Bast 2020: 9):

> It is significant that the definitions of the terms 'research' and 'innovation' have shifted in their power: they are now narrowed down so as to only include scientific and technological activities — while the term "creativity" has been hijacked for scientific and technological contexts. This allows no room for something like artistic research; only scientific research is seen to be a source of knowledge. By these terms, the arts can only be an object of (scientific!) research, thereby ignoring the fact that, as art history shows us, artistic development is in many cases a result of research processes in the arts, and not just about the arts. (2020: 9)

Rightly so, because if 'performance' is not 'research', and 'expression' and 'knowledge' are assumed to exclude each other, it puts into question what is left to fulfill prospects such as to 'grant a doctoral degree to an artist as a result of artistic performances' (OECD 2015: 2.67), as the *Frascati Manual* stipulates.

3. The Experiment 8b

The following experiment will now illustrate how problematic the equation of 'expression ≠ knowledge' and 'performance ≠ research' is in practice.

It was my intention to create a compact, easily reproducible piece in which ambivalent harmonic implications, expectations, and realizations play a crucial role. The research question could be formulated as follows: To what extent are sonic alterations and randomizations able to complete fragmented harmonies?

3.1 Basic Design of 8b

For this purpose, I have conducted a musical experiment consisting of a short composition called *8b,* a shorthand for 'eight bars', which were then to be looped.

While completing this experiment, it became apparent that the original version *8b* which was part of the proposal, was unsatisfactory for the investigation. Therefore, in addition to this version, referred to now as *8b-1,* I created other versions with a different compositional design, which we will refer to from this point as *8b-2* and *8b-3.*

All variants (*8b-1, 8b-2, 8b-3*) are characterized by their incomplete harmonies and tonal vagueness. Ambivalent musical constellations strive to elicit diverse auditory expectations among listeners. At the same time, the piece was not supposed to cross the border of tonality and step into the terrain of atonality or even serialism. The intention was to bring the listeners' expectations to their absolute tipping point, while stopping short of a suspension of tonality.

The different versions *8b-1, 8b-2,* and *8b-3* were exported as raw MIDI data. This data was subsequently transferred to the digital audio workstation AUM, which was running on an iPad with iPadOS 15. Within AUM, the MIDI data was imported into an audio unit plug-in (AUv3) named Helium, which functions as a MIDI sequencer app. The different versions were then rendered using various virtual instruments, utilizing audio unit plug-ins such as Modules by Korg. The rendering process involved the following variations: 1.) a basic version, which featured a simple MIDI piano playing the data, 2.) an advanced version, in which the three layers of the musical texture were played by different virtual instruments, such as grand piano, strings etc., and 3.) a version which involved further sonic manipulations and randomizations of various parameters. The musical text, however, was not modified, but only elements such as timbre or sound space (e.g. by reverb or cut-offs) with the help of low-frequency oscillators (LFOs , also AUv3s).[2]

3.2 Theoretical Background: L.B. Meyer's Expectation and Realization

The design principles are deduced from Leonard B. Meyer's disposition of expectation and realization. The US-American music theorist and composer distinguishes two essential categories in *Emotion and Meaning* (1956/2008). By 'sound term' Meyer understands:

> A sound or group of sounds (whether simultaneous, successive, or both) that indicate, imply, or lead the listener to expect a more or less probable consequent event are a musical gesture or 'sound term' within a particular style system. (Meyer 2008: chapter 'Expectation and Learning', paragraph 9)

The sound term is contrasted with the so-called sound stimulus, which Meyer describes as the actual sound:

> The actual physical stimulus which is the necessary but not sufficient condition for the sound term will be called the 'sound stimulus'. The same sound stimulus may give rise to different sound terms in different style systems or within one and the same system. This is analogous to the fact that the same word (sound stimulus) may have different meanings (may become different sound terms, implying different consequents) in different languages or within one and the same language. (Meyer 2008: chapter 'Expectation and Learning', paragraph 9)

2 The exact configuration is not crucial for the experiment, because if a sequencer allows playback in different software instruments that allow sonic alterations, it is not important whether these are mobile or stationary systems — like Reason, Reaper, Logic etc. — and exactly which apps are used.

In the ambivalent interaction of sound term and sound stimulus ultimately lies the dramaturgical tension and the emotional content of a work. Musical composition benefits from ambiguity when an individual sound stimulus can evoke several sound terms, as Meyer explains:

> Within a single culture or even within one piece of music the same sound stimulus may give rise to several different sound terms. This is easily seen in the tonal system of Western music of the past two hundred years. From a harmonic point of view, for example, a chord (sound stimulus) may have different functions in different keys. A chord which is a tonic in one key (which bears certain more or less definite probability relationships to other harmonic possibilities) may be a dominant in another key, and so forth. Within one and the same tonality a particular sound stimulus may give rise to a sound term at one time and not at another. For whether a sound stimulus becomes a sound term depends upon its function in the particular passage. At one time the sound stimulus may imply and indicate consequents and be considered as being structural, as being a sound term; at another time the same stimulus, though it is part of a sound term which has implications, is not itself a sound term — does not in and of itself give rise to meaning. (Meyer 2008: chapter 'Expectation and Learning', paragraph 9)

3.3 Version 8b-1

With Meyer's approach in mind, the early version *8b-1* quickly reveals problems which stem from the source material: there is too little ambiguity to objectively address the initial question of whether sonic alterations and randomizations can complete the perception of incomplete harmonies. The harmonies were already too detailed in the initial stage: too little was implied and too much already explicit. For example, the change from the first four bars to the next four is in a sense a modal shift, from d Dorian to e Phrygian, only to fall back to Dorian when repeated. The five-note cluster in bar 1, and by analogy in bar 5, are both too clear by virtue of their respective root notes. Even the periodic structure of an antecedent clause followed and consequent clause of 4+4 bars, subdivided into 2+2 contrasting phrases, seemed to provide too much stability, not to say stasis to investigate the initial research question: To what extent are sonic alterations and randomizations able to complete fragmented harmonies?[3]

All in all, the context is too unambiguous for the question of expectations and realizations to arise. I have therefore recognized the importance of developing a second version, *8b-2,* which exhibits fewer harmonic and syntactic tendencies.

3.4 Version 8b-2

Version *8b-2* intends to preserve harmonic ambivalence, without a clear key or mode.

In contrast to the previous version, *8b-1, 8b-2* consists in three-part harmonies throughout. Despite its tonal orientation, it contains more dissonances than *8b-1,* such as minor seconds or major seventh s. Version *8b-2*

3 I do not investigate the syntactic elements further and will instead focus on the harmonic and tonal elements and implication. For a more profound discussion of the vital role that syntactic elements play or at least can play in an analysis of harmony and tonality, I refer to Erwin Ratz' book *Einführung in die musikalische Formenlehre* (Wien: Universal Edition, 1973), in particular: p. 17–43.

also attempts to push back the syntactic component in its design. It is no longer periodic, although a 'quadratic' form is not completely abandoned, grouped in four phrases, each of which consists of two bars.

However, already without any modification through sonic alterations and randomization, an impression of completion becomes too strong over time, despite the absence of unambiguous chords, with dissonances and lacking thirds.

Thus, like *8b-1,* the material does not offer a sufficient level of ambivalence to further pursue the research question, despite a growing lack of clarity.

3.5 Version *8b-3*

The final version of *8b-3* is now designed to 'enforce' vagueness through a further reduction of the musical material. We recognize a simple chain of intervals which can have harmonic implications and provoke expectations both through their individual intervallic structure, sound, and their progression.

With a few exceptions — the one third in bar 3 and the fifths in bar 1 and 7 — exclusive dissonances arise which cannot be consolidated with a tonal centre. There are two minor sevenths (bar 2 and bar 5), two major sevenths (bar 4 and bar 8) and a major ninth (bar 6). Twice the upper voice is unchanged, from bar 1 to bar 2 and from bar 7 to bar 8. Seemingly, bar 1 in bar 7 returns, but this time the connection is not in a minor seventh (analogous to bar 2, c would be required to b-flat), but rather a major seventh, i.e., *c-flat/b-flat* is chosen.

Fragmented implications prevail. Between the first and second bar, one can see a reference to a II-V progression, *e* as the root of bar 1, *a* as the virtual root of bar 2. This is clearly negated in bar 3, however, by a *c* in the top voice. This is also expressed in the enharmonic notation, in that there is no *g-sharp,* but an *a-flat.* The *c* can be understood as a *b-sharp,* which forms a constellation with the major third *g-sharp* below it, which could then be interpreted as a third. However, this is again dismantled by bar 4, when a *g* and an *f-sharp* are followed by *b-flat* with an *a-flat* intersect.

If in the case of a simple playback of *8b-3* with a piano or with other traditional software instruments — such as strings — expectations at realizations can form and emerge, in particular in a slow tempo. But as soon as sonic alterations and randomizations come into play, an unexpected, music-psychological effect arises: The more spherical and cinematic the sounds become, the further all expectations regarding harmonic implications and expectations recede into the background. The more the sound featured dimensions of spatiality and even motion within this sound space, the more potential implication faded and eventually dissolved completely into the obliteration of expectation. The harmonic gravity is canceled by means of sound.

To put this in L.B. Meyer's terminology: If sonic alterations are conducted in *8b-3,* sound term and sound stimulus completely drift apart.

3.6 Answering the Research Question

Returning to our research question 'In how far are sonic alterations and randomizations able to complete fragmented harmonies?', it seems so far

safe to say that sonic alterations do not complete such harmonies. An impression of completion cannot be achieved by means of sonic alterations.

However, at the same time, we discover that even merely intervallic structures like *8b-3,* can nevertheless be perceived as complete if the sonic alterations pass a certain threshold. Apparently, the ambient character which results from the manipulation of sound, compensates for the harmonic and tonal deficiencies of *8b-3* in a psychological way: The harmonic gravity is canceled out by means of sound, and the harmonic, intervallic fragments become stand-alones. The expectation of completeness is suspended by means of sound.

4. The Principles of the *Frascati Manual* (Reprise)

Contemplating these results, the element of expression, which according to the *Frascati Manual* represents an antithesis to knowledge, turns in fact out to be a prerequisite for knowledge after the experiment. We need the element 'expression' in order to untangle the epistemological inquiry.

Also, expression must not only be understood as an act of expressive intent. A simulation of intent, as the alterations through randomizers reveal, is sufficient to spawn expression.

L.B. Meyer's sound term and sound stimulus become incommensurate, the intentional, written music, and its sonic realization.

Regarding the other juxtaposition of the *Frascati Manual,* 'performance' versus 'research', we reach a crucial point, too. One might argue, the account given in this text may seem thorough and thoughtful, but it does not justify arriving at these findings. A written analysis, even when displaying music, is not authorized to make statements about perceptions. The illustrations and explanations — one can say — provide indications, but they have no power of proof.

And that is of course true. We need a practical realization in order to be able to arrive at the findings which I've described so far. The possibility of this critique reveals that performance not only is essential for research, but in this case, performance clearly is research.

The criteria, distinctions, and definitions offered in the *Frascati Manual* are important and they may be feasible for many aspects concerning research and development, and they provide palpable criteria for the problem of demarcation.

However, it would seem that the applicability of these elements in artistic research is problematic. One might consider that artistic research is neither at home in the natural sciences nor in the traditional humanities, but instead belongs to an entirely different paradigm. On that note, an artistic fact — in this case a musical fact resulting from sound — is something completely different from, say, a historical fact. The *Frascati Manual's* approach to the arts with a quasi-philological approach that seems to place the text and its signs above all else, misses the point. Behind the confrontational juxtaposition of 'artistic expression versus research', there is an all too rigid and normative conception of what is to be called a work, a foreclosed attitude that also guides its realization.

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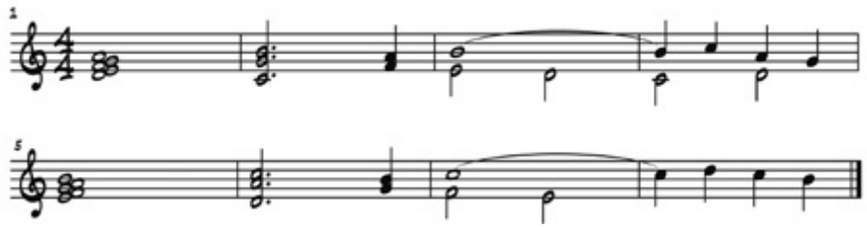

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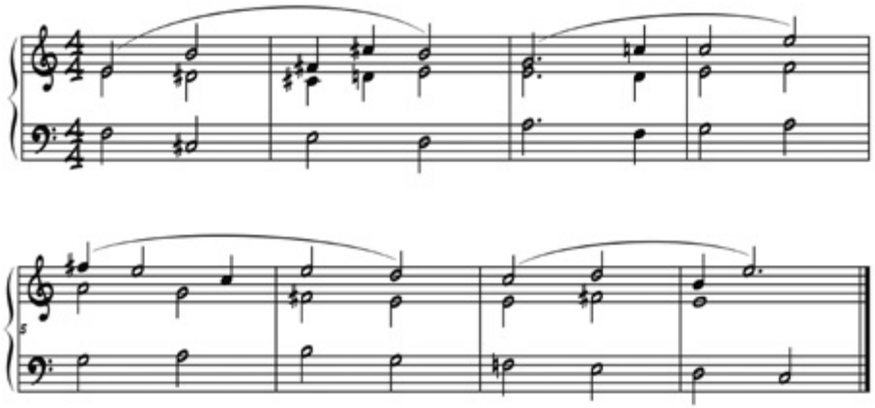

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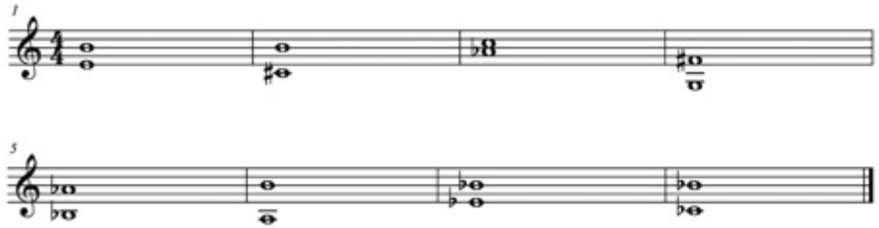

III

I Jan Giffhorn, *8b-1,* musical experiment, first and proposal version

II Jan Giffhorn, *8b-2,* musical experiment, second version

III Jan Giffhorn, *8b-3,* musical experiment, third and final version

Convivial Epistemologies: Artistic Approaches to Unlearning and Rethinking Practices of Living Together

Marina Gržinić, Jovita Pristovšek, and Sophie Uitz

Abstract
In May 2021, Univ. Prof. Dr. Marina Gržinić (project leader), Dr. Sophie Uitz (researcher), and Dr. Jovita Pristovšek (researcher) launched the arts- and theory-based research project 'Conviviality as Potentiality: From Amnesia and Pandemic towards a Convivial Epistemology' (funded by the Austrian Science Fund FWF, project number AR679), hosted by the Academy of Fine Arts Vienna (Austria). The aim of this project is to develop and share 'convivial epistemologies' together with artists, as we assume that for a convivial practice of living together it is necessary to find a new common epistemological basis. This article reviews the theoretical understanding and study of conviviality as a common framework upon which we have developed the concept of convivial epistemologies as a theory and, more importantly, as a practice of experience with various collaborative and community-based strategies.[1]

Keywords: research project, convivial epistemologies, diary, podcast, collaborative practice

This article reviews the theoretical understanding and research of conviviality as a common framework upon which we have developed the concept of convivial epistemologies as theory and, more importantly, as practice of experience with various collaborative and community-based strategies.

1 The research for this contribution has been funded by the Austrian Science Fund FWF, PEEK project 'Conviviality as Potentiality: From Amnesia and Pandemic Towards a Convivial Epistemology' (AR 679, 2021–2025).

The article consists of four parts:
1. Brief introduction; who we are.
2. Theoretical assessment of the state of affairs, which we have taken as an opportunity to think about change. This part contains three basic theses.
3. The contextualization of conviviality.
4. Convivial epistemologies in practice.

1. Introduction[2]
In May 2021, Univ. Prof. Dr. Marina Gržinić (project leader), Dr. Sophie Uitz (researcher), and Dr. Jovita Pristovšek (researcher) launched the arts- and theory-based research project 'Conviviality as Potentiality: From Amnesia and Pandemic towards a Convivial Epistemology' (funded by the Austrian Science Fund FWF, project number AR679), hosted by the Academy of Fine Arts Vienna (Austria). The aim of this project is to develop and share 'convivial epistemologies' together with artists, as we assume that for a convivial practice of living together it is necessary to find a new common epistemological basis. Together with local and international artists and research partners, this research project aims to develop a new definition and practice of conviviality as positive, affirmative action in the form of change.

2. Theoretical Assessment of the State of Affairs
When we decided to address the issue of convivial epistemologies as the central point of our research, we started from the assessment of Europe as a 'Fortress Europe', which at that time was also afflicted by a pandemic.

Marina Gržinić (2020) explains this situation in relation to several researchers as follows: We see in the twenty-first century a disease, isolation, and 'self-voluntary' segregation, which Valdemir Zamparoni (2016) defines as consisting of methods central to a colonial-medical environment. She argues that we can consider these methods as a form of self-segregation to enable immunization. If we connect these two situations, which at first glance seem unrelated, we can see that the border between the European Union/Greece and Turkey is about 'killing', and in Italy it is about 'letting live', but only for Italian citizens (Gržinić 2020). Gržinić argues that these two sides are the depiction of contemporary neoliberal 'necropolitics' (Mbembe 2003). The reordering of spaces becomes crucial; it leads to new practices of zoning and the creation of corridors as circulatory modes through which capital accumulation takes place (Gržinić 2020). Gržinić thus focuses on Europe, refugees in Europe, neoliberalism, and racism. She goes on to argue that the only way to open up possibilities for White Eastern European thought is not by fully embracing the old Western matrix of knowledge that is a result of colonialism, but by trying to rethink our conditions of potentiality together with those whose thoughts have been marginalized for far too long. Colonialism and contemporary forms of coloniality have not only dispossessed and commodified millions of lives, but also incarcerated their thoughts and discursivity (Gržinić 2020). If, as she claims, Europe, i.e. Fortress Europe, the old Western world, is today a provincial territory, then the thoughts and intellectual repertoire it can produce are also provincial (Mbembe 2017). Gržinić (2020) argues that today any thought that emerges outside the occidental (Western) regime is highly

2 We presented our research at the 13th SAR International Conference on Artistic Research, Bauhaus-Universität Weimar, Germany, 30 June 2022.

subordinated to the West's (Europe's) constant, discriminatory, racist view of what it calls 'the others' (see also Mbembe 2013).

As Gržinić has noted, if we think carefully about what is happening at and in the borders between the European Union and those who are not in the EU, we can see:

> a new relation about life and death where the colonial/racial division is applied. All those there are those coming from states destroyed by imperialist Occidental appetites, and a racial differentiation between the white occident and the other parts of world that are seen as not legitimate members of the regime of whiteness and its colonial matrix of power, which from the past extends deeply to the present days.
>
> The colonial/racial division is applied to citizenship, and we have two categories of citizenship: one is the category I will name *biopolitical citizenship* (the EU 'natural' nation-state citizens), and the other is *necropolitical citizenship* given to refugees and sans-papier (paperless) after they die on EU soil. While some are made 'equal' the other Others are left to die and are brutally abandoned, or their second-grade status as citizens is fully normalized in the EU. [...]
>
> This shift can be captured at best through what Balibar [2002: 83] exposed as the passport of a 'rich person from a rich country ... increasingly *signifies* not just mere national belonging, protection and a right of citizenship, but a *surplus* of rights.'
>
> Death itself as I presented above had become a fallacious rite of passage in modernity's instrumentalization of humanity.' (Gržinić 2020; emphasis in the original)

Necropolitics, according to Gržinić (2020), is the regime of war-death machinery that literally exports contagion to other places, or that contagion has already been transmitted through the legacy of Western colonialism (e.g., in Africa). The vertiginous presence of death is the result of a life without the awareness of a proper vulnerability, pathological, centred on itself, and unable to have a relation to the others (Gržinić 2020).

> These processes of invigorated control of borders, expulsion of refugees, etc., are judicially, economically and, last but not least, discursively and representationally (as different semio-technological regimes), ratified, legislated, and normativized. [...]
>
> On one side we have the state institutions and the necropolitical sovereignty that is sovereignty of an intensive racialization, ghettoization and expulsion, and on the other, the formation of not a monumental landscape, but, on the contrary, a deathscape (that is again a necropolitical measure). (Gržinić 2020)

2.1. Theses

Starting from such a basis, we formulate the following theses:

First thesis: The pandemic has reinforced this structural inequality and created another obstacle to conviviality.

The Covid-19 pandemic is an obstacle that has impaired the potential for convivial life on a global scale and fundamentally altered biological and social life. The pandemic and its associated social order of distance, contagion, and isolation shape conviviality. The social or physical distancing measures imposed have a spatial and temporal dimension, as they require the practice of keeping space between oneself and others and reducing the number of encounters between people. Even after the distancing measures are lifted, the aftereffects of the altered practices of human relations continue to operate.

Second thesis: The global capitalist world and its processes of racialization and neocolonialism systematically oppose the possibility of conviviality.

Fortress Europe is a clear case, the war in Ukraine has shown that the erasure of space, the ecosystem and proxy wars strongly affect the idea of community and coexistence.

Third thesis: The return to and reactivation of the practice of conviviality as a positive and affirmative action for change is necessary. It is not surprising that this concept is being revived now, fifty years after it was first proposed by Ivan Illich in 1973.

This is a reality that Europe must face in order to have the possibility to understand its present circumstances and to plan a life and a community for a convivial future.

3. The Contextualization of Conviviality

The concept of conviviality was introduced into the vocabulary of the humanities by the Viennese theologian and philosopher Ivan Illich. His book *Tools for Conviviality* (1973) was inspired by the Third-Worldism movements of the 1960s that incorporated elements from African decolonial movements as well as the diverse voices in support of the oppressed that were spreading throughout Latin America at the time (Costa 2019). The 'tools for conviviality' were developed to negotiate industrialization through taking control of the apparatus and production processes that shaped people's lives.

Since its introduction, the concept of conviviality has been used in various fields that either applied it within themselves or expanded and revised it. In this regard, Paul Gilroy (2004, 2006) made an important contribution by linking convivial culture to colonial pasts, amnesia, and denial, arguing that these create unique political and social fields in which we must navigate and organise.

Gilroy extended the notion of conviviality not only to a context of 'living together in real time' (Gilroy 2006: 6), but to a culturally complex, mobile global world. As argued by Amanda Wise and Greg Noble, 'it is with Gilroy that *cultural* differences arising from the long-term consequences of post-colonialism, mass migration, multicultural policies and transnationalism are foregrounded' (2016: 424; emphasis in the original).

As such, the concept of conviviality stands in opposition to normative narratives of multiculturalism, integration, and assimilation, and it is

this understanding of conviviality that we build upon to update and expand.

The development of these new modes of encounter thus requires thinking about new convivial practices of living together, that is, by finding a new common epistemological ground to develop a 'convivial epistemology' (Boisvert 2004). Although Boisvert's (2004) concept of a convivial epistemology was originally proposed at the intersection of food and philosophy, he 'begins [his call for convivial epistemology] with the notion of humans as beings *living with* their surroundings — not subjects studying objects external to themselves' (cited in Heldke 2006: 216; emphasis in the original).

Developing convivial epistemologies, then, is about finding tools, modes and mechanisms of knowledge and organising that help lived communities create a sense of togetherness and connect people 'who speak different languages, look different and profess different faiths and values' (Wise and Noble 2016: 424). An example of a similar effort can be found in the *The Convivialist Manifesto: A Declaration of Interdependence* (2014). The manifesto, along with the proceedings of an international colloquium on the subject (Caillé et al., 2011) and Alain Caillé's book *Pour Un Manifeste Du Convivialisme* (2011), provided the initial impetus for a new debate on conviviality that focused heavily on the works of Ivan Illich (Convivialist Manifesto 2014: 7). As Sari Hanafi (2020; emphasis in the original) states:

> what we are witnessing is a moment of truth regarding the crisis of late modernity and its capitalist system on a broad, overarching scale. We will not be able to simply revert to 'business as usual' after we get through this crisis, and the social sciences should work to both analyze and actively engage in addressing these new realities.

In times of spatial and temporal closure, we need to find new modes of encounter that emphasize belonging as 'practice, effort, negotiation and achievement' (Gilroy cited in Wise and Noble 2016: 425); new modes of negotiation that enable the formation of new formats and methods of collaborative work and research, new modes of 'community as practice' (Greg Noble cited in Wise and Noble 2016: 425). At stake centrally are questions of ethics, especially in times when the 'fabrication of racial subjects has been reinvigorated almost everywhere' (Mbembe 2017: 21). Conviviality today faces numerous obstacles, many of which are rooted in the overarching condition of global capitalism, whose processes of racialization and neocolonialism systematically oppose the possibility of conviviality.

4. Convivial Epistemologies in Practice

The project started from the assumption that art-based research can act as a 'tool for conviviality' to negotiate the uncertainties and obstacles of 'living together in real time' (Gilroy 2006: 6) by engaging with practices, vocabularies, and artistic and knowledge-based methods. Through these encounters, working within and negotiating the structural and material constraints of coming together in proximity, we have engaged in the process of co-creating convivial epistemologies.

With various marginalized communities, LGBT*QIA+, BIPOC, Black people, refugees, migrants, political activists, and grassroots organisations,

we have embarked on or initiated encounters and intimate interactions to explore and co-develop artistic convivial epistemologies at several public events in 2021 and 2022 in Vienna, Austria. We documented these events by using low-threshold and low-tech tools that are easy to share and replicate. With a combination of audio recordings and a collective diary, written by the core research team, we gathered testimonies to convivial practices, statements, different thoughts, interactions, the sounds surrounding the encounters, the silences, the temporality in the air.[3]

For dissemination, we chose the podcast format and began developing an experimental fictional docu-research series on the potential of plural languages and experiences for building future communities of resistance under and against neoliberal global capitalism, structural racism, and racialization. The podcast series is called 'Convivial Epistemologies', of which the first part, 'Vocabulary of Conviviality', is based on attended and co-organised events of convivial practices. This series develops a new, shared epistemological foundation following two lead questions: How can we learn to live together? What kinds of vocabularies create potentials for conviviality? The different episodes explore words, tools, modes, strategies, knowledge, and organisational mechanisms that help lived communities create a sense of belonging and connect people across different communities.

The following section provides an overview of selected convivial events, how they were organised, documented, and reflected upon.

The performative group exhibition 'The visibility of the invisible' was organised by the students of the Studio for Post-Conceptual Art Practices (PCAP) at the Academy of Fine Arts Vienna and opened on 25 June 2021 at Schillerplatz, a public park in front of the Academy. The students decided to use a public space as an exhibition venue because they were exhibiting works created during the acute phase of the Covid-19 pandemic. They worked in isolation and separately from each other for most of the time, meeting exclusively online in video calls. As Marina Gržinić, who leads the Studio for Post-Conceptual Art Practices, writes in the exhibition booklet: 'After self-isolation, social distance, and seeing ourselves in digital space, communicating out of digital boxes, we decided to go into public space.' (2021: 1) Yet, the exhibition, Gržinić (2021: 1) continues, did not simply intend to recount one's own perception in a modernist manner, but to 'make visible the invisible deterioration of living conditions and the exponential rise of many practices of control, discrimination, oppression, and exclusion'. Jovita Pristovšek recalls in her diary entry the opening:

> When installing the works [...] in a public park, the materiality of ignorance, hatred, and racist violence was visible from the beginning. We experienced a lot, some art pieces were stolen, others damaged or destroyed, people protested that we were ruining the lawn and polluting the public park, and so on. A white woman with a dog openly attacked a student. It was an anti-Muslim racist attack.[4]

3 The full diary and podcasts can be accessed through the research project website at https://convivialityaspotentiality.akbild.ac.at/.
4 All citations from the collective diary can be found on the project website in the Diary section. See 'Conviviality as Potentiality' ('Diary').
5 'Smashing wor(l)ds – Summer camp' was organised by Kulturen in Bewegung/VIDC in collaboration with Afro Rainbow Austria (ARA); Queer Base, Vienna; Silent University Graz; and the students of the Studio for Post-conceptual Art Practices (PCAP), IBK, Academy of Fine Arts Vienna, Austria, as part of the Creative Europe funded project 'Smashing wor(l)ds: Cultural practices for re/imagining & un/learning vocabularies'.

The exhibition was part of the 'Smashing wor(l)ds — Summer camp' with workshops and lecture performances from 25 to 27 June 2021.[5] With Covid-19 forcing people into isolation and social distancing for almost one and a half years, the summer camp was intentionally planned to take place outdoors, finally allowing for a group gathering while being mindful of the ongoing pandemic. In the collective diary on the impact of the physical proximity, Sophie Uitz noted:

> Everyone seemed starved for this time together. Time that was so consciously spent in the physical presence of others, not just next to each other, but with each other, recognizing, negotiating, sharing, and practicing our collective presence in this space. Such a moment might be a glimpse into conviviality, into the act of convivial living and learning, which is more than just being part of a group, but takes a certain intensity of encounter, one from which we can laugh away repression and discrimination, while being dead serious at the same time. (S. Uitz, 'Conviviality as Potentiality', 'Diary')

We have produced several podcasts. Their creation was not linear, some podcasts needed more time and reflection, being the result of research and fictionalization, while others had a strong documentary aspect.

Important for us was the encounter with the Zapatistas that came to Vienna on their 'Tour for life'. We went to greet them at the Vienna Airport on 22 September 2021, upon the arrival of a delegation joining the Zapatistas on the 'Tour for life', invited them to the Academy, and produced 'Episode #3: Life', a collage of diary excerpts from the listening encounter combined with sound recordings.

'Episode #1: Words'[6] of the docu-fictional podcast series 'Vocabulary of conviviality' came out of the recordings from the 'Smashing wor(ld)s – Summer camp', reflecting on the potential of plural languages and experiences for building future communities of resistance under and against neoliberal global capitalism.

A second edition of the 'Smashing wor(l)ds' event series took place a year later, in the form of the 'Festival of vocabularies life' (30 June–3 July 2022).[7] As the title suggests, this event focused on the performativity of language, about which Gržinić writes in the festival catalogue, referring to the main coordinator Marissa Lôbo, as follows:

> The performativity of language that makes us breathe, scream, run, block in the modes that close and open, and materialize. Here the performativity, as Lôbo spoke to me, signifies pain and joy. A project of life in which there is never enough time to make a real networking. Let's say students welded together in a crude communal setting of study, living as a fragment in time, with so many individual interests, passions, fatigue, and fates. If we try to spell out the act of living — that is always close to language — it is a body exposed to a wor(l)d. (Gržinić 2022: n.p.)

The festival hosted multiple artistic positions, speaking from marginalized

6 All podcast episodes can be found on the project website in the Podcast section. See 'Conviviality as Potentiality' (Podcast).
7 This festival was the outcome of a collaboration between 'Smashing wor(l)ds: Cultural practices for re/imagining & un/learning vocabularies' of kulturen in bewegung/VIDC; Stiftung Inna Przestrzeń (Other Space), Poland; BOZAR – Centre for Fine Arts Brussels, Belgium; Afro Rainbow Austria (ARA); Queer Base, Vienna; Silent University Graz; and the students of the Studio for Post-conceptual Art Practices (PCAP), IBK, Academy of Fine Arts Vienna, Austria.

points of view, 'present(ing) their artworks as a way to fight against discrimination and create a better world', as researcher Saša Kesić noted in the collective diary on the event ('Conviviality as Potentiality', 'Diary').

Hence, 'Episode #4: Vocabulary' of the docu-fictional podcast series came out of the documentation of this festival and deals with the vocabulary and terms associated with the letter S.

Another series of convivial events we participated in for over two years was the 'Muslim*contemporary', a multidisciplinary, participatory and dialogical project with exhibition, workshops and readings, which took place for the first time in November 2021[8] and in a second edition in October 2022.[9] Podcast 'Episode #2: Community' is on the potential of Muslim community in Austria that was central to the 'Muslim*Contemporary' project and the works exhibited there. This episode covers their imagination, cultural production, artistic invention, and the construction of social spaces and raises awareness about current Islamophobic tendencies in Austria and Europe, while 'Episode #5: Representation' covers the second edition of the Muslim*Contemporary project and associated exhibition.

On 29 October 2022, WISSENSLABOR 22 was organised by maiz and collectively within the framework of the University of the Ignorat_innen, which took place at the University of Arts Linz. WISSENSLABOR 22 was a day that brought together caregivers, allies, and all who work for better living conditions in care work. So, we produced 'Episode #6: Rebellious performativity' about care-interweaving and connecting struggles.

Conclusion

The question of convivial epistemologies is central to the creation of a project proposal that goes beyond the framework of a nation-state and the majoritarian discourse and populist rhetoric of majoritarian national groups in the neoliberal global world. Where differentiations by race, class, and gender persist for those who are not 'White', living together in equality and in a pluriversal way is an essential option. Constant awareness of specific histories that are not cultural stereotypes and curiosities, but important parameters for a different kind of knowledge, conditions, and future prospects, is vital.

That is why we related the space of Austria and the EU with South Africa, Australia, and Lebanon. Austria is a place that has to learn and a space of encounter and dissemination. Thus, the foci of interest are:

- decolonial practices of LGBT*QIA+ communities for new social formations in post-apartheid South Africa;
- activism by refugees and native community activism against nationalist isolationism and White power regimes in the context of the violent return of coloniality in Australia;
- the strengthening of the community through the image archive in the shadow of the war in Lebanon. This is also underlined by our reflections on the ways in which antisemitism operates, when we take a historical look at Austria and the situation in Germany during World War II and today.

We expect that the knowledge and encounters we have brought will reconsider the future; the extensive documentation in the form of podcasts

8 The first edition of 'Muslim*Contemporary' was curated by Asma Aiad, with the support of Marina Gržinić and the Studio for Post-Conceptual Art Practices (PCAP), IBK, Academy of Fine Arts Vienna.
9 The second edition of 'Muslim*Contemporary' was curated by the collective Salam Oida. It was supported by Marina Gržinić and the Studio for Post-Conceptual Art Practices (PCAP), IBK, Academy of Fine Arts Vienna.

as docu-fiction or performative epistemologies with factual data will reverberate in Austria. This will increase exchanges with grassroots artistic collectives and art students, migrant organisations, and LGBT*QIA+ communities in the context of resistance to the anti-migration and anti-refugee regime in Austria. This process will reveal potentials and commonalities for the present and the future.

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I

II

I Zapatista delegates visit PCAP class, Academy of Fine Arts Vienna, 6 October 2021, PEEK AR 679

II 'Muslim*Contemporary 2022' opening exhibition, Academy of Fine Arts Vienna, 10 October 2022, Jovita Jovita Pristovšek, PEEK AR 679

III Afro Rainbow Austria (ARA), *Wearable vocabulary,* 'Smashing Wor(l)ds, – Summer camp, Kleine Stadtfarm am Schillerwasser, Vienna, 26 June 2021, Jovita Pristovšek, PEEK AR 679

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Interdisciplinary Research in European Extended Reality Labs

Adnan Hadzi

Keywords: artistic research, social sciences, cognitive sciences, immersive experiences, augmented reality, extended reality

Interdisciplinary Research in European Extended Reality Labs
This paper discusses the use of Immersive Experiences (IX) within artistic research, as an interdisciplinary environment between artistic, practice-based research, visual pedagogies, social and cognitive sciences. It presents the Immersion Lab University of Malta (ILUM) interdisciplinary research project.

1. Interdisciplinary Immersive Experiences within Media Arts

In *Genius Loci, Towards a Phenomenology of Architecture*, Norwegian architect and theorist Christian Norbert-Schultz (1980) re-interpreted the ancient notion of Genius loci advocating a more sensitive approach to architecture in the direction of the symbolic understanding of places. Reconsidering the value of the 'character of place', and understating it in terms of heritage, — Norbert-Schultz suggested — would offer insights into a more sensitive and dialectic relationship between society and the environment. In *Computers as Theatre,* Brenda Laurel (1993) introduced a totally new perspective on the then relatively new domain of human-computer interaction (Voorhees 2020), by combining drama studies with video-game design at the Atari corporation. Laurel's work brought a refreshing perspective to this emerging field of interface design.

2. Interdisciplinary Immersive Experiences within Cognitive Sciences

For the researchers, the key element is that the subjective experience (Heeter 1992) can be challenged using new technologies and IX that induce perceptual bodily illusions. Such illusions are interesting to study for cognitive neuro-scientific research of self-consciousness and provide an excellent way for communicating and explaining our scientific questions. Work in ILUM implements the experimental conditions for visitors to experience these bodily illusions and provides the public with a better understanding of the fundamental mechanisms of self-consciousness (Bermúdez 2001). The main goal of the science communication project is to showcase exemplary research at the intersection of art and science. An example for such

a field of expertise is established through collaborative work with cognitive sciences.
The design of the user experience (Hassenzahl 2020), through cognitive analysis, is the first fundamental step to creating an immersive experience.

3. Interdisciplinary Immersive Experiences within Social Sciences

Another Social Sciences research project which benefits from the ILUM project is the Platform for Migration (Azzopardi 2020) at the University of Malta. In an increasingly integrated world, migration presents opportunities and challenges to communities, institutions, and individuals alike. Today the migration crisis renders the Mediterranean an opaque space, removed from the public eye, where the key founding values of the European Union are put under strain, making the Platform for Migration initiative all the more necessary. ILUM supports the Platform for Migration in data visualization within immersive space for awareness raising purposes.

ILUM, considering the above discussed case studies, serves as a vehicle for the exploration of new narratives for spatial media-arts work, combining the modalities of musical and visual surround presentation with a full-scale interaction surface.

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Virtuosity of the Self
Molly Joyce

Keywords: disability, virtuosity, dance, music, intersemiotic translation, blindness

‘Virtuosity of the Self’ presents how the disabled performer develops ‘virtuosity’ unique to themselves, and how this process can serve disabled and nondisabled performers alike. The disabled body offers generative pathways towards a new movement and understanding of virtuosity, often conventionally understood as a fast, impressive embodiment of skill grounded in ability rather than disability. Through synthesizing literature from embodiment, psychology of the self, and disability studies (Kasnitz 2020; Honisch 2018), a new and exciting potential in cultivating virtuosity unique to the individual emerges.

Throughout artistic disciplines worldwide, there has been an increasing and vital presence of disability arts. Disability arts are present across disciplines, involving dance, literature, the visual arts, and is defined by Sutherland as ‘art made by disabled people which reflects the experience of disability’ (2005). Within dance, disability has been reimagined in a way that embraces new forms of physicality, sensation, and in particular virtuosity; demonstrated by dancers

Marc Brew and Kayla Hamilton. Brew writes: ‘Disabled people have unique stories to tell and a different perspective on the world because of lived experiences and challenges,’ which in turn influences ‘our making and the creative process, how and why we make work. It’s honest, it’s real, it’s diverse...’ (Searle 2018).

This honest, real practice relates to my own experience. At the age of seven, I was involved in a car accident that nearly amputated my left hand. Following the accident, I transitioned to playing instruments that I could adapt to, such as the cello and trumpet. I was eventually drawn to music composition, as it allowed me to forego considerations of what my left hand could, or could not do. As my career has developed, I increasingly received commissions from performers asking for fast, impressive work, with an emphasis in virtuosity, one that is invested in speed and agility.

This spurred a re-examination of what virtuosity can and should mean in artistic and particularly musical contexts. Traditional forms of virtuosity denote a ‘highly-skilled performer’, and the term has become something of an esteemed buzzword within musical contexts, often equated with the highest form of performance and musical and/or artistic expression. However, as I re-engaged with performing in my musical practice, I began to wonder if and how I can access this form of artistic expression, specifically through disabled embodiment.

Reflecting upon my collaborations with disabled dancers, I realized how free the medium is in regard to physicality, movement, and consequently virtuosity. This is due to a variety of factors, such as dance not requiring technical instruments as music often does. To support these findings, I highlight non-normative forms using as case studies works by disabled dancers Marc Brew and Kayla Hamilton. Both dancers offer unique perspectives on virtuosity from disability, Brew with his acquired physical disability, and performances that bypass assumptions of bodily limitation and Hamilton through vision impairment, and questioning ocular importances. This highlights how a virtuosity that is unique to oneself, can bypass comparison and enter a lane of its own, in a way that is critical in suggesting a virtuosity that moves us towards more inclusive and exciting potentials.

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Human-Computer-Vision: A Space Odyssey

Kateřina Krtilová and Yuval Levi

Abstract
The article explores the possibilities of 'playing against the apparatus', suggested by Vilém Flusser, working with and against the program of the smartphone camera in three cities: Robion, Prague, and Berlin, following Flusser's gesture of writing and computed moving images. The movement in space attempts to locate Flusser's philosophy in between a phenomenological, subjective-relative viewpoint and his vision of the universe of computing, which is not bound to a human scale.

Keywords: media philosophy, technical image, digital aesthetics, mobile videography, Vilém Flusser, techno-science

We called our presentation in Weimar a visual-literal essay, combining a talk and three to six minute video sequences, which are in this written form represented by stills from the videos shot by Yuval Levi in 2022 in Robion, Prague, and Berlin.

This presentation is based on a dialogue between two different perspectives: a media philosopher's, one who follows the premise that thinking is shaped by its media, and the perspective of an architect interested in urban space and the media of its design. Our journey to Weimar began around two months ago at the practice based Vilém Flusser summer school in Robion, a small town in southern France. It is in this town that Flusser, a pioneer of media theory and philosophy, wrote some of his most famous texts, namely *Towards a Philosophy of Photography* which proposed to philosophize not only in writing, but also in technical images.

This excerpt from a small exercise in which we 'capture' the walk from Flusser's former house to the main square in Robion was one of Yuval's contributions to the discussion revolving around Flusser's instructions on how to 'play against the apparatus'. According to Flusser, when we are confronted with 'scientific black boxes', which might be computers as much as photography, we become mere 'functionaries' of the apparatus, and thus blindly subjected to a program that we cannot understand (Flusser 2000: 27f). At the same time, he proposes that perception and thinking are always mediated — by computing and photography as much as architecture, language, or writing. With regard to these older media, he stresses: 'It is not right to say that writing fixes thinking. Writing is a way of thinking. There is no thinking that has not been articulated through a gesture.' (Flusser 2014: 24) The apparatus in this context cannot be understood merely as a new technology (i.e. as that which replaces an old one such as writing), which one can elect or decline to use. It refers, rather, to a specific 'programming' of thinking and perception. Programing is based on science, particularly science as scientific thinking — Flusser is drawing here primarily on Edmund Husserl and Martin Heidegger. Hence the apparatus as a 'scientific black box'.

If you follow the techno-scientific programming, you might object to Flusser's description of writing: why is writing not a tool I use to express my ideas, if I write them down or not? Is the camera not a tool that I control and can use to record anything I see?

According to the scientific program, one is clearly a free subject who is able to manipulate objects by using free will, to shape reality according to intention: you are not merely a 'functionaire'. Yet this is the paradox of the scientific black box: by believing that you are in charge, you are in fact blind to the very medium that allows you to think and see in a certain way in the first place. As free as you may be operating the camera, you are free only within the camera's terms. You are limited to producing a video/film or photograph that follows its settings (*Einstellungen*): the rectangular frame, the properties of the lens, time of exposure, or, in digital cameras, literally the program. The camera as a medium is not just a means to an end — it has as much a grip on its master as the one who believes they are mastering it. When you look at the world through the camera — observing it so to speak objectively, scientifically — you might also see the camera and notice what it makes you see or what it allows you to see.

Freedom is thus not the possibility of an increased capacity to manipulate in the way that policy on powerful 'digitalization' may suggest: with regard to vision seeing everything, a complete simulation of the human visual field; as if computation allowed a complete simulation of human vision — implying its total control. Freedom however can mean quite the opposite: to allow yourself to be guided by the camera and at the same time reflect its settings as part of your vision — camera and operator intertwined.

Following up on the video shot during the Robion exercise, Yuval decided to experiment with his 'aimless walk', borrowing the title of Alexander Hackenschmied's (alias Hammid's) experimental film from 1930, *Bezúčelná procházka,* in Prague and Berlin, the location of the more famous *Berlin: Sinfonie der Großstadt* Walter Ruttman's. With psychogeography and the Situationists in mind, proposing a different, situated view of the city, Yuval tried to reflect or maybe refract the computer-human-views of the urban space guided by the (cell phone) camera while still looking beyond the frame, following the architecture of the city — turning attention to scenes, details, perspectives which without the camera would go unnoticed.

In the context of changing technologies, what has shifted from the experimental cinematic views of the city in the 1920s and 30s to a cell phone camera walk? One no longer looks through the viewfinder in

‘analogue’ cameras because it is now possible to see the video while it is being shot on the display — a little screen you might find reflected and refracted on glass or metal surfaces that become screens as well. Not only do reflections multiply, different ‘layers’ of the image may appear disconnected yet still overlapping within a single shot: close objects and long shots may appear together, simultaneously in focus, including walls, windows, posters, screens, and street views. An effect that could be described in Lev Manovich’s terms describing a feature of computational thinking and/or aesthetics: a computer you work on one screen with different ‘windows’, switching between them (Manovich 2001: 3). Manovich claims that this function of the computer is articulated already in experimental films — as an aesthetic as well as a technological practice (ibid.: 15). The automatic settings of the camera in long sequence shots produce a kind of ‘special effect’ correcting the focus during the movement of the camera. There seems to be no blurred vision, but rather discrete segments aligned in a changing rhythm that clearly do not ‘capture’ the subjective experience, indicating the non-human vision of the apparatus. And yet, these concrete video clips are also traces of a singular event, situated in a specific time and place, a gesture of searching (Flusser 2014: 147–60) by the camera operator (Svatoňová 2014: 52f).

The camera and the city are part of the scientific program, the Cartesian ‘grid’ of perception and thinking. Yet they allow its refraction. In the video you can see the linear perspective inscribed in the camera and street views. The different layers of mapping the city — its photographic and filmic images, data from surveillance cameras, Google Street view, drone images, VR models, et cetera, however do not converge in one (scientific) perspective.

Our suggestion is not to play against this apparatus (or leave it altogether), but rather with it: camera and writing resist being used as merely a tool. They develop their own dynamics and agency, and thus allow a (theoretical) ‘overview’ as much as our search or research refracts in the actual media practice.

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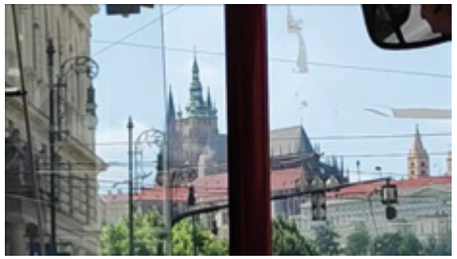
I

II



III

IV

V

I Yuval Levi, *Robion walk,* Videostill 1, 2022, MP4, private archive, Berlin

II Yuval Levi, *Prague walk,* Videostill 2, 2022, MP4, private archive, Berlin

III Yuval Levi, *Prague walk,* Videostill 3, 2022, MP4, private archive, Berlin

IV Yuval Levi, *Robion walk,* Videostill 4, 2022, MP4, private archive, Berlin

V Yuval Levi, *Berlin walk,* Videostill 5, 2022, MP4, private archive, Berlin

The Island, the Bench, and the Sofa at Home: Sensations of Communion in the Exhibition 'Town Hall Meeting of the Air'

Kate Liston

Abstract
This paper outlines the ways in which the collaborative exhibition 'Town Hall Meeting of the Air' deployed poetic tools across writing, installation, and radio programming to invite sensations of communion among its hybrid audiences. Through this exposition it reflects on ways these sensory tools offer valuable ways for people to participate in public life. It offers these as alternatives to common understandings of what it means to be civic.

The paper locates the exhibition's staging in the UK's easing of social protocols during the COVID-19 pandemic, citing the collective reimagining of social infrastructures at the start of the pandemic as an important context. It thinks with Irit Rogoff's writing on forms of participating with art, to navigate how the exhibition as both a physical installation, broadcast and in-person event, can invite feelings of togetherness in physically dislocated audiences.

Keywords: installation art, pandemic, radio, civic gathering, affect, poetics

Introduction
'Town Hall Meeting of the Air' was an exhibition organised by Kate Liston and Tess Denman-Cleaver which aimed to explore the poetics of civic gatherings — the sensory aspects of the written, spoken, and visual languages of public assembly. It was staged at BALTIC 39, Newcastle upon Tyne (UK) in summer 2021, either side of England's so called 'Freedom Day' — the day most of the social restrictions in place for the Covid-19 pandemic were lifted. The exhibition was hybrid. Visitors to the gallery experienced the exhibition in pre-booked limited audience time slots. Online audiences could access the show via a programme of radio events broadcast from Townhallonair.com.[1] We promoted the project across eighty-six Instagram posts on the @townhallmeetingofair account.

1 Townhallonair.com ran for the duration of the exhibition and was taken down after its closing.

As Tess Denman Cleaver described in the project's 'Tangible Utopias' symposium:

We first developed the project in 2018 as a one-off performance of the same title for Middlesbrough Town Hall, in response to the building's imposing gothic architecture that was intended to invoke civic pride in its users. In this iteration of the project, we thought about the aims of democratic spaces like town halls as well as the language used within them. We experimented with an idea of what might happen if we replaced the imposing authoritarian impulse of this building with a kind of poetics. (Liston and Denman-Cleaver 2021).

As we developed this project from 2018 to 2021 the social impacts of the pandemic brough our research aims into sharp focus. The idea of being in a room with people, aside from the possibility of feeling intimately in common with others, felt utopian. The pandemic required citizens everywhere to engage in efforts of collective imagining, layering experiences of domestic life with a sci-fi level of speculation about the future function and direction of society.

This paper will reflect on the sense of communion made possible by the exhibition's hybrid presentation. I will situate this reflection as the exhibition did, in the specific affective world created by the gallery installation, in the artworks presented physically within it, and those broadcast from the gallery. I will do this from the partial perspective of one of the artists involved, moving between a situated 'I' and the distanced third person voice of a collaborative duo.

The Exhibition
To convey the exhibition's affective world, I need first to describe its components: a collection of short stories called *The Hundreds;* an installation made from wall-scale curtains; a sculptural bench; a radio booth housed within one of the curtain structures, and a hybrid (online and in-person) public programme. I will lay out the audiences' encounter with 'Town Hall Meeting of the Air' and our collaborative processes in making the exhibition before reflecting on its invitation of togetherness.

The installation was made from doubled-lined ecru cotton mouton curtains hung to the full six-metre ceiling height, so they appeared like walls and shifted BALTIC 39's architecture. Visitors entered the space via a soft corridor along which they could read the reverse of Anna Barham's video work *To be we to be / Leaking Container* (2021), which flickered between speech-to-text software generated words. Turning the corner at the end, the words could be read the right way. The video's text was generated from the audio of a collective online reading of Gertrude Stein's 'Patriarchal Poetry' (1927), a durational event[2] which Barham also staged for the 'Town Hall Meeting of the Air'. The curtain was ruched at the base, and at its edges were appliquéd with a simple, life-size drawing of rocks tumbling down a cliff, which also resembled a curtain.

At the far corner of the large low-lit room was a curtain cylinder which housed the radio broadcast infrastructure. An always open aperture invited visitors into the space, in which there was a desk, chairs, two microphones, a laptop, and a rock-shaped speaker which continuously played the radio schedule. The acoustics were dampened in this room within the room.

2 Anna Barham has published a guide for carrying out such a collective reading available on her website: <http://www.annabarham.net/Resources/TO_BE_WE_TO_BE_a_manual.pdf [Accessed 3 July 2023]

Another curtain annexed off the left-hand corner of the room. It was pulled tight providing a screen onto which *Unfolding Architecture,* (2018) a film by artists Rosie Morris and Taryn Edmonds was projected. The film showed a close up of the artists' hands folding paper boxes and moving them around on a table. As the camera pans out we see them wordlessly decide how the boxes should be arranged. The images cut between these scenes and distant static framed shots of brutalist post-war urban infrastructure interspersed with the occasional figure passing through. Seen together, the concrete structures seem to recall the folded paper objects, which are not unlike the geometric forms of the cotton structures in the gallery. A gradually building low drone sound provided the film's soundtrack and charged the installation with an anticipatory atmosphere.

In the centre of the space was a sculptural bench, three and a half by two metres wide with a dark green-blue seat running round. The angled backrest was cushioned and upholstered in flecked grey woven cotton, with deep placed buttons at increments. Four speakers were built into the structure, which played readings of *The Hundreds* at a volume low enough that it invites the visitor to listen.

On the wall opposite one of the bench's short edges, beside the first curtain was a photograph by James Newrick *Autonomous Grace* (2018). It shows an empty green drinks cart set in front of a pink curtain which runs round the corner of a room with a polished wooden floor. The image is from a series in which Newrick documents the iconic and overlooked features of Newcastle's Civic Centre, whose mediaeval-modernist design reflects the city's mid-twentieth century civic ambition. Tess and I produced an audio tour of Newcastle Civic Centre for Townhallonair.com together with the council's knowledgeable guide Debbie Harvey and carillon bell player and artist Jonathan Bradley. The curtain in Newrick's photo has a satisfyingly ruched edge, a more pronounced version of the nine-metre curtain installed next to it, and the drawing appliquéd on its surface.

Through the means outlined above, using a cohesive set of materials for the installation's soft architecture, low light, bleeding but not competing sounds, and a set of works which speak to one another, 'Town Hall Meeting of the Air's physical installation created an emotionally affective world, one that invited being with the artworks in relation to one another.

The timing of the exhibition in the midst of the pandemic meant that it had to — by practical necessity — exist in hybrid form. Given the situation, we took the decision to treat the online audience as our primary one, principally via Instagram and the online radio station Town Hall Meeting of Air, which gave daily updates about the radio programme, and shared images of the physical work and its research contexts. As well as promoting the show, the Instagram posts transmitted a shared sensibility across the exhibition's physical and broadcast spaces. Between scheduled radio programmes, Townhallonair.com played an algorithmically generated ambient cut up of our readings of *The Hundreds,* contributing to an atmosphere that existed across the online and in-person exhibition.

The verbal description took the form of an audio guide written and voiced by Louise Ainsley (2021) giving an experiential first-hand account of the show. This access guide was created for blind or partially sighted visitors in mind, but due to the social restrictions around visiting the gallery

(bookable slots of one household at a time) and many potential visitors' valid concerns about easing restrictions, the guide took on the additional role of making the exhibition vivid to sighted and non-sighted remote audiences alike (the guide can still be accessed on the BALTIC+ exhibition archive). This verbal translation continued the show's hybridisation, generating another form of encounter with the work besides that of being with it in the room, viewing digital images of it online, or listening to the radio broadcasts.

Public events ranged from online, to in-person as well as a concurrent combination of both. We ran an in-person potato radio workshop with a closed group of students from BALTIC's youth programme. We commissioned audio works from the artist Rachel Cattle which were scheduled for three subsequent evening slots. Every Saturday we broadcast archival recordings of *America's Town Meeting of the Air,* a public debate radio show which ran from 1935–1956, and was our project's namesake. The most regular broadcast within the programme was a 6 p.m. nightly reading of single stories from *The Hundreds,* which we announced on our Instagram page with images as seen in Figure 2.

The collaborative nature of this project and the invitations extended to other artists contributing to the sense that 'Town Hall Meeting of the Air' was a world in the making. The layered authorship of projects such as this can at times be problematic, and there is potential frustration in being sometimes, and sometimes not credited in the shorthand referencing of expansive artist projects.[3] When thinking about the audience's encounter with the show, we hoped that this network of artists, beyond compounding ways into civic poetics, would foster a sense of an imaginative space shared between the constellations of all involved.

The Hundreds

The Hundreds stories is how we built a world within the world of the exhibition. We used the collection of short stories, *The Hundreds,* as a world-building tool within the wider exhibition. Here is an extract from the beginning of the book a chapter entitled 'An island forms':

> Two plate boundaries spread apart, causing an upsurge of abnormally hot rock in the earth's upper layer. A mile long cleft opens, streaming molten rock from beneath the earth, pouring toxic gas into the sky. Black columns of ash penetrate the surface of the sea. The fissure contracts to a central vent and a new volcanic cone form. The explosions are continuous. A new island is formed.
>
> The island settles in the landscape and the imaginations of the mainland. The hundreds dream of new settlements, of before and after, of the as yet impossible, beginish beyond.
>
> (Liston and Denman-Cleaver 2021: 3)

Tess and I published *The Hundreds* as a book, but we wrote the stories for radio and for the bench installation described above. We then broadcast them live from the radio booth for the exhibition's opening, reading the stories to an entirely remote audience.

Stories from *The Hundreds* were played through the bench. They recounted through a series of vignettes in which a collective body of people

3 While I can't claim we got this completely right, we included a list of all contributors, including but not limited to artists in the exhibition and programme, curators, fabricators, technicians in the publication of *The Hundreds.*

— 'the hundreds', big enough to feel like a substantial number but small enough to feel tangible and carry out practical tasks together. They find an island, plough its fields, grind grain, make bread, build an assembly site, weave wool, design costumes, contract industrial diseases, tell stories and dream. The stories give the sense of a society on auto-build, as the hundreds' activities fall into Western clichés of human progress and decline, shaped by agricultural and industrial revolutions. But the biggest trope of *The Hundreds,* and of the audio bench design, is that of the island itself. As a bounded geography, the island (particularly for mainlanders like myself) is ripe for projection, seen as an idealised and alternative world to the mainland. The reality is of course that island societies can be equally as complex and problematic. Like the imagined island, the bench's solid form and definite edges gave us a way to ground the audience symbolically and physically in a show whose other boundaries are blurred, including its authorship and hybrid modes of presentation.

We wrote these stories about bodies being and working together at a time when this was in reality prohibited by law, and so *the hundreds'* gatherings entered a realm of fantasy, one informed by research. The stories referenced real-world island societies and their governance, including the Isle of Man's Tynwald Hill — an assembly mound at which the government has met annually for over one thousand years, the UK's physically crumbling Westminster buildings, the evacuation in 1973 of the Icelandic Island of Heimaey; and the craft traditions of Scottish Western islands.

Amongst these well-known and lesser-known scenes from the more officially sanctioned episodes from Western history, we interweaved dreamlike passages as we thought through the strangeness of the pandemic's collective social imagining. The hundreds' dream:

> [...] of drunkenness and outspokenness and words pouring into the night sky, of smoke creeping up to the roofs, of melting into shadows. They dream of talk being cheap, of weightlessness, of the long awaited, of limbs extended, of hip bones and knees, of sternums and glances. (Liston and Denman-Cleaver 2021: 65)

At another point in the narrative the committee, formed from the hundreds, smashes up plates in a government canteen, and smears the combined debris of food and dust onto each other's faces and arms.

Despite the oddness of these scenes, they are presented as logical developments. As we individually typed into shared Google Docs, drawing from and often transcribing a pooled collection of articles, images, and YouTube videos the specific auto-build image that came into our minds was that of watching a freshly built city destroyed by an earthquake or aliens, as if in the 1990s, city-building simulation video game *SimCity 2000.* We were writing these stories at a time when any positive sense of a shared project to reimagine a post-pandemic future felt nostalgically connected to lockdown 1.0. Utilising this collective reinterpretation as a narrative point of — departure, we found our writing taking on an automated quality, as if we converged momentarily within a shared realm of imagination.

Together-Apart, Taking Part

Beyond conveying the experience of attending this exhibition in its hybrid forms, this paper aims to show how the exhibition created the conditions for audiences to feel with and alongside one another, despite being physically dislocated and, or engaging in one-way forms of broadcast. While I am not taking the approach to analyse audience feedback or data, I would assert that this exhibition created the conditions for audiences to feel with it through its use of poetics. I would emphasise poetics as an alternative form of civic engagement, an alternative to well established forms, like public demonstration, lobbying, or democratic assembly.

This exploration presupposes that feelings of togetherness are not de-facto aspects of being civic. This shared conceit is one that hints at the exhibition's underlying political contexts. At different points in the project's development, in the course of two unsuccessful Arts Council England large grant applications and in pitching the exhibition to BALTIC and Ovada Gallery, Oxford (where we would have toured with the assistance of an ACE grant) we, in turn, cited the 2016 Brexit vote, the 2019 General Election and ultimately the COVID-19 pandemic as contexts occasioning a re-evaluation of what it means to be civic — to operate within a politically delineated geography, to be involved in the organisation of this place, and to do so with positive feelings.

From its first phase, 'Town Hall Meeting of the Air' engaged with civic life as a central subject, using these contexts of crisis as impetus to search out alternative forms of being public.[4] In our pursuit of poetic methods across multiple mediums and modes of presentation, we aimed to move beyond merely representing alternative civic functions to creating an experience for audiences of being temporarily 'in common'.

In Irit Rogoff's 2005 essay 'Looking Away: Participations in Visual Culture', the theorist and educator traces a shift in the way visual culture is engaged with from one of criticism, to critique, to criticality — from the feet-firmly-planted steadiness of opposition, to a practice of unpicking and dismantling underlying structures to something new. While in emergence, Rogoff describes how this new form of engagement has already laid the groundwork for a project of viewing 'knowledge as an extended wander through fields of intertextual subjectivities.' (2005: 119) It acknowledges how a viewers' subjectivities are involved in the production of art's meanings, a project now firmly established in the practices and academic fields of auto-theory and art writing.

It is Rogoff's articulation of 'being in common' as an alternative form of politics which I have been thinking about in relation to the 'Town Hall Meeting of the Air'. In the essay Rogoff presents two autoethnographic accounts of interactions with art in institutional settings and draws on writers Jean Luc Nancy, Giorgio Agamben, and Hannah Arendt to form her argument about what it means to participate in visual culture.

The participation Rogoff accounts for is not about co-creation in the sense in which the term is used today, with its emphasis on involving non-artists in the authorship or production of art. Rogoff's participation is different also from socially engaged practice, where the act of democratising an artistic process might become a part of and enfolded in the work's

4 At Middlesbrough Town Hall we found inspiration in Gertrude Stein's use of non-instrumental language as an alternative to contemporary conventions of political language. Rather than presuming language to act as vessel of truth and information, Stein's writing forms its meanings in public, in the shared space of it being sounded out and received.

subject and, or presentation.[5] The participation in question here means acknowledging one's agency to think and feel with art, to produce its meanings outside of the assigned role of viewer, or even invited co-creator.

Rogoff invites readers to look away from the artwork to enact this form of participation. Long before the digital acceleration that has unfolded over the last decade, its intensity during the pandemic and the resulting dissolution of boundaries between home, work, life, childcare, there has always been distraction. Beyond the idea of averting one's eyes from a work's intended meanings, Rogoff's looking away means being situated in the experience of art 'in the world'.

In the essay she describes visiting the Tate Gallery's 1999 Jackson Pollock retrospective with a friend and spotting an actress from the television series ER. They are distracted from the apparent focus of their visit, which is heavy with Pollock's hero status in art history, to 'another mythic structure, that of Hollywood celebrity' (Rogoff 2005: 129–30). The high-low cultural inversion here is part of the story's glee, but this is not simply about undercutting an expected cultural focus. Rogoff draws from this encounter to reveal the way it recreates them as subjects, and not simply viewers. Referring to Jean-Luc Nancy's writing on myth, she recounts how he traces gathering around a story as something not only practised at the origins of societies, but precisely how people are constituted as collective agents. She quotes Nancy saying:

> Myth communicates the common, the being-common of what it reveals or what it recites. Consequently, at the same time as each one of its revelations, it also reveals the community to itself and founds it. (Rogoff 2005: 131)

The act of being in relation to others in relation to the site of a myth (Pollock, ER, the unfolding tragedy of a global pandemic) makes people part of something common, which is shared in a way that constitutes, rather than reflects politics. At the time of writing, Rogoff could not have predicted the blurring of social worlds in mid-pandemic hybrid exhibitions, but her central idea remains potent. Participating with visual culture creates temporarily gathered communities. They are brought into existence by the fact they are oriented around a story and aware that it is one — an awareness made possible through looking away. Rogoff describes these moments of collectivity:

> Inside, distracted, acknowledging that our utterances come back to us in inverted form, conceding the common while refusing its identity — that's us. 'Us' in the process of becoming the subjects of culture. (Rogoff 2005: 133)

Like many arts organisations during the pandemic, we flipped the usual expectation by making primary the kinds of activity that are usually peripheral to the central event of the exhibition. At a time when Zoom and Twitch were the go-to platforms, we used radio, a voice in your ear or in your home, to conjure the intimacy, but not the interactivity, of others listening at the same time. We turned to radio with Rogoff's looking away in

5 For a thorough breakdown of the histories and uses of the terms and language of participatory art see *A Restless Art: How Participation Won and why it Matters* by François Matarasso [Accessed 3 July 2023].

mind. Listening at home, sounds are combined with myriad domestic calls on attention.

Through our live, one-way broadcasts, we aimed to create an affective connection with the audience through the situation of imagining others are listening at the same time, but did the audience really constitute a community? Instead of seeking evidence in audience data I use Rogoff's looking away as participation to suggest that 'Town Hall Meeting of the Air' invited audiences into a commons. It did so by gathering them around an affective, hybrid world with a story which drew from the situation of the pandemic. It harnessed the virus' mythic force and the collective acts it incited in the imagining of post-pandemic society.

Shared Imagination

In Mary Ruefle's prose poem, 'The Bench' (2002), the narrator describes an ongoing argument with her husband about a bench they are considering purchasing. The poem unfolds as a thought experiment, charting the tensions of a mis-matched vision for this project. The couple discussed the potential of adding the bench to a wild and untended part of their backyard. The long meadow grasses mean the bench would be inaccessible in the summer, so its presence then would be about the idea of a bench rather than its function. Visible from their house it would offer the idea of a shared seat for viewing the world. They agree it should be made of hard-wearing teak wood, but the husband believes the bench should be four foot long, and the narrator, five foot, the discrepancy riding on how many people could comfortably sit there, and whether it might invite a sitter to lie down. Despite the solidity of this agreed material, the bench remains at the level of a fiction of their imaginations.

When I read this poem, it reminded me of the experience of making 'Town Hall Meeting of the Air' with Tess. Like Ruefle's bench, seating occupied various realms of fantasy in the planning of our show. Pre-pandemic, before Zoom calls and WhatsApp messages became our principal tools for collaborating, Tess and I drew plans in which we converted the gallery into a meeting space, one that was conceived so that it could be adapted for use by artists and local community groups. The curtains could be pulled out to section off the area in different ways. The entire nineteen-metre-long left wall of the gallery was also given over in these plans to storage racks for the foldable seats needed for gatherings, should the floor space be needed for a performance. A large proportion of the budget was in fact, given over to seating.

After completely scrapping this idea at this moment in which sitting next to other people was forbidden by law, we arrived at the design of the bench. We initially thought this would be about the mere idea of a bench, an act of collective imagining in relation to what it means to sit next to other people, like the sofas in galleries in places like The National Gallery, like park benches, parliamentary benches, a space to share with others, a low-key symbol of democracy.

The couple's argument over the bench described in my summary may at first sound trite, but the way Ruefle walks us through it loads it with the depth of feeling which resonates with everyday arguments and quibbles like this in long term relationships. It reveals the folly of a failed attempt

to share imaginative space, and conversely, the miracle of when visions converge between more than one person.

The overwhelming and unfolding tragedy of the pandemic's first wave was a powerful story to gather around. It produced communities involved in the task of reimaging public life. 'Town Hall Meeting of the Air' drew from this time and took place amid the social reimagining of easing restrictions. It used poetics to build an affective world. It created the conditions for audiences, already liberated from fixed roles as viewers by the hybrid experience of working, living, and accessing culture at home, and by post-critical forms of cultural participation (Rogott 2005) to experience communion as an intimate feeling.

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I

II

I Kate Liston & Tess Denman-Cleaver, *Town Hall Meeting of the Air,* 2021, installation, audio, publication and public programme, BALTIC Centre for Contemporary Art, BALTIC39, Newcastle upon Tyne, Janina Sabaliauskaitė

II Kate Liston & Tess Denman-Cleaver, *The hundreds have no rhythm,* 2021, Instagram post, Kate Liston & Tess Denman-Cleaver

III Kate Liston & Tess Denman-Cleaver, *Town Hall Meeting of the Air,* 2021, installation, audio, publication and public programme, BALTIC Centre for Contemporary Art, BALTIC39, Newcastle upon Tyne, Janina Sabaliauskaitė

III

gravitational pull of historical hierarchies in knowledge

knowledge
production
Within
artistic
research
there

Complexity, Environment, and Future Aesthetics: From New Media to Non-Media

Ivan Chen-Hsiu Liu

Abstract
In this article, we discuss two ongoing projects at the Future Narratives Lab, namely 'Audible Complexity' and 'Art in the Post-Anthropocene,' along with some of their outcomes. The project's aim to bridge the gap between scientific research and artistic expression by leveraging emerging technologies, such as interactive technology and deep learning, as a means of conveying complex ideas and issues. They break down the boundaries between art and science to create unique and thought-provoking experiences for the audience. The methodology and epistemology employed in these projects are also discussed. They will serve as examples of how new media artworks shift from being medium-centric to narrative-centric (non-media).

Keywords: new media art; post-anthropocene; complexity, artificial intelligence, artSci; aesthetics

1. Introduction

Art-science collaboration has garnered significant attention in the past decade (Miller 2014). From the creator's perspective, digital technology has become much more accessible to artists and designers thanks to the maker movement and the development of open-source tools. New media artists, who are always on the lookout for new forms of expression, experiment with new technologies and start to explore what scientists are doing in their labs and are able to access at least some of the techniques they are using. From the vantage point of the public, the growing number of new media and digital artworks in art museums, galleries, and public spaces means that the public is becoming far more accustomed to new experimental art forms. The scientific community also welcomes such collaborations, but this has often been challenging due to the complexity of scientific theories and the limited availability of scientific education in the public domain.

In this article, we discuss two ongoing projects at the Future Narratives Lab, namely 'Audible Complexity' and 'Art in the Post-Anthropocene,' along with some of their outcomes. Each project has a specific theme and context and can comprise several artworks with different forms of representation and narratives.

The 'Audible Complexity' project aims to sonify complex phenomena and create new experiences for the audience while communicating contemporary issues. As part of this project, we have developed an 'avalanche machine' called *The Rice-Pile Model.* This kinetic installation generates avalanches using piles of small particles, such as rice grains, seeds, or other types of particles. The installation utilizes the granular synthesis method to produce continuous and natural sounds as the particles topple along the slope.

The project 'Art in the Post-Anthropocene' seeks to explore the aesthetics that arise from human by-products, such as waste and pollution. This article describes two artworks produced as part of this project. The first, *Nirvana* (2019), is a waterfall installation created entirely from waste materials. The second artwork extends *Nirvana* by employing the neural style transfer method, a deep learning technology that synthesizes the style of waste and a given content image.

These projects exemplify a shift in new media art from a medium-centric approach, which emphasizes the search for new forms and expressions, to a narrative-centric one that emphasizes the creation of new narratives as the goal. This new mindset, which we refer to as the 'non-media' approach, encourages artists to prioritize the end goal when creating artworks.

After providing brief descriptions of the artworks and the technologies used in Sections 2 and 3, we will discuss the findings and knowledge generated in the process. In Section 4, we will discuss the methodology and epistemology employed. It is worth noting that the technical details of the artworks are not the main focus of this article, this will be explored in future publications.

2. Audible Complexity: The Rice-Pile Model and Beyond

2.1 Why Do We Study Complex Systems?

The world is a complex system, composed of individual units that possess their own properties and interact with one another. It is the interaction between these units that makes the world a rich and interesting place. Collective phenomena that emerge from these interactions, such as flocks of flying starlings or ant colonies, are marvels of nature. This phenomenon is known as emergence, a crucial property of complex systems. Self-organised criticality is a particularly interesting aspect of complex systems. It is found in natural phenomena such as avalanches and earthquakes, as well as in human society, where it is observed in occurrences such as traffic jams, financial crises, and epidemics. To raise awareness of the underlying mechanisms shared by important natural and social phenomena that impact our lives, we have constructed an installation that exhibits the power and dynamics of self-organising phenomena. Specifically, the installation is a machine designed to generate avalanches using a pile of small particles, shown in Figure 1. The particles are transported to the top of

the installation and dropped into a thin, but large, container until a critical slope is formed. This slope represents the equilibrium of the system. As more particles are released from the top of the pile, they are initially prevented from rolling downslope by local structures. They accumulate while more particles are released, until the load exceeds a threshold, at which point they roll downhill. Each time they do so, the particles disperse and come to a standstill. However, if this process is repeated over time, the local landslide eventually turns into an avalanche.

We developed interactive technology to capture the movements of particles and translate them into sounds in real-time. Specifically, we utilise the granular synthesis technique (Schwarz et al., 2006) for digital sound processing. This technique allows for a sampled sound, such as that of an avalanche or rainfall, to be triggered by the motion of objects while maintaining acoustic continuity, which is critical for achieving natural sound. The technical details themselves are worthy of elaboration, which we will cover in a future publication.

2.2 Narration with Avalanches

This work is named *The Rice-Pile Model* after the theoretical study on self-organised criticality conducted by Frette and his co-workers (1996) using rice piles. The type of particles used in the installation can be changed according to the narrative, as long as the particle diameter is considerably smaller than the thickness of the container, and the pile can exhibit avalanche behavior.

In 2020, we presented our installation with seeds of various crops to highlight the importance of biodiversity at the 'Chroniques Biennale of Digital Imagination' and at other exhibitions, in which we used rice grains and recycled medical tablets to raise awareness about antimicrobial resistance. These experiences demonstrate that the installation is an effective and versatile tool for the narration of a specific category of subjects, namely those involving self-organised criticality. The versatility of the installation can be attributed to the utilization of a fundamental theoretical model as the foundation for its construction. This model serves as the underlying mechanism for various phenomena and hence changing the type of particles, while maintaining a suitable size, does not alter this mechanism.

The sound produced by the motion of the avalanche can be adjusted to suit the narrative. We utilised the sounds of rocks falling primarily to create a stark contrast with the minuscule particles that the audience observes in front of them. The eerie experience of the disparity between the visual and auditory elements captivates viewers and enables them to engage with the underlying narrative of the work. This uncanny effect creates a 'reflectaphor' within the narrative structure, as described by Briggs and Peat (1989), generating 'an irresolvable tension between similarity and differences.' We utilise the reflectaphor to pique the audience's interest, curiosity, and emotions, with the intention of directing their attention towards the story conveyed by the works.

3. Environment and Future Aesthetics: From Found Object To AI-Generated

3.1 Art in the Post-Anthropocene

Prompted by emerging environmental issues such as climate change and industrial pollution, we have created a series of artworks as part of a project entitled 'Art in the Post-Anthropocene'. Our objective is to speculate on what the aesthetics of the future may resemble if human-made objects or industrial by-products, such as waste and pollution, are ubiquitous.

The concept of the Anthropocene suggests that humans have become the dominant force shaping the environment, and that our activities have caused significant and potentially irreversible changes to the Earth's climate, biodiversity, geology, and other systems. These changes include global warming, habitat destruction, pollution, and the mass extinction of species, among others. The term was first proposed in 2000 by the Nobel Prize-winning atmospheric chemist Paul Crutzen (2000) and has since gained widespread acceptance in the scientific community.

The human palette for aesthetics, whether visual or auditory, is shaped by what we see and hear around us. Found objects or elements become the building blocks of next-generation aesthetics. This concept is inherent in the pioneering work of Marcel Duchamp's *Fountain,* as well as in Luigi Russolo's manifesto, *The Art of Noises* (Russolo 1913). Such works draw our attention to the everyday elements of contemporary life that are often not considered art per se and transform them into an art form with newly defined perspectives or frameworks. Whether they are functional objects, architectural styles, or urban scenery, these objects often become the aesthetic styles of tomorrow over time. For example, the industrial style emerged from the post-industrial era when the urban landscape was drastically altered by machinery. Exposed pipes, unadorned brick walls, and rusty plaques were once a consequence of cost-cutting or negligence, but now they have become sought-after style elements.

The installation *Nirvana* (2019) is a waterfall constructed using recycled waste and fluorescent-dyed water. The stark contrast between the vivid colors and the waste materials generates an unsettling experience for viewers, stimulating introspection. On the one hand, this work can be interpreted as a cautionary tale for humanity, while on the other, it serves as a harbinger of a future world we will inhabit. This visual dissonance constitutes yet another manifestation of the reflectaphor, as previously discussed.

3.2 Neural Style Transfer

Recent developments in artificial intelligence and deep learning offer many exciting new possibilities in art. At the core of deep learning technology lies the neural network, which is composed of multiple layers of interconnected neurons. The input data, which can be images or sound clips, are analyzed and propagated from the first to the final layer, during which a series of optimization procedures take place to achieve the final outcome. One of the most widely used techniques is called neural style transfer (NST) (Gatys et al., 2016). NST is used to synthesize two images, using one of them as the content, such as a street photo, and the other as the style, such as a Van Gogh painting. The synthesized image can look extremely convincing, as if the artist relived and created the painting himself.

We applied the NST technique to convert images of our surroundings, whether it be architecture, living spaces, streets, or natural landscapes, into the style of various waste materials or pollutants. The detailed procedure is beyond the scope of this article and will be included in a future publication. Figure 2 shows an example in which a style image of a waste dump (Fig. 2-a) is fed into the neural network, learned, and then an image of a hill is fed in as the content (Fig. 2-b). The resulting synthesized picture is also shown (Fig. 2-c). There are a number of continuous parameters that one can adjust to change from the original content image to an image that is fully submerged in the style. Somewhere in between lies an optimal configuration, which one might find the most visually pleasing or unsettling. The work was presented at the exhibition 'Perceiving Nature' at the Hsinchu City Art Gallery in 2022 as a series of interchanging content and style images morphing into each other in a video. As viewers observe the spectrum of images with different intermediate parameters, they become actively engaged in discussions regarding what constitutes beauty, while simultaneously realizing that all the images are synthesized in the style of a particular type of waste.

4. Emerging Art and Science

4.1 Transmedial Narration

As a trained physicist with over ten years of experience in new media art creation, it has been my long standing interest to investigate the ways in which art and science can work within each other's frameworks and the potential benefits that can arise from their collaboration. While it is easy to envision the application of science and technology in art, it is less apparent how art can be used to advance the development of science and technology.

At the start of my career as an artist around 2010, I employed scientific concepts, methods, and tools to construct artworks ranging from light installations to fluid kinetic installations. I was part of a new generation of artists who are commonly referred to as new media or tech artists. Our aim was to discover novel art forms and expressions by leveraging emerging technologies. As Arthur C. Clarke famously stated, 'Any sufficiently advanced technology is indistinguishable from magic', and new media artists sought to captivate the audience's imagination with the wonder of new technologies. Through the works, the artists demonstrate the idea that technology can be art. In this approach to new media art, emphasis was primarily placed on formalism and plasticity.

Over the past decade, we have witnessed the mainstreaming of new media art, which has enjoyed significant commercial success. Notable artist groups include United Visual Artists (UK), Random International (UK), teamLab (Japan), and Legacy Lab International (Taiwan), the art group that I founded.

At Future Narratives Lab, we consider our work to be the next phase in the development of new media art, departing from the plasticity of early works in this field. The general strategy for creating our artworks consists of two parts: experimentation and narration. On the experimentation side, we utilise aesthetics, design, and technology to create new media. On the other hand, we integrate contemporary issues related to nature, environment, humanity, and society into the narrative aspect of our work.

4.2 Interplay between Inductivism and Deductivism

This section discusses the research method undertaken. In general, the primary goal of research is to arrive at a particular fact or conclusion through a series of experiments and analyses. The conclusion can be statements and/or equations about an observed phenomenon. Although in artistic research, the ultimate goal may not be to find truths or facts as in scientific research, there are still intermediate outcomes at different stages that involve research methods. There are two types of approaches to research methods: induction and deduction. The inductive approach relies on a sufficient number of observations and analyses of the subjects under study, which exhibit common natures, behavior, or properties, leading to an empirical statement. The deductive approach relies on a set of presumed conditions or contexts based on facts or assumptions, from which the investigator proceeds. What comes next should be related to the presumed conditions or context by rigorous logic or previously established relationships. The process can be repeated iteratively, and one can then reach a statement of outcomes.

The fascinating nature of the deductive method is that the final outcome is very often not what one expects from intuition. Additionally, the deductive method offers the possibility of conducting thought experiments without requiring physical apparatus. Induction, on the other hand, is particularly effective when the researcher is provided with, or has access to, large amounts of data from their own or other people's experiments.

The unexpected or counter-intuitive outcome generated through a series of deductive processes can yield interesting statements or scenarios that are powerful for open discourse. This technique is frequently used in speculative design or discursive design to generate an 'unreality' or uncanny, yet plausible scenario that provokes viewers to think more deeply (Dunne and Raby 2013; Tharp and Tharp 2022).

In the context of the 'Art in the Post-Anthropocene', we start off by acknowledging the reality of an environment filled with human by-products, wastes, and pollution. We reference the concept of Anthropocene and draw on examples of industrial style and the art of noises to illustrate and induce the dystopian relationship that unpleasant sceneries and sounds can become the next-generation aesthetics. We then use human by-products, wastes, and pollution to construct artworks and use this relationship to deduce that whatever we create may one day be actualised as the aesthetics of the future.

To continuously change the strength and details of the waste style in our image, we vary some parameters. The degree of freedom introduced by these parameters allows the audience, with different opinions, to find their own preferences and engage in debate or exchange thoughts with each other. Through an engagement with the artwork, the audience increases their awareness of environmental issues.

4.3 Emerging Technology as a Medium and a Subject for Discourse

Artificial intelligence (AI) and its applications have been under the public spotlight in recent years owing to its immense power to deliver human-like results in almost all disciplines. The relationship between AI and creativity

has become one of the most discussed and debated subjects. AI visual generation programs, such as *MidJourney, DALL-E,* and *Stable Fusion,* allow the user to generate stunning images by inputting simple keywords or descriptions. The question people often ask is: 'Why not just use one of the available AI software to generate images with designated waste style instead of doing all the technical coding?' I believe that the answers to these two questions are interconnected in nature.

The above-mentioned AI programs are black-box software, which offer very little control over what parameters can be adjusted, such as the strength of styles or location-specific operations. For example, in Figure 2-c, we would like to let the sky region remain the same after the neural style transfer. This is possible with a modification of the code as described by Gatys and their co-workers (2017). Being able to write our own code also means that we can create applications on different kinds of platforms, such as mobile devices, and hence new forms of narrative. While some artists use only keywords in prompts to create artwork and achieve great success, having greater control over the images they generate would certainly expand their creative palette and achieve a higher level of artistry. Additionally, artists are able to adjust their creative media to express their artistic concept more precisely.

It is interesting to investigate how the neural network perceives style. While we cannot observe the brain activity of a person looking at a pile of waste and see what he sees, Gatys and their co-workers (2016) offered a style reconstruction method to reveal how neural networks extract the style from a given style image at different layers. Figure 3 shows the style reconstruction of the neural network for the waste style image at the first layer. In the exhibition, we presented the style reconstructions of different waste style images from the highest layer to the deepest layer, in a continuous fashion. The result is a mesmerizing video artwork that immerses the viewer in the mind of artificial intelligence. The video also demonstrates that the reconstructed image in higher layers contains more details. As the layer deepens, spatial correlation starts to emerge, and the shape of the waste objects becomes more recognizable, similar to the observations made by Gatys and their co-workers.

5. Conclusions and Discussion

In conclusion, we provide several examples of how art can serve as a powerful tool to convey narratives on contemporary emerging issues. Artistic expression has always been more effective than data and graphs in raising public awareness. However, bridging the gap between core issues and knowledge to artistic expression is no trivial task. Too much information can restrict artistic freedom, while too much artistic freedom may diminish factual accuracy. How should one prioritize during the creative process? In my experience, the most crucial factor is to maximize the potential for public engagement. Whether accomplished conceptually with a memorable statement or thought process, or aesthetically with a captivating sensory experience. The second priority is to contain at least one simple key fact, information or message to be conveyed. If the project is art-oriented, it should prioritize expression before information, as experience is the most fundamental requirement. If the project is education or design-oriented,

it should prioritize information before expression, as the primary goal is to have the audience understand the information.

Overall, the 'Audible Complexity' project seeks to bridge the gap between scientific research and artistic expression by leveraging sound as a means of conveying complex ideas and issues. *The Rice-Pile Model* installation is just one example of how this project aims to push the boundaries of art and science collaboration to generate unique and thought-provoking experiences for audiences.

The utilisation of emerging technologies, such as granular synthesis and deep learning, not only facilitates new forms of artistic expression, but also holds the potential to generate novel tools or technologies for artistic creation.

For the 'Art in the Post-Anthropocene,' the artworks exhibit a continuous progression. While the core concept remains the same, the two works shown employ different approaches resulting in two distinct representations: first, a waterfall installation using actual waste materials; second, a generative art installation created through neural style transfer. The waterfall work is spatial in nature, allowing it to blend seamlessly with the background and offering an immersive experience with vibrant colors and sounds. In contrast, the generative digital artwork enables the exploration of various waste styles applied to different content images, providing a more comprehensive study of aesthetics. With modifications to the algorithm, more interesting ideas and narratives can be explored. It is our intention to extend our study in the future.

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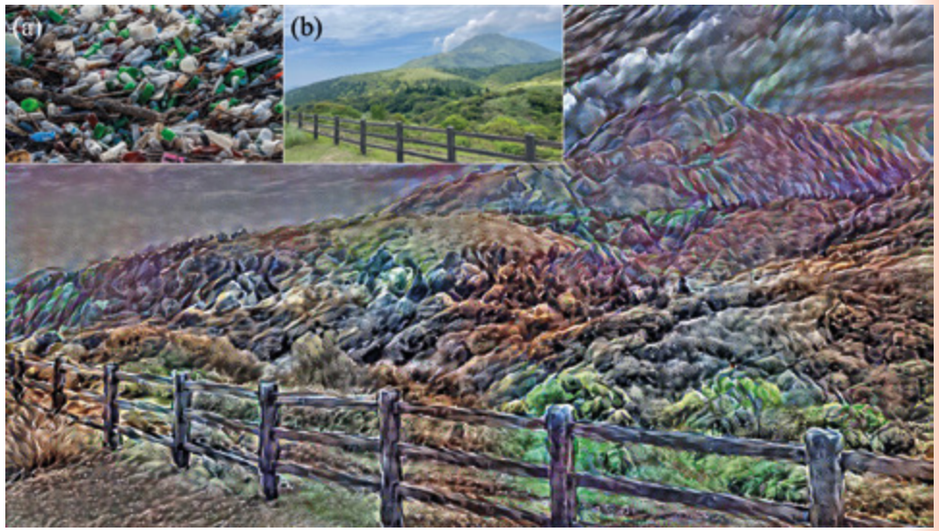

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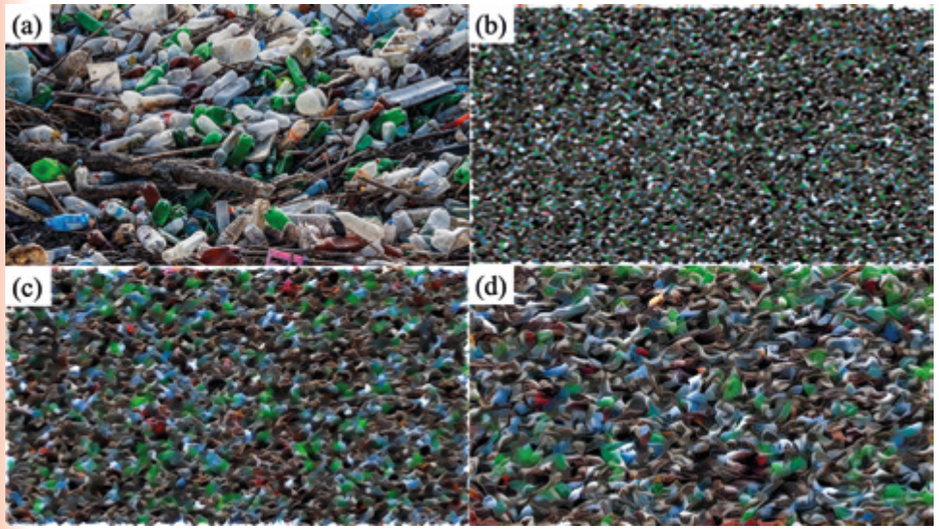

III

I Ivan Liu (Legacy Lab International), *The Rice-Pile Model* (2019–2021), mixed-media, 300cm × 50cm × 200cm (Legacy Lab International)

II Ivan Liu, *Neural Style Transfer,* (a) shows a waste dump as the style image; (b) shows a natural landscape as the content image; (c) is the synthesized image using neural style transfer, 2022, AI-generated image

III Ivan Liu, *Style Reconstruction,* (a) shows a waste dump as the style image, the same as Fig. 2-a; (b)-(d) shows the style reconstruction at increasing depth of the neural network, mixed-media, 2022, AI-generated image, Ivan Liu

In Quest of a Voice: Medusa

Paola Livorsi

Abstract
At the centre of my interests is the human voice, intended in its broadest sense: as a mark of identity, as an instrumental voice, and as with any sound — another kind of voice.

We need to rediscover the *phoné,* 'logos vivified through the 'vibration of a throat of flesh', (Cavarero 2005 [2003]: 3) beyond the separation of body and mind. A voice rich in sensuality and relationality. A voice within and without, a voice to be heard. A life-long dynamic process in the construction of identity.

Through the artistic research project 'Human Voice and Instrumental Voice: An Investigation of voicelikeness' I explore the manifold relations of personal and instrumental voices, starting from my own experience as a violinist and composer.

The multidisciplinary stage work *Medusa* is the fifth and final artwork in this process. In adopting a multidisciplinary approach, the research opens up new perspectives, dissolving boundaries between art forms and different fields of expertise. Conceptually, it draws on paleoanthropology, psycholinguistics, music psychology, and embodiment studies.

Keywords: voice, voicelikeness, identity, embodiment, gender, human development

1. Introduction: Voice
In the beginning was the voice — at the dawn of humanity and of every human life, voice is fundamental, and as humans, we develop our vocalizations into language — through a complex developmental process not yet fully understood. It is, however, not an exclusively human phenomenon: 'There are [...] obvious acoustic similarities between nonhuman primate calls and human infant cries' (Mampe et al., 2009: 1995).

Human vocalizations start with birth and develop into communicating with the surrounding world, particularly with the caregiver. The mutual character of this relationship is essentially a musical one — the first musical duo of our lives (Malloch 1999). This phase is essential in language development, so much so that infants cry and vocalize in their native language (Armbrüster et al., 2021).

In a broad sense, any sound can be considered a voice (Ihde 2007) and that some languages, for example, Finnish, have only one word for both voice and sound (*ääni*). Instrumental voice shares something of this communicative phenomenon — an utterance directed at the 'other', it is deeply relational.

Voice, as with sound, is not only experienced outwardly, in the environment, but also inwardly: as an inner voice, it constitutes the very fabric of our thoughts. Not only is it a marker of identity, but what we call identity is made up of many layers of voices that we carry within us, are in dialogue with, and are influenced by. This multitude of voices contributes to an ongoing, dynamic process of identity development.

In *The Waves* (Woolf 1931): the voices of six characters are intertwined, initially in a chaos of thoughts, sensations, and chunks of internal experiences, that immerse us in strange waters for which we have no map. Gradually, we learn to distinguish their voices, identities, personal stories, and interrelationships. In this perspective, voice is a fundamental phenomenon permeating many aspects of life, among them the experience of music-making.

2. About the Research
In the artistic research 'Human Voice and Instrumental Voice: An Investigation of voicelikeness' (2015–2023), I examine the manifold relations between the human and the instrumental voice (a complex combination of bodily and linguistic expression), through five artistic projects involving artists working with both voice and their string instruments. I carried out recording sessions with these and other artists, requesting that they use their native language(s) as they play their instruments. This collection of voices not only became a reservoir of sonic materials for the development of further artworks, but it was also a place to have an exchange with the musicians around the question of voicelikeness.

Through a series of multidisciplinary performances, I have been focusing on voices, bodies, and instruments (quasi-living bodies), and their interactions in different spatial situations — that is, different social situations: this made me reflect on the relations between composer and musicians, amongst performers, and between performers and listeners — a rich web of 'in-betweens' (Arendt 1958) to observe and explore.

The artistic research path went from the voice as an embodied phenomenon to an embodied way of playing (particularly evident in string instrument practice), resulting in a performative extension of the concert form. This process went hand in hand with my interest to involve artists from other disciplines, such as the visual arts, performance art, and dance, and to explore immersive multisensory environments.

I also desired to reconnect musical practice to a broader artistic discourse, and for music to engage in the same artistic debates and questions emerging among the arts, beyond the borders of a single discipline.

3. The Creative Process of Medusa
In August 2022, the fifth and final artistic project from this research, *Medusa,* was performed in Helsinki. The project emerged out of a collaboration with visual artist Sara Orava, singer and cellist Piia Komsi, and choreographer Milla Eloranta.

As a group, we decided to turn to ancient myths, and so the figure of Medusa became a central focus. Yet, we still wanted to preserve a link to more recent historical events, including the episode of Caravaggio's wounding in Naples, which occurred in 1609.

Caravaggio (1571–1610) had a twin in the domain of music, his contemporary Carlo Gesualdo (1566–1613). Although the two artists likely never met, both had violent lives (Gesualdo committed a femicide in 1590, Caravaggio a homicide in 1606), and both enjoyed protection from the higher echelons of society, noble families, and the church. They were both unconventional innovators in their respective art forms; in this spirit we decided to develop *Medusa,* a stage work combining music, dance, and visual art, in dialogue with some of their works.

4. Voice(s) — Identity(-ies) — Gender(s)

The question of identity, so central in my research, permeates *Medusa* as well: while there is only one main voice on stage (the singer and cellist), she impersonates multiple characters and their respective voices. In the prologue, she performs the role of the seer Tiresias, whose prophecy gives sense to Narcissus' story and death, in part one — Narcissus and Echo, two sides of the same person, and the archetype of the couple. Part two, she is Caravaggio's young model provoking Caravaggio himself, in the Naples episode and finally in part three — Medusa.

As the dancers contribute to the sound world with their voices and a few percussion instruments, they can be seen as a sort of choir, a way to de-multiply the single voice.

As an introduction to *Medusa's* themes and to its three parts (performed without interruptions), below are some thoughts taken from my notes (5 March 2022):

> Medusa's themes are so important, and heavy
> desire, and frustrated desire, unrequited love
> identity and the death of identity (Narcissus' death)
> - well, of a wrong identity
> the dissolution of identity
>
> Violence, direct confrontation
> preceded by denigration, contempt
> a false sense of joy, the illusion of a festive community
> danse macabre
> Medusa, the ocean
> someone flying over, bringing death, thought that kills
> but also sacrifice, the severed head, blood giving birth
> so that life can spring again - Pegasus, the possibility of the impossible
> is the price the killing of the feminine monster? a femicide?
> or killing the monster that wants all attention on it,
> destructivity, depression?

It was significant to write this note, in the process of identifying the main themes, and what was essential to convey through them. One central theme is narcissism — the artist's narcissism, seen as both a creative and destructive force, and the artist's quest for identity.

The following lines, from Narcissus' death 'show his tragic situation when he realizes that the encounter with himself confronts him with the

impossibility of possessing oneself as 'another' — the narcissist remains trapped in a mirroring relationship and with one own's image, that precludes the development of any meaningful interpersonal relationships (Freud 1914; Gritti 2021):

> Iste ego sum: sensi, nec me mea fallit imago
> No more my shade deceives me: I perceive 'Tis I in thee (Ovid 8 CE/1922, v. 463)

It is important to consider that *Medusa's* artist group was formed by four women artists, dealing with these themes, and an art history in which women have had little place. A turning point in the creative process was the decision to name the work after Medusa, instead of, as we had long thought, Caravaggio.

The category of the 'feminine' slowly invaded many layers of the work: the figure of Narcissus has a strong feminine side (the young man, the ephebe), and Echo is his feminine double. Even Caravaggio's gender identity was not rigidly defined, he was probably bisexual, and there are hints of abuse of young models (he was one of the first painters to use models from the street, including sex workers).

Medusa embodies the feminine dark side, traditionally despised, refused — the repelling horror of her glance turning all living beings into stone. Her stories share some similarities with those of the sirens: the emblem of the negative feminine, whose voices seduce and destroy the hero (Cavarero 2003: 115–29). But what if we listened to those voices from another perspective? Not from the point of view of the logos, but as *phoné:* the embodied, fleshy part of the logos, vibrating with vital and unruly energy.

In this spirit, in the autumn of 2021, I started to experiment with my own voice, exploring Tiresias' lines: 'Tempora maturae visurus longa senectae [...], si se non noverit'. 'If he but fail to recognize himself, a long life he may have' (Ovid 8 CE/1922, v. 347–48). Questioned by the nymph Liriope about her child's lifespan, Tiresias answered in a sibylline way, linking Narcissus' future to the encounter with his own self. I long thought about the meaning of this enigmatic phrase: one interpretation being that Narcissus cannot live because he only loves himself, that is, he is incapable of relating to 'the other' but remains trapped in his own world. I finally decided to explore Tiresia's words in another way, through my voice and body: an improvisation process to look for extended vocal expressions, and explore the vast domain situated in-between voice and word. After one of these recordings, I noted:

> Sure, it is a kind of monstrous or sub-human expression! Visceral, coming from my body — I was down, with my knees bent, my head and hair down, between my legs — close to the ground.
> Long life, long pain — and also, oh what darkness or something I do not approve? do not love? is down there, inside there. So, if I meet it I die — or will feel like dying, lose my life?
> This experience, it is me collapsed, fallen into myself.
> (24 September 2021)

This vocal research served as a basis for the written score. A first transcription phase was followed by an encounter with the singer, after which I noted (29 October 2021):

> Happy that she left with me, with this 'rhino's milk'[1] idea of a somehow monstrous voice. Astonishing to hear her first transformation, interpretation.
> [...] it is me but not me, it is fully her. How different. Oh, you can do it like that too.
> To make another version of what I do. Another instance of myself.
> That's the paradox of the composer: whose is this voice on stage? If you sing my piece, my voice is somehow there (my states of mind, my emotions, thoughts or whatever)
> but sure, it is your voice at the same time.
> Your interpretation of my voice

The experience of hearing Piia Komsi's interpretation for the first time was a transformative one: in that moment I understood that what I had done could be re-interpreted in many other personal ways. As I noted above, a score inherently contains the possibility of multiple voices — the composer's, the interpreter's, and the listeners'.

I subsequently reflected on improvised and written music, and about the two options that laid in front of me: realizing the prologue in the form of a guided improvisation (with instructions for the singer to re-create my experience) or as a notated transcription. Despite the limits of notation,[2] I finally opted for the second solution since, as the above note testifies, it leaves room for interpretation — allowing our voices to merge in a dynamic, intermediate sonic space.

A further step was the idea to direct the singer's voice into her instrument, into the f-holes of the violoncello. As the first score draft reads: 'In the dark, on the knees, the head between the knees, hidden by the hair. The cello lies on the ground, voice into the instrument's openings.' The cello body used as a resonator (with microphones inside and under the body), contributes to creating a hybrid voice that fits the ambiguity of Tiresias (neither male nor female). Moreover, it underlines the intimate relationship between the musician's voice and her instrument's voice.

If we read Medusa's story in one of its most ancient versions, Hesiod's *Shield of Heracles* (eighth century BCE), we hear the story of a young woman known for her beautiful hair (the only mortal of the three Gorgons). The myths say that she attracted Poseidon's attention or that she was raped by the god in one of Athena's temples. For this desecrating act, she was blamed and punished by the goddess, condemned to be eternally pregnant. Only when Perseus (or Athena herself) decapitates her, can she give birth to the mythical beings Pegasus, the winged horse, and Chrysaor (literally, the golden spear).

Medusa's story is that of an abused woman, blamed for what happened to her by one of the guarantors of social order (significantly, another

1 Fellini about *E la nave va* [*And the ship sails on*] (1983): 'The protagonist survives because he nourishes himself with the rhino's milk [...] it is an acceptance of the deformed, animalistic side [...] of the dark and irrational sides of yourselves' (my translation).

2 Another note about notation reads: 'Lava-like expression vs. codified writing. How to contaminate the two fields?' (31 January 2022).

woman). After the fateful act, she hides in a cave by the ocean, protected by the three Graeae (mythical female beings, eternally old).

According to Hesiod, Perseus flies above the ocean 'as fast as thought' (Hesiod 1914, v. 223) in search of Medusa's hiding place. He succeeds in killing her thanks to magic objects stolen from the Graeae, using his shield as a mirror to avoid her gaze.

The abused woman is blamed and forced into hiding, her voice cannot be heard until she gives birth, an act revealing her feminine powers. Medusa is also a magician of ambivalent forces and an ancient goddess in her own right, revered well before her appearance in the culture of ancient Greece (Haraway 2016: 52–53).

5. Working 'Between the Cracks,' between the Bodies

Performativity is an increasingly important part of my work: a desire to go beyond the discipline's boundaries, in Meredith Monk's words, to work 'between the cracks,' (Jowitt 1997: 2): to work 'with a dancing voice and a singing body;' to develop the interest for 'that space between language and [...] music.' Together with Monk I can say, 'I love those places because [...] you'll find things *there between the cracks.*' (Enright 2016, emphasis added)

This interest in performativity brought me to gradually become more involved in the creative process through my own body, stepping out of the composer's room, already so populated by voices, gestures of embodied sonic imagination. This process permitted me to see myself in the performer's place.

From one of my notes (4 March 2022):

> Performativity, let it flow – let it ripple
> Try to take care of the body, move, dance –
> Dedicate –
> [...]
> Listen to myself more – to my body, other parts of me.

The memory of the state of flow is still in my body while playing the frame drum in one of the first rehearsals in June 2022. Another way of listening, of 'playing in concert' (paraphrasing Arendt 1958), working 'in-between'; breathing together, letting the sound resonate through my body, dancing with the sound; listening to the infinitesimal differences of the 'in-time' — 'outside of time' (Reybrouck 2017) experiencing, a myriad of small metrical variation; making sound with sound objects, a waterphone, or with frame-drums (during a rehearsal with the dancers and the stage director): my hand slowly rubbing the drum while lying on the ground around it, eyes closed, all these conveying deeply sensorial experiences.

From my notes (17 June 2022): 'slowly looking at them dancing [while playing], connecting to their gesture — the quality of the gestures (the musicality of the gesture), the speed, the what? Something that starts to be connected, coordinated without thinking.'

Here I tried to give voice to a non-verbal experience, that particular mode of pre-reflexive coordination occurring between performers engaging at the same time and space.

6. Methods

If making art means exploring unknown territories 'where there is no safeguard, no traced path — but moments of insight — opening in the darkness' (my note: 23 February 2022), facing the 'radically other,' the challenge is how to keep track of this process.

If it involves listening to that 'urge (...) the rhythm that laughs you' through a living body, 'that part of you that leaves a space between yourself and urges you to inscribe in language [voice/sound] your woman's style' (Cixous 1976: 882), and the task: How to transfer this onto the written page?

I have been collecting traces of *Medusa's* process through autoethnographic methods — journaling (written and vocal), collection of traces (sketches, maps), audio recordings, images, video: different kinds of materials to organise in the Research Catalogue as an integral part of my project's outcome. I have also been keeping the traces of the collaborative process through an ethnographic method, observing the group's dynamics and language, the distribution of agency, the turning points in the process, and the evolution of the group across the rehearsal period (June–August 2022).

Reflecting on trace collection, I wrote (13 March 2022):

> trace collection as radio transmission: I started this radio broadcasting from the inside, as each radio, in the hope that someone on the other end will listen [...] and for me to listen and try to make conscious something about the processes going on.

Now that the process of *Medusa* is concluded, I am dedicating time and effort to further phases of examination and reflection on the collected materials. As grounded theory affirms, the process needs multiple iterations across the materials, to get to different levels of accuracy, and to reach some depth of understanding — in short, another creative journey.

The experience of *Medusa* was important to gain a greater consciousness and understanding of the *phoné;* the presence of hidden, deeper vocal layers that demand more attention and integration in the present culture. Nevertheless, it is important to avert the risk to stop at the 'feminization of music' (Tolbert 2002: 452–53), at an easy juxtaposition of logos and *phoné,* language and music, rationality and emotion, which would merely reinforce existing binaries.

What interests me is what happens in the large territories of the in-between where much remains to be explored — meaning, to listen and to sound the 'hybrid,' and to accept 'being monstrous in our own bodies and names' (Voegelin 2021: 181).

The only possible conclusion then is to continue listening — an act at the basis of any music making, relationship or thoughtful reflection. This involves 'in-hearing' the voices inside and 'co-hearing' the voices outside — a continuous exchange across porous boundaries, as sensitive as the skin.

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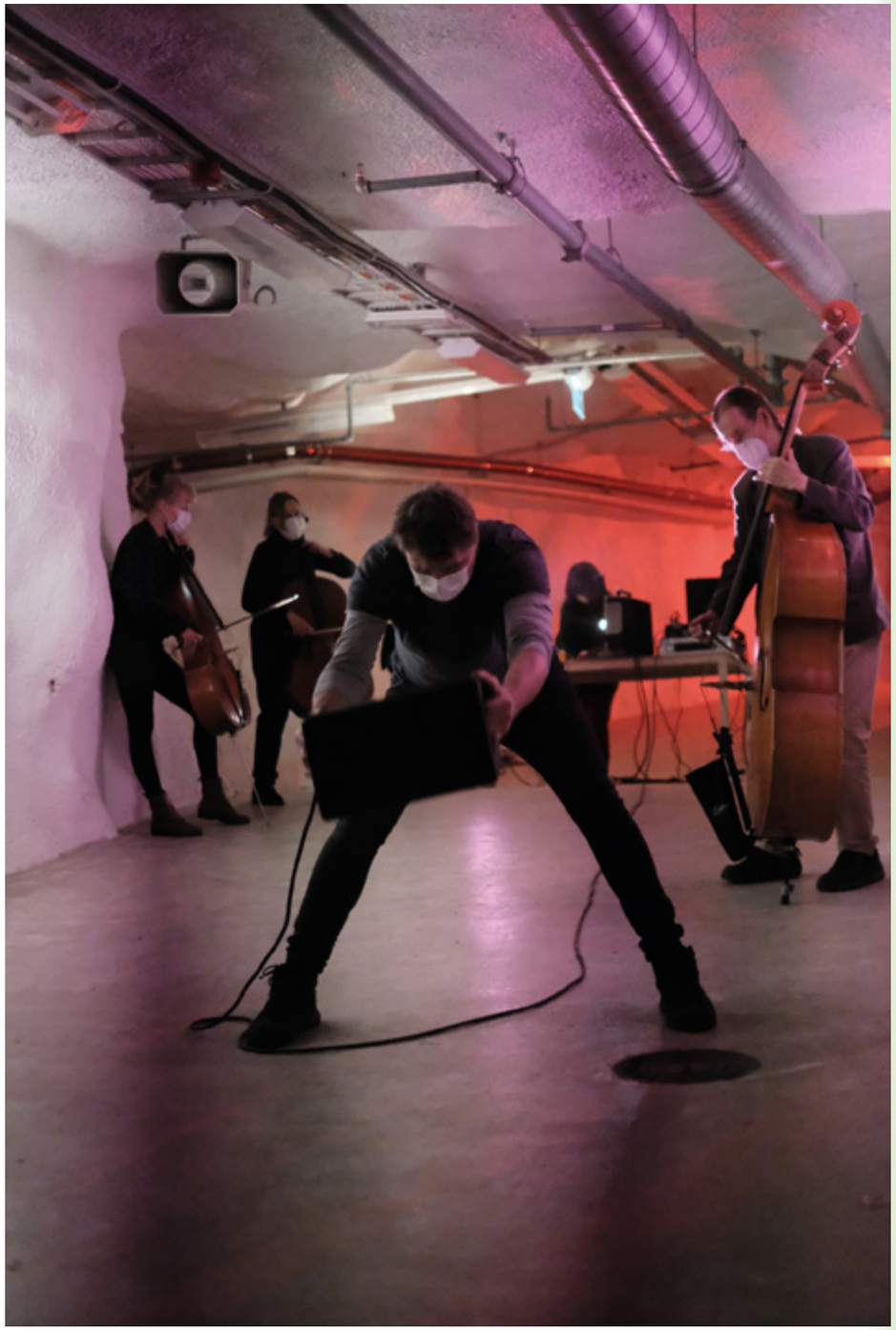

I

II

I Paola Livorsi, Dominik Schlienger, Jousitus ensemble. *Sounding Bodies,* 14 November 2020, Space for Free Arts Helsinki, photographer Antti Ahonen.

II Studio image for *Medusa,* 27 October 2021, Helsinki. From above: Anneke Lönnroth, Jouka Valkama, Piia Komsi, Mira Ollila. Sara Orava, stage design, photographer Mirka Kleemola.

III Paola Livorsi, *Medusa.* Piia Komsi, 16 August 2022, Aleksanterin teatteri, Helsinki, photographer Maarit Kytöharju.

Blending Worlds with Mending Words: How to Create the Patient as a Poem

Barb Macek

Abstract
The foundation for the artistic research presented in this paper are anamnesis interviews that I conducted with rheumatic patients at the AKH Wien, Vienna's General Hospital. The theory of a 'progressive universal poetry', formulated by Novalis and Friedrich Schlegel in the age of German Romanticism, provides the theoretical framework. It states that the poetic process of creation ultimately means to transform the body and its organs into tools of world modification. The 'PA – poetical anamnesis', a technique I developed for the practical part, draws on this idea and conceptualizes the autoimmune body as a modified and therefore poetic body. Consequently, the symptoms of an autoimmune disease are understood as articulations of this modification, as signs of a burgeoning transformation of the body into a poetical means of world creation. The goal of the PA is to capture the poem of the autoimmune body and to (re)construct the patient as transformative serial poetry.

Keywords: poetry, autoimmunity, chronic illness, embodied language, transgression, language-based artistic research

Preamble

> 'He who has been mad enough to come into this world, should eventually comprehend that she is ready for delivery by poetry.' (Sloterdijk 1988: 138, transl. by Barb Macek)

When I was employed as a tutor at the Medical University of Vienna, guiding an interdisciplinary student group to lead anamnesis interviews with hospital patients, I started a research project to develop new, artistic forms of anamnesis in a clinical context. (Anamnesis is the process of taking a patient's personal medical history.) The interviews that provide the basis for the poetical series in this paper (see 4.5.1) were conducted at the rheumatology department of the General Hospital Vienna. The patients signed declarations of informed consent and were aware that their — anonymized — answers were going to be used for further academic and artistic purposes.

The project forms part of my ongoing investigation into autoimmunity and its meaning as an existential human condition. This research started in 2018 and is also central to my current PhD project, titled 'Autoimmunität und anthropologische Differenz' (Autoimmunity and Anthropological Difference).

1. Background

1.1 Universal Poetry

As a poet and writer, it was natural for me to use language as a resource (among others) for my artistic research. The 'PA – poetical anamnesis', a technique I developed in the course of my work at the Medical University Vienna, repurposes a key concept of early German Romanticism, the 'Progressive Universalpoesie' ('progressive universal poetry'). Within this theory, poetry became the world-determining principle. Its first law, as formulated by Philosopher Friedrich Schlegel (Schlegel 1967: 181), implies that the will of the poet does not allow for any authority above him.

The theory was the result of a collaboration of Schlegel, who is responsible for its written form (first published in 1798), and Novalis, who was not only a poet (and the creator of the blue flower as the iconic symbol of German Romanticism) but also a trained natural scientist. Novalis studied mining sciences in Jena that at the time included mathematics and physics and maintained a lively exchange with the physicist Johann Wilhelm Ritter, known for his self-experimentation on galvanic phenomena and the discovery of 'chemical rays' that later were called ultraviolet radiation.

Universal poetry in a nutshell not only encompasses all literary genres but conceives of all artistic as well as scientific disciplines as closely linked and equally important for our understanding of the interplay of forces in the cosmos. The term 'progressive' indicates the importance of 'becoming' within the theory; in which everything was seen as unfinished, in fact, eternally so — therefore all works of theory and art were regarded as constant works in progress, and the fragment was the preferred literary form of German Romanticism.

1.2 Art & Illness: A Peculiar Perspective

In regard to the relation between art and illness I suggest that the artist, as well as the patient, by producing art or an illness, becomes 'un monstre et un chaos'. This thesis draws on Nietzsche, who in turn referred to Blaise Pascal's warning that humans over history — especially with growing distance to Christianity — would become monstrous and chaotic to themselves. Nietzsche stated that modern man is already there, that she has already become that monster, that chaos — and he did not consider this as something bad or reprehensible. (Cf. Nietzsche 1954a: 507)

I state that art as well as illness can be seen as exemplary for monstrosity in the sense of something extraordinary, wondrous, with an imaginary quality — and for chaos, indicating derangement, disorder, and anarchy.

This image (Figure 1) is part of a series of experiments I conducted concerning the monstrous aspects of the changes that an illness, especially an autoimmune disease, entails. The series also refers to the art of the grotesque — applying alienation/dissociation and ironic extremeness as sty-

listic elements, and thereby addressing the key processes of autoimmunity: lysis (i.e. dissolution), elimination, and phagocytosis (i.e. devouring).

Illness stands for a loss of order, it involves monstrosity in the sense of deviance, abnormality, and transgression of the borders of the ordinary. It reminds us that the body is still a mystery — or, as Nietzsche asks:

> Does not nature withhold by far the greatest part, even the very closest to him from man – his own body, of which he only has a buffoonish awareness? And there he is, locked up in this consciousness, and nature threw away the key. (Nietzsche 1954: 271, transl. by Barb Macek)

When we state that these enigmatic features of our bodies become more obvious in the case of illness, then health is a condition that facilitates the tendency to overlook the wonders of our physique. There is an interesting definition by the French surgeon René Leriche, made known by Georges Canguilhem, saying that 'health is life lived in the silence of the organs' (Canguilhem 1998: 91). Finding oneself admitted to hospital might indicate that the organs have started talking.

2. Specifications of the Poetical Anamnesis / PA

In the clinical context irregular signals of the body are interpreted and treated as symptoms. But what if we treat them as meaningful messages, without judgment, without trying to classify them? If we, instead, try to decipher them with open senses, with an open mind?

This is the way of the PA: to mount these signs in respect to the context, i.e. the body, the person, her surroundings — to a significant text. It is the experiment of (re)constructing the patient as a poem.

And this is the perspective of the PA: The patient produces his illness as a piece of art — the anamnesis is the assemblage of her products, bringing the artwork to light that is hidden behind the symptoms, and behind the verbal as well as nonverbal utterances of the patient.

2.1 Autoimmunity

Autoimmunity in the clinical context is still a medical mystery. The pathogenesis (cause and development) of autoimmune diseases is unresolved within the biomedical model. I therefore suggest using and understanding the term 'autoimmunity' as Mana — a concept that was introduced by Marcel Mauss into ethnology for the imagination of the invisible or eternal, for the ungraspable.

Ethnologist Lévy-Strauss used the term as an open signifier, something that 'resist[s] the constitution of any unitary meaning' (Lévy-Strauss 1987: 63) — thus remaining open to different meanings in different contexts.

The Italian philosopher Giorgio Agamben also dealt with the concept of Mana as an indicator for an emptiness of sense; he sees it as something primarily affecting the scientists that use the term — stating that it is the shadow of it that enfolds the effect (cf. Agamben 2010: 22ff).

In case of the term 'autoimmunity' the shadow is easy to identify — it can be traced back to the expression 'horror autotoxicus' (i. e. 'fear of autointoxication'), coined by Paul Ehrlich, to describe the natural fear of the organism to intoxicate itself — that should prevent the occurrence of something like autoimmunity in the first place.

The horror stayed since then, linked to the concept, as something dark and threatening, as it is also emphasized by Anderson and Mackay in their *Short History of Autoimmunity:*

> The paradox at the heart of autoimmunity helps to explain the durable resistance to the concept. '[…] The body's failure to recognize itself, its capacity to treat itself as foreign, seems both sinister and bizarre'. (Anderson and Mackay 2014: 2ff)

When I was conducting anamnesis interviews in the rheumatology department where most patients have an autoimmune condition, I started to develop and employ poetological methods with the aim to explore this paradox of autoimmunity, and to enlighten the horrifying shadow cast by the term and its history.

2.2 Poetization

It is my conviction that the addressed darkness can be accessed, and even enlightened, by means of poetization. Poetry, rooted in the Greek word 'poiésís', means creation, it means to bring something out of the darkness and into the light. Agamben said that every time when something is produced, when it is brought from nonexistence into presence, we are concerned with poiesis, poetry, or generation (cf. Agamben 2012: 79).

By using poetry in order to learn more about something as ominous as it is hiding behind the noun autoimmunity, I refer to this understanding of poetry and to Novalis' thoughts on the act of poetizing. He describes it as the active use of our organs with the aim of becoming independent of nature. The duty of poetry is to force our senses to produce the form we require, that we demand, thus enabling us to live — in the true meaning of these words — in our world:

> Our body is the instrument to form and modify the world. We have to train our body as an omnipotent organ. Modifying our instrument means modification of the world: The purpose of the higher practice of poetry is to convert all that is involuntary into voluntary acts. (Novalis 1953: 446, transl. by Barb Macek)

In hospitals, in biomedical settings, the signals of the autoimmune body are deviations, compared with the normative body, i.e. the body in correspondence with the norm that is reflected in the standard values of the blood work and the absence of signs like skin eruptions, swellings, reddening, etc. They are gathered as abnormalities, labeled as symptoms in the course of the biomedical anamnesis procedures, and classified in accordance with the respective diagnostic guidelines. The end result is an umbrella term like rheumatoid arthritis or systemic lupus erythematosus that conveys and at the same time stands for the diagnosis.

But for the PA the specifics of the autoimmune body are first manifestations of an ongoing poetical modification on a physical and psychological level. Accordingly, autoimmunity — the process behind — attains significance as a trigger of transformative processes, a motor for modifications on

the level of the organs, of the nervous system, with an ultimate strive for global transformation.

The patient, by starting autoimmune processes that include activities of the immune system against his or her own body tissue, forces his/her cells to transform, to constitute a new body that — as a possible result — can change his existential situation, that can change her entire world.

2.3 Special Case: Doing Anamnesis with an 'Agent Poétique'
As a special form of practicing anamnesis in the hospital I introduced a third agent, or, as I called it, an 'agent poétique' (poetic agent) into the anamnesis process. It had the shape and appearance of a plastic crow (Figure 2).

2.3.1 Setting
The crow is placed on a hospital chair, in the middle of the room.
The human interviewer sits on its right side, and the patient on its left side. The crow's head points to the left, in the direction of the patient. It takes on the role of the doctor, of the interviewer, it is the focus of attention, the addressee of the patient's answers.

2.3.2 Background
The presence of the animal figure is the presence of the symbolic third within this anamnesis constellation. It also implicates the meaning of the represented bird:

The crow, as part of the family Corvidae (corvids), is a mythological messenger, ascribed with the ability to wander between worlds, from this one to those beyond. The common expression used in this context is 'psychopomp' (guide of souls), suggesting that birds like crows and ravens accompany the souls of recently deceased from earth to the afterlife or underworld. Psychoanalyst Carl Jung referred to psychopomps as mediators between the conscious and the unconscious that appear in dreams and myths in the guise of wise men or birds like ravens.

Corvids in mythology are also described as tricksters, ambivalent figures — neither good nor entirely bad, cunning, and inept at the same time, neither female nor male, neither human nor animal. The trickster is a shapeshifter, a crook, a fool, a hybrid, and also a messenger.

The plastic crow in the hospital causes an irritation: The first reaction it provokes is the thought that it is displaced, that it does not belong here. So, the figure per se crosses borders: the border of appropriateness within the clinical environment of a hospital ward, the border of life and death because it resembles a living animal, an animal that represents a psychopomp, and at the same time it is an inanimate plastic figure. In its appearance as a crow, as the messenger bird, the soul guide, the mediator between the conscious and the unconscious, new possibilities for the patient to open up to express her situation. Being placed in the middle of the anamnesis setting animates it.

This ambivalence of the plastic crow — being an artificial product but also a mythological figure — is an invitation for transgressions of all kinds.

2.3.3 Transgression
Transgression is the main characteristic of the carnival, as Michail Bachtin explained in his analysis of the function and meaning of the medieval carnival (Bachtin 1967). The crow implements a carnivalesque and also a grotesque element in the anamnesis situation at the hospital, indicating, as it is known from the timeframe of the carnival, that the hierarchies are suspended, and the common rules lose significance.

How will the patient react in the presence of the crow? How will it affect his answers in regard to his medical history? These are some of the questions that are addressed by this specific setup. The protocols of the PA-interviews serve as poetic material, as the basis for further interpretation, and the results can be read as poems.

3. Project Specifications
3.1 Hypothesis
The patient poetizes his body by activating autoimmune processes on a cellular level so that it becomes a modified body. With these physical changes she tries to change the world in her sense, with the aim to be able to actually, truly, live in her world.

3.2 Project Goal
The goal of the poetical anamnesis is to interpret the signs of change, of transformation, that in a clinical context are accounted for as symptoms, in regard to the world and the existential state of their carriers. It is about capturing the body poem, translating it, and reconstructing it as transforming serial poetry.

3.3 Motivation
The motivational background of this project is also an important part of it. As the project leader, I consider it relevant that there is a personal involvement at the level of the body, the mind, and the existential state, as it concerns a topic that exposes the vulnerability of those affected by the condition in question.

I consider it appropriate then, that I disclose my belonging to the group of persons affected by an autoimmune disease and by its effects on all levels of my existence. I think that it is important to know by personal experience what these effects mean, how it feels like when your organism acts or reacts in this way, when your body launches these autoimmune processes.

It is because I am also a patient who has to visit the outpatient department for rheumatology on a regular basis, and from time to time finds herself committed to the hospital as an in-patient, that I know the 'other side' of the anamnesis, that I had these conversations with doctors, explaining their diagnosis and its implications to me. Therefore, I know what information is communicated, and I know about the images and metaphors that are commonly transmitted to patients. (Cf. Macek, 2019). It is the root of my motivation for the research on autoimmunity that I want to contribute to a shift in how it is conceived of, by finding other pictures, and other terms, so as to develop a new imagery for autoimmune dynamics, and thereby support others affected by this condition by providing alternative cognitive maps for coping with autoimmune diseases.

4. Practical Principles of the PA

The use of poetry for art-based research can be considered as an accepted strategy by now. Two important references in this regard are Sandra Faulkner's compendium *Poetic Inquiry: Craft, Method and Practice* (Faulkner 2019), and the article 'Poetic Inquiry: A Fierce, Tender, and Mischievous Relationship with Lived Experience' by Sean Wiebe (Wiebe 2015). Both agree that poetry is a useful research tool due to its discursive structure that allows for experimentation, invention, and for pushing the boundaries.

4.1 Sample Questions Used for the PA:

What is the medical name of your disease?
What do you call your illness?
What changes do you remember — from the time before you were diagnosed until now?
What were the first signs of change?
What is it now that you would regard as signs of the illness?
What is it that you do in consequence of the changes you experienced?
What do you wish for?
What should go away, what should stay, and what should change?
What is the message of your illness, do or did you receive one?
What is your message for the disease / for your illness?

4.2 Cut-Up-Method

The main techniques for the analysis and the processing of the interview transcripts of the PA draw on proceedings invented by Dada artists at the beginning of the twentieth century, like the cut-up-method and the random principle. As an example, I recommend Hans Arp's *Die Wolkenpumpe* (the cloud pump), published in 1920.

Employing the cut-up method means that words or fragments of sentences are selected randomly from a given text and then, also directed by chance, are recombined to form a new text / new poem.

An important constitutive factor for the practical application of the PA is repetition: The resulting series of poems are repetitions of the same input, of the same words and fragments of sentences from a medical history that are recombined again and again. Via slight variations within the repetitions, differences become more obvious, drawing our attention to the gaps between words, to the dynamics of the relations between letters and words, allowing for new meanings to emerge.

A visual realization of these slight differences by slight variation within repetition can be seen in Figure 3.

Sean Wiebe sees the 'infinite iteration of differences' (Wiebe 2015: 160) as a key feature of poetic inquiry, fostering new insights. This is also the view of the PA: The minimal differences within the repetitions create obstacles that cause the recipient to 'stumble' on his way through the poem. In consequence of the suspense triggered by the confrontation of formerly unconnected and unrelated text fragments, unexpected/irritating/surprising discharges of meaning occur, leading to an excess of meaning. This excess of meaning entices the recipient of the poetry to explore unknown fields of emotional as well as cognitive understanding.

For Faulkner, it is the power of lyrical poetry that causes a blurring of the distance between self and other (Faulkner 2019: 24), allowing for a reinvention of experiences.

4.3 Method of the Thirty Seconds

Another way to process the gained data from the PA is the technique of the thirty seconds — every thirty seconds two words from the patient's talk (either from his answers to PA-questions or from the narrative of his medical history) are noted and subsequently arranged under the perspective of the sense the patient made — the way he sketched the image of himself and his surroundings — and by following poetical requirements in regard to rhythm and form.

The random principle can also be executed by a computer algorithm that selects the words and text fragments from transcripts of the patient interviews and arbitrarily recombines them.

4.4 Editing Process

The final process is editing based on poetological principles, like the formal rules of a specific verse form, or a specific rhythm triggered by the words/syllables that were randomly selected. It also leads to a consideration of the dynamics between words or fragments of sentences.

The end result of the application of these principles and of editing the new combinations is a lyrical series that (re)constructs the patient as transforming serial poetry.

4.5 Results

The medium of poetry is language, therefore the process of interpretation also happens on the level of language. Philosopher Ludwig Wittgenstein established in a renowned statement in his *Tractatus Logico-Philosophicus* that the limits of our language mean the limits of our world (cf. Wittgenstein 1922: 74). The PA states, in reverse conclusion, that by expanding the limits of our language, we — at the same time and to the same extent — expand our world. This is exactly what poetry does. Poetical acts are always transgressions on the level of language, and, according to the principles of the progressive universal poetry, also on a global level, on the level of our worlds.

With every new poem, the patient is created as a transient poetical formation in the course of the PA. New information emerges and becomes comprehensible, and the result is a gain of meaning on all sides — on the medical side, on the poetic/aesthetic, and on the individual/practical side.

4.5.1 Example: Result of a PA

'Lyric Series I – Creating Patient C. as a Poem – Renga 1–6'

Renga 1 – Animal, Escape
6th floor, kidneys and innards
Always too warm
The illness? Sleep, always too

Warm, I cannot, involvement of the lungs
8 years ago the outbreak
8 years ago, sleep.

Illness, to the mountains
Animal, escape.

Renga 2 – Somehow Threatening
BODY muscles disintegrate
For innards. I cannot
Walk too well.

Somehow threatening
It is always too warm, alas.
Innards, outbreak
Kidneys, threat.
The illness.

Renga 3 – Pulmonary Involvement
6th floor, view of trees.
Kidneys, innards, pulmonary involvement
Somehow. View of

The floor, I cannot.
Animal, into the mountains,

Muscles disintegrate
I cannot walk well.

Renga 4 – View of Trees
Whatever. Pulmonary
Involvement since 2 years
Muscles disintegrate, whatever.

Quiet trees, problems to breath
Since 2 years
Worse, landscapes
Healing essential
View of trees, whatever.

Renga 5 – Inner Values
Dumplings, the lungs
Involvement, outbreak 8 years ago
The illness it is

Quiet, essential, the weather
Essentially worse, since 2 years

Outbreak, inner values
View of the inner values

The outward appearance – I do not care

Renga 6 – Po- Polydermatomyositis
Lungs, view of trees, quiet.
BODY, I cannot
On the floor, sleep, too warm

Sleep is essential, 8 years ago
To the mountains, since 2 years

Worse, speechless, the mountains
Involvement positive, Po-
Polydermatomyositis.

(Transl. by Barb Macek)

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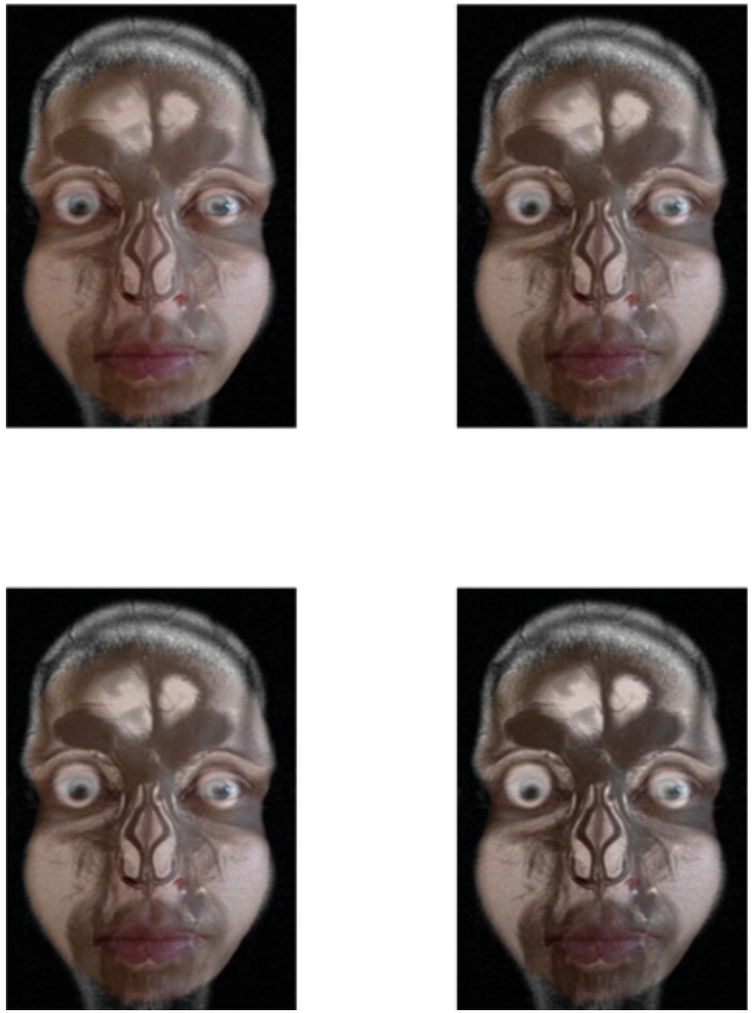
I

II



III

I Barb Macek, *Facing Autoimmunity,* 2018, photo collage, 13.7 × 10.3 cm, Vienna

II Barb Macek, *Crow's Death Talks,* 2017, detail of the installation, photo, 13.5 × 9 cm, Vienna

III Barb Macek, *MRT Transformations,* 2021, photo collage, 34.7 × 43.3 cm, Vienna

Field Work: Making Kin between the Primate, the Researcher, and the Artist

Emanuel Mathias

Abstract
Since the 1960s, primatologists have studied the cultural behavior of human primates through long-term observations. In order to do so, they have conducted field studies, observing their natural habitats, focusing principally on African forests. A strong interest in understanding the various aspects behind their evolution, culture, and behavior drives the research. Based on the personal archives and narratives of primatologists from the Max-Planck Institute for Evolutionary Anthropology in Leipzig, the artistic research work entitled: *On the Margins of the Field* attempts to investigate the research-constellation between that of the researcher and the animals under scientific observation. In expanding on the field from an artistic point of view, this work probes the inherent ambivalence in the so called 'close distance' relationship between the observer and the observed. This essay, which adopts the methodologies of writing fieldnotes, conveys the collected anecdotes of the primatologists and complements them with narratives from the artistic research. In following the concept of making kin by Donna Haraway (Haraway 2016), the artistic approach focuses on the simultaneity of the introspective and exteroceptive perception in the moment of observation, and discusses a more cooperative and vulnerable methodology as an alternative means of knowledge production.

Keywords: artistic research, primatology, Donna Haraway

Introduction
Given the similarities between the primatologist and human primate, this research project asks what kind of a specific research situation exists in the natural sciences that accounts for the specific relationship between human and animal in this context of research. How is it possible to implicate the involvement of the researchers themselves as a subject of discussion when we assume that there is an implicit visual culture in primatology? How can the visuals, the photographic collections and the narratives of researchers be analyzed in a way that elucidates a better understanding of their individual approach to the field? What qualities does an artist possess that qualify them to elaborate a second order of observation into the research situation between the researcher and the primate? Is it possible to translate these research questions into an aesthetical sphere of experience?

Before the researchers could begin their observational work, the animals needed time to become accustomed to their presence, in a long-term process called habituation. Katharine Hanson describes habituation: 'as a process by which wild animals learn to accept human observers as neutral elements in their environment' (Hanson 2017). This process of acceptance can last from five up to seven years and requires that the researchers make the primate forget their presence while they attempt to get as close as possible to the everyday social life of the animals. Equipped with an 'adequate distance', the observers try to cultivate an objective point of view, the prerequisite for generating scientific knowledge. However, while living in the forest and studying the behavior of the primates, the researchers relate in a very personal way to their objects of study. The evident discrepancy between objective pretensions and subjective experience implicit in such field studies is one of the initial starting points for this artistic research project. The general aim is to constitute the field of primatology from an observational view that incorporates a second order (Luhmann 1997; Latour and Woolgar 1979).

For Donna Haraway, a prominent scholar in the field of natural science, the history of science, and human-animal relations, both primate and primatologist are akin to border-crossers, moving in between the ostensive principles of nature and culture. Haraway's thought is inextricably connected to the field of primatology. In her book *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (1990), she reconstructs the primate story — including the myths, its multicultural roots, and social relations. Haraway's concepts of kinship and companion species offer new ways to dissolve the prescribed boundaries between nature and culture and (by extension) the observed animal and the observing human. In this vein, Haraway herself acts as a mediator, albeit between natural science, human science, and art. Viewed from her perspective, acknowledgment and understanding of the involvement of one's position require a radical reconsideration of the concept of a neutral observer. In taking a closer look at the discipline of primatology from a synchronous perspective of natural science, cultural science, and a science-fictional point of view, Haraway invites the method of using montage narratives that I have employed in the following text.

The essay 'Field Work: Making Kin between the Primate, the Researcher, and the Artist' follows the aesthetic of written field notes. In a fictional narration, the observation of primates in the field is described from three different perspectives. Using the filmic method of montage, the scene alternates between the three particular characters. The perspective of a female primatologist, a female human primate, and a male artist. The three distinct settings in which the plot takes place are the actual locations of the respective researchers: The forest of the Taï National Park in Ivory Coast, a Leipzig research institute, and an artist studio. The field experiences from the primatologist's perspective are based on guided interviews

and conversations with twenty-five researchers from the institute. Connected to their field work the text asks: How do researchers think? What are their research questions, guidelines, tools, and working conditions? How did they become involved in doing fieldwork? During the interviews the researchers also project themselves into the perspective of a human primate. The second part, written from the animal point of view, refers to these conversations. It opens up a speculative narrative based on their experiences as animals in the field. The third part then takes the perspective of the artist, who in turn observes the researcher and brings in the question of 'making kin' with another discipline, a process that is always a negotiation process between affiliation and distinction. The interplay of these respective processes of observation plays a crucial role in all of the narratives. Following the concept of making kin by Donna Haraway (2016: 74), the artistic approach focuses on the simultaneity of introspective and exteroceptive perception in the moment of observation. It does so in a way that suggests a more cooperative and vulnerable methodology as an alternate mode of knowledge production.

In the text about to follow, the use of the feminine form applies equally to feminine and masculine primatologists.

Making Kin between the Primate, the Researcher, and the Artist

I. The Primatologist

The primatologist approaches the forest with the question: What does it mean to live in a culture of human primates?

She observes them with her own eyes or with optical tools like binoculars and cameras.

She measures and collects, draws, and takes notes.

In a process called habituation, they gradually become accustomed to her presence.

She names them: Papa Wemba, Velvet, Sigmund, and Gloria.

Sometimes she feels very close to them, but she forbids herself to be affected by it.

She establishes guidelines: 'If chimpanzees come closer than seven metres from you, you should discretely walk away' or 'Do not touch, do not eat together, do not socialize!'

She uses her free time to read Fyodor Dostoevsky's *The Idiot,* Daniel Defoe's *Robinson Crusoe* or Heinrich Harrer's *Seven Years in Tibet.*

She knows that she puts them in danger. But she still seeks a complete understanding of what makes us human as opposed to our closest living relative.

Sometimes she works with snake models to frighten them, look how they react. To trick them, she has to anticipate their way of passing the forest.

She loves to pose with trees in the forest. But occasionally it happens that she nearly gets hit by a limb, that is falling down from a tree.

When she comes back from the field she starts to work in the institute, writing papers about her observations in the forest.

She also creates rituals like posing with the collected tools of the primates in the form of tableaux vivants. For this she displays the primate tools on the institute floor to take a picture from above while positioning

herself in between them in different postures that brings to mind evolutionary illustrations.

Back home she misses the forest.

A lot of vines and green plants hanging down from the ceiling of her apartment and reperform the green forest.

She knows that with the extinction of the primate as an object of her observation and thereby the purpose of her study as a primatologist will also come to an end.

II. The Primate

Someday the primate wakes up in the forest.

She looks around and then she notices them. They always come in the morning and leave in the evening. In fact, they don't manage to move about as subtly as they might wish to. She is wondering where they might sleep.

After feeding she takes a rest, and they seem to have a rest as well.

Sometimes she sees them drinking water.

They are pointing with their camera lenses on her. She thinks: 'Do they wanna dart me?'.

Sometimes she takes a piece of a branch and touches their camera with it.

She recognizes herself in the mirror of the camera.

She thinks they don't behave like her, but they are somehow part of the group.

They sit and stand and walk but they don't really talk.

Sometimes they try to turn their body away, so that it doesn't seem like they were threatening.

They remind her of moving trees.

She always thought that they are not very good humans, that they are not very good primates, and they are not very good trees either. Somehow, they don't really fit anywhere.

She knows there are differences between them. One female is putting up her hair. She thinks that she has a really long mane.

She is curious about what exactly they are, she is still not able to categorize and compare them to one another.

III. The Artist

The artist comes to the institute because he is interested in observing the observer.

He works tentatively, thinks in possibilities, makes propositions.

After a while he speaks like them, he thinks like them, he uses the language like they use it.

He is affected by their knowledge, the way they see the world of the primates.

He likes to intervene in knowledge building scientific processes, playful, teasingly, mirroring.

He wants to make kin with the other.

They tell him after a while that they understand that they perceive themselves as his apes.

He asks himself how he can express himself within this unknown territory, not only to be understood but also to provoke trouble and creating

a discourse on the question of what it means to establish a boundary between the researcher and its object of observation.

He starts to disguise himself as a primate.

He starts to feel how it is to be the observer of the observed.

It means to look at someone and at the same time to look at yourself. It is to him like a flip flop image.

He starts to understand what it means to go native.

He starts to make notebooks like them, collect data like them, give them nicknames, use their tools.

He starts to pack boxes in his studio with their and his tools and belongings for entering the forest.

In one of the boxes, he smuggled a book by Donna Haraway. In his imagination he reads this book with them, while sitting on a campfire, sitting close to the nests of the animals, thinking about their relationship, and making kin between the primate, the scientist and the artist.

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Emanuel Mathias, *Everybody's Got Something To Hide Except Me And My Monkey*, 2022, one week performance, ACC Galerie Weimar, Emanuel Mathias / VG Bildkunst 2022

The image and footage are part of the PhD project 'On the Margins of the Field' by Emanuel Mathias, 2017–ongoing). For more information: www.emanuelmathias.com

Collateral: Take These Too… May Our Hands Work Serve You as Memorials

Brigid McLeer

Abstract
At SAR22 I gave a presentation on my research project and artwork *Collateral.* Commissioned by British Textile Biennial 2021 shown at Queen Street Mill, Burnley, Lancashire, UK, and subsequently as part of the group exhibition 'Cotton: Land, Labour and Body' curated by Uthra Rajgopal, at the Crafts Council Gallery, London (From September 2022 to March 2023).

The presentation consisted of three parts:

- A presentation of a short film discussing the project's ideas, and processes of production, made during 'BTB21' by Huckleberry Films. https://britishtextilebiennial.co.uk/programme/brigid-mcleer-collateral/
- A reading of a ten-minute paper accompanied by slides of the finished work in situ. Some of these images are included here, and more can be viewed on the artist's website: https://britishtextilebiennial.co.uk/programme/brigid-mcleer-collateral/
- A screening of a revised and shorter version of the video that formed part of the installation at Queen Street Mill, made for the group exhibition 'Cotton: Land, Labour and Body', Crafts Council Galleries, London https://vimeo.com/818683131

Keywords: collaboration, relational, textile, memorial, garment industry, space of appearance

Overview
Collateral commemorates the thousands of workers who die because they work in factories and sweatshops that supply the global garment industry. It is inspired by and takes its form from a lacework panel commemorating the Battle of Britain, held in the textile collection at Gawthorpe Hall, Padiham, Lancashire.[1] Working with a small group of local women embroiderers and the participation of over 120 people from across the UK, this textile work was re-imagined as a vast new hand-embroidered whitework panel. At 450 × 163 cm in size, it emulates the Battle of Britain panel in its scale and ambition, while completely altering the subject of its remembrance. The *Collateral* textile panel substitutes the images of ruined and burning buildings with stitched images of burning factories and the dead

1 The Battle of Britain lacework panel was manufactured on a Jacquard loom in Nottingham by Dobson's & M Browne & Co. Ltd between 1942–1946. The panel design was by Harry Cross. Thirty-eight panels were produced and around thirty-one are still in existence, held in collections around the world.

laid out in front of them. It transforms aircraft into shipping routes and St. Paul's cathedral on fire becomes Rana Plaza collapsed. Around the edges of the panel, the original border of wheatsheaves was replaced by shrouded bodies, each shroud hand stitched by sewers who responded to a public call out; all of them commented that this simple act of giving time, labour, and care was a deeply moving and reflective experience.

All these components, and more, come together to 're-member' the disconnections and wilful negligence by which a horrific devaluing of life comes to underpin the clothing we buy and wear and to remember those who are ignored and forgotten in consumer capitalism's rapacious, ongoing race to the bottom.

Collateral manifests an alternative scenario of responsibility and reflection. In doing so, its commitment to the dead is embodied through the commitment of time, labour, and care given by the living.

Background and Artistic Research
My ongoing artistic research investigates what role aesthetics, affect, and shared durational viewing and making can have in socially engaged, participatory, and political art practice. In doing so, the research introduces a new and original perspective, focused on a recuperated idea of 'contemplation', and practices and debates on 'useful' (social/activist) art. The research further investigates how mid-twentieth-century political theorist Hannah Arendt's proposition for a public space of relational politics — the 'space of appearance' — might be recuperated to provide a framework for this new paradigm of research praxis.

Collateral explores these concerns through a particular focus on how artefacts and rituals of critical memorialization can inform imperatives of action. In this sense it brings the material, spatial, and participatory methods of art practice to bear on contemporary revisionist, decolonial, and ecological critiques of history and modernity coming from the humanities and sciences building on and extending my commemorative project 'N scale'.[2]

In addition to the direct reference *Collateral* makes to the machine-made lacework that commemorates the Battle of Britain, both this work and *N scale* before it are inspired by nineteenth-century Victorian trade union and workers association emblems. These reference points and emblems provide a deeper context and history to the project, bringing into relation Britain's industrial past with contemporary supply-chain globalisation and the outsourcing of industrial work to countries in which labour is cheap and health and safety laws lax. The textile industry in particular is prey to exploitation as its infrastructure is easy to relocate, and the workforce is often young, migrant women with few rights and even fewer options. As a consequence, tragedies such as the Kader industrial factory fire of 1993 or the collapse of Rana Plaz in 2013 are repeated over and over. The same avoidable tragedy for the same reasons, wherever it occurs.

This constant repetition is what *Collateral* draws attention to by representing thirteen different fires or factory collapses that took place across the world throughout the twentieth and twenty-first centuries. These are among the worst examples but far from the only ones. Underpinning this apparently relentless cycle are the rapacious forces of global capitalism

2 https://www.brigidmcleer.com/n-scale-living-memorial/

itself and the extractive histories and imperatives of colonial and imperial expansionism.

Through our reliance on these industries, these are forces we are all now caught up in, and rendered deeply complicit with, while we bear the costs in very unequal ways.

However, just as industrial workers in nineteenth-century Britain did, today's factory workers in China, Bangladesh, the Philippines, Thailand, Vietnam, India, and elsewhere across the world, are fighting to organise, to claim proper wages, rights and compensation, and to be able to work in dignity and safety. Many campaigning organisations are supporting their fight, by calling on brands and consumers to take action to help change the working lives of those who make so many of the things we buy on our UK, European, and American high streets.

As artworks *N scale* and *Collateral* hope to contribute in some small way to this struggle, by bringing these tragic circumstances to our attention and asking that, through the shared and affective act of memorialisation, we contemplate our part in this chain of connections and react accordingly.

Collateral Presentation

The feminist physicist Karen Barad says:

> Memory [...] is written into the fabric of the world. (The world holds the memory of all traces or rather the world is its memory) There is no inheritance without a call to responsibility [...] Entanglements are relations of obligation. (Barad 2018)

While Barad is referring here to memory written into matter at its most quantum scales, the project 'Collateral' that I am presenting to you today takes that scale and draws it back up into the literal fabric of textile production and its transportation and consumption at a global scale. However, the entanglements encountered here are no less 'relations of obligation' and their call to responsibility are equally pertinent in human and non-human ways.

What you will see in this work is a past that continues to repeat itself, one that is allowed to repeat primarily because we have ignored this call to responsibility. We have stopped remembering.

In 1872 Friedrich Engels wrote:

> [t]he infamous holes and cellars in which the capitalist mode of production confines our workers night after night, are not abolished; they are merely shifted elsewhere! The same economic necessity that produced them in the first place, produces them in the next place.

Since then, and increasingly in the twentieth and twenty-first century this 'shifting elsewhere' has undergirded our capitalist system of globalised production, and feasibly in no industry more so than in the textile and fast fashion industries.

Essential to the effective practise of those industries and supply chain capitalism in general, is a tacit agreement to which we have all signed up one way or another; the assumption (ironically) that these chains are

forged in 'separation' rather than 'connection'.

This connectedness and its complexities is what I am interested in exploring. It's not simply that I want to explore it, I feel obligated to partake of it and to try to produce work that encourages a responsive participation in the complexity of our togetherness (our 'entanglements' as Barad calls them). In this way, the work is an attempt to 'mend' the texture of that togetherness such that the violent divisions upon which it so often subtends may be recognized and resisted.

It seems to me that across so many aspects of our current local, national, and global situations we are facing the need for nothing less than an immense paradigm shift that demands we reckon with our deep and complex connectedness, rather than hold to the safety of being apart.

This is not easy. Because we have become so much more adept at being apart than being together.

Collateral, and the work that gave rise to it, *N scale,* attempts to approach this complex situation through the making of a memorial. A work of remembering — of stitching together. A memorial to factory workers who have died while making the clothes and things we buy.

Public memorials and public grieving interest me as a very particular manifestation of civic space and time in which we come together beyond our private communities and networks. A contemplative and reflective space, a space of shared affect — an immersive, immeasurable kind of time, one that I believe has the potential to be vitally critical.

The question of who gets to be remembered in public, by whom, and where, is central to this critical repurposing of memorialization.

Judith Butler writes that a livable life is one that will be grieved. A life that is held in care enough that it will be remembered after it is gone. A life that is not superfluous, forgettable.[3]

To grieve thus, must then be a shared imperative because to live thus is a shared responsibility.

Remembering is inherently haptic. It is an act of touch.

While we may think that we remember with our minds, in reality it is with our whole bodies. Taste, smell, touch, sound all trigger memories, leading to feelings that can move our bodies to tears, to nausea, to laughter, even to collapse.

Remembering is also an act of repair, of re-connecting. To remember is to put something back together, to suture across time, and space, between the living and the dead. When we remember we thread parts that are elsewhere into a more complex version of here, of now.

Stitching is metaphor and the act. The poet Virgil knew this to be the case, as suggested in his *Aeneid of Andromache:* 'Saddened by this last parting, Andromache too offered presents:

> Garments embroidered with figures of gold threaded into the fabric [...] her textile gifts [...] Take these too (she spoke) may my hands work serve you as memorials' (Virgil 1995).

Many hands have worked this fabric panel and have asked that this work may serve as a memorial.

Many, many, more hands have made the clothes and fabrics that we

3 Butler discusses this idea in slightly different ways and contexts in her books *Precarious Life* (2006), *Frames of War: When is Life Grievable?* (2009) and *The Force of Nonviolence: An Ethico-Political Bind* (2020). It is also the main topic of a forthcoming book by Butler and Frederic Worms, The *Livable and the Unlivable* (2023).

wear and use. What could be more intimate than to place on your body, next to your own skin, the work of another. Yet we forget, as if by necessity, that these textile 'buys' have been so touched.

Rasamee Supaem, survivor of the Kader Industrial factory fire that killed 188 (mostly) young women in 1993, asks that we remember that textile factory workers are human beings, not machines. For Hannah Arendt the work of our hands — that which we make beyond our basic needs — underpins our humanity and precedes our capacity to be political. Both, for Arendt, define what it means to be human.

So, we have made something with our hands, so that we can remember not only specific tragedies such as Kader, or Rana Plaza, and many others, but also that we might recall our shared humanity, and the debt we owe to others.

Collateral is an artwork that makes use of the language of emblems. In this sense it declares itself in no uncertain terms — through images and in writing. It uses the language of the handmade, so it speaks through the voices of hands, of bodies, that express both their vulnerability and commitment.

In ways that were constraining for the Battle of Britain panel, but with similar intentions, it represents a form of labour and time, through a collective endeavour that does not pretend to equate itself with that which it memorialises but nonetheless tries to meet it in a semblance of its terms.

It is a gesture of gestures, you might say — one that precedes the actions that will more directly demand or initiate change.

It was public at a moment when renewed hope emerged for global factory workers via the *New International Accord on Fire and Building Safety.* But I think it is important nonetheless that we do not forget, to keep remembering.

There is no single or obvious place where such a memorial could be sited. It resides really in the periphery of our moral and political/social/economic horizons. In that sense it belongs in the next place, which we hope will never be.

In lieu of such a place it was sited instead in Queen Street Mill. In a textile museum; a place both of memory and of making. A place, I would suggest, is itself an emblem. Somewhere that speaks of a complex history continually altered by the ongoing present. A mill in Lancashire, in England, in Imperial Great Britain — the place from which the horizons of industrial production were expanded irrevocably and upon which, in this work, they contracted temporarily.

The mill houses a rich culture and history, much of which is full of the warmth of bodies and communities past and present, but the loom shed is a place that has run to a standstill, almost. This is the gift it offers to which our 'textile gift' was returned. Amongst the quiet, the vibrance, the stillness, and the weight of the looms, the work was laid out.

For a while this space was an elsewhere *Collateral* lay in its alterity. It also lay in its sound; the sound of the body of the building, conjured through bodies that sang, and clogged, and slapped their own clothes, and drew out other presences from those that were seemingly absent.[4]

Take these too... and may our hands work serve you as memorials.

4 The textile work for *Collateral* was accompanied by a video piece which included transcripts of an interview with Rasamee Supaem, survivor of the 1993 Kader industrial fire, and sound, music and clog dancing by 'broken-folk' duo *Lunatraktors*: Clair Le Couteur and Carli Jefferson.

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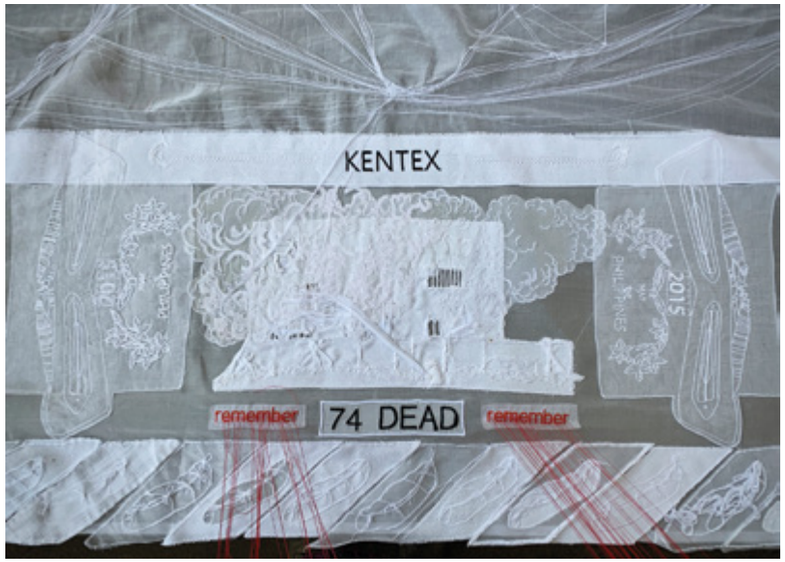

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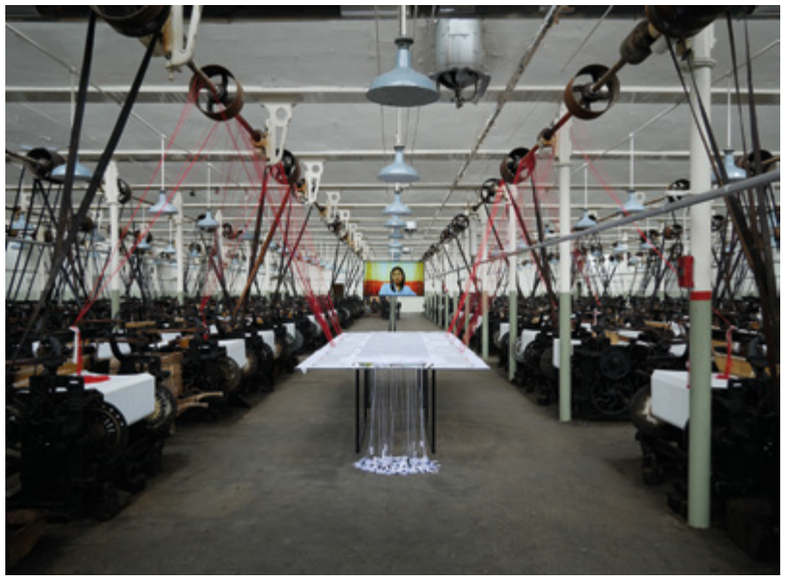
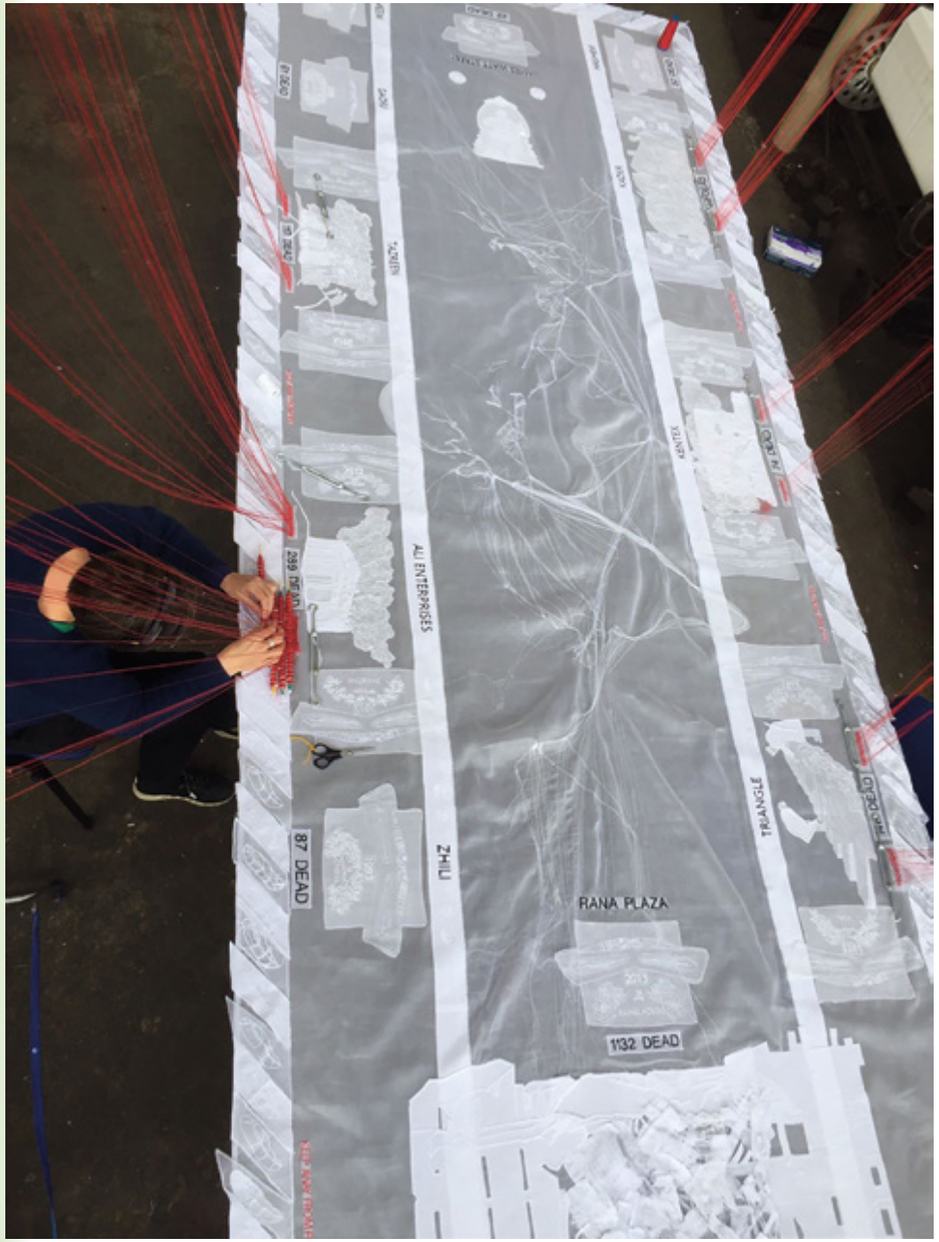


II

II Brigid McLeer *Collateral* 2021, Hand-embroidered cotton, cotton thread, sheet acrylic, steel, clothes labels, single screen video with sound. (Detail) Queen Street Mill, British Textile Biennial 2021, Burnley, Lancashire, UK

I Brigid McLeer *Collateral* 2021, hand-embroidered cotton, cotton thread, sheet acrylic, steel, clothes labels, single screen video with sound. (Installation view) Queen Street Mill, 'British Textile Biennial 2021', Burnley, Lancashire, UK

III Brigid McLeer *Collateral* 2021, Hand-embroidered cotton, cotton thread, sheet acrylic, steel, clothes labels, single screen video with sound. (Work-in-progress) Queen Street Mill, 'British Textile Biennial 2021', Burnley, Lancashire, UK, Philippe Handford.



III

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On Facilitating: Micro-Practices for a New Gentleness

Adelheid Mers

Abstract
It is becoming increasingly clear that facilitating is widely present across the arts, emerging where practitioner-driven discourse integrates creation and mediation, often in cross-fertilization with practitioners' experience as arts educators and arts administrators, professions that design and deploy communicative systems. Facilitating has steadily moved to the centre of my artistic practice, too, both in how I make and present work. At SAR 2022, I offered a workshop titled 'Respectful, Detailed, Ethical Engagements: Facilitating Micro-Practices for a New Gentleness', to facilitate a focused conversation on a topic participants select. Drawing on practice-centred modes of artistic discourse in co-creating the *Diagrammatic Instrument* called *Micro-Practices for a New Gentleness,* I aim to claim an extended capacity for propositionally and performatively articulate professional practice, of mediating risks associated with being sensitized to structure. I think about this capacity to articulate as a prerequisite for institutional imagination, and ultimately, action.

Keywords: facilitation, articulation, institutional imagination, studio critique, professional practice, diagrammatic instrument

1. Introduction

1.1 Facilitation Field Scan

While definitions of facilitation remain fluid, significant efforts have been made to outline a professional field. The International Association of Facilitators (IAF) was established in 1994 and has developed 'foundational tools of the facilitation profession', including statements on ethics and core competencies. In 2007, the United Nations published *Participatory Dialogue: Towards a Stable, Safe and Just Society for All* (Hammati 2007), a substantial paper that includes examples of dialogic tools and methodologies, described in terms of process, setting, time frame, as well as the quantity and characteristics of participants. One example given is the open dialogue process conceptualized by physicist David Bohm, who himself is wary about outcome driven adaptations of his concept (Bohm 2004 [1996]: 49). A sizable bibliography is appended, reaching from John Dewey's early writing on pedagogy to the *IAF Handbook of Group Facilitation* (Schuman 2005), emphasizing best practises for business communication. In the performing arts, a marker is Sheila Preston's recent work assembling voices on facilitating with a focus on social change through *Applied Theatre: Facilitation* (Preston 2016). Read widely across arts organisations, Adrienne Maree Brown's *Emergent Strategy: Shaping Change, Changing Worlds* (Brown 2021) deploys black feminist perspectives on facilitating justice and liberation. While the field is indeed outcome-driven, who sets goals and how outcomes may be described or measured varies greatly. Governance, civil society, business, pedagogy, and the performing arts are implicated. In describing the role of a facilitator, leading, teaching, and helping are invoked. Many questions arise. What motivates a facilitator? Which expertise may a facilitator require? How can it be achieved? Which responsibilities come into play? Is there a better term when considering facilitating as a creative practice?

It is becoming increasingly clear that facilitating is widely present across the arts, beyond Applied Theater. For one, facilitation emerges where practitioner-driven discourse integrates creation and mediation, often in cross-fertilization with practitioners' experience as arts educators and arts administrators, professions that design and deploy communicative systems, be they lesson plans and syllabi, bylaws, surveys, or rules that govern meetings. As part of the art world's exhibitionary complex (Bennett 2017), practitioner-driven discourse arises where artists are compelled to narrate and theorize their work until it reaches a market, at which point others become available to additionally propel narratives. In an academic framework, discursive self-articulation is contextualized as research, beholden to its associated methodologies and economies. These arenas do of course intersect. To offer North American instances, community organising and urban planning in the work of Rick Lowe and Theaster Gates facilitate structural opportunity and socio-political discourse. Artist Shaun Leonardo's workshops are a recent example of a facilitating practice that is participatory, generates works and stimulates civic discourse. Gabrielle Civil's *Experiments in Joy* is an example of facilitating collaboration and community expansion, in conjunction with a publishing practice. In addition to publishing themselves, facilitating artists draw on cognitive, social and political theory, mitigating economic and epistemic violence (Bell 1988; hooks 1994; Verran 2014; De Sousa Santos 2016), reframing methodology (Smith 2008; Wilson 2020), enacting participatory sense-making (De Jaegher and Fuchs 2009), complicating narrative and translation (Simpson 2014; Chavajay and Clavo 2021), and more.

1.2. Diagrammatic Instruments

Facilitating has steadily moved to the centre of my artistic practice, too, both in how work is made and presented. Formally, I derive the impetus for the need to centre facilitating in my work from my inclination to work diagrammatically, overlapping with categories such as 'operativity' and 'own spatiality', (Bogen and Thürlemann 2003: 22; Krämer 2010: 30), and aligned with the Peircean diagrammatic sequence (Stjernfelt 2007; Mers in press 2023). Contextually, I am situated as a German immigrant to the US, intentionally living between multiple languages, models of cultural value, definitions of research, and generational narratives, and working as an artist and as a professor of cultural management, a field containing arts administration and arts policy. Attention to professional and discursive contexts

has driven my interest in how practitioners articulate propositionally and performatively how they work, as opposed to how practitioner perspectives are interpreted by others. This in turn generated a focus on forms of conversation, which I am enacting by drawing on the operativity of diagrams, and on intersecting forms of expertise. I design contexts for facilitation, which I call *Diagrammatic Instruments.*

At SAR 2022, I offered a workshop titled 'Respectful, Detailed, Ethical Engagements: Facilitating Micro-Practices for a New Gentleness'. The immediate goal of a workshop using the Diagrammatic Instrument, *Micro-Practices for a New Gentleness,* is to facilitate a focused conversation on a topic participants select. Below, I address the making of *Micro-Practices for a New Gentleness* and its use. Both making and using *Diagrammatic Instruments* centre facilitating, albeit differently.

Diagrammatic Instruments consist of drawings, their substrates, additional objects, guidelines, and instructions. They serve to facilitate performative and propositional interactions with general and specific publics that take place in exhibition, conference, and professional retreat settings. The outcome of these conversations and encounters is on the one hand the participant's experience, and on the other hand documentation and reporting, and rarely, a stand-alone video artwork. *Diagrammatic Instruments* are instruments not as devices that reliably deliver similar outcomes, like a measuring device, for example a barometer, or like a precision tool, for example a scalpel. Instead, I think of them as akin to musical instruments, which may have multiple parts, can be tuned, modified, and activated with various, intermediate objects. Such instruments are operated with care, as part of an intimate, corporeal relationship, involving one or multiple players. *Diagrammatic Instruments* are the construct at the centre, and quite literally the 'middle term' of my artistic practice of *Performative Diagrammatics.* In developing *Diagrammatic Instruments* and facilitating their use, *Performative Diagrammatics* attends to co-articulating and thinking among individuals in small groups, through conversation and physical play. Four *Diagrammatic Instruments* exist. They are the *Fractal 3-line Matrix* (2011), *The Braid* (2016), *Performative Topologies* (2018), and *Micro-Practices for a New Gentleness* (2020), the last one of which I will focus on below. It was titled after Guattari's request in *The Three Ecologies* to 'organize new micropolitical and microsocial practices, new solidarities, a new gentleness, together with new aesthetic and new analytic practices.' (Guattari 2000 [1989]: 51). At SAR 2022 in Weimar, I invited attendees to join me for a focused conversation through a sixty-minute workshop format.

2. Micro-Practices for a New Gentleness

2.1 Diagrammatic Instruments

Diagrammatic Instruments are meta-diagrams, consolidations of diagrammatic processes, objects, and drawings that evolve across sites, with multiple contributors and co-creators. They also borrow from each other, which is why I will briefly address the genesis of each. The *Fractal 3-line Matrix* developed over three years from relating and visually assembling information collected at conferences I attended at the outset of my involvement with cultural management and policy studies in 2007. The first *Diagrammatic Instrument,* the *Fractal 3-line Matrix* was fully formed by 2011,

and later also served to facilitate conversations. *The Braid* emerged over eight years from within predominantly North American formats of academic studio critique, initially diagramming conversations with artists during studio visits at a Banff Centre residency in Canada in 2008, and evolving into conversations I initiated, asking artists 'How do you work?' during a period spent at the University of Music and Performing Arts in Vienna in 2012, and continuing thereafter. In 2016, *The Braid* matured in workshop and later prototyping settings in my studio. *The Braid* is now regularly in use to facilitate conversations about practices (see Mers 2021a). In 2018, *Performative Topologies* was initiated with the premise of creating a game, through a summer-long workshop in my studio in Chicago, extended to a seminar at the Bauhaus-Universität Weimar, then publicly prototyped at events in Chicago, and first presented in spring 2019 in Berlin as part of a 'Performative Diagrammatics Laboratory' exhibition. *Performative Topologies* draws on embodied processes of cognitive switching that are already present in the *Fractal 3-line Matrix* (see Mers 2001 b), while its digital feedback loop deploys an interior view of *The Braid. Micro-Practices for a New Gentleness* similarly draw on aspects of its predecessors.

In September 2019, I used the setting of a faculty projects exhibition at the School of the Art Institute of Chicago (SAIC) to partially re-create the 'Performative Diagrammatics Laboratory', and within it convene a co-creation workshop towards making a new instrument. In 2012, I had adapted a studio critique format for the cultural management and policy programme at SAIC (see Mers 2013), and I continue to participate in studio critiques across the school. While *The Braid* facilitates important paradigmatic conversations about practicing in context, I hoped to isolate specific behaviors that critique mobilizes by developing a new instrument. I asked 'Which tangible objects may we develop that can become part of an instrument that can be used in facilitating pedagogic critique sessions?' In response, a group formed (1) that was well aware of studio critique as a central pedagogic component of academic art education in North America.

2.2 Practice-Centred Critique and Institutional Imagination

While conducted differently across institutions, studio critique customarily proceeds by giving group feedback to one student who presents work, as a culminating event at the completion of an assignment or the end of a semester. In what I deem an aesthetic approach to critique, spectator perspectives are offered by attempting to read the work along lines of material, scale, socio-cultural context, and market viability, along with inquiry about artistic intent. Despite publications and convenings that have developed important insights about power in the performance of critique (see Fraser and Rothman 2017; Martin-Thomsen et al., 2021), continued discussion may propel a paradigm shift in arts education. While the aesthetic approach to critique focuses on art's exhibitionary aspects, assigning the role of viewers to all but the designated artist, I am particularly interested in foregrounding a practice-centred approach to critique that takes its cues from the sociality of the setting, as a convening of practitioners. This approach shares with the discussion about power that it also deems pedagogic critique performative, but follows Karen Barad's agential realist approach in preferring a material-discursive definition of performativity as 'iterative

intra-activity' in a laboratory setting, rather than Judith Butler's performativity as 'iterative citationality' (Barad 2003: 823) that may be more useful for an aesthetically inflected model of critique. I agree with Butler, though, in her assessment that 'for critique to operate as part of a praxis [...] is for it to apprehend the ways in which categories are themselves instituted, how the field of knowledge is ordered'. Facilitation is needed because of 'the occlusive constitution of the field of categories themselves' (Butler 2002: 213), but in addition to understanding power in how a field is tacitly ordered, practice-centred facilitating approaches seek ways to generate the field of categories differently (for example see Crenshaw), by claiming the capacity to articulate and through that, a new agency to re-articulate. I think about this capacity to articulate as a prerequisite for institutional imagination.

2.3 Co-Creating Micro-Practices for a New Gentleness

Below, I draw on lab notes to show core moments of a co-creation process for *Micro-Practices for a New Gentleness.* In varying configurations, contributors met weekly, first in the public laboratory setting that the exhibition at SAIC provided from September to October 2019, and then through the end of the year at my studio. In both settings, we had at our disposal elements of already existing Diagrammatic Instruments, including rolling whiteboards containing pre-printed braid diagrams and paracord rope trefoils. We also brought simple materials such as paper, paper clay, wire, magnets, and string. There were different types of documentation equipment, including a 360-degree camera. The excerpts below will show that our project advanced by moving in space and handling things, by reading and interpreting texts, by creating and viewing forms of documentation, and by enacting and categorizing habitually engrained studio critique practices. With the physical positioning of our bodies — sitting, standing, walking, performing — our perceptions, our language, and our readiness to engage shifted. We were aware that the technologies we used rearranged how we were able to imagine. Often, it seemed that what was in the room and who was able to participate on a given day was exactly what was needed to progress. We were all aware that I served as a facilitator throughout, prompting and accepting activities, and choosing which offerings to amplify. That gave me added responsibilities for holding space. Examples follow:

September 14 – October 19, at the gallery:

- Seated around a whiteboard on stools and the floor, with one participant's service dog stretched out alongside the circle, we proceeded to collate what it is that we each bring to a critique. A critique setting may be bounded in time and space, but participants bring their lived reality to it. Looking at the string braid we asked: Can the instrument we are seeking be grounded by a string that holds loose labels, like a charm bracelet? Charms could be physical objects that evoke a mode of action within a critique setting.
- We considered Edvard and May-Britt Moser's work on grid cells, connecting conceptual and spatial mapping, referenced by Barbara Tversky when claiming that motion in space is the foundation for thought. (Tversky 2019). Earlier that day I had learned that we would be able to participate at the Index Art Book Fair in Mexico City and began referring to our new instrument as a multiple/publishable.
- Projecting the text onto a wall, we discussed *This is Play* (Nachmanovitch 2009) finding it to operate on three levels. A game frame opens up a play level, which in turn permits an ability to enact peace. We noted how our conversation changed when we moved from 'projection/presentation' configuration to 'chair-seated conversation' to 'generously spaced, floor-seated conversation while handling objects'. The thinking we had access to in the third mode propelled us towards coalition, as an improvisational modality of performing for and with each other, drawing on individual repertory. We determined that this is something the instrument we seek wishes to promote.
- We mapped game, play and peace frames from the previous week's reading onto a *Braid*-whiteboard, integrating actions we had started to develop. As we modeled it, the game frame contains rules that constrain behavior, determining space use and allocating time. As these meta-concerns are rigidly addressed, an area of play opens up. The play frame is what we want to enable for our instrument to promote flexibility. The peace frame promotes non-normative communal thinking and rule creation. To continue exploring play, we moved back to manipulating materials, paper clay, wire, and tape, sitting close to each other on the ground. Not satisfied with tinkering on a small scale, we remembered that being spread out around the full-size braid promoted play the previous week. The larger scale afforded a different body-mind engagement.
- With the large paracord trefoil again spread out on the ground, we deployed the *Performative Topologies Diagrammatic Instrument* sequence. *Performative Topologies* asks participants to develop personal movements, by regarding a remembered object through multiple, cognitive and performative modes, followed by iterating movements. Recording with a centrally placed 360 cameras we noticed upon playback using the popular 'tiny planet' effect that we all appeared like moving beads on the trefoil paracord.
- On the last day of the exhibition, we again played one round of *Performative Topologies,* this time focusing on how we might sharpen each participant's description of a memory through an associated movement. Moving undermined the need to illustrate a description metaphorically. Instead, we freshly enacted what it evoked.

November 2 – December 31, at my studio:

- We want to reconceptualize pedagogic critique, thinking about Guattari's metamodelization. Metamodelization borrows and patches temporary models for self-management from found constructs, thus possibly sidestepping social and political powers that produce normative content.
- We performed a critique session to observe ourselves in action. We clearly registered that we act from within existing reference systems. Also, one of us brought a bracelet to which long nylon threads were attached.
- Inspired by the bracelet and recalling the 'tiny planet' video, I shaped figurines with paper clay and arranged them in a circle, others joined. We performed a second critique and broke down our actions,

for example 'taking charge of the frame', 'understanding own modes of engagement', 'offering to contextualize for general audiences', 'playing a detective game'.

- Consolidating the previous week's categories, we named three rubrics to collect actions under: 'values, rules and techniques'. A small number of value categories expanded into multiple rules, which in turn spawned a large number of techniques. We named the new instrument *Micro-Practices for a New Gentleness.*
- We visited the Joan Flasch Artists' Book Collection at SAIC, in order to handle examples while thinking about how the emerging *Diagrammatic Instrument* is a 'publishable', and how our 'publishable' might be supported with included printed material. We coined the term 'publishable' in parallel to the well-known sculptural 'multiple'.
- We tightened rubric content for inclusion in a prototype.
- We participated in SAIC's semester end critique week, a school-wide event for graduate students, and listened attentively for evidence of rubric use. It became clear that focusing on the object offered at a critique was paramount for a generous engagement.
- We paired down rubric actions to eighteen and built a matrix. We then funneled the action text through the *Performative Topologies Instrument* to build a full body gesture for each. Three of us posed for each item, taking turns performing and photographing. From the photographs, one of us arranged a digital wireframe in eighteen poses for 3D printing. We wrote an introduction, stating 'we develop facilitation instruments because we believe that it is important to access propositional and embodied knowledge. These ways of knowing are not separate from each other.' One of us prepared a first draft of the facilitation score.

January 18, 2020 – January 25, 2020

- A prototype of *Micro-Practices for a New Gentleness* was presented at the Vilém Flusser Archive in Berlin, as part of the Transmediale Vorspiel series. One large and one small version of the instrument were laid out on a cluster of tables. After inviting participants to select figures, followed by introducing the matrix and its context, I led them through the score draft. The group had a predetermined time to engage with each other while keeping rubric items in mind. Where the score sequence was too open ended, participants broke the cohesion of the emerging conversation.
- *Micro-Practices for a New Gentleness* was facilitated in Mexico City, as part of the programming for the Index Art Book Fair, held at Kurimanzutto. One co-creator was able to join me.
- Adjusted following the Berlin workshop, the score sequence worked flawlessly. A focused, generous, and intentionally embodied conversation arose.

Successful online adaptations have taken place since 2021. The first post-pandemic in-person engagement was at SAR 2022 in Weimar.

2.4. Using *Micro-Practices for a New Gentleness*

Micro-Practices for a New Gentleness serves to facilitate a focused conversation. The selected topic and the details of the conversation remain

confidential, unless requested otherwise in advance. As participants enter the workshop space, a paracord trefoil is already spread on the ground. Attached to it are eighteen printed disks, one for each of the statements that make up a matrix of premises, rules, and techniques participants will steward throughout the conversation they will engage in. One trefoil lobe holds premises, one rules, and another techniques. A small, 3D printed and numbered figure is associated with each statement. Initially, those figures may be laid on a table, or already placed on the disks. Participants are not asked to introduce themselves, keeping the coming engagement free of distracting frames, for example affiliations and titles. Instead, and as the step preceding the ten-part score that will animate the matrix, the facilitator initiates the workshop process by sharing the matrix and briefly explaining the process.

As the first step of the score, the facilitator then asks participants to select a figure, initially by responding to its pose. Depending on the number of participants, they may select multiple figures, or share into one. By making the selection, participants become the stewards of a statement. Referencing their figure's number, they will then be called upon to perform tasks. Figure seven will be asked to set the topic of the conversation, in consultation with figure eight. It is important this will be a statement they are invested in, and not a question, to make the desired sustained focus possible. Figures four, five, and six will be invited to adjust the space as needed. In Weimar, that resulted in lowering window shades. The facilitator then sets a time for the conversation, usually thirty minutes. Next, figures ten to eighteen are asked to steward their statements by enacting them if they feel that the ensuing conversation may benefit from it. As an invitation to be playful, the facilitator then asks figure one to ceremonially start the conversation. The clock starts when figure nine makes the first remark. Upon ending the conversation, the facilitator asks figure eighteen if they have noted anything fresh, and number sixteen if they noted anything beneficial. This tends to lead into a broader, reflexive exchange and assessment of the process. In Weimar, much of the reflection centred on methodological concerns about embodied and propositional knowledge, mirroring several of the experiences that had arisen while making *Micro-Practices for a New Gentleness.*

Guattari is interested in facilitating 'access to the real' through metamodelization, circumventing habitual signification (Watson 2009: 17). The *Micro-Practices for a New Gentleness* conversations hinge on the group maintaining a focus on the selected topic through multiple, self-selected modalities. If that is possible, and it mostly is, the experience is one of warmth, presence, and sincere exploration, while the limited time and assigned actions keep stakes low. Such an embodied, generous, and gentle experience is what a good, practice-based studio critique can yield for its contributors. Facilitation mediates risks associated with being sensitized to structure, communally experiencing epistemic diversity as one's own, occluded premises emerge into view. Easing into trust, facilitating can make taking such risks not just palatable, but fruitful, a step towards expanding institutional imagination, and ultimately, action.

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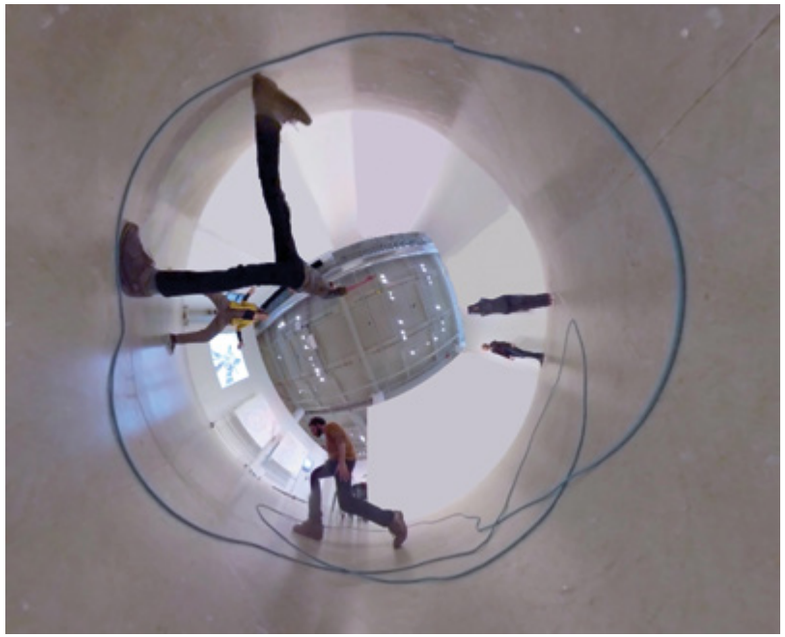
I



II

Micro-practices for a New Gentleness

A Diagrammatic Instrument by Performative Diagrammatics Lab

Premises	Rules	Techniques
1. This is an event *Gesture:* *Snow Angel*	**2.** Commit to participating *Gesture:* *Loose, crossed knees*	**3.** Resolving to be alert and active *Gesture:* Forward bend
4. The setting is meaningful *Gesture:* *Arms forward*	**5.** Use space and time deliberately *Gesture:* Lower arms palm down	**6.** Positioning things and people *Gesture:* Planting motion
7. At the center is a proposition *Gesture:* *Mountain*	**8.** Take the proposition at face value *Gesture:* Broad stance	**9.** Examining the proposition *Gesture:* Arm up arm down
10. All bring own ways of knowing and doing *Gesture:* Hip leads	**11.** Remember that inputs reflect ways of knowing and doing *Gesture:* Hands on hips	**12.** Contributing mindfully and listening generously *Gesture:* Turn back
13. Relationships are at play *Gesture:* *Line dancing*	**14.** Navigate relationships *Gesture:* Shoulder leads	**15.** Giving, taking and holding space *Gesture:* Legs wide
16. Done well, this benefits all *Gesture:* *Tumble*	**17.** Permit emergence *Gesture:* Looking up	**18.** Taking note of anything fresh *Gesture:* Hand on center
Adelheid Mers with Ben Zucker, Christine Shallenberg, Daniel Quiroz, Doreen Chan, Lenny Moore, Noël Jones, Yujie Shangguan, and others.		

III

I Adelheid Mers, *Micro-Practices for a New Gentleness,* 2 July 2022, workshop (workshop setting and participants), Bauhaus-Universität Weimar

II Adelheid Mers, *Micro-Practices for a New Gentleness,* 12 October 2019, co-creating session (viewing a 360 degree recording using the popular 'tiny planet' effect, co-creators of the workshop's *Diagrammatic Instrument* appear like beads on a trefoil paracord), Galleries of the School of the Art Institute of Chicago

III Adelheid Mers, *Micro-Practices for a New Gentleness,* December 2019 (the matrix listing each figure's action and the name of the associated positions was devised as part of the workshop materials)

Sandoponic Gardens in Sahrawi Refugee Camps in Algeria and Helsinki Biennial 2023

Pekka Niskanen

Abstract
The gardens in the refugee camps of the Sahara are in many ways utopia, not merely an imagined or unreachable sense, but utopias that have become realities. Not only do the gardens provide a source of food for Sahrawi refugees, but they also serve as a valuable research model for horticultural practices in extreme conditions. Helsinki Sandoponic Garden, also known as 'PHOSfate', is a project by the artistic research group — 'PhoFATE', formed by Pekka Niskanen and Mohamed Sleiman Labat in 2018. The Helsinki Sandoponic Garden will be constructed on the occasion of the Helsinki Biennial during the spring and summer 2023. The 'PHOSfate' garden to be shown relates to phosphorus and its impact on the Sahrawi, but also the environmental challenges posed by climate change and sea eutrophication caused by phosphorus fertilizers. This research paper focuses on different gardens located far away from one another but united by a common innovation, combination of sand and water.

Keywords: Sahrawis, refugee camps, sandoponic garden, Baltic Sea, phosphorus, Helsinki Biennial 2023

Introduction
This article highlights how these community and family gardens act as sites of resistance and resilience. Over the course of the research, I became familiar with several family gardens in the refugee camps in the Algerian Sahara, as well as community gardens in Rome, Paris, and Helsinki. Gardens have sometimes been framed in theoretical discourse as either utopias or heterotopias. Foucault theorized that gardens can be considered 'crisis heterotopias', a category he also extends to psychiatric hospitals, nursing homes, and prisons. Heterotopias are 'other places' in relation to normative cultural places in a given society. Heterotopias have a relationship with all other places inside a particular culture. Gardens as heterotopias, can be spaces of both imagination and action. (Foucault 1997: 332–34). Sahrawi

refugee camps and their gardens in the South-western part of Algerian Sahara can also be understood in terms of a crisis heterotopia, as the Sahrawis population enclosed within the refugee camps do not have the right to go outside of the camps, nor can they return without specific permissions.

The gardens in the refugee camps in the Sahara are in many ways utopias — not merely in the speculative sense, they are utopias that have become reality. These gardens are political statements about the strength, resistance and resilience of a community in a geographical place in which it is presumed that there is an inevitable lack of resources and unavoidable marginalization. Not only do the gardens generate a source of food for Sahrawi refugees, but they also function as an important research model of horticultural practices in extreme conditions. They are poetical places where the Sahrawis' oral knowledge of the Sahara and its climate conditions are evident and pronounced. This collective knowledge demonstrably affects the design and practices of the gardens. Mohamed Sleiman Labat's film *Desert PhosFATE* (2023) brings to the fore aspects of the Sahrawi context, through storytelling that centers around the family gardens.

I will explore the connections between the Sahrawi gardens in the refugee camps in the Sahara with the Baltic Sea when I discuss the Helsinki Sandoponic Garden, called 'PHOSfate'. It is a project by the artistic research group PhosFATE formed by Pekka Niskanen and Mohamed Sleiman Labat in 2018. The Sandoponic Garden will be built for the Helsinki Biennial during the spring and summer 2023. The 'PHOSfate' garden presented at the biennial addresses the topic of phosphorus and its impact on the Sahrawi, but also environmental challenges, in the form of climate change and sea eutrophication caused by phosphorus fertilizers. Phosphate mining is a principal factor behind the Sahrawi people's loss of their nomadic way of life, in addition phosphate mining has reshaped the Baltic Sea ecosystem. The fertilizers made of phosphate rock extracted in the Western Sahara end up in the Baltic Sea.

This research text focuses on gardens that are geographically distant, but which are united by a common gardening innovation, a combination of sand and water. I will move between the two in my reading, with an approach that emphasizes the consequences of climate change, and the adaptation to it, as well as ecological and environmental resistance. I will describe the various manifestations of ecological and environmental resistance that arise when the established notions of ecological and environmental justice within a community or society are disrupted and confronted. The primary place of the resistance in these gardens is not just through art, but also takes place on an environmental and horticultural level as well. When focusing on the importance of gardens, I will engage with some of the discourses around environmental justice and ecological justice.

I will explore how the practices of various discourses and disciplines can alter the perception of gardens, transforming them from mere sites of rational plant cultivation into something more nuanced and multifaceted. Instead, I suggest that the gardens in Sahrawi refugee camps and the one featured in the Helsinki Biennial embody a multi-dimensional approach, integrating various levels of action and contemplation, and a commitment to acknowledging injustices, in a method that embraces poetics. What

constitutes wrongdoing can be related to unrecognized identity, or to ecological and environmental damage. In response to the reality of structural violence, environmental and ecological violence, the gardens become a crucial site of counter resistance. As shown in this case, gardens have both the potential to produce and reposition identities and social subjects.

Environmental Justice and Ecological Justice

Environmental justice as a discourse focuses especially on certain communities that suffer from poverty, misrecognition, and marginalization. They might be indigenous communities, communities of color, or those dealing with the varied effects resulting from colonial regimes. It is typical that these communities have disproportionately faced environmental injustice, and less environmental protections. In environmental justice discourses, the focus is predominantly on the consequences of environmental politics and changes to human communities. This is almost the polar opposite to the discursive practices of ecological justice in which the central concern is for the natural world with or without human presence. (Schlosberg 2007: 4–6)

I don't wish to stress here the separation of these two different approaches to justice and injustice. Instead, I'm interested in exploring their interconnectedness and how these justices are actually linked together as part of a broader more inclusive discourse. Notions of justice regulate how we define social and economic equality and inequality, based on their respective politics of recognition. Lack of recognition can lead to devaluation on the individual, cultural, and global level, and causes great harm to oppressed individuals and communities. (Schlosberg 2007: 13–16)

Sahrawis suffer from a lack of recognition as a minority in Algeria, Western Sahara, and in Morocco. Morocco succeeded in denying the Sahrawis' the right to the Western Sahara after they conquered the area and its natural resources 1975. Morocco took over the region after Spain gave up its colony (Sleiman Labat and Niskanen 2020a: 4; Sleiman Labat and Niskanen 2020b: 244). The United Nations has never accepted the occupation (UN Resolution 380 1975). The Sahrawi exile and their dislocation into refugee camps in Algeria has led to the disappearance of the Sahrawi traditional way of life. In the past, they were pastoralist nomads primarily in the Western Sahara region. Sahrawis have been stripped of their political rights and denied any proactive role in deciding the fate of the Western Sahara and its natural resources.

Misrecognition is often tied to institutional power in a manner that reproduces and constructs subordination, inequity, and disrespects identities and communities. Recognition requires conditions in which individuals and their communities are entirely free of any threats. They must have political rights as well and the freedom to practice their cultural traditions. Extreme injustice happens when a whole community is excluded from the possession of political rights and who as a result are unable to protect the natural resources in their historical area against colonial and post-colonial powers (Schlosberg 2007: 13–16). This is very much the current situation for the Sahrawis who as a group have also lost most of their traditional nomadic identity. There is no irrefutable evidence that the Sahrawis would have not just continued expanding the mining operations that were started by the Spanish colonizers in the Western Sahara. Sahrawi history doesn't have an easy answer for this dilemma.

The Sahrawi Gardens

It is possible to understand the Sahrawi hydroponic and sandoponic gardens in the Sahara refugee camps as a combination of both activism and art (*Desert PhosFATE* 2023). The extended field and practice of art and gardens means that the aesthetic level of them is just one among many. The political and social level of art and gardens emerges when different discourses affecting them are recognized. The significance of art and gardens can be seen in how they produce and affect the world. Knowledge about the existence of the Sahrawi gardens brings to the surface discourses of colonialism, post-colonialism, injustice, in addition to several other discourses which go well beyond the control or intentions of those who manage and maintain the gardens.

Sahrawi knowledge is still strongly based on oral traditions, which has transmitted and preserved the stories and events of Sahrawi history. Oral traditions highlight geographical areas and places and their poetical dimension. At the same time, desert knowledge about weather, seasons, and plants is passed on, (Sleiman Labat and Niskanen 2020a: 4) as new oral knowledge about horticulture bears fruit in the Sahrawi gardens.

I claim that art in the gardens of the Sahrawi refugee camps is related to two fundamentals aspects. The first is the new identity of the Sahrawis that the gardens are involved in producing. The second is the multisensory environment of the garden with its smells, scents, shadows, and sounds, which makes possible a poetical space for discussions and dreaming. Sahrawis have developed a new relationship with plants. The herbs and vegetables in the gardens and also the plants kept inside the houses are indications of this altered relationship. The gardens are important spaces for the oral tradition now enriched with new knowledge about Sahrawi horticulture. At the same time, this represents a shift in the identities of the Sahrawi communities living in the Sahara refugee camps.

The first small scale family gardens started to emerge in the Sahrawi refugee camps in the Hamada Desert, southwest Algeria around 2002. Ever since then, they have been increasing. The different garden models are strong expressions of resilience. They provide necessary food for the Sahrawis to survive. International aid has been ongoing since the arrival of the Sahrawi to the refugee camps 1975. (Sleiman Labat and Niskanen 2020b: 243–44)

The gardens of the refugee camps in the Sahara are indicative of the transformative and adaptive way of life of the Sahrawis. The Sahrawi gardens are based on their knowledge of living in the Sahara Desert, which is often flattened out and simplified in Western discourses as one and the same place without accounting for local differences. The Sahrawi Pastoral Nomads are forced into the limited area of refugee camps in the Algerian Sahara. The emergence of the camps and Morocco's decision to occupy most of Western Sahara have practically destroyed their former way of life. The UN resolutions against the occupation have not prevented Morocco from remaining permanently in the land once home to Sahrawi nomads.

Land use and mining in particular produce threats against indigenous peoples and their native lands. These are often considered direct attacks against indigenous cultures. Even though the Sahrawis are not strictly an

indigenous group of people, their position and identity are very close to that of indigenous peoples. The Sahrawis are refugees who have undergone a loss of their land and nomadic way of life, especially as a result of the mining industry. Phosphate rock from Western Sahara has been exported out of the country for over forty years. The Bou Craa mine in Western Sahara is one of the main sites from which Morocco extracts and exports phosphate rock to be sold outside the region (Western Sahara Resource Watch Report 2021).

The takeover of lands is always a threat to prevailing cultural practices. The destruction of the lands of the indigenous people and nomads has led to the erosion of their traditional ways of life and culture, which has sometimes been characterized as an act of genocide (Schlosberg 2007: 72). This is also happening to the Sahrawis, whose knowledge of moving in the Sahara is disappearing due to their current stationary way of life in the refugee camps. Although some of the desert knowledge benefits the Sahrawis' horticulture, it is an entirely new discourse, which simultaneously participates in the production of a new Sahrawi identity.

Sandoponic Garden

Sand surrounds the Sahrawis in huge quantities, yet it's seldom thought of as a resource for food. Sand has mostly been considered in the negative, as lifeless and useless. The Sahrawis have started to engage in organic farming and to develop new knowledge around it. The most important new garden model is the sandoponic garden, where plants grow in a controlled sand environment, designed to preserve as much water and biological nutrients in the desert as possible.

The sandoponic garden experiment is led by Saharan agricultural engineer Taleb Brahim. The experiment is based on other garden models that have been developed in the refugee camps in the Sahara during recent years, such as family gardens and hydroponic gardens (Sleiman Labat 2021b). Gardens and agricultural knowledge have significantly changed the food production of the Sahrawis. They have been dependent on international food aid since their arrival at the refugee camps in 1975. The gardens have the potential to change the diet of the Sahrawis and to help them in providing more nutritionally balanced food with vegetables and herbs. (Sleiman Labat and Niskanen 2020a: 3, 8; 2020b: 244, 261) With sandoponic gardens, they are rethinking their relationship with sand as a medium, in which they can grow plants. The sandoponic gardens provide a novel solution to the challenging situation of water scarcity and other limitations in the refugee camps. (Sleiman Labat 2021b)

Sandoponic cultivation requires water and humidity control as water dissolves very quickly in the sandy soil and evaporates when the garden is exposed to direct sunlight. A sandoponic garden can prevent these problems with the help of various control mechanisms such as the use of straw and other covering materials. The sandoponic garden has only fifty centimetres of sand on a sloped surface that does not allow the water to go through to the soil. The grains of sand should be relatively large, allowing water to flow to different parts of the garden. Excess water is collected at the lower end of the sloping surface of the garden and reused again. (Sleiman Labat 2021b)

The sandoponic garden requires the use of organic fertilization from local sources, such as manure that is made into compost together with organic kitchen waste, leftovers like vegetable peels. As they are mixed together with the ash and the manure of the animals, the green leaves of the trees and the residue of the crops this catalyzes a process of anaerobic fermentation. Compost produces nutrient solution for the gardens like compost tea. (Sleiman Labat 2021b)

So far, there are only a handful of sandoponic gardens in the Samara refugee camp in the Sahara. However, this new form of garden is a promising breakthrough, especially within the Samara camp, where the water shortage is a big problem.

The Performativity of Gardens

Not everything is possible within a certain time and place, because events and phenomena are always culturally determined and structured (Butler 2006: 42; Pulkkinen and Rossi 2006: 10). Only certain ways of obtaining food become comprehensible categories in a given nomadic culture. Gardens are not part of a mobile and perpetually changing nomadic lifestyle. Changes in the nomadic way of life often have occurred as a result of coercive forces related to colonialism. The emergence of a garden in the refugee camps of the Sahara Desert has, at first, to be understood as above all an exception, in comparison their previous way of life as refugees.

The life of the Sahrawis in the refugee camps marks the end of their nomadic pastoralism that previously remained unchanged over generations. New institutions such as schools, hospitals, and cultural centers have been established as part of the camps. Above all, the gardens are the result of the development of the Sahrawi civil society and not to be understood as directly connected to the official policy of the refugee camps. The establishment and growth of the gardens was required to underline the possibility of horticultural practice in the Sahara Desert. This practice has been repeated for more than twenty years, which is the reason why I also view the gardens in relation to ideas of performativity.

When thinking about performativity, one must take into account its counterpart — the pedagogical narrative. A form that seemingly lends itself more to more static forms, the rigidity of this kind of narrativity doesn't allow much room for the possibilities of retelling and variation as does the performative. (Huddart 2006: 108–09, 121; Bhabha 1994: 145) The pedagogical implies normativity and continuity, while the performative embraces a certain kind of restlessness, a constant movement away from what once was (Huddart 2006: 108). The phenomenon of family gardens in the Sahrawi refugee camps might productively be understood in this way, as a countermove against the pedagogical. The gardens can also be seen as performative in the sense that its development was only possible at a certain place and time, and under specific and situated conditions of the refugee camps.

In my thinking, I consider performative repetition, repeating differently, doing differently and acting differently in a certain place as a counterforce to the subjugation of individuals and groups by dominant powers. The emergence of all these 'othernesses' is also influenced and shaped by mistakes and coincidences. A stray seed landing in the wrong place in the Sahara Desert can mark the unintentional beginnings of a basil garden. Such

accidental beginnings have played a role in the past in the case of Sahrawi's Samara refugee camp in southwestern Algeria.

One of the key functions of gardens has been to act as a place of rest and recovery. They have the capacity to activate perceptions and invite multi-sensory experiences — rich with scents, colors, shapes, and textures.

Helsinki Sandoponic Garden PHOSfate

In summary, our 'PHOSfate' garden centers around the issue of phosphorus and its impact on the Sahrawi, but also environmental injustice, climate change, and the eutrophication caused by phosphorus fertilizers in the Baltic Sea. As I have outlined earlier, the Sahrawis have started to engage in practices of organic farming and are continually developing new knowledge around it. The most important innovation is the sandoponic garden, a gardening method in which plants grow in a controlled sand environment.

The aim of our 'PHOSfate' garden is to combine two geographically distinct realities, that of the struggle of the Sahrawis and the Baltic Sea. The garden on the Helsinki Island, Vallisaari, is inspired by the model developed in the Sahrawi refugee camps but takes another form entirely. It resembles the blue-green algae cells as they divide and multiply. In the Vallisaari garden, we will grow basil, coriander, carrots, potatoes, kale, and lettuce, the same plants that the Sahrawis have in their sandoponic gardens in the Sahara. Our garden will signify an artistic and ecological resistance against forgetting and marginalization.

The Sandoponic garden in Helsinki Biennial 2023 will be a place to understand the consequences of phosphate rock mining in two very distinct locations, in the refugee camps of Sahrawis in the Sahara in Southeast Algeria in the North European Baltic Sea. There is currently no in-depth understanding as to how the mining of phosphate rock has traumatized Sahrawis in the refugee camps and in the communities on the shores of the Baltic Sea.

Phosphate mining is the reason for the Sahrawis losing their nomadic way of life and it has reshaped the Baltic Sea marine ecosystem over a half century. The phosphorus fertilizer made up of the distant phosphate rock in Western Sahara has in turn found its way into the Baltic Sea as well (Western Sahara Resource Watch Report; 2020). The mined phosphate rock used for fertilizers in agriculture has increased the phosphorus fluxes to marine areas threefold (McCrackin, et al. 2018: 1107). The excessive use of processed fertilizers on farms is causing widespread eutrophication. It is most evident in the form of cyanobacteria blooms, especially in the summer (Meier et al., 2018: 3227), sometimes also perceivable as traces in the frozen sea. The algae get their nutrition from phosphate and nitrogen fertilizers. Finally, the algae die in the sea. Dead algal blooms absorb oxygen from the water and sink to the bottom (Gupta et al., 2015: 22–23, 35). This causes oxygen depletion in large areas of the Baltic Sea. Significant oxygen loss in turn leads to the death of fish and further decimation of marine life. It is most evident in the form of cyanobacteria blooms that consume oxygen (Ahtiainen et al., 2014: 9–10).

My understanding of the environment is linked not only to nature and its surroundings but also extends to perceptions of social, racial, and economic justice. In environmental justice, social and ecological views interlock.

They raise issues related to the fair distribution of natural resources, the importance of community and democratic responsibility (Schlosberg 2007: 73).

The perspective that we present in the Helsinki Biennial sandoponic garden is philosophical and political in nature, as identities related to the environment are always political questions. Our sandoponic garden brings to light the marginalized identities of the Sahrawis as well as the under-acknowledged ecological and environmental identities of the Sahara and Baltic Sea.

This text is an attempt to engage with the subjugation of the Sahrawis along with their resistance which has emerged in the form of the Sahara refugee camps family gardens. My aim is to do the same with the Helsinki sandoponic garden together with Mohamed Sleiman Labat on the island in the Baltic Sea in Helsinki Biennial 2023.

Sahrawis have their very own oral knowledge formation that Mohamed Sleiman Labat has called 'desert knowledge'. In recent years, the Sahrawi horticultural knowledge has been shaping and changing their traditional oral knowledge. The Sahrawi horticultural knowledge and practices can be thought of as the formative beginnings of a new horticultural discourse. It developed in the Sahrawi refugee camp under extreme conditions, in which the Sahrawis combined both Western garden knowledge and their own knowledge of the Sahara desert and its conditions.

In Sahrawi family gardens, discussion is an important tool to connect the gardens to the discourses of art. I argue that they have a connection with art because they manifest a resistance to power. Conversations taking place in the gardens can be classified as conversation art. Gardens have an artistic dimension in addition to their horticultural level as the gardens challenge misrecognition, subordination, inequity and bring to light the communities whose identities are being disrespected. The gardens I'm bringing up perform as they repeat differently the form and the idea of a garden. The Sahrawi gardens are sites of resistance in the face of the idea that UN food aid is the only solution for the Sahrawi refugee's nutritional needs.

The Helsinki 'PHOSfate' sandoponic garden is a promise for the future, one that attempts to light up the injustice of two different albeit interlocking realities, the Sahrawis and the Baltic Sea. This could be a meaningful place to begin a shared struggle against the neglected injustices of phosphate rock mining in Western Sahara and the subsequent harm and destruction phosphorus fertilizers have wrought to the marine ecosystem in the Baltic Sea.

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I

I Pekka Niskanen and Mohamed Sleiman Labat. *Nomadic Seeds,* experimental garden, 50 cm × 400 cm, forum box, Helsinki, Finland, 2023. Photo: Pekka Niskanen

II Pekka Niskanen, *Baltic Sea,* poster, 94 cm × 134 cm, forum box, Helsinki, Finland, 2023. Photo: Pekka Niskanen

III Pekka Niskanen, *Phosphorus fertilizers,* poster, 94 cm × 134 cm, forum box, Helsinki, Finland, 2023. Photo: Pekka Niskanen

PhosFATE. The Effect of Phosphorus on the Baltic Sea and the Saharawi people in the Hamada Desert

Baltic Sea

The human intervention in the Baltic region is reshaping THE BALTIC SEA MARINE ECOSYSTEM.

The excessive use of processed fertilizers on farms is causing blue-green algae to bloom.

THE ALGAE GET THEIR NUTRITION FROM PHOSPHATE AND NITROGEN FERTILIZERS, AND THEY DIE IN THE SEA.

This causes oxygen depletion in large areas of the bottom of the Baltic Sea.[1]

ALTHOUGH PHOSPHORUS EMISSIONS INTO THE BALTIC SEA AND THE WATERS LEADING TO IT HAVE DECREASED, EUTROPHICATION AND THE RESULTING LOSS OF OXYGEN ARE A SIGNIFICANT PROBLEM FOR THE BALTIC SEA ECOSYSTEM.[5]

PhosFATE. The Effect of Phosphorus on the Baltic Sea and the Saharawi people in the Hamada Desert

Phosphorus

fertilizers previously used on fields can leak into water bodies FOR DECADES.

THIS HAS DELAYED measures to reduce nutrient loading in lakes, rivers and coastal seas, where phosphorus is increasingly accumulating.

THE MINED PHOSPHATE ROCK USED FOR FERTILIZERS IN AGRICULTURE HAS increased the phosphorus fluxes to coastal oceans threefold.

Less than half of the PHOSPHORUS FERTILIZER APPLIED TO THE FIELD is converted into a harvested crop, AND LESS THAN A QUARTER PRODUCES FOOD FOR PEOPLE.[7]

Transitionality, Listening, and Time in Artistic Research

Thalia Raftopoulou

Abstract
Learning how to generate knowledge with artistic research is a topic that has been under significant discussion, and one that brings forth challenges to epistemological approaches in different 'fields' of knowledge. Moreover, it also challenges its reciprocal relations with the everyday. Understanding how this knowledge might be 'applied', will be discussed as a potential that resides in the process of combining methods, experimentation, field work in transition, and the sensing and interpreting of voices in their orality and materiality. This takes place within a process that is by necessity a slow and gradual one. Time and attentive listening are treated here as vital elements in their own right, and central to the field work and artistic research methodologies. This contribution stems from a specific chapter on artistic research that the artist included in her doctoral dissertation; 'Sound and Listening in the Athenian apartment Building as Artistic Practice', Ph.D, Department of Theory and Art History, Athens School of Fine Arts, 2011–2021 in Athens, Greece.

Keywords: listening, artistic research, *polykatoikia,* time, transitionality, voice

Introduction
This contribution stems from my doctoral dissertation work on listening and sound affectivities within the micro-scale of the *polykatoikia* — the Athenian apartment building [Image 01].

While thinking through sound studies, architectural theory, literature and poetry, this field work drew on lived experiences deriving from the specific conditions of being in the *polykatoikia.* The primary research concern was to focus on how we listen and perceive vibrations within the apartments, and in turn what the affects were being manifested in the space between perceiving and responding. I paid close attention to the articulations of the inhabitants during our interactions, especially in moments when they referred to minuscule sound traces, and the slightest sounds given off by any number of causes. At times, our responses to perceiving vibrations and sound implied a sense of 'being-with', of 'we-ness', or a sense of presence. Through interpreting the articulations and mapping modes of listening I focused on matters of cohabitation, within urban 'noise' and

acousmatic sounds. These were often situations that involved dealing with unwanted sounds and confrontations, as well as vulnerabilities and power dynamics interacting within states of territoriality and dominant yet elusive milieus. Specific moments that were analysed were articulations in long discussions and encounters met at thresholds, as well as, through inventive improvisational practices of tinkering and mending. The fluid boundaries between the private and public, the small ownership affects, affordances and levels of response — abilities are a few of the elements that were central to the research, pulled from specific interactions, moments and clusters of intention.

What follows is a recollection of a ten year period of research, one that intertwines instances of field work together with specific points by thinkers that have treated at length the subject of artistic research. This text will regroup specific moments from the field work and writing process, at points when, in the last years of the research, attentive listening was preferred over the practice of recording. Time was experienced as a continuum, in which it was necessary to commit to being present and grasp what is going on, while attending to the nuances of specific life stories, so as to transition thoughtfully through different research standpoints and positions. This is a body of research that is itself a dynamic work in progress that has taken on various different modes of presentation, such as multimodal lectures that combine image and sound together with narration. As it is, it might be best described as a documentary, albeit one that has yet to be filmed.

A Bundle in Transition
Throughout the making of this work 'continuity of process' in artistic research — a core idea in Ursula K. Le Guin's essay 'The Carrier Bag Theory of Fiction' — served as an essential inspiration and guide. Most important was her way of thinking of the literary story as a bottle. Le Guin was herself inspired by Virginia Woolf's thought on heroism as 'botulism', which led to her elaborating upon the idea of 'the hero as a bottle'. If we are to suppose artistic research, not art-based research or research-based art, or even research based on art, might be considered alongside and comparable to the novel in its form, then, after Le Guin's thinking, it could also be best understood not as something intrinsically framed around conflict, but rather as a bundle, a carrier, or a vessel, inherent to the continuous process of gathering elements. In her essay Le Guin writes:

> [O]ne relationship among elements in the novel may well be that of conflict, but the reduction of narrative to conflict is absurd. (I have read a how-to-write manual that said, "A story should be seen as a battle," and went on about strategies, attacks, victory, etc.) Conflict, competition, stress, struggle, etc., within the narrative conceived as carrier bag/belly/box/house/medicine bundle, may be seen as necessary elements of a whole which itself cannot be characterized either as conflict or as harmony, since its purpose is neither resolution nor stasis but continuing process.

The case study of this Athenian apartment building holds specific, real life traces that could also be said to constitute a 'bundle', although 'fiction'

as a label, perhaps fits less readily here. These 'bundles' might also be felt as 'real resonant frequencies' — to draw a connection with the work *Nothing is Real,* by composer Alvin Lucier (1990). In this sound work, a teapot, is utilised as a resonator set to respond to a melody played by an instrument beside it. For the expectant viewer it is seemingly set to re-play the same melody, but the response is generated from a speaker hidden inside the tea pot. Lucier's play on object and sound deftly reveals that being responsive does not mean to just repeat what has been heard, but to resound through ones' very specific acoustic properties. The teapot in his work sounds as if it responds with what 'it perceived' from the first melody. The inhabitants' stories are indicative of particular aspects of their reality and experiences, in a way that contributes to an accounting for specific issues of the everyday. As contributions they are also relevant to some of the specific discourses and issues raised in fields such as sound studies, sound anthropology, acoustic ecology, art practice, theory of artistic research, cultural studies, among others.

To approach from another angle, we might turn to practices that blend the boundaries between field work and artistic research. Jacques Rancière, mentioned in a panel organised in the context of the occupation and activation of *Green Park* by the Kinisi Mavili collective, in 2017, that 'today, it is not so much a matter of precariousness, but a matter of conditionality or transitionality which of course equals the concept of translation.' (Rancière 2017). This idea can be thought of in line with his earlier thinking in *The Ignorant Schoolmaster: Five Lessons in Intellectual Emancipation,* in which translation serves as a key practice. He gives the example of how it enables a teacher to teach French, a language that he did not know, to people that did not speak his language. With the help of an interpreter, he assigned his students the task of reading by themselves a bilingual edition of *Telemachus.* Within a short period of time his students were able to speak French, through observing, comparing, checking, combining, thinking, acting, mimicking, commenting, and repeating. Through their independent efforts, they were able to express their thoughts both orally and in written form. In this situation, the kind of leadership that once was the lynchpin of systems of power is now rendered unnecessary because the knowledge does not in this case originate from a single individual or source; it is evoked in the space between interested parties and enabled through deliberately energising, and thus empowering interested parties, by way of instigating specific actions. It might be said that for the 'establishment of knowledge', there can be no 'establishment of knowledge'. At least not in the traditional sense, instead what is required is a level of attentiveness from all parties involved. The following occurs while trying to understand Rancière's terms: 'conditionality and transitionality' which are to be understood as translation processes in a sociopolitical cross-cultural context. They function also as metaphors. Knowledge becomes a verb, it doesn't presuppose a common language, but a form of attentiveness and active multisensory grasping, as part of a wider translation process. Within a similar interpretative, non-ending, non-conclusive manner, the process of artistic research is able to explore potentialities, connections, new paths, and possible translations in which each moment might be understood as a continuation along a route, continually feeding it and completing it simultaneously.

In 2019, artist, anthropologist and social psychologist Elpida Rikou and artist-researcher Katerina Konstantinou, embarked on a lengthy study on 'artistic research' that is still ongoing. Their work has offered elements that were fruitful for me to consider together with the work of researchers such as Hannula, Suoranta, Vadén (Hannula, Suoranta, Vadén 2014) — the later addressing the specific 'singularity' of every work of artistic research. What Rikou and Konstantinou stressed in the conference on artistic research ('Artistic Research in Greece from 1990 to the Years of the 'Crisis', Athens 2019) is that it cannot be pinned down through generalisations and definite conclusions:

> 'There are specific reasons for which I will differ from generalisations. This is of meaning. In most research, there is a tendency in the end to generalise and give some specific data as a conclusion. I will not do that, on the one hand because it is very complicated but also because I don't want to do that, because [...] all this undertaking is based on a subtle balance between each separate artists' case and the way they themselves work and what we could deduce from the way the PhDs will be structured or the ways we could talk in general in a research like this. [...]' ('research' here refers to artistic research)
>
> (Rikou, conference proceedings, 'Artistic Research in Greece from 1990 to the Years of the Crisis'".' Athens 2019)

Whispers and Earworms, Whereto, Whereto?

Tending to the minuscule tasks of the everyday is the main standpoint of this research. As an inhabitant of Athens and having lived in the apartment since 2010, I began taking sound notes that also included observations about specific interactions with the neighbors. One standpoint was that of the Athenian resident, and another that of the neighbor. During the course of conducting this research, our family welcomed two newborn children, this made it so the research process took place while also caring for them. At the same time, I also had to manage with the autoimmune disease Hughes Syndrome, as a result, the writing process went through its own set of tribulations, regardless, the field work never stopped. However, the slowness with which this process took place made it all the more possible to grasp many of the changes in the sound field, and to notice shifts in the residents' conditions. 'Causal listening' — trying to understand the source of the sound — became intertwined with reduced listening, as well as listening in contemplation, listening in anticipation of familiar sounds, recording, listening for animals, listening to the neighbors (which in many cases I would misunderstand). Transitionality in this research meant being able to actively listen while operating from various stand points and switching between listening modes at different times. The research for the most part, engaged listening and 'sensing' positions. Through the field work, I kept pondering upon a sticky comment from the 'Ethics of Listening' (Hannula 2010):

> Obviously enough, I am not at all that interested in the technical parts of what it means to listen, like in having an audio experience. Turn up the volume or shout at the top of your lungs, if you want, I don't care. But what I do care about is what you shout and scream, whisper and whistle in the dark (Hannula 2010: 49).

It makes one wonder, thirteen years after the fact, if indeed the 'whisper and whistle in the dark' is really a song lyric at all? As I once assumed, and not and, perhaps, the condition 'in the dark' gains substantial associative weight close to the word 'whisper'. 'Listening', it seems, has to be approached as something that cannot be tied to mere sound perception alone (Panopoulos 2021). The meaning of which has been described as: 'to point the attention towards', and not to just perceive oral speech or sounds. Attentive listening applied in this research work, meant being present both in space and in relation to the inhabitants, whilst also being attentive/ mindful/ to the fact that the act of filtering out that which is deemed 'out of context' can itself be misleading. Attentive listening requires an active presence; to sense what is meant by what it is they are 'saying'. This demands an effort to grasp nuances beyond language and vocalization: to decipher the metaphors and local or personal codes, to feel the pauses and listen 'between' the sounds. This requires being present without overly fixating on 'listening' exclusively, but by allowing for a multisensory approach.

> Despite the fact that neurophysiological research on the different perceptual centers of the brain has proven to be very fruitful, the artistic and aesthetic view that considers the senses as separate does not seem to prevail today. There is even the opposite, or at least parallel, theory in favour of the 'plasticity' of the brain, according to which neuronal cells have the ability to extend their functional boundaries — in the case of the senses, this means a fluidity and plasticity from one sense to another and an aesthetics based on the blending of the senses, [...] (Zika 2007: 53).

Finally, attentive listening as a process, demanded a time commitment and sustained levels of focus, in order to remember and repeat, through repeatedly following up asking again for clarification. At the same time, through this field work I delved into mapping out the multiple entries of sound.

Going through the causal listening phase: listening to attribute the sources of sounds' — so as to, for example, know if the kids are alright or locate specific vibrations in the *polykatoikia,* interfered in a very peculiar way with the task of grasping meanings. Causal listening sometimes encouraged me to be far too literal on the one hand, misunderstanding and taking phrases too much at a surface level, or at other times excessively thorough.

The research delved into sound affectivities — how specific conditions are manifested and embodied, the entries of 'noise', 'silence', 'sound', and the affects related to the sonic experiences understood from the inhabitants' articulations. The variety of these entries suggested a wide range of acoustic, haptic, and vibratory properties. These articulations of actual affordances were on a broad continuum from welcoming sounds, to intrusive sounds and from comforting 'noise' to frustrating 'noise'.

Frequent matters were those with acousmatic sound affects — these are the sounds whose source cannot be so easily defined due to the acoustics of the space, and the materiality of the building itself, or other psychoacoustic factors as well as the potential interference of urban noise levels.

In these cases, what one might perceive while listening to a certain sound, 'somewhere from above', without knowing what actually caused it, is dependent on how one perceives, imagines, and considers one's neighbors and their possible realities. At these moments an aesthet(h)ic approach is intertwined within a nexus of such affects, inscribed in their voice, how they position themselves towards others, and what it is that is anticipated, imagined, expected, desired, recalled, or preferred. Of particular note were instances in which inhabitants expressed a 'need for noise', or 'their own noise' — a coping mechanism which can help create a sense of personal space, and make living in the *polykatoikia* possible.

It is important to underscore at this point that the voices of the inhabitants that were initially recorded contributed to an extensive archive of sound notes, along with field and domestic recordings, the sum of which aided an acoustemological approach (Feld 1996). To better understand how space was carried through sound, the recorder was placed in the centre of the living room, or sometimes right beside a ventilator or a gap somewhere in the wall. In order to feel the haptic effects of life in the *polykatoikia,* an improvised hydrophone in the bathtub was also set up. These recordings assisted in building a clearer sense of the specific qualities of the place, the variables that seemed to affect to different degrees, and filter the way inhabitants felt, perceived, and responded to one another. Recording the initial discussions with specific inhabitants helped me listen to them in real time, and to better recall and familiarise myself with their specific ways and expressions. In general, I would record mostly when I had doubts in the capacity of my own memory. However, when the time came for me to write up on issues of importance that had been shared in the course of the work, to my surprise, I recalled a great deal of it from memory, and I was not wholly reliant on sound files to do so. The voices in the recordings helped me to prepare, to be more attentive, and in the end, they resulted in me relying less and less on the recorder. The repetitive motifs of phrases like 'the walls are made of paper', 'I can listen to it as if it was dolby surround', 'there is no respect', 'it seems as if they are in the same room with me', 'I haven't talked to them about it', pointed to different levels of response abilities and to a sound field dense with occasionally intersecting yet diverse stories.

During the first four years I conducted extensive bibliographic research on sound studies as well as on the *polykatoikia.* I include here just a brief selection — on the architectural, structural, and stylistic aspect of how the *polykatoikia* was formed (Lambropoulou 2009; Marmaras 1991), its gradual conflictual development, its possible affinities with modernism, collocating discussions such as the *polykatoikia* as 'an oral agreement' (Theocharopoulou 2017) and 'a boundary setting exercise' (Woditsch 2016).

Sound Recollected, Un-Sorted, Un-Owned

In a *polykatoikia* it is common knowledge that everybody is able to hear one another, often clearly. This is usually due to the lack of soundproofing, the close proximity of the apartments, in some cases the loudness of the voices, or the perceived intrusiveness of the nearby disputes, or due to the air and vibrations that propagates them. During the period in which people were ordered to spend more time in their homes, in the pandemic of 2020, re-

sulted in approaches that foregrounded the domestic, in power relations and within the territories of the 'home'. This was evident in pandemic period research, artworks, and articles, such as the recent contributions in the *Journal of Sonic Studies* dealing with the theme 'Sound at Home 1: Territory, Materiality and the Extension of Home'. Outlining the 'sound affects' of the pandemic [Image 02] requires further examination and research.

Now, let's briefly examine four separate 'pre-pandemic' instances, an exemplary selection of specific matters of concern.

Number one: Upon moving to their newly bought, renovated apartment Velissarios and Tijana, expecting a child, found to their disappointment that they could not handle the sounds of their neighbors fighting in the adjacent apartments. After confronting them several times, reaching a sustainable solution seemed impossible. They found a way to momentarily 'relax' during the summer when the chance to leave the windows wide open enabled the ambience from the street outside to mask the sounds from the neighbors, in the end however, they eventually felt they had to sell up and relocate to another neighborhood. The subchapter for interpreting his articulations evolved initially on their feelings of inescapability and their seeming entrapment, but also in relation to their expectations about small ownership and the limits of control. Despite owning the house, they were powerless to regulate or treat the sounds residing in it. In Velissarios' privileged case relocation was a possible option; though it took three years to resolve.

Two: Argyris' apartment is one out of a hundred, of the late modernist *polykatoikia* 'I Hara' at Patisia (3-3-7 Patision and Babi Anninou Street), located in a multicultural neighborhood. The discussions we had spanned across a three year period. He dealt with extensive issues which had engaged me in an attempt to interpret his case for a full five years. His accounts included an impressive amount of acoustic experiences. One point was the fact that he could not call the police to deal with the fuss from the ground floor bar because the owner of the bar was himself a police officer. Particularly noteworthy, was his will and ability to meditate while listening to the sounds of others in a concerted attempt to ascribe to them their sources. This helped him greatly, as he said, to try to 'set aside his ego' to 'relax and accept them', since by knowing the 'need' behind each one he could 'sort out the noise'. He specifically related: 'It drives me crazy not to know what each sound is! If you know, you can sort it out in your brain somehow'. For him it was a quest for specificity; with the objective to understand what 'need' caused which sound. In his narration of the experiences, it was as if he was reciting, distancing himself, while he counted the many sources, while others were extremely troubling for him due to the fact he was unable to understand what was going on. I could sense in his words his anxiety, the aesthet(h)ic voice responding to every single sound trace perceived from within his apartment.

Three: Mrs Olga, (Figure 3) now sixty-five years old, from the ground floor in her tailoring store, located at an observatory spot and a vital multipurpose meeting point for the neighborhood, she was the first person I approached, to begin the listening work with. Before I reached out to her or any of the other neighbors I mistakenly assumed that they wouldn't be able to recall any acoustic events, or that they would do so by narrating in a

kind of Delia Derbyshire voice from the BBC radio project 'The Dreams', with fleeting sound evocations. It became apparent from early on in our talks, the centrality of her dealing with the loss of her husband. The first acoustic experience she shared with me was the reminiscence of his sounds. We still hang out and share thoughts, but this first articulation of acoustic experience left a deeply felt reminder of the personal issues, some of them urgent — that we almost always encountered with every subsequent inhabitant, while broaching the topic of personal space and the acoustic experiences that come with it.

> I can hear his sounds, still. He would get up from the bed and I knew his every move you know. He would bump into the bed, he was a bit clumsy, you know, he would bang the door in the toilet in the morning, because he would get up very early, you get it now. I even knew when he would place the keys on the door, he would call for the lift, the noise of the lift — when he would get out of the front door, I would even hear the front door — the noise of the door. You know? Some things become a habit… they won't… alright… (Mrs Olga).

This narration through Mrs Olga's mnemosonic sound affects, 'anamnesis', the 'merging of sound, perception, and memory' (Augoyard, Torgue 2005), upon her dealing with loss, contrasts the way another neighbor, Mrs Maria, talks about 'listening' in the apartment. Mrs Maria, now eighty-nine years old, grieves the loss of her husband and child. For Mrs Maria, the very act of 'listening' became unbearable, as she said 'there is nothing to listen to'. Without her loved ones she insisted that she had lost the motive to mind out for anything else, possibly ascribing in this way 'listenin' the meaning of caring. On one of my visits, she gestured towards her rubber slippers to show me that she is cautious enough not to disturb the people living below her apartment with her steps.

Four: Recurring periodical events like the sounds of sparrows nesting in the kitchen ventilator tube, regardless of our nearby presence, in their fragility and their relentless affirmation of spring's return, seem to offer almost a kind of yardstick for interpreting all other acoustic events.

This regrouping highlighted specific fragments of situations and tackled certain methodologies employed during field work, such as attentive listening and the taking of sound notes, while simultaneously attending to several other issues of concern. Among them, was that of the limits of control and ownership over sounds, the tribulations around ways of confronting the neighbors themselves as well as personal issues of dealing with loss through the reminiscence of presence in mnemo-perceptive effects. Another issue was that of dealing with too many neighbors' sounds confounded through attempts at causal listening and for its promise of soothing consequences (provided the sound can be located). It underlines the fact that in field work, artistic research has to be allowed to have a sense of time so it can attend sufficiently to the situations and better track the developing situations within specific issues. This approach offers in a nutshell situated examples of attentive listening, while keeping in mind the multiple levels of transitionality within artistic research; as an intrinsic potential of the process of translation and interpretation, and as a means to handle the

shifts both in the field and from the researchers' stand points. Lastly, by committing to a process that entails the careful sensing of voices, a level of mutual respect is synonymous with a level of attendance.

There is space created between Vanessa Theodoropoulou's approach on artistic research and Dewey's ideas on the way the thinking processes can be expanded upon. I will incorporate both their stand points to conclude on, however, Dewey's approach also raises further questions regarding what might be meant by 'good mental habits' and from where do they originate.

> Artistic research gains meaning only as a field that critiques sciences and disciplines, from which it borrows methodological tools, but always from a *dédoublement* stance, that is reflexive without functioning in terms of rationale, creating a discursive space that could be tracked not only with exhibitions or presentations but with stories, fictions, political decisions, institutional regulations, etc. (Theodoropoulou personal discussion fragment from: *Le chercheur et ses doubles,* Delacourt, Sandra, Katia Schneller, and Theodoropoulou 2015)

> Reflective thinking, in short, means judgment suspended during further inquiry; and suspense is likely to be somewhat painful. [...] the most important factor in the training of good mental habits consists in acquiring the attitude of suspended conclusion, and in mastering the various methods of searching for new materials to corroborate or to refute the first suggestions that occur. To maintain the state of doubt and to carry on systematic and protracted inquiry — these are the essentials of thinking. (Dewey 1910: 13)

In this closing summary, I would prefer to think of both the terms 'reflexive' and 'reflective thinking' as residing within the 'bundle', and as a possible working metaphor that might also be the sound affect of 'resonance'.

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I

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I Thalia Raftopoulou, *View of polykatoikias from Mount Lycabettus in Athens,* 29 July 2017, digital photograph, research archive

II Thalia Raftopoulou, *Polykatoikia with inhabitant during the pandemic,* 4 April 2020, digital photograph, research archive

III Thalia Raftopoulou, *Mrs Olga waves from her clothes alterations store in the ground floor of the polykatoikia in Metaxourgeio,* Athens, 25 June 2019, digital photograph, research archive

Attending to Procedural Authorship in Participatory Art Practice

Jessica Renfro

Abstract
Although many participatory artworks emphasize values such as equality, empowerment, and co-authorship, the realization of these agendas in the context of performance is notoriously difficult to achieve. In this paper, the ontology of participatory art is explored as an agential artform, placing emphasis on its procedures as aesthetic components that strategically structure participant agency. Likening this to digital game design, discourse from performance studies, game studies, and psychology on procedural authorship are unpacked, and several definitions and strategies for realizing distinct intersubjective agential modes are introduced. Lastly, I explore the benefits of developing an 'aesthetics of procedure' within the field of artistic research, reflecting on the societal value of participatory art as a form that explores agential modes through processes and suggests transferrable truths through an elaboration of methods of *being together.*

Keywords: participation, participatory design, procedural authorship, interdisciplinary research, agency, aesthetics

I. Introduction

Although the vast majority of participatory art tends to emphasize the importance of values such as equality, empowerment, or community, the coherent realization of these agendas in performance is notoriously difficult to achieve. This research derives from a pivot in my artistic practice in 2019 from classical music performance to participatory art. My desire to use performance to bring my community together around issues like child refugees, local hunger, and veteran-care led me to realize that the music was simply acting as a frame, while the conversations and stories being related by concert-goers, both during and after the show, were making visible the unseen elements of these issues in personal and profound ways. I wanted to more powerfully bring that into the context of the performance, to give these exchanges the attention and space they needed to cultivate

real community dialogue; and so, without yet knowing the term for it, I began to create participatory art.

Subsequently, I discovered how difficult creating these works can be, and began to reflect on some of the thorny issues artists face when they invite the public to co-create with them. Indeed, participatory art seems to persistently struggle with issues of public embarrassment, confusion, and uninformed or pressured consent that belie the values from which they derive. Most of these issues stem from the genre's reliance on the creative contributions, and therefore actions, of participants in order to function. Indeed, at the heart of participatory art lies an unpredictability that inevitably results from co-authorship with the public; a feature that is also celebrated as an exciting result of non-hierarchical exchange.

It is not the case, however, that participatory artists have no desire for creative control over the aesthetic results of their works. Kwastek points out that although from the genre's inception 'artistic strategies were designed to leave room for chance and individual creativity, [artists] still needed a structured scheme to channel the processes that would emerge' (2013: 19). I contend that many of the more generic criticisms leveled at participatory art might be addressed by developing a relevant 'aesthetics of procedure'. This would entail taking a closer look at the role of the participatory artist, not as a creator of aesthetic artifacts, but instead as a procedural author.

In attending to procedural authorship, it is important to recognize participatory art as belonging to a separate ontology from other artistic practices; one which inhabits intersubjective social procedures and relies on a temporary, willing, and strategic restriction of participant agency. Taking this into account, I assert that participatory art occupies an ontological space closer to that of video games, in that both genres can be considered agential artforms and therefore locate their aesthetics in the procedures that guide participant actions. Although distinct, particularly in their relationship with goal-orientation, abstraction, and emotional resolution, examining strategies of procedural authorship in the context of digital game design may unearth valuable insights for participatory art practitioners.

In this paper, I will explore the role of procedure and procedural authorship in participatory art through the lens of performance studies, game studies, and psychology literature. In section 1, I will explore definitions of procedure, outline its effects on both the agency and subjectivity of participants, and discuss how procedures in art notably differ from those in video games. In section 2, I will open up procedural authorship, discussing differing definitions and strategies while exploring the role of values in the design process, the importance of iterative design cycles, and the potential impact of external/institutional procedures on the reception and activation of participatory art. Lastly, I will discuss the ramifications of developing an aesthetics of procedure in artistic research, proposing how this might illuminate the use of participation as a tool for social issues in addition to increasing criticality around intersubjective procedures both in — and outside of the artworld.

II. Interpretive Performance in the Magic Circle

While 'participation' as a concept holds no intrinsic values, Bishop notes

that most participatory art is motivated by three agendas; 1.) empowering an active subject who may then determine their own social reality, 2.) ceding authorship in an egalitarian way to the participant, and 3.) inspiring a collective sense of community and responsibility. Ideally, this promotes 'a restoration of the social bond through a collective elaboration of meaning' (2006: 12). This desire to activate participants through an aesthetic encounter requires the strategic use of processes.

In this paper, the words *process* and *procedure* are used interchangeably. In the literature, performance studies tends to use *process* as a descriptor of aesthetic experiences including political engagement, conversation, and creative actions while games studies tends to speak more technically about *procedure* as a 'set of constraints that creates possibility spaces' and structures behavior (Bogost 2010: 122). Broadly speaking, procedures in participatory art occupy the following categories:

- **Facilitation:** in which the participant is invited into the piece and/or asked for consent. This may also include setting the aesthetic tone, communicating and enforcing the rules, explaining the interface, safety information, and risk, and answering any questions.
- **Rules:** which govern participant conduct, methods of engagement, and any system of scoring, penalty, or orientation towards an objective.
- **Mechanics:** which define the actions, movements, system of interaction, and interface available to participants during the experience. This may also include technologies, algorithms, or objects that serve as interlocutors.
- **Environment:** which encompasses both the terrain and the aesthetics of the immersive space, and may further contain or guide participants in both physical and psychological ways by either helping or creating obstacles.
- **Narrative:** which includes all aesthetic elements that serve to place the participant in a particular social situation, conflict, perspective, subjectivity, etc.

A 'magic circle' denotes a space of play wherein special procedures, dedicated to the sharing of a specific experience, set participants apart from everyday life. Within this circle, which could as easily be a court of justice as it could a card table, 'absolute and peculiar order reigns' (Huizinga 1949: 10). Procedures outline magic circles, and allow participants to have experiences that would otherwise not be available. In order to facilitate this, procedures in participatory art address three layers: external, mediating, and internal. The external component is the societal context that drives the real-world urgency of the piece. Upon accepting the artist's invitation, participants enter a new context where facilitation occurs. If there are mediating objects or technologies necessary for participation, they are encountered and explained in this layer. After learning what is expected during the performance and consenting to the rules, participants experience a third level, in which they have truly entered the magic circle. Here, a particular mode of agency is established by the artist, who has created a

world in which participants are encouraged to make choices that shape their own outcomes and experiences (Figure 1).

One way that participatory art differs from video games (with significant exceptions) is its reliance on intersubjective processes to build social environments. Psychologist Eugene Matusov refers to intersubjectivity as the 'coordination of individual participation in joint socio-cultural activity rather than as a relationship or correspondence of individuals' actions to each other' (1996: 26). Intersubjectivity, he argues, includes receiving common background knowledge, common grounds for engagement, and a common understanding of the outcome. He notably excludes, however, the need for participants to perform identical tasks or even agree with each other during the experience. Gareth White asserts that while intersubjective processes are integral to participation, they are not sufficient to challenge dominant social paradigms. He concludes they should also incorporate a reflective element wherein the participant can develop 'an altered relationship with one's agency', and that this becomes the meaning of the piece (2013: 138).

Reflecting on intersubjective processes empowers participants to observe themselves in a new social situation. It is unclear, however, which 'self' participants are using during these encounters. Pearce notes that in a video game, the process of deciding how one appears and acts in the game world is a performative gesture that plays with identity in an intersubjective environment (2009: 60). Tavinor (2017) adds that players, rather than reacting to the narrative content, often act in ways that explore the interactive potential of a game. They test agential boundaries in order to understand a game's meaning, and then give an 'interpretive performance' by acting in a way that reflects that meaning.

Sicart maintains that players simultaneously inhabit multiple subjectivities:

Becoming a player is the act of creating balance between fidelity to the game situation and the fact that the player as subject is only a subset of a cultural and moral being who voluntarily plays, bringing to the game a presence of culture and values that also affects the experience (2011b: 63).

Rancière echoes this, writing of the multiple subjectivities evident in participatory work. He references 'apart-togetherness', highlighting the importance of relating artistic content to personal experience. Participants 'are thus both distant spectators and active interpreters of the spectacle offered them' (2014: 13).

This interplay of interpretive performances, guided by the choices made available to participants and informed by lived experiences, seems to indicate the site of a participatory performance as a temporarily assumed mode of agency. It is neither the aesthetic context nor the participants themselves, but rather the trying-on of agential modes that comprises the aesthetic experience. In *Games: Agency as art,* Nguyen posits 'games let us codify, transmit, and store highly crystallized modes of agency. They are a library of agencies' (2020: 98). Participatory art also occupies this ontology, though perhaps with less emphasis on 'ludos' and more on the experience of embodying socially complex and collective situations (Figure 2). In both cases, agency is prescribed through a series of procedures that leave space for participants to co-author their experiences. In the next section, I will provide an overview of some different strategies of procedural author-

ship, explore how it can be approached in the creative process to express values, and account for external influences.

III. Building a Stage for Action

There is a broad array of definitions of procedural authorship due to its evolution from a descriptor of the digital procedures inscribed into computer code into an artistic design process that also considers aesthetic effects. Broadly, it is authorship over a set of rules and possibilities with which the participant interacts. Conversely, it can be viewed from the perspective of what is left unauthored; a structure within which 'gaps' appear, and participants 'fill the gaps in different ways in each fresh iteration of the work' (White 2013: 30). Murray writes, 'The procedural author creates not just a set of scenes but a world of narrative possibilities' (2016: 143), arguing that participants are not co-authors, but rather 'interactors' experiencing the thrill of agency in a narrative environment that has been cleverly cued for them by the designer. Mukherjee asserts that procedural authorship in digital games is an 'ongoing process of interaction' (2015: 150) which results in an entanglement of designer, technology, and participants. From this entanglement, authorship emerges as participants experience an 'illusion of agency'.

I assert that procedural authorship in participatory art practice includes a large range of intersubjective experiences that can be designed by an artist. This includes everything from creating structures with multiple predefined possibilities, such as interactive narratives, to more collaborative, open-ended outcomes like improvised dance. Each structure encounters the agency of participants in a unique way by offering them distinct choices to act. 'Agency is thus neither free will nor resistance, but is dynamically linked to structure' (Eichner 2014: 219), intimating that procedural authorship also entails deciding which entangling technologies, algorithms, or objects to interpolate into the agential choices of participants. Additionally, the *feeling* of agency need not necessitate the inclusion of endless choices within a piece. Ryan and Rigby link the desire to play games to participants' self-determinative needs for competence, autonomy, and relatedness, and make the claim that creating a feeling of agency is as simple as offering players the freedom to act in ways that align with their desires. This means only a single pathway is necessary, if it is the one participants wish to travel down (2011: 40).

The choices made available to participants, however, inevitably reflect an artist's unique understanding of the world, and in so doing express their values (Flanagan and Nissenbaum 2014: 3). Values are tied to deep-seated beliefs and express themselves not so much as the accomplishment of concrete goals (e.g., weight loss) as the internal motivation to perform those goal-oriented actions in the first place (e.g., good health). In creating choices, it becomes apparent that bringing procedures into alignment with values often occurs through recognizable symbolic frames. Bogost writes that procedural systems must 'entail symbol manipulation, the construction and interpretation of a symbolic system that governs human thought or action' (2010: 5) in order to act as persuasive rhetoric. Harrell (2013) goes further, writing of 'phantasms'; or how the combination of image and culturally encoded ideas (epistemic spaces) are capable

of revealing spectators' previously obscured subjective worldviews. When used as a reflective process, this is an empowering tool to reveal subconscious bias; however, it is possible that if used without awareness of what phantasms represent culturally, they have the potential to reinforce mainstream (or privileged) points of view. It is therefore important that the artist, as a procedural author, deeply understands why certain choices have been offered, and what values are expressed by providing a mode of agency that explores this. This can be revealed through iterative cycles of design, implementation, and feedback.

Without external feedback, it can be very difficult for artists to recognize values they may have imprinted in their pieces unintentionally. Additionally, participant reception may alter perceived values in surprising ways. It is likely that participants coming from different social contexts will interpret some symbols quite differently or not at all, and thus find a different set of values in their interpretation. Flanagan and Nissenbaum propose iterative design cycles to address this (2014: 75). They acknowledge that values will not be interpreted identically between participants even after rigorous testing, but assert that constraints on mechanics and narrative elements can create a plausible range of interpretation. Gareth White echoes this, coining the term 'horizon of participation' to refer to 'an evolving, individual understanding of the possibilities offered by an invitation' (2013: 165). This allows latitude for individual interpretation while meeting the 'horizon of expectation' the artist has for the piece.

Lastly, it is important to attend to external processes capable of altering a participatory performance to the extent that its meaning becomes obscured. This can be a thorny issue to navigate because artists often rely on the hosting capacity of a venue in order for their works to be exhibited at all, and these entities are frequently attempting to fit several works together as an aesthetic expression of their own. In an interdisciplinary study of the possible applications of social practice art techniques in the computer-human interaction field, Holmer et al. were surprised to discover pervasive issues with audience, intention, and expectations in the course of their ethnographic study of several participatory works (2015). They concluded that much of the problem had to do with a misalignment of expectations between artists and the institutions hosting them, and that the entanglement between the two made the issue too difficult to study without inventing entirely new institutional frames.

Understanding the layout, scope, and procedural requirements of an event is one potential way to address this, but fails to account for the difficulty artists run up against in terms of experimenting with and prototyping participatory works at scale ahead of performances that advertise a final product. The perspective of participatory art as a process (or series of processes) signifies that each performance must necessarily be a step in a piece's evolution towards the realization of an envisioned mode of agency, and recalibration and missteps are to be expected in a piece's development because surprises are a natural and desired consequence of intersubjective work. This might require new institutional frames in order to fully investigate the potential of participatory artwork as a 'library of agencies'.

To sum up, participatory art involves the temporary imposition of procedures comprised of rules, mechanics, environment and narrative, and

through them creates a specified mode of agency, that is voluntarily embodied by participants. These procedures are representative of a specific worldview, driven by values, represented symbolically, and respond to societal urgency. Iterative design cycles are necessary in order to understand participant desires, reflect on differences in reception, root out procedures that reinforce cultural bias, and develop a common frame for engagement. External procedures imposed by the hosting entity should also be factored in so as not to unwittingly subvert the intention of the artist. In contrast to this, however, it should be acknowledged that there is also great value in unexpected, expressive, or ineffective participation, and that this unpredictability is at the heart of what is exciting about participatory work. Despite the value of thinking procedurally, overreliance on procedural systems can turn participation from an intriguing agential experiment into a 'labor-like action' (Sicart 2011a) in which participants act as workers in pursuit of realizing dogmatic agendas of artists. Thus, an aspirational procedural authorship would facilitate co-authorship in a way that can act, establish limits, and still surprise.

IV. Conclusion

In *Artificial Hells: Participatory Art and the Politics of Spectatorship*, Claire Bishop laments the dearth of aesthetics in participatory art, writing, 'Without finding a more nuanced language to address the artistic status of this work, we risk discussing these practices solely [...] by focusing on demonstrable impact' (2012: 18). And indeed, it is disingenuous to place the mantle of 'social catalyst' squarely on the shoulders of participatory art when measurable outcomes are so difficult to find. To do so implies that the vast majority of artwork in this genre fails to meet the benchmark of its existence.

And yet, precisely because most participatory art strives to act as a social catalyst, critically engaging in rooting out neoliberal, colonialist, racist, ableist, etc., biases in its processes, an 'aesthetics of procedure' could illuminate the societal value of this genre. In his description aesthetics game elements, Nguyen argues:

> A game designer can use the medium of agency to get the player to perform a particular activity and attend to it. Just as a painter is framing a particular visual experience, isolating it and drawing attention to it, the game designer is framing a particular kind of practical activity by instructing the player to approach a particular practical environment from a particular motivational angle. (2020: 128)

In viewing participatory art as an agential artform, procedures come to light as aesthetic elements that operate cooperatively to direct, motivate, and reflect on a particular mode of agency. Participants find aesthetic experiences within created intersubjective environments because the choices at their disposal regarding how to engage with others have been limited, and thus framed. Procedural authorship is the technique by which this framing occurs.

Furthermore, an exploration of procedure could help address criticism that participatory art frequently fails to meet its own expectations regarding promise of experience. Alston calls out what he perceives as an unethical

gap between the idealized form of participation envisioned by the artist and the actual experiences of participants. He demonstrates that despite audiences being capable of framing their own experiences, they are often strongly encouraged to pursue this idealized experience even when it is unattainable (2016: 244). When this occurs, the artist presents the 'experience' as a type of finished product, acting at odds with the prevailing conception of participatory art as a genre that uses process as the basis of aesthetic experience (Kwastek 2013: 47). This pressure to attain an ideal experience also prioritizes the artist's interpretation above the interpretive performances of those participating, disallowing them to fully explore the potential of the procedural environment. An aesthetics of procedure would, therefore, highlight the unique ability of participatory art, as an agential artform, to suggest ways of acting and deciding together without assuming the outcome that might result.

By reflecting on what imbues a process with an aesthetic quality, it may be possible to use procedures in the same way a painter chooses a brush or a classical musician ornaments a cadence. Understanding these nuances could have applications that extend outside the artworld into the realm of public discourse. Participatory art, perhaps even more than games, can demonstrate unique ways to form intersubjective agential modes, and this can be experientially valuable to people facing intractable collective problems (Figure 3). As collective intelligence scholar Geoff Mulgan states, learning to act collectively 'is in many ways humanity's grandest challenge since there's little prospect of solving the other grand challenges of climate, health, prosperity, or war without progress in how we think and act together' (2018: 6). By understanding how procedures interact to determine our choices in the world, a greater variety of ways to activate our communities might become available, and this could help when facing difficult conversations or attempting to amplify the voices of the underrepresented or absent stakeholders in our shared future.

In the end, participatory art is an ephemeral touch on the psyches of participants. Unlike games, which can be played many times and enjoyed because of the challenge they present to a player's competency, participatory art asks participants to take action for the sake of experiencing 'being together' in an unrepeatable context. Many of these experiences could be unsettling, unrealistic, or simply removed from what one might choose in a complex real-world situation. However, because time spent in the magic circle requires the ability to operate within an illusory environment while simultaneously using the procedures it presents as a tool for insight about larger societal issues, transferrable truths can be found in many participatory artworks that would never be able to claim a tangible impact on the issues they address. In this way, they serve to catalogue a vast library of agencies, and give us room to 'try on' an inexhaustible number of ways to exist together in the world (Figure 3).

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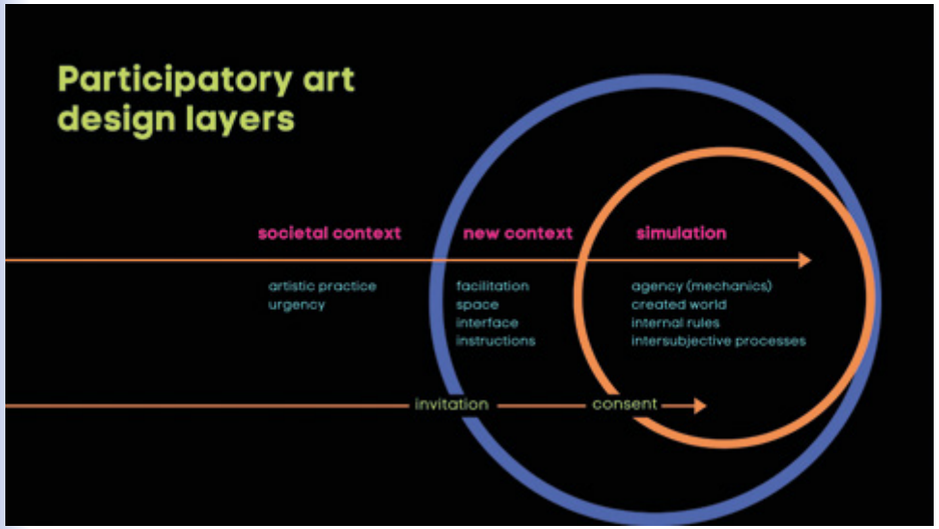

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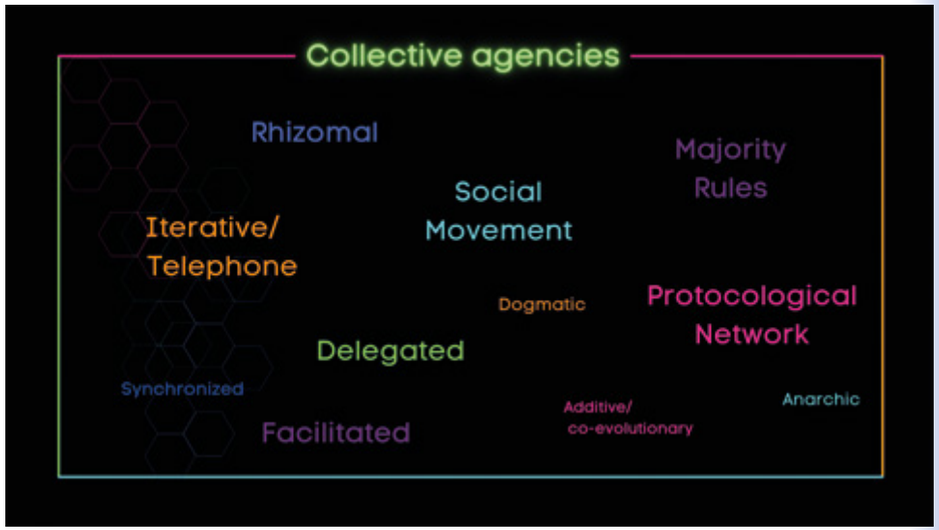


III

I Jessica Renfro, layers of procedure in participatory art

II Players negotiate while maneuvering an avatar jointly on screen. Jessica Renfro, *We Called It Earth,* May 2021, digital/live performance, ArtEZ University of the Arts, Netherlands, Fenia Kotsopoulou

III Jessica Renfro, word cloud of collective agential forms

Szikago Pakrel's Future Archeology

Gonzalo H. Rodríguez, Szilvia Ruszev, Elisabeth Brun, Kausik Ghosh, Kristin Johnsen, and Paul R. Jones

Keywords: fabulation, exquisite corpse, rhizomatic, Deleuzian, geophilosophy, digital space, future archeology, media art

Extended abstract:
Our name is Szi-Ka-Go-Pa-Kr-El and we are a corpse, a stitched-together, semi-machine archaeologist of the future who will present our exquisite findings. We are a collective and non-specific place. We are a game, a performance in digital space. We propose our project 'FUTURE ARCHAEOLOGY', a deterritorialized fabulative media collaboration which takes the form of a blended body of audio-visual artifacts. Those time-based artifacts start as some research questions, which are randomly multi-

plied with responses to the last fragments of each artifact in the logic of an exquisite corpse. The exquisite corpse was, following the narrative of European artistic Avant-Garde, invented by the surrealists of the 1920's, featuring André Breton, Jacques Prevert, and Marcel Duhamel among others. It is like an old parlor game of writing, in which the first participant only leaves a hint about its 'ending'. It also suggests a form of drawing from the hints of traces someone else left behind. In our adaption, each of us, in every round, only reveal the last frame of a two-minute short video, to which each artist, in the next turn, can attend. In this way, the collaborative work obtains a rhizomatic, stitched-together body-like structure exploring questions of the relationship between human and nature and current ethical and ecological challenges within this context. How can we attend to each other's work, in order to blend our perspectives, as to mend on the broken relationship between humans and the environment? We arrange our work around specific provocations such as natural currents, affective shapes, and ways of becoming. The work is strongly fabulative, and as an exhibition framework, we present our body of artifacts as found footage from a past, situated in an imagined future — in a 3D space, in a performance. At the same time, FUTURE ARCHAEOLOGY is a collective act of figuration that can be related in many ways to Deleuzian 'geophilosophy', where the figure of Szikago

Pakrel is created by digging and discovering things from the past, the present and the future. Linear time is a paradox here, as the term ‘future archaeology’ suggests: the origin, the Greek ‘Arche’, is a past that lies in the future. This paradox is immanent to a movement of re-situating. It allows you to immerse yourself, wander around, discover things, and make poetic associations. Or simply place yourself and your thoughts alongside the thoughts of others. This is the game. We and you are the archaeologist, the archaeological site, and the act of digging and discovering. We and you are Szikago Pakrel.

Szikago Pakrel, *Future Archeology,* 2 June 2023, screenshot, 3543 × 1766 pixels, from online show ‘How to become a posthuman?’, Elisabeth Brun, Szilvia Ruszev, Paul R. Jones, Kausik Gosh, Kristin Johnsen, Gonzalo H. Rodríguez; https://newart.city/show/howtobecomeaposthuman-szikago-pakrel [Accessed April 17 2023]

Pre-Hispanic Numerical Systems in New Media Musical Design

Edgar Omar Rojas Ruiz

Abstract
To speak of the Aztecs and the Mayans is to invoke two of the most important civilizations in history. Their cultural and scientific legacies have been the subject of numerous studies and speculations in the modern world. The following research is another addition, albeit one that opens up the possibility of a different form of translation, a musical one.

The Mayans were able to develop an effective and highly precise numerical system based on the number twenty, together with a complex system of calendars constructed along astronomical calculations and bio-cycles; which were the basis for the later development of the Aztec numerical system and the 'Stone of the Sun', also known as the 'Aztec Calendar', which is a summary of the different peoples that have inhabited the planet.

For over a decade I have been working on the design of systems and tools for music composition based on Mayan and Aztec numerical systems, which I have successfully used to write music for different kinds of ensembles and media over the years. Currently, this system design has been taken to the next level in tandem with the Janacek Academy of Music and Performing Arts – JAMU, as part of postdoctoral research focusing on the development of software and new technologies that promise to open the possibility of usage and exploration of these tools to different artists around the world.

In this presentation, I will outline the basics of both pre-Hispanic numerical and calendrical systems, and their possible applications and uses in music that I have found in them. For the most part, I will outline the wide range of possibilities for the eventual end-users of these new technologies once the research is fully developed.

Keywords: Mayan numbers, Mayan calendars, Tzolkin, Haab, music software, music, math

1. Introduction
The COVID-19 pandemic has been a very complex challenge for so many artists all around the world. We had to learn and adapt to new forms of expression, new ways to design our art, to conceive it, to create it, and most challenging of all, to show it to an audience that was not always emotionally open to receiving it. As concerts, conferences, art exhibitions, plays, and even some festivals started to move to an online environment, the usage of new technologies was widely adopted by default among the performing arts, even in territories where it was not used at all.

In my particular case, I had the chance to join several online festivals hosted in different parts of the world during the years 2020 and 2022, in my capacity as a composer, I participated in round tables and conferences, with their potential for dialogue and connection, a heightened sense of exchange that the pandemic and brought into focus. This gave me the opportunity to work together with other artists who have specialized in new technologies, inspiring me to write more music with electronics than I had ever done before. By the end of the year 2021, I re-opened the possibility to work on the development of two music composition software based on my main bodies of research which I undertook at the Music Faculty of the Janacek Academy of Music and Performing Arts JAMU:

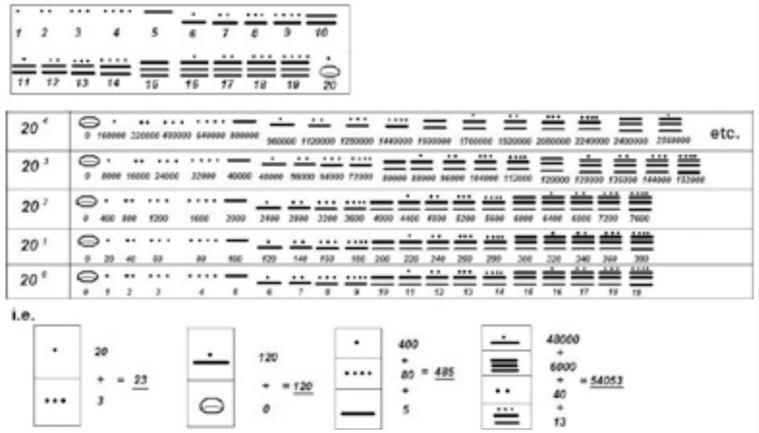
a) 'Lucas Fn' - Based on my research *Different applications of the Fibonacci and Lucas Sequences to the Music Composition.*
b) 'Haab – Jun' - Based on my research project *Mathematical operations in musical composition - with a focus on historical apparatus of the Central American region.*

As I actively work on producing new music based on the outcomes of these bodies of research, today I would like to focus my talk on 'Haab – Jun', which aims to combine elements of the pre-Columbian cultures of Middle America with the usage of new technologies.

2. A Brief Summary of the System

2.1. Organisation of the Mayan Numeric System

The 'Mayan' numeric system is based on counts of twenty, unlike the Arabic-Occidental system which is based on counts of ten. The symbols that were employed by the Mayans for the use of this system were based on the digits of the human hand. This numerical system had a distinct kind of organisation for the counting of large quantities, which were based on the use of raising the number twenty to different powers:



Edgar Omar Rojas Ruiz, *The Mayan Numbers,* 2012, digital image

Mayan numbers were carved into a large stone or stelae. The glyphs on them were marked out and divided into different levels that corresponded to the powers of twenty. As it is possible to observe in the previous table, the Mayan numbers were read from top to bottom (unlike Hindu-Arabic numbers which read from left to right); this means that the largest numbers are to be in the upper part of the stele, while the smallest occupy the lower part, the division of the levels in the stele was indicated through a series of horizontal lines.

The level of the stele where the numbers are located determines which power of twenty, they will be multiplied by, which means: In the first level they will be multiplied by one, in the second level by twenty, in the third by 400, in the fourth by 8000, and so forth.

2.2. The numerical relations of the four cardinal points according to the Mayans:

The four cardinal points were a strong determinant for the mystical, religious, and daily life in Mayan culture; these points are intimately related to the creation of man, the regions of the Mayan underworld, and the location of illnesses and their cures. For the purposes of this research, we will outline briefly each one of these cardinal points which determine the organisation of the Mayan calendars, and the predictions related to them.

According to the beliefs of this civilization, each one of these points has a very specific meaning, mentioned in the previous section of this work, the results of which are important to recapitulate:

Red: Represents the East, from where the first inhabitants of the world were migrated, according to Mayan mythology

White: Represents the West, which is considered by Mayans one of the two regions where the bad things are coming from, since the western winds were said to carry illnesses.

Blue: Represents the South. It is important to point out that according to the 'Chilam – Balam' (one of the two most important remaining Mayan books); during a ritual of human sacrifice the priest who led the ceremony was painted in this color.

Yellow: Represents the North, which is taken as another region from where the bad things are coming, based on the fact that the winds coming from the north are cold and it was feared as the mothers hid their children when the wind was blowing from this direction.

Every single one of these points is also related to a number from one to four:

1. East – Red.
2. West – White.
3. South – Blue.
4. North – Yellow.

This relationship number — cardinal point — color is also determinant for the organisation of the twenty daily symbols (or sacred glyphs) of the 'Tzolkin' (lunar calendar) and therefore, it was determinant in the prediction of facts and the destiny of a person. The organisation of the twenty daily symbols according to their correspondence with the four cardinal points can be seen in the following chart (the number of the daily symbols between brackets is related to their position from one to twenty in the Tzolkin):

1 - EAST	2 - WEST	3 - SOUTH	4 - NORTH
Imix (1)	Ik (2)	Akbal (3)	Kan (4)
Chicchan (5)	Cimi (6)	Manik (7)	Lamat (8)
Muluc (9)	Oc (10)	Chuen (11)	Eb (12)
Ben (13)	Ix (14)	Men (15)	Cib (16)
Caban (17)	Edznab (18)	Cauac (19)	Ahau (20)

Edgar Omar Rojas Ruiz, *Cardinal Points,* 2012, digital image

2.3. The Mayan Calendars

The Mayans were able to develop a calendar system based on two different counts: The 'Haab' or calendar of the sun with 365 days, and the Tzolkin, or calendar of the moon, which had 260 days. Both of these calendars were revolving simultaneously, and they synchronized at their starting point beginning every fifty-two years. This cycle is also known as 'The long count' (the number fifty-two is one of the most important in Mayan numerology, according to this civilization, the mature age of a human being was reached at the age of fifty-two).[1] Therefore, the Tzolkin was used as a kind of 'horoscope' and ritual calendar, while the Haab functioned as a civil calendar.

2.3.1. The Basic Mayan time measures

- 5 days = 1 week
- 4 weeks (20 days) = one month 'Unial'
- 260 days = 1 ritual year (related to the Tzolkin)
- 18 months + 1 'Uayeb' (short month of 5 'awful days') = 1 year 'Tun' (360 + 5 days. Related to the Haab).
- 4 years = 1 energetic cycle
- 20 Tun years = 1 'Katun'
- 52 Tun years = 1 'long count' - 20 Katunes (400 Tun years) = 1 'Baktun'

2.3.2. The Mayan Sun Calendar 'Haab'

The Haab (Sun Calendar): This calendar counts the time in which the earth is traveling relative to the sun's orbit, 365 days divided into eighteen months of twenty days (each month had four weeks of five days), and one month consisting of five days known as 'Uayeb' (the 'awful' days). The following is a brief explanation of the division of this calendar:

- 5 days = 1 week
- 4 weeks (20 days) = 1 month
- 18 months + 1 'Uayeb' (short month of 5 'awful days') = 1 year (360 + 5 days)
- 4 years = 1 energetic cycle
- 13 Energetic cycles (52 years) = 1 'long count' or the period that takes to the Haab (Sun Calendar) to coincide with the Tzolkin (Lunar calendar). One-hundred long counts (5200 years) = 1 sun. In the Mayan culture 'one sun' is the period of life of humankind before it will be destroyed in order to make way for the arrival of a new one.

1 The term 'long count' results in an ambiguous perception of the time, since it relates to the cycle in which both calendars coincide (every fifty-two years), whilst it also relates to the non-periodical counting system designed by the Mayans. To distinguish the difference between the two different meanings of these terms, we will use the terms 'long count' and 'count of counts'.

Below is an analysis of the Haab, which will lay the ground for a better understanding of the structure of the calendar:

1–19: The nineteen sacred signs of the calendar, which represent the nineteen months of the Haab (twenty days for each one, with the exception of the Uayeb which has five).

Edgar Omar Rojas Ruiz, *The Mayan Haab,* November 2022, pencil drawing

'Uniales' (months) of the calendar:

1. Pop	6. Xul	11. Zac	16. Pax
2. Uo	7. Yaxkin	12. Ceh	17. Kayab
3. Zip	8. Mol	13. Mac	18. Cumku
4. Zotz'	9. Ch'en	14. Kankin	19. Uayeb
5. Zec	10. Yax	15. Muan	

20: Seal of the calendar.

Edgar Omar Rojas Ruiz, *Haab Months,* 2012, digital image

2.3.3. The Mayan Sun Calendar Tzolkin

The Mayan lunar calendar Tzolkin. In the Mayan etymology the word Tzolkin comes from the addition of two words 'Tzol' (account) and 'Kin'(day). Probably the most important difference between the Tzolkin in comparison with the Haab is that the lunar calendar counts 260 days, which is divided into twenty sacred signs or archetypes (horizontal view) that represents the water stream that sustains our lives, and thirteen 'Empires' (vertical view) which symbolize the daylight. The multiplication of these two views results in a matrix of 260 days. A very basic outline of the organisation of the Tzolkin could be described as follows:

- The calendar is divided into two main axes: a) Vertical with thirteen empires, and b) Horizontal with twenty sacred signs.
- Cycles of thirteen days are repeated horizontally twenty times, giving as a result a matrix of 260 days.
- The twenty signs of the horizontal axis of the matrix are organised in groups of four serial colors (one per each sign) which are red, white, blue, and yellow; when we divide the twenty sacred signs into rows of four colours, the result will be a new organisation of five quadrants in the calendar.
- According to the Mayan calculations, among the 260 days of the Tzolkin are fifty-two which come with a special charge of energy from the universe, originating mainly from the sun, the moon, Mars, and Venus; The organisation of these fifty-two days in the linear view of the Tzolkin brings us to acknowledge some compelling symmetrical details, one of the most noteworthy is the existence of the so-called 'Mystical band'. This is located in the middle of the matrix and contains devices for numerical organisation.

Graphic view of the Tzolkin

Fifty-two days of special energetic charge. Mystical Band

Edgar Omar Rojas Ruiz, *Total Mayan Row*, 2012, digital image

2.4. Some Possible Applications of the Mayan Numerical System in Musical Compositions

2.4.1. The Total Mayan Row and its Hidden Row

There are a few numbers that are perceived as having a special mystical significance in the perception of the world, astrology, and different natural processes and in the existence of the Mayan civilization; if we take these mystical numbers, and give them the form of a numerical row, it can be demonstrated as follows:

0, 1, 4, 5, 13, 18, 19, 20, 52, 260, 365

For practical reasons of functionality and comprehension, from this point on we will refer to this specific group of numbers as 'The total Mayan row'. A basic analysis of the numerical intervals which exist between the values of this row, or 'Hidden Row' might be roughly outlined as follows:

0	1	4	5	13	18	19	20	52	260	365

1	3	1	8	1	1	1	32	208	105

Numerical values of the Total Mayan Row
Numerical intervals between the values of the Total Mayan Row

Edgar Omar Rojas Ruiz, *Total Mayan Row*, 2012, digital image

2.4.2. The Basic Mayan Row

A variant in the use of the total Mayan row consists in reducing it to the most important values according to their mystical meaning in the Mayan perspective; the result of this procedure could be described as 'The basic Mayan row'. The numbers which were taken in order to make this reduction, together with its hidden row would be the following:

0	1	4	5	13	20

1	3	1	8	7

Numerical values of the total Mayan row
Numerical intervals between the values of the Total Mayan Row

Edgar Omar Rojas Ruiz, *Basic Mayan Row*, 2012, digital image

2.4.3. Translation of the Basic Mayan Row into tones:

In order to develop a primary use of these numerical devices in musical composition, it is possible to convert the values of the hidden row generated by the basic Mayan row into musical intervals. This can be done with the use of the rate of conversion: '1 = one semitone' as a unitary value, the translation of this Hidden Row into musical intervals would go as follows:

2m	3m	2m	6m	5P

*** 2m = Minor Second, 3m = Minor third, 5P = Perfect fifth, 6m = Minor sixth**

Edgar Omar Rojas Ruiz, *Basic Mayan Row Translate 1,* 2012, digital image

This row of intervals can be very helpful in order to get musical devices from the Basic Mayan Row; a very simple way to achieve the first musical results from this row, would be is by generating a group of notes from these intervals, which taking C as a 'base note' or 'point zero' which will give us as a result in a a six notes row, that up to this point we will define we might loosely refer to as 'The Mayan Hexachord'. It is important to point out that the Mayan Hexachord has twelve possible transpositions, which are generated over each value of a long the chromatic scale:

C	Db	E	F	Db	Ab

2m	3m	2m	6m	5P

Notes of the Mayan Hexachord
Musical intervals generated by the Hidden Row of the Basic Mayan Row

Edgar Omar Rojas Ruiz, *Basic Mayan Row Translate 2,* 2012, digital image

2.4.4. Extension of the Mayan Hexachord

There are several possibilities for the extension of the Mayan Hexachord, in this case, I would like to focus on one of them, which is 'The extension through parallel symmetrical axis in two dimensions' and from which other important tools can be generated. This procedure is based on the symmetrical location of the second and fourth notes (symmetrical axis) of the Basic Mayan Hexachord, which is shown in the following example taking C as a base note of the hexachord, together with the location of this axis in the numerical and interval structure of the hexachord:

Basic Mayan Hexachord (taking 'C' as the base note):

C	Db	E	F	Db	Ab

Base note or departure point of the Basic Mayan Hexachord
The second and forth notes of the chord are symmetrically located

Numerical structure and parallel symmetrical axis included in the structure of the Basic Mayan Hexachord:

1	X	3	1	8	Y	7

Melodic Structure and parallel symmetrical axis included in the structure of the Mayan Hexachord:

2m	X	3m	2m	6m	Y	5P

Symetrical Axis
Central interval

Edgar Omar Rojas Ruiz, *Mayan Hexachord 1,* 2012, digital image

In order to develop this extension, it will be necessary to read the intervals of the hexachord from each one of the symmetrical axes to its opposite extreme; in the case of 'X' the intervals will be read forward (ascendant/ positive intervals), while in the case of 'Y' they will be read backward (descendent/ negative intervals). It is worth mentioning that to get a real extension of the hexachord it will be necessary to switch the direction and the quality of the intervals which are read in this process as it is shown in the following diagrams:

Extensions of the axis 'X' (using the rate of conversion 1 = one semitone):

-7	-8	-1	-3	X

-5P	-6m	-2m	-3m	X

Extensions of the axis 'Y' (using the rate of conversion 1 = one semitone):

Y	8	1	3	1

Y	6m	2m	3m	2m

Edgar Omar Rojas Ruiz, *Mayan Hexachord 2,* 2012, digital image

These new extensions will be vertically added to the structure of the hexachord, and placed over or under their respective symmetrical axes, giving us a new possibility of an extended Mayan Hexachord in two dimensions. Due to the fact that the extension of the axis X is made by descendant intervals (-), this will be placed below this axis, while the extension of the axis Y which is made by ascendant intervals (+) will be placed above.

2.4.5. Direct Translation of the Tzolkin (Mayan Moon Calendar) into Pitches

There are manifold further possibilities for the extension and translation of Mayan rows into pitches, harmonic devices, rhythmical patterns, and ostinatos, which are not possible to touch on here within the constraints of this text; nevertheless, what cannot go without some mentions are the possibilities of compositional translations of the Tzolkin.

Probably one of the most interesting possibilities is the so-called 'direct translation' procedure of the Tzolkin to the twelve notes equal-tempered system, and what can be done through the use of the rate of conversion 1/13 = C, 2/14 = Db, 3/15 = D, 4/16 = Eb, etc. and limited numerical counting 12/24. This simple process of translating the calendar can be viewed as follows:

1	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#
2	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C
3	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G
4	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db
5	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab
6	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D
7	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A
8	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb
9	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb
10	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E
11	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B
12	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F
13	F#	G	Ab	A	Bb	B	C	C	Db	D	Eb	E	F	F#	G	Ab	A	Bb	B	C
	IMIX	IK	AKBAL	KAN	CHICHAN	CIMI	MANIK	LAMAT	MOLUC	OC	CHUEN	EB	BEN	IX	MEN	CIB	CABAN	ETENAB	CAVAC	AHAU

Edgar Omar Rojas Ruiz, *Haab to Pitches*, 2012, digital image

3. Development of the Software 'Haab – Jun'

The name of this software is based on the combination of two Mayan words: *Haab* which is the name of the solar calendar and *Jun* which means one; I have chosen this word combination because it is easy to pronounce, bearing in mind continuity in its versions once this has been developed.

The tools of this program will comprise different generators of harmony, rhythmic patterns, melodic material, ostinati, and structural schemes, which are based on the Mayan numbers and calendrical system. They can be used in acoustic and electroacoustic composition, according to the particular needs of the users, whatever their varied aesthetic viewpoints and proficiency levels. The use of this software will not be restricted to the electronic generation of tools for composition and sound design but will be extended to the design of alternative musical instruments made of recycled materials for its primary implementation, opening up different possibilities for showcasing and promotion of the software.

Our target for the second year of work in this project (Fall 2023) is to develop algorithms that will be necessary to incorporate the basic elements outlined in this research such as Mayan rows translated into pitch, rhythm, and ostinati) for use in digital environments.

attention
can be

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A Quote to be Proofed: Moholy-Nagy's 'Neue Gestaltung in der Musik'

Karl Salzmann

Keywords: phonograph, gramophone, turntable, sound, graphic score, composition

'A quote to be proofed. Moholy-Nagy's "Neue Gestaltung in der Musik"' was both, the title and the joint practical task to be undertaken at a workshop held on Sunday, 3 July 2022. The research focus of the workshop was born out of the project 'The turntable as apparatus for artistic research,' which I have been conducting at the Artistic Research Center (ARC) at MDW – University of Music and Performing Arts in Vienna since 2021. The workshop's title related to the fact that workshop participants were invited to reinterpret parts of the historical text 'Neue Gestaltung in der Musik. Möglichkeiten des Grammophons' by László Moholy-Nagy as a starting point for practical experiments in which the turntable was used as a tool to test out suggestions for sound generation made within the text.

In 1923 Moholy-Nagy wrote the text that was to give our workshop its namesake, it explored how the gramophone could be used as an instrument to create new musical structures. He proposed, among other things, the possibility of a scribal script — which he called 'Ritzschrift-ABC' — that could be used to inscribe sound directly into the medium and thus compose it (Moholy-Nagy 1923: 104).

In order to test this with the workshop participants in an experimental laboratory setting, several previously tested tools and materials which were created during my research project — named 'Composers Tool Kit' — were brought along to the workshop. These tools were then used as a basis for further experimentation with the objective of testing Moholy-Nagy's proposals and creating sounds in the medium using inscriptive (scratching the disk) as well as additive (gluing, adding other materials) methods on the surface of blank vinyl discs. They were then played back on the turntables allowing us to immediately listen to the sounds generated by this visual and haptic process. As a group, we then tried to find out to what extent these historical assertions held up to practical scrutiny, and if so, what new possibilities for sound production emerged in this experimental setting. As we tried to write sounds on the empty disks we kept an eye out for visual structures that might feel relevant for sound production and composition. In the

course of the workshop, several sound-disks were created by the participants. The spectrum ranged through very coarse and large interventions made with tape, to delicate and finely scratched structures that were made through rubbing sandpaper onto the surface of the disks. After several attempts, it became clear which structures were more suitable for sound generation, and which were less practical. For example, it turned out that the very small and fine structures produced results that were inaudible even at the low speed of 33 rpm.

In conclusion, the disks 'designed' were visually and sonically rich, while the levels of meaning (in terms of materiality, composition, and aesthetics) of the practices adopted in the workshop could have been the subject of further discussion if there had been more time. In the final discussion it became clear that the pedagogical component of this practice, which accompanies the process of learning through these tools, was perceived to be an enriching one, in which material and form embodied sound in the most direct way.

References

Moholy-Nagy, László. 1923. 'Neue Gestaltung in der Musik. Möglichkeiten des Grammophons', *Der Sturm: Monatsschrift für Kultur und die Künste* 14, pp. 102–06 [online]. Available at: https://digi.ub.uni-heidelberg.de/diglit/sturm1923/0124 [Accessed 3 July 2023]

Karl Salzmann, *Composers Tool Kit*, 2023, Georg Petermichl

Tender Dialogues: Suspending Artistic Research Writing as Meaning-Making

Lena Séraphin and Emma Cocker

Keywords: observational writing, collective writing, collective reading, writing in public space, suspending meaning-making, writing in dialogue

'Tender Dialogues' was a three hour workshop which took place on 2 July 2022, activated within the frame of the 13th Society of Artistic Research Conference ('Mend, Blend, Attend') held at the Bauhaus-Universität Weimar.

The workshop was initiated by Emma Cocker and Lena Séraphin. The participants were: Annette Arlander, Emma Cocker, Cordula Daus, Lena Séraphin, Niina Turtola, Andy Weir, Natalia Castilllo Rincón, and Hinnerk Utermann.

The workshop aimed to assess artistic research writing as a practice of meaning-making — in which end results are suspended, in favour of open-ended collaborative thought processes. The 'Tender Dialogues' workshop was inspired

by the writings of Georges Perec and his book *An Attempt at Exhausting a Place in Paris,* a work that acknowledges the often overlooked phenomena in a Parisian square in 1974 (Perec 2010). The aim was to further develop Perec's writing experiment by collectively making a non-conclusive inventory of public space, rather than referencing the book directly. The workshop explored observational writing in urban space and it consisted of conversations, readings, and writings that challenged the reductive role of language in the service of representation. A more procedural approach disentangles writing from its singular perspectives and favours an epistemic inquiry that suspends the act of meaning-making in a way that advances open-minded dialogue.

In this 180-minute workshop, we tested writing in public space. We began with a prompt outlining the role of a sole writer by listening to singular words about phenomena in our immediate field of vision, such as birds, shadows or linden trees. From there we decided collectively on a spatial score, where the observational writing was tested beyond a reliance on sight, emphasizing corporeal perception on behalf of all senses. The third prompt continued to be based on bodily awareness, but the writers now moved and wrote simultaneously in a pattern that was collectively decided upon. This third session also involved another writing prompt — the rejection of naming and nouns, inspired by quantum

theory. Each of the three writing sessions was merged with readings and discussions that addressed the experiences of writing and the diverse textual qualities buoyed by a procedural approach. The prompts demonstrated how writing has capacities for forming affinities, and how writing can be a collective attempt, one that can attend to reflective collaboration.

Perec, Georges. 2010. *An Attempt at Exhausting a Place in Paris*, trans. by Marc Lowenthal (Cambridge, MA: Wakefield Press)

Emma Cocker and Lena Séraphin, 'Tender Dialogues Workshop', 2022, workshop initiated by Emma Cocker and Lena Séraphin, Weimar, Lena Séraphin https://www.researchcatalogue.net/view/1702066/1702067

Traversing Sonic Territories
Torben Snekkestad and Søren Kjærgaard

Keywords: sampling, experimental improvisation, critical listening, diffractive methodology, intra-action, new materialism, instrument design

What happens when musicians who are improvising on acoustic instruments sample and exchange their accumulated sound libraries? How can such a transgression of sonic territories contribute to an expanded understanding of one's own sonic identity? And could this b/lending of identities point to a more ambiguous yet vibrant field of intra-play?

Taking these questions as a starting point, *Traversing Sonic Territories* (TST) intends to challenge our notion of a 'personal sound', which is an especially widespread conception within western acoustic improvised music, and responds by investigating how a radicalized sharing of these 'personal sounds' utilizing contemporary sampling technology, can contribute to an expansion of improvisational and imaginal horizons. Individual idiomatic approaches to one's own instrument are thus provoked and put into question, as we transgress the

habitual boundaries and move towards other possibilities of action and musical imaginations.

Concretely speaking, we work from a duo of saxophone and piano (Torben Snekkestad and Søren Kjærgaard), whilst circulating the practice toward external collaborators (i.e. Marta Salogni and David Toop) in which the sharing process encompasses a wide range of approaches to audio sampling and mapping, embedding and embodying, listening and playing on each other's sonic material. This is prompted by a simple set of rules:

1.) Only the duo musicians' acoustic sounds are sampled, representing the individual musician's singular, sonic vocabulary.

2.) All sounds will originate from a raw acoustic source without applied electronic manipulation or post-production, thus representing a basic sonic territory, which renders itself flexible in the sharing process.

Extending to a point where authorship, origin and (sonic) identity is diffracted — b(l)ending the practice into an electro-acoustic field, where digital code contributes to, and disrupts the acoustic logics and architectures of the instruments.

And yet, as we touch on these boundaries, we are quickly challenged by the liminal aspects of our own musical identity, including our physical disposition, instrumental in/capacities, mimetic patterning, aesthetic preferences and other un/conscious biases.

As we engage in this boundary-crossing, further questions inevitably arise: How can we develop a critical approach to listening that enables us to hear through the cracks and breaches of these boundaries? And could we engage in this process with others towards a practice of diffractive listening — carefully listening out for insights across and through one another?

Søren Kjærgaard and Torben Snekkestad, *Traversing Sonic Territories,* Andreas Wærnes Schnell

Attend to the Tension: Recalibrating Relationships between Performer, Composer, and Score in Notated Composition Performance Practice

Márcio A. S. Steuernagel

Abstract
Music-making in the tradition of Western concert music has its own firmly established and tacitly enacted hierarchies. Many of these layers of power come with strongly perfectionist overtones, especially in notated composition. In order to explore musical imperfection in this context I composed several pieces that deployed elements of each instrument that are often considered risky, hard to control or to repeat, or deviate in performance from what the score indicates. This questions the pre-established relationships between performer, composer, and score. In this paper, I look closely at the working process in the creation of four solo pieces — written for Eric Lamb (flute), Ángela Calvo Ríos (oboe), Rahel Schweizer (harp) and Kaoko Amano (voice) — highlighting the moments of heightened tension and frustration in this fraught relationship. In doing so, I attend to the voices of the performers, all too commonly silenced in performance practice; an attitude that frees not only the performer, but also the composer, inviting other possible worlds into being.

Keywords: music, composition, performance practice, imperfection, aesthetics

The 13th SAR Conference on Artistic Research, with the attractors 'mend', 'blend', and 'attend', invites us to, among other things, 'recalibrate the gravitational pull of historical hierarchies in knowledge production.' Western concert music tradition is a field with firmly established hierarchies, laden with perfectionist values and practices. Most frequently, these act in a tacit way without ever being questioned or even acknowledged. Whose voice matters the most is as an assumption clearly set out before the work even begins. Two of the main points of power in this system are the authority of the composer, and the role of the score and notation. Perhaps because of this, recent discussions of musical imperfection have mostly focused on improvisation (Hamilton 2000; 2020; Hamilton and Pearson 2021), sidestepping these other two actors. This approach misses an opportunity to reap imperfectionist promises that thrive precisely where perfectionist values operate at their strongest: that is, in the field of notated composition.

Therefore, this is precisely the field in which I focus my investigation of musical imperfection.[1] During my Artistic Doctoral research at the University for Music and Performing Arts Graz I examined in the practice of music-making multiple forms of musical imperfection. The backbone of this research was the composition of five solo cycles and one ensemble piece, including documentation of the working sessions with the performers in video and audio, so as to generate referable data with which to further discuss the topic.[2]

In this paper, I draw attention to the tense relationship that exists between score, composer, and performer in the context of Western concert music tradition. I have selected a few examples taken from my working sessions with the performers in four of my research compositions: the cycle *five meditations on the unspeakable NAME of,* written for the soprano Kaoko Amano, the flute cycle *The Great in-Betweenness,* with Eric Lamb, the harp cycle *Études para Quijote* performed by Rahel Schweizer, and the cycle *Becoming,* for the oboist Ángela Calvo Rios. The moments I have selected show the performers struggling against the score and against the perfectionist assumptions that are deeply ingrained in performance practice. Using these moments as examples, I will, firstly, identify some of the main assumptions and notions operating in this system. The aim is to clarify our understanding of the nature of this tension and identify the actors and the roles they play. In the process of unpacking these, I will argue that these are recognisably perfectionist notions. As a counterpoint to this, I will propose alternative modes of relating to and within this system, which I will defend as an imperfectionist approach.

1 At the time of the presentation during the SAR 22 Weimar Conference (July 2022), this research had not been fully concluded, though the written dissertation had already been submitted to the artistic doctoral committee of the University of Music and Performing Arts Graz (KUG). The dissertation including this research was successfully defended on 8 October 2022, and the title of Dr. Artium bestowed. This text has therefore been adapted to reflect the current situation. As a disclaimer, I clarify that many of the examples and some of the contents explored in this paper also appear in my doctoral thesis *Playing with Imperfection: Imperfection in Music as a Fundamental Compositional and Performative Dimension* (Steuernagel 2022).

2 Due to this method, I make almost no mention of external references or bibliography. I focus exclusively on my own collected data, discussing the information it directly provides and working from first principles. As can be seen in the almost empty section of 'References', I only include one external reference in relation to which I position my own research, and my artistic doctoral dissertation that covers the whole research of which the original presentation and this paper constitute a brief selection.

The first example features the soprano Kaoko Amano. This is a working session on 'meditation: impossibly slow'. Figure 1 shows the complete score, which consists of a single line.

In this piece I ask the singer to stretch out a gradual process as much as possible. While this is not a problem for the vowels, it becomes a problem with some consonants. Accordingly, I wrote in the performance notes that trying to extend the *g* and the *k* would generate a paradoxical situation, given the plosive character of these consonants, but that she should not soften these sounds in order to extend them regardless (Steuernagel 2022, Volume 2:148). By telling the singer to 'try' to stretch the hard *g* in the middle of the word *ego,* which appears at the beginning of the piece, I am conscious that her voice will break at some point, and that the result will be nothing like the continuous line that the score suggests.

Despite these instructions, in her first reading of the piece, Kaoko softens the *g,* gradually transforming the *e* into a nasal version of the *g* by slowly closing the vocal tract with the back of her tongue, and then gently opening it once more to morph into *o.*[3]

When I insist that she should not soften the *g*, but rather accept that the tension to produce the consonant will eventually break her voice, she struggles to embrace this task. 'Video Sample 2' shows this clearly[4]: She gradually approaches the occlusion of the vocal tract, as I required. Her facial expression shows that she is struggling, trying to do something that she knows that she cannot control. Suddenly, her voice breaks, as we both knew would eventually happen. Tellingly, as soon as her voice breaks, she stops, embarrassed, and laughs. I, on the other hand, appear visibly excited by the process: in response to the break in her voice, I try to reassure her, saying 'Yeah! That's what I'm interested in.'

This situation leads us into a very revealing conversation, of particular interest is her first comment. The whole conversation deserves to be quoted at length:

> **KAOKO:** I should control my voice always, you know? As a singer. As a singer, I trained for that. [At] all time[s]. For me it was really a forbidden thing, the breaking [of the voice.]
> **ME:** Forbidden by whom? [...] Who forbids it?
> **KAOKO:** The music, and the line, and the phrase, and... the stream...
> **ME:** The music itself forbids [it] — that's your feeling?
> **KAOKO:** Yeah. Because you wrote in one way [i.e., in one linear direction], and this shows me I should go in one way. Without the break.
> **ME:** Yes and no. In one [sense], that is a fiction of the score. I know that the score shows an unbroken line.
> **KAOKO:** Yes.
> **ME:** But, do you think that that necessarily represents the result of the sound? Or is it what you should 'try' to do?
> **KAOKO:** You explained now that I should break [my voice in the middle of the line].

3 See 'Video Sample 1' at https://youtu.be/oooDIiUXAJoC.
4 See 'Video Sample 2' at https://youtu.be/ZN78hET8z1I.

> **ME:** I'm not saying that you should, intentionally, break. But I gave you a task, in which I know that it will break. Because if I tell you, you should [brake], you still want to control when it breaks. So, the thing here is control.[5]

Kaoko goes on to argue that this is a question of notation. When I ask her 'So how would you write something that I also don't know — and you don't know — when it will happen?', she suggests a first alternative notation, which can be seen in Figure 2.[6]

I reply that the most probable performance from this alternative notation would be one in which she would control the break of the single *g* in the middle of the line. She agrees. After this rebuttal, she suggests a second solution, blurring the previously straight line that connects the F quartertone sharp of the beginning of the word *ego's* to the F# sixth-tone sharp on which the word ends. This alternative notation can be seen in Figure 3.

Kaoko then sings from this alternative notation, performing a series of soft repeated *gg*'s when reaching the blur notated in the score. I am clearly not convinced, saying 'Ah! But you are doing *g-g-g-g-g* on purpose!' — to which she replies, laughing: 'Yeah! Because I am a trained singer!'.[7]

There are two fundamental issues at play here. The first, as Kaoko herself confessed, is a matter of control. 'Control', or it's negative counterpart, 'uncontrol', is a centrally acting sense of musical perfectionism. It relies on two fundamental senses: 'intendedness' and 'exactness'. Intendedness relates to what the composer, or the performer intend to happen. A third vital locus in which intendedness appears is the trace of intentions as fixed on the score, which may be of a different nature than both the intentions of the composer and of the performer (Steuernagel 2022: 81–90).

The second fundamental sense relies on the pair 'exactness/inexactness'. One of the main ways in which exactness manifests itself in common practice is in the unicity of the score. From the many ideas which occur to the composer, and from the many choices of notation for a similar idea, the composer eventually chooses one. This becomes one single score, from which the performer works, acting as an exact point of reference from which the performance inevitably deviates (Ibid. 2022: 90–96).

At the bottom of both exactness and intendedness lies the fundamental dyad 'imperfection/perfection'. In her first rendering ('Video Sample 1'), Kaoko was in perfect control of her voice, perhaps doing exactly what she intended, while simultaneously not doing what I intended, which would require her to lose control.

Evidently, there are many performative values at play here. One of Kaoko's main worries is the possibility of repeating, in the concert, what she does in our working sessions. Eric Lamb has a similar concern in our second example.

'Video Sample 6' shows our first session with the short piece 'eine Melodie' from the solo flute cycle *The Great in-Betweenness.*[8] Figure 4 shows the full score of this very short piece. We will focus on the second half, in which he must mix and balance a high G# in whistle tones with the fundamental C#.

After a first performance, I ask Eric to bring out a little more of the low C# in the second bar. After struggling briefly with this task, due to the in-

5 See 'Video Sample 3' at https://youtu.be/MEqpwGWc_SQ.
6 See 'Video Sample 4' at https://youtu.be/DK2iU0aiMq0.
7 See 'Video Sample 5' at https://youtu.be/-eMy4jASEEM.
8 See 'Video Sample 6' at https://youtu.be/A6kiK-y4qzw.

herent instability of the technique I prescribed, Eric asks me: 'Is it about getting the C# fundamental or is it about the effort to get the C# fundamental?'. I insist that at this point it is really about getting the low note, because, even though it's rare, 'when I hear it [...], it's so special'. Eric counters that 'When it happens, it's almost accidental.' To quote his answer in full, he says:

'I'm trying to figure out a way, like — when it happens, it's almost accidental. And I'm trying to understand what the body needs to do in order to make that happen consistently. Because, if it's inside of a system, that means there has to be a... stability in it, [...] it has to be a physical thing that happens, that I can reproduce. And I'm just not really sure what that thing is.'

While it seems that Kaoko is more concerned with control as a fundamental value of her performance practice, Eric is more worried about the practical issues of 'repeatability'. The contention being that the techniques are unreliable. Sometimes the performer succeeds in achieving what he intends, other times not.

The unreliability of the technique and its resistance to control visibly frustrate Eric. In the context of another étude, he summarizes this in an elegant turn of phrase, 'you are at the mercy of the delicateness of the instrument.'[9]

This phrase reveals that the actors which appeared in the discussion of 'intendedness' define it as a system that is incomplete. We identified three actors: the composer, the performer, and the score, each with its own intentions or traces of intention. Eric's comment pinpoints the missing actor: the instrument. This is, of course, a question of agency. Recognizing the instrument as an actor implies accepting the non-human agency it performs. The increased role of this non-human agency in this situation is problematic because, in common performance practice, the instrument occupies the lower rank in the system. It ought to be completely tamed, controlled, its agency submitted and aligned to the intentions of the performer, and in turn to the composers. Interestingly, the highest role in this system is not occupied by the composer, but by the score. After all, the score offers a fixed unicity and affords permanence in time, beyond the mere mortal composer, who is liable to continuously change her or his mind. A fixed score is most compatible to a perfectionist musical worldview.

The superiority of the score can be clearly seen in the next video sample, in which Rahel Schweizer plays the 'aria on the G strings' from my *Études para Quijote.*[10] Once again, this étude focuses on very high and unreliable harmonics. The score tells her what notes to look for, though it is not possible to succeed in making all notes sound every time. At each new attempt, some notes fail, albeit always differently. Despite the fact that I, the composer, am present, and that I know that this will happen, and that I reassure her that this is not a problem, her frustration in not being able to play the score 'as written' is evident.

In 'Video Sample 7', she is playing bars 22 and 23 of the étude, shown in Figure 5. Despite her best efforts, the C quarter-tone sharp which ends the arco phrase simply does not sound, the string refusing to change its pattern of vibration in order to relinquish the required harmonic. Rahel is

9 Eric makes this comment when playing the étude: diaphonic/multiphonic '[b]ut how many voices unsung?', also from *The Great in-Betweenness* (Steuernagel 2022: 106).
10 See 'Video Sample 7' at https://youtu.be/00itZphL7Qk.

evidently frustrated, even annoyed at the string. 'Sometimes it just doesn't... It's funny. Sometimes it works really well.'

In a conversation with the audience during the concert, Rahel singled out this example as the most frustrating experience in the whole working process: 'You are trained to... you see something in the score, and you have an idea of it, and really working towards [being] able to do exactly what is written there. And to accept this — that it is just not possible for you — is just... really frustrating.'[11]

It is by now evident that there is another fundamental issue at hand, which was already present in Kaoko's first example. This appeared in both the senses of intendedness and that of exactness, namely, the role of the score. Conflating 'the trace of intention as fixed on the score' with 'the unicity of the score' which is a vital aspect of 'exactness' in common musical practice, we converge on the score as one of the main actors at play.

To pursue this topic would require us to ask: what is a score? Here, I will limit myself to listing three possibilities.[12] First, the score 'records' the music. This concerns a score in its mnemonic function. In a second understanding, the score 'generates' the music. Here, we must distinguish between a properly generative function of the score, and an authoritative function of the score. In the first function, we regard a score as an entity from which the performance emerges, even if it deviates from it. In opposition, in the second, authoritative, function, the score defines also what the music is not. Hence, a performance that does not comply with the possibilities the score prescribes cannot be considered the same music. This leads us to the third and most radical ontology of all, an understanding that the score is the music.

From an imperfectionist point of view, the generative function is the most promising — and liberating. What happens when Rahel plays again the same phrase is a testimony to this: in 'Video Sample 9', when Rahel reaches the same C quarter-tone sharp at the end of the phrase, a high-pitched note emerges, as part of a multiphonic.[13] This time, while she still appears to be slightly frustrated, she is also evidently surprised, perhaps also confused and amused by the string misbehaving in unexpected ways. I clearly appreciate the results, and point this out to Rahel, saying:

It's interesting. You sound very frustrated, but this sound that happened exactly here (points to the last note of bar 22) is actually a multiphonic. [...] What I am trying to pinpoint is this: The upside of the risk we are taking is that sometimes we miss what we are looking for, but we find something [else] that is so nice! And [it's something] that would not happen if we were not in this situation.

We already knew that this technique was unreliable, and that the same results could not be repeated. But here, what happened was something utterly unpredicted. 'Unreliability', 'Unrepeatability', and 'unpredictability' represent three subcategories of the broader concept of 'uncontrol'. From these three it seems unpredictability is the one with which the performers can most easily reconcile.

Comparing some examples from Ángela Calvo Rios reaffirms this conclusion. Throughout her working sessions, Ángela frequently expressed

11 See 'Video Sample 8' at https://youtu.be/jvgX0q3k0mg.
12 For a longer exposition on this, see Chapter 5 of my doctoral dissertation (Steuernagel 2022: 336).
13 See 'Video Sample 9' at https://youtu.be/1ynkglhycgg.

her sense of frustration, in many ways. 'Video Sample 10'[14] shows a collage of moments in which she conveyed this feeling. She stresses that trying to isolate a high Db a sixth-tone flat from a fixed position in the 'iii. étude: multiphonics (quasi un corale, quasi Monteverdi)' from the solo oboe cycle *Becoming* is 'totally unreliable [...] It's not for sure it is going to sound.' But despite this unreliability, a desire for control remains: 'But I really want it to sound.', she says. 'It can sound. It sounded once'. At another moment, we discuss a musical phrase that arrives at a failing low E, played niente, found in bar 12 of the 'Aria' of *Becoming.* I explain to her that she should accept and dwell longer on this expected failure:

> **ME:** This note failed, which is exactly what was predicted here: somehow it is going to fail. But then you were very quick to [get] back [on track] and go ahead. So, you should take your time with the failing to kind of 'dwell on it'. [*Sings*]. Somehow like a phoenix, you know?
> **ÁNGELA:** So, it's okay if that happens? Because of course—
> **ME:** I wrote *diminuendo al niente!* Of course it will fail!
> **ÁNGELA:** You... you try to recompose... It's so... I'm so sorry. It's hard. It's just that—
> **ME:** You don't have to be sorry! I know it's very hard.
> **ÁNGELA:** It's the take that—
> **ME:** It's automatic! Like: 'Fail? Back!'
> **ÁNGELA:** Exactly! [...] I mean, if you are in an orchestra, you still have to [*snaps her fingers*] be quick, try to recompose yourself!
> **ME:** No. Here it's like: 'Fail? Well....just take your time, and then get back on track.'
> **ÁNGELA:** Ah, ok. [*Chuckles*].

In other moments, she says about the solo cycle that 'This is such a psychological therapy to play.' Or, more forcefully, 'And then you have to go on stage, and confront yourself, with the public, knowing that... demon, it can't! [...] And it's also confronting your ego [...]'. Finally, addressing the impossibility of playing the notes in the lowest register of the oboe in *pianississimo,* which is the main focus of the *i. étude: dynamics (summoning)* she once again vents her frustration, saying: 'I'm so sorry. It's just so hard to let go of the idea. It's tough. It's tough. I mean, that... you really want to make everything sound. It's just difficult.' There are many such interactions that could be recounted, similar to the ones mentioned.

But despite her many moments of frustration, there is one occasion in which she feels reconciled with the deviation from the score. In the final note of the first étude of the oboe cycle, she plays the very lowest *Bb* of the oboe, totally blocked by a mute. Initially this performance instruction generated no sound, or rather a mere muffled sound of breath with no discernible pitch. But through practice and investigation, Ángela increasingly started to produce a high-pitched sound, muffled yet discernible, composed of random partials of the fundamental note. In 'Video Sample 11'[15] we see her play this final sound ending a complete performance of this étude. After she finishes the music, I ask her:

14 See 'Video Sample 10' at https://youtu.be/d4O814FiGkk.
15 See 'Video Sample 11' at https://youtu.be/awZc-fTVpY8.

> **ME:** How are you feeling about the last note now?
> **ÁNGELA:** I really like it. [...]
> **ME:** Now we know that it is a situation where almost nothing sounds, but something sounds, and we totally know that we do not know what will sound, so we don't feel guilty with whatever sounds.
> **ÁNGELA:** Exactly. Every time it's just different.
> **ME:** It's just different. And we accept it.
> **ÁNGELA:** Yeah.

As we both know that we cannot know what will sound, and that it will always sound differently, unpredictability becomes the dominant hue of un-control, and we accept the score as an entity that merely organises emergent properties.

A creative practice that embraces the generative function rather than the authoritative function of the score, leads to a radically different relationship between composer, score, and performer. It shifts from the impossible unicity of exactness towards the multiplicity of emergent worlds. This is an imperfectionist approach. The tensions that exist in these relationships do not need to be erased or denied. Rather, they must be 'attended' to, or 'tended' to, as one does with plants and all living things. Perhaps in this radically transformed relationship, the imperfectionist potentials of notated musical composition, can flourish anew.

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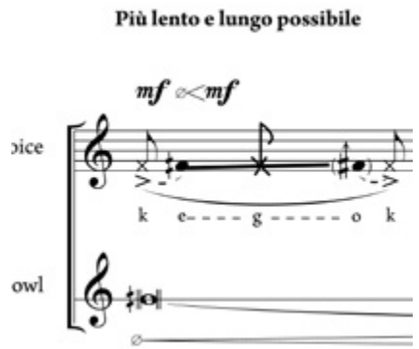
I



II

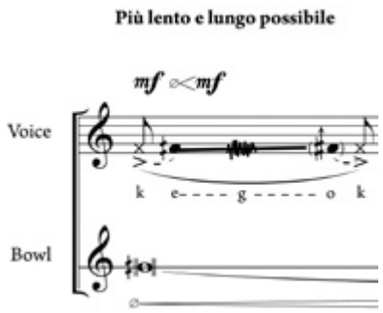
I Márcio A. S. Steuernagel, 'Meditation: impossibly slow (tense present)' from the complete score *on the unspeakable NAME of* (2021/2022)

II Márcio A. S. Steuernagel, 'Meditation: impossibly slow' as part of the complete score: *on the unspeakable NAME of* (2021/2022) — Alternative Notation One for opening word

III Márcio A. S. Steuernagel, 'Meditation: impossibly slow' *on the unspeakable NAME of* (2021/2022) — Alternative Notation Two for opening word

IV Márcio A. S. Steuernagel, 'eine Melodie' from the complete score *The Great in-Betweenness*

V Márcio A. S. Steuernagel, 'arco (aria on the G strings)' from *Études para Quijote.* Bars 20–24



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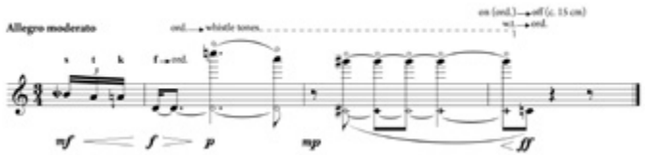

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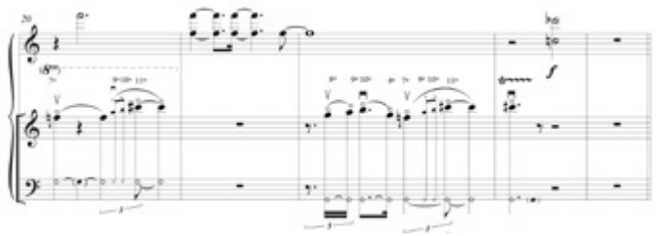

V

Filming the Spirit of a Protest

Ujjwal Kanishka Utkarsh

My PhD project 'The Revolution is Everyday' lies at the intersection of observational filmmaking and the act of protest. For me, the observational form is not geared towards objectivity but rather as a sensorial experiential approach with an intent to make the invisible, visible and sound the inaudible. This for me is a continuous work of questioning how one looks, hears, exists in this world. It is an attempt at being 'open to the world'. As Trinh T. Minh-ha puts it 'one often learns to know the world inwardly, so that the deeper we go into ourselves, the wider we go into society' (Chen 1992: 82). This for me is to create from a position of humility and to accept that 'I don't know'.

The film *Chalo Una* (*Come! Let's march to Una*) that I made as part of the PhD project is made with such an intent. The film is an invitation to be with a ten day anti-caste protest rally in Gujarat (India) in 2016. On the third anniversary of the rally, we retraced the path of the rally and went to several villages, towns, neighborhoods where there were public sessions,

protest meets, or from where the rally just passed through. Shot entirely in high speed, we were trying to compose for how we would have composed had the rally been happening right then. The ninety-four minute film which has around twenty-five shots, is structured according to the rally itself. There are bits of voices that were culled from over 150 hours of conversations with people involved in the rally in various ways. This was done to be able to observe and evoke the 'ghosts' of the rally, and also not to reduce/simplify the narrative to a singular linear narrative. With my own privileges in Indian society, of being a man from a relatively upper caste/class situation, it is also an attempt to take a position of what Tina Campt (2020) describes as a position of 'adjacency'.

The presentation 'Filming the Spirit of a Protest' was an attempt to form one more layer of this spiritual approach and extend it to the film itself. The presentation uses an unedited shot in its entirety. It was juxtaposed with readings from portions of reflective notes (of the filmmaking process) and excerpts of some conversations I had with a rally participant regarding filmmaking. The presentation invites the audience to be with the film, with the intention to invite an additional layering, of what Minh-ha refers to as 'Speaking Nearby' — 'a speaking that reflects on itself and can come very close to a subject without, however, seizing or claiming it' (Chen 1992: 87).

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Ujjwal Kanishka Utkarsh, still from the film *Chalo Una (Come! Let's March to Una)*, 2022, 94 minutes, Rencontres Internationales Paris/Berlin 2022, cinematography by Prahlad Gopakumar

or have
been
denied
citation?
We call for
radical

Pay attention to citational practices in artistic research.

Sensing the Border: Between Water and Land

Claire Waffel

Abstract
Phenomena such as the rising sea-level can feel like distant concerns for many people, and yet it is an increasingly palpable reality as the climate crisis unfolds across the planet. Given the urgency of the situation, it is important to find alternate means to narrate and make visible the complex realities of this ongoing emergency. This essay attempts to contribute in kind by conceptualizing big bodies of water — how they connect phenomena across species boundaries, highly concentrated within engineered structures of containment. Zooming in on a seemingly inconspicuous water-containment structure close to the Stettin Lagoon, the wall's materiality and structure becomes a platform to investigate and observe the different life forms that assemble on and around it, revealing lively, diverse, wide-ranging, and often unnoticed multispecies assemblages. This coastal wall transmutes into a vibrant object and agent telling both the story of the containment and transgressive movements and mutations of bodies of water.

Keywords: sea-level rise, border, multispecies, coastal defences, situated knowledge

Sea-level rise can feel like a distant concern, both in space and in time, yet it is an increasingly palpable, unevenly distributed reality. 'Sensing the Border: Between Water and Land' posits ways to make-sense of big bodies of water and how they connect phenomena over space and time, and across species boundaries by focusing on their structures of containment. These structures in the coastal landscape appear in the form of sheet pile walls, rubble mounds, and granite masonry, or reinforced concrete seawalls and bulkheads — retaining walls made from boulders. In the search for a way to make sea-level rise palpable, Timothy Morton's concept of 'hyperobjects' is a helpful one. Morton (2013: 1) describes them as being 'Massively distributed in time and space relative to humans'. Hyperobjects are, among other things, 'viscous' as well as 'non-local' and 'involve profoundly different temporalities to that of the human scale' (Morton 2013: 1). It is no wonder then, that it is so difficult to conceive of hyperobjects in general, or to observe them manifestly in a place. While many acknowledge global warming is real, the persistent challenge is that they don't quite 'sense' it. Morton speaks of the massive counterintuitive perspectival shift

required to even recognize a hyperobject, as by definition one can only glimpse a fragment of it. He writes (Ibid. 2013: 75) 'The rain gauge buried in my garden selects a small sample of this hyperobject for my inspection.'

The focus of this research was centred on an inconspicuous water-containment infrastructure in a small village on the Stettin Lagoon, along the Polish-German border. The sheet pile wall was selected specifically in order to narrate the abstract phenomena it hopes to manage and contain. Sites of coastal protection, apparently static and protective measures in the natural surroundings, are prime elements of how the cultural landscape responds to and produces the built visual sign of climate change. The challenge is to disrupt the perception of these built constructions as mere hard borders in the landscape but, rather, to reveal them as habitats that house a multitude of entanglements. By tracing these connections around species, materials, and the element of water in its varied forms, the sheet pile wall is revealed among others as porous, a multispecies habitat and ecological unit, similar to that of a lake or moor rather than a natural cultural border.

Feminist new materialisms, a field influenced, among others, by feminist science and technology studies, and the environmental humanities, are central frameworks for navigating and exploring the pivotal themes of this artistic research. It aims to 'render concepts materially through practice' (Coleman, Page, Palmer 2019: n.pag.) while paying close attention to entanglements between the researcher and research, employing methods that enact these entanglements rather than separations, invoking instead, the liveliness of matter as well as bringing the more-than-human agents to the fore (Truman 2019: 2). Starting from the tenet that matter is 'fundamentally multiple, self-organizing, dynamic and inventive, moving between nature and culture [...] bodies and environments' (Coleman, Page, Palmer 2019: n.pag.) this research aims to find ways to approach and make sense of an environment that can materially convey 'matter' in this way. It focuses on the area of feminist science studies and environmental humanities by reflecting on core concepts articulated by Donna Haraway and Stacy Alaimo.

Mönkebude, the site of this work's investigation, is a village with around eight hundred inhabitants close to the German-Polish border on the inland sea of the Stettin Lagoon. Today, its harbor is notably empty of fishing vessels, instead hosting more in the way of small and medium-sized luxury boats. As trawl netting is prohibited on the Stettin Lagoon, the boats are mostly no more than nine meters in length, with the use of gillnets and fyke nets being the most common fishing practices. Commercial fishing is a dying trade on the Baltic Sea with high maintenance costs, falling profits, hard manual labor alongside decreased fish stocks. The waters of the lagoon have become less a site of food generation for the local population, but rather one primarily centred on leisure and tourism (Stybel et. al., 2014). This development is reflected in the personal trajectory and attitudes of one of the village's fishermen, who comes from a long line of fishermen in his family. In conversation with him, it became apparent, what intimate knowledge he has of different weather conditions and fish populations and their movement from years spent on the Lagoon. However, in spite of his deep knowledge of this body of water, it did not make sea-level rise any easier for him to grasp or 'sense'. Such an example clearly illustrates the

disconnect between knowledge and people's lived experience. With the issue of sea-level rise coming to the fore, the research warranted a shift in focus away from the body of water, to its edge: the land.

Mönkebude's sheet pile wall, which is roughly 360 meters in length, looks as if it has been inscribed onto the landscape in a haphazard manner. Its irregular shape, however, is a direct consequence of land ownership, which sees it diverted along privately and publicly owned land parcels.[1] Coastal defences can at times merge seamlessly with their natural surroundings, as is the case with a dike for example, which has the same surface material as its surroundings. They can oftentimes appear daunting due to their sheer size and height. Neither applies to the sheet pile wall in Mönkebude. Although it functions as both barrier and border in the landscape, it protrudes between one and a half and two meters out of the ground making it human scale and as a result easy to climb, and in some instances look over. The human dimensions of this structure were highlighted in a previous artistic intervention, the video piece *I Cannot See the Ocean from Here.* In the video, the protagonist balances on the wall, a performance that is facilitated by the moderate height of the construction. This act opens up a new perspective on the surroundings. The title of the video piece directly references the way the wall is slightly offset from the body of water it is meant to contain. Sheet pile walls can often be found on the immediate border between water and land, sealing the land from the water and vice versa, although this is not the case in Mönkebude. Here, the wall appears to separate the village from the harbor, bearing a distance of around eighteen meters at its closest point to the water. The distance from the wall to the Lagoon waters in part obscures the close relationship between the two as well as the encroaching threat posed by the water in the present and future.

Up close, the hyperobject (sea-level rise) throws shadows onto the sheet pile wall in Mönkebude. As an often-overlooked object in the landscape, it helps articulate, record, and project current as well as anticipated water movements, the body of which it is supposed to contain. Its principal function is to protect the inhabitants against floods, an increasing concern with incremental sea level rise. However, examining predictions of how the rise in sea-levels will affect the village does not easily offer a conclusive picture of what physical form these changes will take in the future. After all, humans do not possess sensory organs for probabilities.

Projected sea-level rise is one factor that is taken into consideration and reworked into calculations by the responsible authorities — *Staatliches Landesamt für Umwelt und Natur.* This occurs every ten years and involves checking if the wall is still providing sufficient protection for the local inhabitants (Weichbrodt 2013). The villagers consulted did not draw an immediate connection between the sheet pile wall and sea-level rise. Together with the mayor of the village, the researcher tried to make sense of the flood risk maps compiled by this institution. There is a worst-case scenario for risk of flooding, which has a low probability, or in the case of an extreme event that might occur every 200 years on average. This includes the failure of coastal defences and shows up to 350 villagers at high risk in such a situation, a figure that still leaves many questions unanswered[2]:

When will sea-level rise increasingly be felt on the inland coast of the Stettin Lagoon and start to impact people's lives on a regular basis? When will rising seas no longer be perceived as an abstract phenomenon by the inhabitants, but as one clearly unfolding in the present? Will the current coastal defences of the village, the dikes and sheet pile wall, be sufficient protection, and if so for how long? Will the village be flooded on a more regular basis in the near future?

The hope is that by exploring the wall's intimate materiality, it is able to at the very least elucidate the contours of the hyperobject's shadow that is being cast back onto the wall and the surrounding landscape. We might think here of the subdued light and sudden chill that comes with a traversing cloud. The metaphor of casting and shadows brings to the fore, the direct changes in that environment, which are known to be occurring but cannot currently be predicted with precision nor seen on a daily basis.

A central technique of this research is one of attending to vastly different scales. Going in close is understood here as a physical as well as emotional approach where embodied, situated, or scientifically-mediated knowledge is able to grow into different ways of knowing the 'object', in order for it to begin to *matter more.*

Collaging and Weaving

Collaging and weaving is a technique that allows us to bring into dialogue varying scale views and different translations of the wall's materiality in the form of photographs, mapping of neighboring plant species, technical drawings, and what these in turn reveal. The goal of this technique is to dislodge the notion of the coastal wall from a hard and impermeable border in the landscape to one that is porous and encased by a multitude of entanglements. The wall is explored and represented in a way that transmutes the metal construction into a vibrant object and agent, both telling the story of the containment and the transgressive movements and mutations of the body, and flows of water that form part of the hyperobject — sea-level rise. Something that began as a cultural site, the wall, a human-drawn border in the landscape, continues to be regularly managed and maintained and yet simultaneously is inhabited by biodiverse organisms, and is in turn a site of 'natureculture'. One of the most significant consequences to considering Haraway's term and conceptual tool 'naturecultures', is that it also includes the human/non-human relation and non-human species and their agency: 'The actors are not all "us"' as Haraway (2004: 66) states.

Mapping

The mapping of the coastal defences in Mönkebude by the responsible authority for maintaining and building coastal defences, the *Staatliches Landesamt für Umwelt und Natur,* provides a disembodied vision that plays the 'god trick' of seeing everything from nowhere. In her text '*Situated Knowledges': The Science Question in Feminism and the Privilege of Partial*

1 *Vermessungs- und Geoinformationsbehörden Mecklenburg-Vorpommern, Auszug aus dem Liegenschaftskataster: Flurübersicht: Mönkebude 1* [surveying and geoinformation authorities in Mecklenburg-West Pomerania, excerpt from the real estate cadaster: flight plan Mönkebude 1] created 24 April 2023 (not published).

2 Ministerium für Landwirtschaft und Umwelt des Landes Mecklenburg-Vorpommern, Hochwassergefahrenkarten und Hochwasserrisikokarten gemäß der Richtlinie 2007/60/EG, no. 119, Hochwasserrisikokarte Hochwasser mit niedriger Wahrscheinlichkeit / Extremereignis (BHW), [Ministry of Agriculture and Environment of the State of Mecklenburg-West Pomerania, Flood hazard maps and flood risk maps according to the directive 2007/60/EG, no. 119, Flood risk map flood with low probability / extreme event (BHW)] 05.12.2019, https://www.fis-wasser-mv.de/doku/hwgk_hwrk/119.pdf, [Accessed 13 April 2023].

Perspective, Donna Haraway argues that 'feminists have stakes in a successor science project that offers a more adequate, richer, better account of a world [...]' and states that feminist objectivity is 'about limited location and situated knowledge, not about transcendence and splitting of subject and object. It allows us to become answerable for what we learn how to see.' (1988: 583). This research aims to explore a global phenomenon by way of reflections and observations on a small coastal defence site, within its immediate surroundings on the Stettin Lagoon.

The mapping of the plants on the village side of the wall discloses where different species start to appear during and after a building site construction: including field horsetail, red deadnettle, ivy speedwell, creeping cinquefoil, ground ivy, yarrow, bedstraw, mugwort, foxtail, and bittercress to name a few. It is noteworthy that the soil contains a seedbank, and when the ground is disturbed even the slightest displacement of the soil is sufficient enough to trigger the processes of germination. Therefore, what emerges here can be described as an image of the seedbank below ground, in combination with one or two other plant species that made it there by wind.[3]

A mapping of these different plants in the proximity of the sheet pile wall illustrates the initial stages of an ongoing process, that of the natural environment claiming back habitat, a process in which algae and lichen start to appear on the wall in Mönkebude. The yellow lichen (Xanthoria parietina), a dual organism and cohabiting union of fungus and algae, it is also a nitrogen-indicating plant. It exposes pollution through nitrogenous fertilizers, factory farming, and car traffic, which is responsible for the contamination of the moors, heaths, forests, as well as groundwater and leading to further eutrophication of waterbodies and large algae growth in the Baltic Sea.[4]

Zooming In

In order to understand the material agencies of bodies, substances, and environments of the sheet pile wall, this work aims to take a step closer, aided in part by technical apparatus such as cameras, enabling the reader to experience the shift in perspective. Zooming in on the structure in close-up and macro photographic images, the wall's materiality and structure become a platform through which to investigate and observe the different life forms that assemble on and around it and that are, in some cases, hindered or even sustained by the wall. This 'moving closer' towards an object and environment opens up the immediate realization of not inhabiting this environment alone, something one might be able to ignore, along with what the consequences of one's direct actions might entail for this environment, from a more distanced view.

Beings that are only observable from a very close scale, are in this way given the space to appear. There is a dizzying array of insects, as the sheet pile wall acts like a sieve against which the insects are blown by the wind. Flies are trapped by the wall and fall prey to spiders that spin their webs there. Birds, one of the species for whom the construction does not present a border, lose their feathers on it. Their excrement gets caught on the wall, serving as manure for plant species where there is an accumulation of it.

3 Herbert Lohner, adviser for urban nature conservation, BUND Berlin (16 June 2020) personal communication (interview conducted by the author).
4 Umweltbundesamt, https://www.umweltbundesamt.de/en/data/environmental-indicators/indicator-ecological-status-of-transitional-coastal#assessing-the-development, [Accessed 13 April 2023].

A ribbon snail, a species particularly attuned to humid environments — of the kind that this body of water provides — leaves its trail on the sheet pile wall. Observing the different species from this perspective attests to the various functions it enacts as part of their habitat. It furthermore acts as a stage for the complex entanglements that are created as well as shaped here, revealing the multispecies assemblages that share this site.

'Stepping closer' facilitates an accounting of the significance of material substance, what Stacy Alaimo (2008), who draws on feminist theory and environmental studies, terms 'Thinking as Stuff of the World'. This refers to a way of thinking that 'embeds theorists, activists, and artists within material substances, flows, and systems... as well as considering what it means for other creatures to contend with the environments they now inhabit.' (Alaimo 2008: 238). Her concept of 'trans-corporeality', which follows in line with the posthuman turn that questions the preeminence of the human, and underlines the extent to which the human body is inseparable from its environment, 'no mere background to human exploits but something that is as close as one's own skin.' (Ibid. 2008: 238) It is her focus on '[R]ecognizing how all living creatures interact with place — with the perpetual flow of water, air, nutrients, toxicants, and other substances...' (Ibid. 2008: 238) that strongly resonates with this research. The focus of this work lies on how the site of a coastal defence and the plants and creatures that inhabit it are affected, dependent, and entangled around the element of water that such constructions are meant to contain.

Moreover, by stepping closer, one is able to observe how the wall's materiality is modified by the element of water. Moisture and weather conditions affect it unevenly, clearly revealing how the construction is altered by both. There are patches of rust, the result of corroding steel after the iron particles have been exposed to oxygen and moisture. The paint is flaking off in parts, possibly due to water damage, high humidity, or exposure to sunlight. There are patches where the reinforced coating system has cracked, something which can often be attributed to surface movement, absorption of moisture, or lack of flexibility of the coating. Similar to the way that a photograph takes in sunlight to write an image onto its surface, the water imprints its images onto the sea wall.

Studying the sheet pile wall close up provides a fragmentary view of how the water it is meant to contain adds to the wall's gradual entropy, having found ways to seep into its cracks. The medium of water can be said to not only impact the perception of its materiality but also the notion of the wall as a hard and impermeable border. Viewing the sheet pile wall as porous, affected by water, and inhabited by beings that rely on its intake, ultimately changes the perception of the border between water and land that the sheet pile wall constitutes and marks in the landscape.

Observing the traces of water on and around the wall allows for another shift in perspective. First, one can start to trace the movement of water occurring around the construction. Containment infrastructures can influence the movement of water in unforeseen ways, as is the case in Mönkebude. While it was constructed in order to prevent the water from the Lagoon from flooding the village, it also has the contrary effect of preventing the groundwater and overspill from land inlets to flow past the wall, and in turn causes

dampness and flooding to the grasslands on the village side of the construction. If we are to pan out further, we can then start to trace the moisture, trickles, and watermarks on the wall back to the body of water it is supposed to contain, and in doing so, begin to conceive of the wider landscape of the Stettin Lagoon from a large-scale perspective.

In their article 'Sundarbans: A Space of Imagination', Anuradha Mathur and Dilip da Cunha state that sea-level rise incites an industry of fear and defence and they call the line between land and sea itself fundamentally into question. 'The idea that these lines are both the edge of the land and the limits of the sea is deeply set in the imagination' (Mathur and da Cunha 2004: 108). The authors offer an alternate reading of the coastline where it is the ocean (Oceanus), the transformative nature of water and its ability to become like the other elements, that lies on the other side of the land (Ibid. 2004: 109). Steinberg and Peters (2015) attempt to destabilize static, bordered, and linear framings that typify human geographical studies of place and territory. Experiencing matter as unstable and in constant reformation, a 'hydro-elemental assemblage allows us to rethink motion and matter and how it shapes the world as we know it.' (Anderson et al., 2012, as cited in Steinberg and Peters 2015: 250).

Thinking of the border between water and land as one in motion, potentially transforms both the basic idea about this space as well as our approach towards it. As a result, the perpetual negotiations between land, water, and multispecies are brought to the fore. We are made aware of the necessity of close and repeated observation in order to better understand these surroundings. Taking into consideration how movements of water constantly transform the ecotone[5] between land and sea in a non-controllable and often unforeseeable way, might help us to reconsider if hard coastal protection structures, such as sheet pile walls, are the most effective measures for these sites. Alternatively, we might begin to envision sea defences and protective measures that have the capacity to adapt to reconfigurations in their environment, facilitating and adapting to ever changing and growing entanglements, instead of attempting to encase and cement them in place.

To conclude, this paper 'Sensing the Border: Between Water and Land' takes a sheet pile wall in the village of Mönkebude on the Stettin Lagoon as the central focus of its attention. In this text, practical methods have been explored in dialogue with concepts that assist an awareness of the object as lively and deeply entangled, situated within a specific coastal environment, one that is teeming with diverse lifeforms that frequent and inhabit it. The wall comes to tell both the story of the containment and transgressive movements and mutations of water bodies and transmutes from a hard and impenetrable border to a porous one that can be described as an ecological unit. Using different scales through which to sense this coastal environment, the element of water becomes the central focus in drawing connections between 'matter,' species, and the often hard to sense phenomena of rising seas. By focusing on how humans are constantly re-making the world around them through connections they perceive and are able to bring to the fore with their thoughts and actions, this research hopes, in the current context of an ecological crisis, to encourage a sense of responsibility and a deeper connection to the events unfolding.

5 A transition area between biological communities.

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I

II

III

I Claire Waffel, *Untitled 1,* from the series 'Between Water and Land', 2022, digital photograph, dimensions variable

II Claire Waffel, *Untitled 2,* from the series 'Between Water and Land', 2022, digital photograph, dimensions variable

III Claire Waffel, *Untitled 3,* from the series 'Between Water and Land', 2022, digital photograph, dimensions variable

Pazugoo: Demonic Personification of Nuclear Waste

Andy Weir

Keywords: nuclear, dust, demons, relic, Povinelli, Negarestani

Weir presents work from 'Pazugoo', an artistic research project in which a constellation of 3D-printed figures are proposed as demonic personifications of nuclear waste. The figures are collectively modified in workshops, sourced from museum artifacts, digital object scans, printed and buried at sites around the planet, as materialized and mythic connectors of sites of toxicity. Copies of the buried figures are collected and exhibited in museums and exhibitions in the form of an archive or 'index'.

What's that sound? It sounds like it is coming from the ground...

The work emerged from research into deep geological repositories which are used for the long-term storage of nuclear waste and involve a project that is implicated with the problem of 'marking' such sites for future generations. Through his work in collaborations and residencies Weir proposes a challenge to the established logic of fixed site monuments, by shifting

the focus to the material agency of the radioactive waste itself. Drawing on the drifting contagious materiality and mythologies of uranium dust, 'Pazugoo' manifests both as a digital object and as embodied material in nuclear waste landscapes.

What do you want from me?

Through this method of burying multiple objects — referenced in exhibitions — the work aims to make perceivable connections that would ordinarily remain hidden — such as how waste storage sites in the Global North overlap with abandoned uranium mines to form part of the waste production cycle, for example.

There was a rumble, bass growl, pulsing soil. Form from vibration freeform

The figures draw on myths of demonic flight as a navigational passage between realms, proposing a speculative flight, to the ends of deep time and back, to cognition in our present. Through this work, distributed digitally and rooted in the Earth, a sampling of deep time materiality as geo-fiction is proposed, a navigation between immediate sensual experience and the more-than-human scales of deep time.

In flight, winged earth shadows your words

These buried objects may or may not be found in future times, by someone or something, and the work plays on this future orientation, speculates an unknown future vantage point from which to perceive the present. In the process, we become objects for it. To encounter

the relics in such a present is to be open to that moment, and its implications beyond itself. A present experience, that unfolds, extending to deep times of inscribed histories while opening towards re-oriented futures to come.

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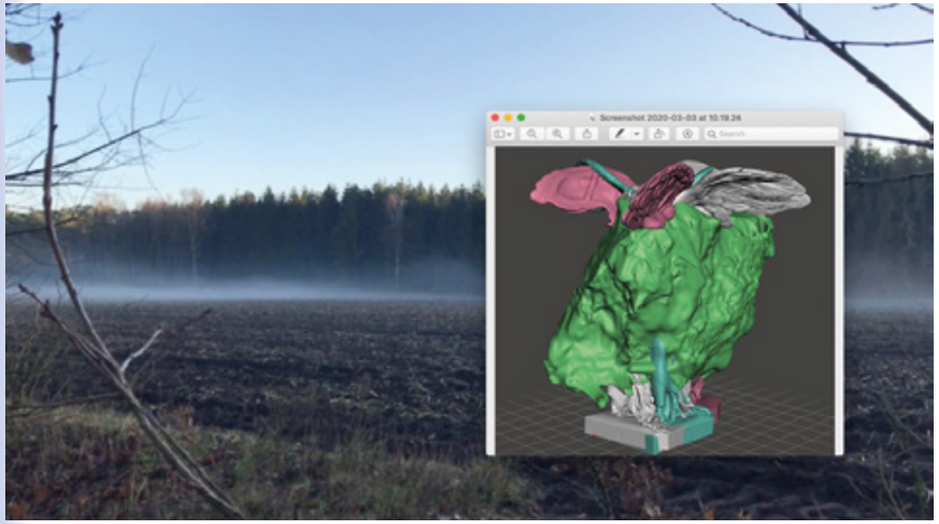

Andy Weir, *Earth / Unearth,* 2020, 3D printed objects, videos, Z33 House for Contemporary Art, Design and Architecture, Hasselt, Belgium

Searching for Nature
Lea Maria Wittich

Keywords: art in public space, nature-culture divide, poststructuralism, ecofeminism, ecopsychology, intervention

Is the 'Park an der Ilm' a work of nature? Or is it merely a reproduction — an intentional illusion cultivated by fraudulent human hands? To reflect on the borderline between nature and culture is almost akin to the fundamental distrust of the seemingly obvious one encounters in conspiracy theories. How can one think of a living plant as unnatural?

The multimedia work *The Sorrows of Nature* looks at the Park an der Ilm in Weimar and seeks to question the nature-culture divide and its socio-political and eco-psychological consequences, with some degree of practical skepticism. A performative walk in the park including a grass juice reception, a stone frottage intervention, and a foot bath in the springs presented the research to the participants.

The Park an der Ilm is a growing landmark, protected as a UNESCO World Heritage site. Designed as a landscape garden with the participation of Johann Wolfgang von Goethe and Duke Carl August of Sachsen-Weimar-Eisenach around the end of the eighteenth century

(Müller-Wolff 2007), it featured several sites, such as 'Leutra Springs' or 'Rock Steps', that aspired to imitate an aesthetics of nature. Spatially interconnected with rhizomatic lawns and meadows, the park collectively amounts to an assemblage called 'Ilmpark'. Yet can we call this cultural monument 'Nature'?

Five years before Goethe leaped to fame due to his breakthrough novel *The Sorrows of Young Werther* and came to Weimar in 1774, James Watt revolutionized the steam engine, a major catalyst for the industrial revolution. In the birth pangs of the Anthropocene, Goethe expressed lyrically the oppression of social artificiality, which left no room for an expression of 'natural' sentiments.

The Sorrows of Nature returns to the traces of history in the park from the *Goethezeit* to the Pleistocene in order to indicate an imaginary future. Based on an artistic analysis of the sites, the performative interventions *Flora von Weimar Shaves Herself*, *Interview with a Petrified Past* or *Black Beer or the Flood* develop an ecofeminist, and a collectivist counter-narrative to the default focus on Goethe, instead interconnecting human and nonhuman, living and non-living agents. The interventions reinterpret the historic park and its contemporary perception as a relational web through an artistic interpretation of Deleuze and Guattari's Schizoanalysis. Their idea of a fragmented system that is not shattered but joined, leads to a creative investigation of

the multiple splits and relations that can overwrite binary simplicity (Deleuze and Guattari 1983).

The project explores the possibility of understanding artistic practice as a metaphorical and therefore utopian practice, using the 'basic mechanism of metaphor as an inessential likeness that serves to fuse two vastly dissimilar entities into an impossible new one' as stated by Harman (2018: 131). The suggestion is of a conception of artistic research that enriches togetherness by serving as an enacted and materialized philosophy.

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Part Three: Artistic Programme Spooky Actions

Spooky Actions

'Spooky Actions' was an artistic programme of exhibitions, interventions and events on the occasion of the 13th International Conference on Artistic Research. Since the establishment of the PhD Degree Programme in Art and Design at the Bauhaus-Universität in 2011, 'Spooky Actions' has been the most wide-ranging and comprehensive public presentation of research positions from doctoral candidates and alumni. 'Spooky Actions' focused specifically on diversity and multiformity, which was evident both in the sheer number and scope of presentation formats. The programme consisted of four group exhibitions, a screening programme of experimental films, as well as performances — encompassing digital-panel discussions, interactive hybrid-performances, culinary performance lectures, and site-specific performances in public spaces. In total, around twenty-five positions of practice-based research were presented.

Most events took place parallel to the conference, allowing for the attendance of an international audience alongside the local public, present in the 'city of Goethe'. Far from being confined to a supporting programme, artistic practice played a fundamental role in this international gathering of experts of artistic research. The artistic programme was integral to both the prelude and finale of the conference. The opening of the first exhibition 'More Planets Less Pain' held in March 2023, being the first, and on the final evening of the conference was the launch of the journal *Working Titles – Journal for Practice Based Research*, edited by and presenting works by candidates from the PhD Programme of Art and Design. The events occupied a breadth of different venues, ranging from the public spaces of Weimar parks, to local exhibition spaces in Thuringia (ACC Galerie Weimar, nova space @ Kunsthaus Erfurt, Galerie Eigenheim Weimar), through to digital spaces.

The leitmotif of the programme was the phenomenon of 'spooky action at a distance', which is a concept taken from quantum physics that describes the entanglement of particles, that even while light years apart are able to change their properties in unison with one another, as if connected by a mysterious communication channel. In the SAR proceedings it was the elements of ambiguity, the demarcations, and connectedness that 'acted at a distance' and related the different formats.

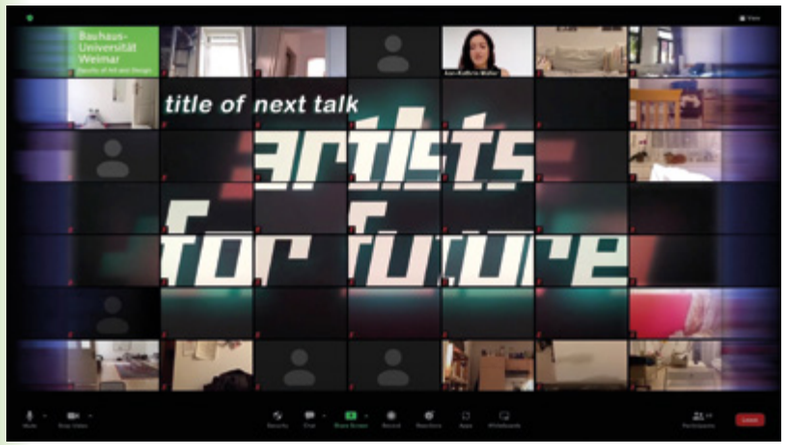
Today, after the pandemic experiences of decentralization, obligatory distance, and remoteness, we have become accustomed to the idea of non-locality along with a renewed sense of the strange ambiguity of knowledge. Whatever we experience, discover, or learn can be viewed as laden with a sense of productive ambivalence, shattering an assumed paradigm of clear cause and effect relationships. So what does this mean for artistic research as a discipline, when methods and tools often depend on careful calibrations and sensitive interactions with the object or material in question, and where media and practice influence and interact with one another?

In the light of such questions, the programme explored new, (post-) pandemic ways of relating to each other and the world around us, through looking at new rituals and practices of co-presence and unexpected channels of communication. The programme brought together multiple positions that explored the potential of practice-based research, and imagined new forms of knowledge production and dissemination, as well as 'uncanny' forms of reality-making.

The following projects were presented as part of 'Spooky Actions':

Sneaky Translators: Hybrid Theory (Panel Performance)
Curated and initiated by Gabriel S Moses
Panelists: Xenia Mura Fink, Jörg Brinkmann, and Gabriel S Moses
Moderated by Ann-Kathrin Müller
Location: Zoom and Digital Bauhaus Lab

A self-reflective panel-performance. Four short hybrid artist-talks — originally performed from home and now recreated for stage — were interwoven with an open: 'conversation about the conversation'. The first run of *Sneaky Translators* took place online and examined ways to subvert the form of the home-office/studio-based online lecture. With the pandemic subsiding, things are gradually returning to physical presence. But have we really reverted? Or might we have closed a valuable feedback loop? SAR 13's splicing of the online/on-site into a hybrid-conference suggested the latter: a form of closure that fundamentally alters the understanding of public speaking and debate, its performative, transmedial, and theatrical aspects, and more generally, how these affect the exchange of knowledge. Remixed especially for SAR 13, *Sneaky Translators: Hybrid Theory* focused on what has been gained, lost, and/or transformed in the resultant processes of re-translation.



Gabriel S. Moses, *Artists For Future (100 years of waiting for your turn to speak, part II)*, 2023, an online video panel performed by Gabriel S. Moses and Ann-Kathrin Müller, full HD video, 1920 × 1080 pixels, based on a talk with the same title that was part of the event 'Sneaky Translators: Hybrid Theory' held at the Digital Bauhaus Lab (Bauhaus Universität, Weimar) and online through Zoom, Gabriel S. Moses. https://www.youtube.com/watch?v=xeobN-uSOFY&t=20s, [Accessed 29 March 2023]

Scale of Difference
(Group Exhibition)
Artists: Miriam Hamel, Lena Trost, and Claire Waffel
Location: M BOOKS Space for architecture and related fields

In the exhibition 'Scale of Difference' the artists Miriam Hamel, Lena Trost, and Claire Waffel shared insights into their artistic research and explored the potentials of dialectic collaboration. Their distinct research methodologies highlighted process and object as inextricably interwoven. Thus, performance became data collection, data evaluation became interactive sculpture, and the exhibition itself evolved into a space for analysis and exchange. From an interdisciplinary perspective, Miriam Hamel explored sustainable coexistence in the city of tomorrow. In her artistic research, Lena Trost allowed glass to become a projection surface and an imaginative source of olfactory memories and experiences. Claire Waffel's research focused on spatial practice as a way of addressing and engaging communities affected by sea-level rise.

Cloudmeeting
(Hybrid Performance)
Artist: Louise Walleneit
Performers: Maike Hautz, Louise Walleneit, Dominik Engel, and guests
Sound direction: Olli Holland
Streaming: LUK productions Berlin
Location: Zoom and University Library

Cloudmeeting is a touch-sensitive textile room that can be understood as an inverted www, a wearable and inhabitable touchscreen. The movement and interaction of its visiting users are digitally translated via sensors and immediately fed back as the transformable sound of the person. The work is driven by the question of what influence the digitization of social structures has on the communicative interactions of our bodies and sensual knowledge. *Cloudmeeting* creates an action called 'body knowledge through experience'. The events took place in hybrid form and not in an exclusively online format. The installation, along with the performers, were located in Leipzig and streamed live to Weimar. Sounds and images from Leipzig could be seen and heard in Weimar, and attendees there were able to make non-verbal contact with Leipzig in real time. A sound piece of this hybrid-physical encounter between people of both cities was created throughout the duration of the day.

How political is (y)our curry?
(Lecture Performance)
Artists: Arijit Bhattacharyya
Location: Bauhaus.Atelier

How political is (y)our curry? When the ships first arrived at the coast of Calicut, India, history began to take on a new shape — for cuisine, and many other aspects of society, in not one, but two different parts of the world. *How political is (y)our curry?* was a gastronomic lecture-performance about the food and politics of India and its relationship with colonialism. It attempted to negotiate power in a postcolonial context through food and develop an argument that investigates efforts of neo-colonialism, failed decolonisation, and hypernationalism in postcolonial India.

Arijit Bhattacharyya, *How political is (y)our Curry?*, lecture performance, Weimar, 2022, Lea Maria Wittich

More Planets Less Pain — Constellations of Artistic Research (Group Exhibition)
Curated by: Anne Brannys
Artists and initiators: Francis Hunger, Edith Kollath, Lukas Kretschmer, Jeanne Lefin, María Linares, Barbara Marcel, Emanuel Mathias, Grit Ruhland, Markus Schlaffke, Katja Marie Voigt
Location: Kunsthalle Erfurt / ACC Galerie Weimar

What does art know? How does it find its knowledge? And how does it pass it on? Across two exhibition venues, the ACC Galerie Weimar and the Kunsthalle Erfurt showcased recent alumni of the PhD Programme Art and Design at Bauhaus-Universität Weimar. The positions dealt with some pressing questions of our present, using both scientific and artistic methods, and modes of expression.

The desire to look, think, and to discuss was at the heart of the exhibitions. They offered a lot of space to the individual positions and the possibility for guests to immerse themselves in the topics. Materials such as working tools, literature, as well as theoretical works of the artists accompanying the works on display. The exhibitions were enriched by an extensive programme of performances, concerts, and readings as well as guided tours.

The exhibition project was supported by: Cultural Foundation of the Free State of Thuringia, Thuringian State Chancellery – Department of Culture and the Arts, City of Weimar, Förderkreis der ACC Galerie Weimar, Kreativfonds der Bauhaus-Universität Weimar.

Foreground: Edith Kollath, *Findlinge #2–6*, 2017, Gesteinspalten, Messingscharniere, Background: Barbara Marcel, *The Open Forrest*, 2017, HD-Video, exhibition 'MORE PLANETS LESS PAIN', Kunsthalle Erfurt, Walther Le Kon

Spooky Actions Erfurt (Group Exhibition)
Curated by: Katarina Wendler
Artists: Diana Sirianni, Hannes Dünnebier, Jenny Brockmann, Lena Trost, Schirin Kretschmann, Xenia Fink, and Yutaka Makino
Location: NOVA art space at Kunsthaus Erfurt

The exhibition 'Spooky Actions' featured seven artists from the Faculty of Art and Design whose work combines practical and/or scientific research, it took place in the temporary gallery NOVA art space in Erfurt. For the duration of the exhibition, NOVA art space acted as a supposedly 'neutral space' or so-called 'sterile laboratory', in which the artists' works, analogous to experimental set-ups, each pursued individual lines of questioning — both artistically and scientifically at the same time. The 'spooky action at a distance' of the works was made visible in other venues and sites: individual artworks intertwined with the exhibition spread out in public spaces in Erfurt and Weimar. The exhibition was a collaboration between NOVA art space and the PhD Programme of Art and Design, and was curated by Katharina Wendler.

Spooky Actions Weimar (Group Exhibition)
Curated by: Teresa Fischer
Artists: Margarita Garcia, Teresa Fischer, Vanessa Farfán, Marlene Bart, Johannes Breuer, Katharina Mänz, Henning Schrader, Andrea Jaime Flores, Daphné Chamot-Rooke, Mon Sisu Satrawaha, Laila Mehlis, Pauline Kunze, Pia König, Paloma Llambías, Maud Canisius, and Vanessa Ramos-Velasques
Location: Galerie Eigenheim

True to the idea of 'Spooky Actions', a second exhibition of the same name took place at Galerie Eigenheim, including further works and diverse approaches from the PhD programme, from video installations and textile works, to a performative dinner event, including the release of the first issue of *Working Titles – Journal for Practice based Research.*
Kindly note: all positions below were part of the group exhibit.

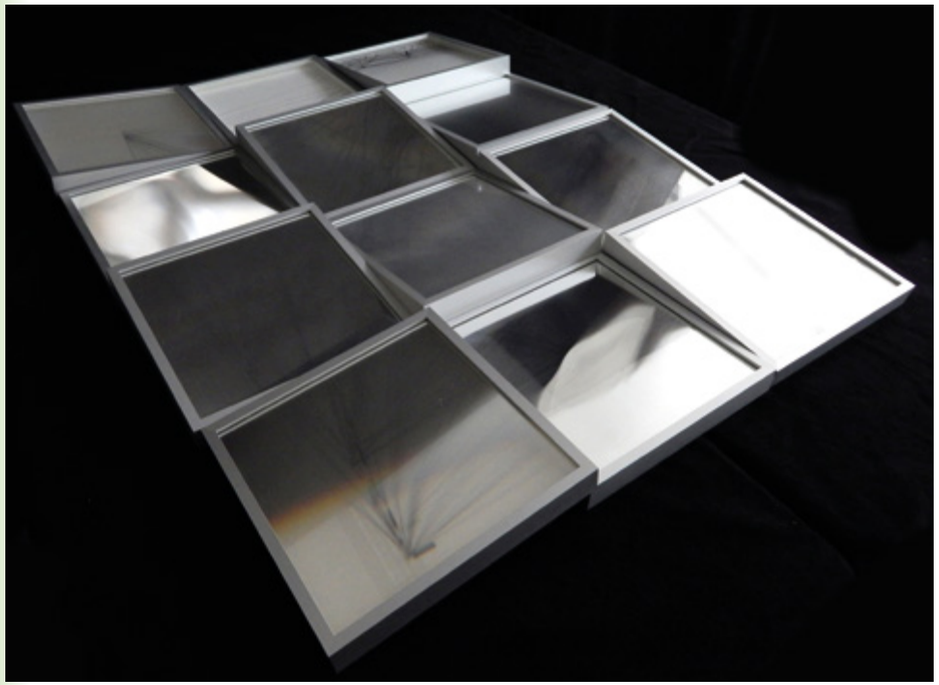
Teresa Fischer, *You are my safe haven*, 2021, hand tufted carpet, circa 140 × 170 cm, Sappho's Daughters Dedication, Berkaerstr. 11, Weimar, Teresa Fischer.

Vanessa Ramos-Velasquez and guests: Regarding Water. Expanded Filmmaking using Artistic Research as Interdisciplinary Methodology
The screening of experimental films resulted from a class taught by Vanessa Ramos-Velasquez, who deploys artistic research as an interdisciplinary methodology for filmmaking. It includes works by students of the course (Katharina Mänz, Henning Schrader, Andrea Jaime Flores, Daphné Chamot-Rooke, Mon Sisu Satrawaha, Laila Mehlis, Pauline Kunze, and Pia König), as well as a collaborative work between Bauhaus alumni (Paloma Llambías and Maud Canisius), and Ramos-Velasquez's own installation piece, developed in the process of the field work and teaching this course.

Vanessa Ramos-Velasquez, *Regarding Water Media Art Exhibit,* 3 July 2022, Galerie Eigenheim Weimar, Vanessa Ramos-Velasquez, https://t.ly/sUVb2

Marlene Bart and Johannes Breuer: Atlas of Data Bodies
Digital technologies change and amplify the perception of the self and the body; they have the capability to distort, amplify or produce specific body images. Based on these phenomena, the *Atlas of Data Bodies* inquires into the possibility of their recognition as well as their critique. The method of the atlas established itself as a scientific system of order in the early modern period and which has proved highly generative for contemporary artistic-scientific trajectories and interpretations. The demand is interdisciplinary and above all transdisciplinary. Established and emerging artists and researchers are offered a unique platform to engage with the discourse through various formats.

Vanessa Farfán: ODM
(Organising Digital Machines)
ODM is a series of holographic collages, assemblages that question human perception in times of hyper-digitalisation. This particular series of assemblages (De Landa 2016) stem from the practice of dissecting and reorganising the 'body' of discarded and defunct computers and data. The practice of rearranging the components of digital machines has a double meaning: on the one hand to give them a new order, and on the other, to turn them into organisms that interact, dependent as that is, on the viewer's point of view.



Vanessa Farfán, *ODM,* 2022, lusion in aluminum box, dimensions variable, private collection

Teresa Fischer: You Are My Safe Haven, 2021
You Are My Safe Haven is a sentimental journey and a phrase a former lover once said to me. This work is like your grandma's favorite sofa wrapped in a plastic cover. It takes a closer look at the importance of artifacts and the act of preservation on a personal and historical level, through the combination of a unique memento — a kitchen towel — that was forgotten in my home, and the use of old archival materials. The piece also references queer culture at the historic Bauhaus, simply through being a textile piece, one made by a female artist at the Bauhaus, but also through the pattern of the kitchen towel.

Margarita Certeza Garcia: Cooking Conflicts
Initiated by Margarita Certeza Garcia (artist/activist, born in Chicago) and Tobias Kühn (sculptor/chef born in Saxony), the piece was tested during the conference. The work stemmed from questions around global conflicts/transmission via foodways while cooking for those seeking shelter at the onset of the Ukrainian war. The resulting ingestible performance reflected contemporary social/planetary challenges and our entangled histories. Courses included an appetizer of Ghanaian kyinkyinga/kimchi varenyky from Dr. Emmanuel Nkrumah and Oksana Poponin, Spanish gazpacho/Ethiopian 'Doro Wat and planet cooling mango sorbet' by Flávia Carvalho and Felix Bieber with assistance from a collective of artists/im(migrants)/activists.

Kai Frommann, *Classic Molotov Cocktail composed of Vodka, Lime and Sour served with Flaming Resistance Rage* by performance artist Vivi Matarem. 17 September 2022, digital image, 1473 × 2048 pixels, Documenta XV, Kassel. Britto Arts Trust, Documenta Halle

Working Titles – Journal for Practice based Research
Editors: Xenia Mura Fink, Francis Hunger, Beate Körner, Angela Matthies, Ann-Kathrin Müller, and Gabriel S. Moses
Authors: Christina Karababa, Edith Kollath, Gabriel S Moses, Ann-Kathrin Müller, Xenia Mura Fink

Working Titles is an online journal for practice-based research initiated by members of the PhD Programme Art and Design at Bauhaus-Universität Weimar. The journal aims to serve as a platform presenting research carried out through any practice — from oil painting to anarchist urban plumbing — and to facilitate the self-publishing of practice-based working papers. The first issue titled 'Stone Soup — An Apparatus for Taste & Transformation' highlights the process of creation, one that encompasses social, collective, imaginative, and fantastical strategies for the benefit of the broadest, knowledge hungry collective. It was released during the closing party as part of 'Spooky Actions Weimar'.

https://www.uni-weimar.de/projekte/workingtitles/

Part Four: SAR Prize for Excellent Exposition 2021

SAR Prize for Excellent Exposition 2021

The Executive Board of SAR is delighted to announce the winner of the Annual Prize for Excellence in Best the category of Research Catalogue Exposition 2021. The prize aims to foster and encourage innovative, experimental new formats of publication and to give visibility to the qualities of artistic research artifacts. We received eleven innovative submissions for the prize. The jury consisted of Paulo Luis Almeida on behalf of the Portal Partners, 2020 Prize winner Ernie Roby-Tomic, and Gabriele Schmid on behalf of the executive board of SAR. After careful consideration we felt that the exposition 'Minuting. Rethinking the Ordinary Through the Ritual of Transversal Listening' by Jacek Smolicki met the prize conditions to an exceptionally high degree. He was followed by Alexandra Crouwers with her exposition 'Plot, the Compositor, Mourning/ Mistakes', in second place, and Timo Menke with his exposition 'DARK MATTER(S)' in third.

1. Jacek Smolicki

The jury was especially impressed by the intimate quality and coherent dialogue between images, text, hypertext, and sound in Jacek Smolicki's exposition 'Minuting. Rethinking the Ordinary Through the Ritual of Transversal Listening'. The seamlessness with which the elements were brought together makes the viewer feel as if they were walking into a complex and well-structured landscape, laden with complexity.

The layout is vibrant and compelling, as is the manner in which it integrates sound bars as graphical elements. The mouseover elements produce yet another extra layer, that is nevertheless well synthesized with the aesthetic appearance of the exposition.

Smolicki's research is extensive and far-reaching, with the collection of samples spanning a period over several years, and is grounded in a compelling premise. The concepts and narrative threads are brought to the fore through the design and activation of the exposition of the Research Catalogue platform.

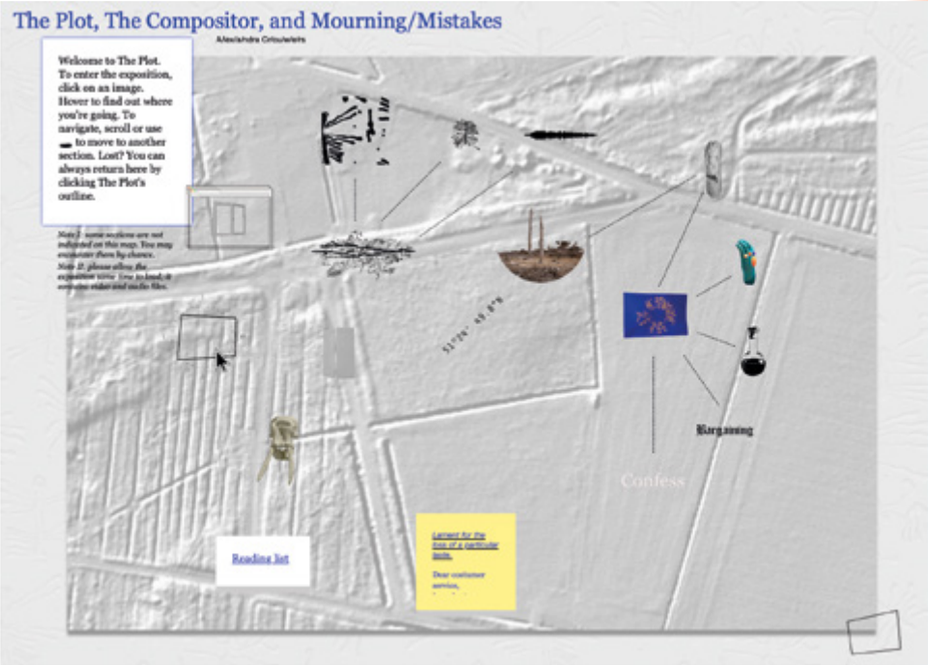
https://www.researchcatalogue.net/view/883787/895793

2. Alexandra Crouwers

The exposition ‘Plot, the Compositor, Mourning/Mistakes’ exemplified a speculative and non-linear design approach to the concept of exhibition. It weaves an intricate network between visual pieces of evidence of the ecological collapse of a forest and a reflexive contemplation on the artist’s own grief.

Crouwers work thesis immediately resonated with the challenges and phenomenon brought on pandemic times, such as experiences of virtual dislocation and the complex mimeticism of nature that was catalyzed during lockdown. In an epoch a period in which virtual workers and artists experience the technological takeover and as physical communal spaces become increasingly rare, the work feels especially timely. Alexandra’s background in virtual and technical art reverberates in the Research Catalogue platform, as items that function to deliver information on the topic often also serve an aesthetic purpose, one that both complements and supports their thesis.

https://www.researchcatalogue.net/view/1057314/1273089

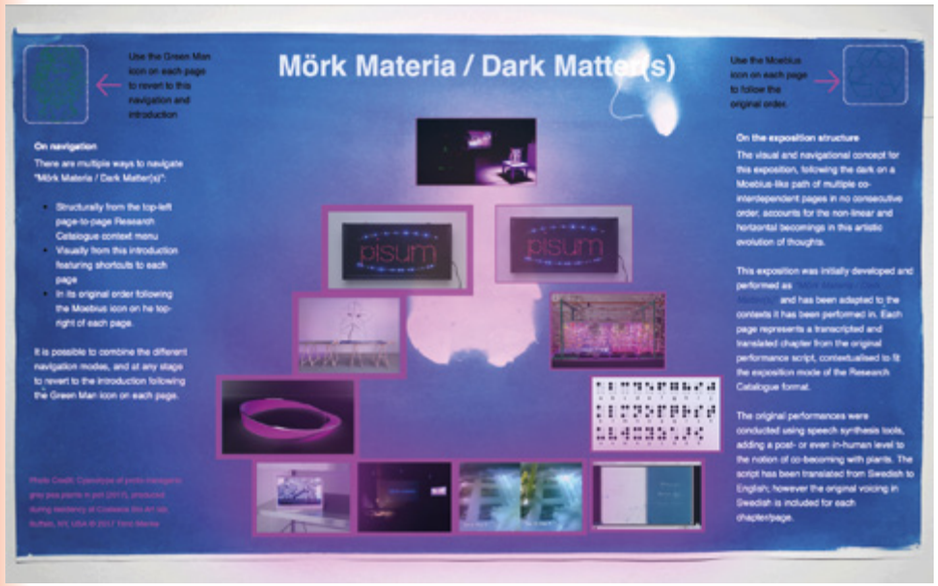


3. Timo Menke

Timo Menke’s exposition ‘DARK MATTER(S)’ combines different exhibitions on the same subject in an innovative way, offering the experience of different navigation modes as an analogue of thinking processes.

Menke’s thoughtful intertwining of their exposition concepts and the Research Catalogue allows readers to gather concepts, culminating in a wonderful collaborative performance.

https://www.researchcatalogue.net/view/829675/1122602



Appendix

SAR Conference Committee Biographies

Alexandra Regan Toland was conference chair of the 13th International Conference on Artistic Research. She is Associate Professor for Arts and Research and director of the PhD Programme in Art and Design at the Bauhaus-Universität Weimar. With a Bachelors in German from the University of Wisconsin-Madison, with a focus on theatre design, a Master of Fine Arts from the Dutch Art Institute, an engineering degree in landscape planning, and PhD with distinction from the Technical University of Berlin, which was partly realized at the University of Arts Berlin, and a Post-Doc from Oregon State University School of Agriculture, Alex uses insights from different disciplinary and cultural contexts in her work as a scholar, artist, and educator. She has exhibited and published widely on artistic research practices as they relate to soil protection, air pollution, and the Anthropocene, including the co-edited book, *Field to Palette: Dialogues on Soil and Art in the Anthropocene* (Taylor and Francis 2018).

Angela Bartram is Professor of Contemporary Art at University of Derby, where she co-leads It's Creative and the Cultural Industries Academic Theme and Research Centre. She is a fine artist and artistic researcher working with objects, sound, video, print, performance events, and published text. Her research concerns thresholds of the human body, gallery or museum, definitions of the human and animal as companion species, and strategies for documenting the ephemeral. Bartram is Executive Board member for the Society for Artistic Research, CHEAD Research Alliance Strategy Group member, NCACE Collaborations Champion, Trustee of the Board of Directors for the Live Art Development Agency, and member of the steering group for CVAN EM (Chair 2019–2022). She gained a PhD in Fine Art from Middlesex University.

Jaana Erkkilä-Hill is the Vice Rector for Research at the University of the Arts Helsinki. She holds a Professorship in Fine Art at the University of Lapland. She has also worked as Director of Research and Development in Cultural Industries at the University of Applied Sciences Novia and as Rector of the Nordic School of Art. She graduated with a Master in Fine Arts from the Academy of Fine Arts Helsinki and a Doctor of Arts from Aalto University. Her research interests lie in the field of artistic thinking and artist pedagogy. In addition to her academic career she is active as an artist. Her artworks are are referential in their approach, in which unrelated things form new, often surprising entities. Her work is held in several public and private collections.

Johan A. Haarberg has extensive experience in creating framework conditions for higher arts education/institutions and artistic research, as well as on quality enhancement procedures. He is educated within philosophy and public law. He has been the Director of the Norwegian Artistic Research Programme, a national, cross-disciplinary, governmental-funded organisation created to stimulate the development of artistic research within higher arts institutions in Norway (2009–2013). He was previously the Director at Bergen National Academy of the Arts (1996–2009), now integrated in the University of Bergen as Faculty of Fine Art, Music and Design. Johan A. Haarberg has been Vice-President/Treasurer for Society for Artistic Research during the period from 2013 to 2018. From 2018 onwards, he has taken on the task as SAR Executive Officer. He has been an external Board Member at Stockholm University of the Arts since 2014, and an external artistic research adviser to Rhythmic Music Conservatory, Copenhagen. Haarberg is available internationally as an advisor, coach, and consultant.

Gabriele Schmid is one of two academic heads of the University of Applied Arts and Sciences, Ottersberg where she has been a professor for Aesthetic Education since 2007. Currently she is responsible for the fields of research, studies, and teaching with a special focus on arts based and artistic research. Schmid is also responsible for the international affairs of the University. Previously she has held a professorship at the Carl von Ossietzky University Oldenburg and before that she was assistant professor at the University of the Arts Berlin. There she studied Fine Art and Art Education and completed her dissertation on Illusionary Rooms. Gabriele Schmid is an active artist, working in the field of drawing, sculpture, and video. She has been elected as a SAR board member for the period from 2017 to 2022.

Stefanie Schwarz is a communication designer with a focus on typography and type design. She studied in Germany and the USA before completing her MA at Central Saint Martins / University of the Arts London. In 2013 she co-founded the typographic research lab open2type. From 2019 until 2022 Stefanie has been junior professor for typography and type design at Bauhaus-Universität Weimar. Since 2021 she has run the ABK Type Lab at Staatliche Akademie der Bildenden Künste Stuttgart. Stefanie's work has been presented at group exhibitions in Europe, the USA, and Japan and has received numerous awards. Her type designs are published by type foundries in Berlin, Chicago, Ahmedabad, and Buenos Aires.

Jan Willmann is Professor of the Theory and History of Design at the Bauhaus-Universität Weimar. After studying architecture and theory in Oxford, United Kingdom, he served from 2007 to 2011 as Scientific and Teaching Assistant at the Institute of Architectural Theory at Innsbruck University in Austria, where he also earned his PhD under Prof. Ir. Bart Lootsma with distinction. He was Senior Assistant of the group of Gramazio Kohler Research at the Swiss Federal Institute of Technology (ETH) in Zurich from 2011 to 2016. Jan Willmann's research and publications focus on the relationship between the theory and history of design, cultural history, and the history of media and information technology. He has lectured worldwide and is regularly invited as an expert and design critic member, and collaborated with numerous renowned international institutions, such as, for example, the FRAC Centre Orléans, Chicago Architecture Biennial und Palais de Tokyo in Paris. His essays and articles have been published in various journals.

Keynote Speakers Biographies

Berhanu Ashagrie Deribew is a visual artist and an assistant professor at the Alle School of Fine Arts and Design, Addis Ababa University, where he served as the Director of the fine arts school for almost four years between 2012 and 2016. With an understanding and commitment to engaged pedagogy and co-production of knowledge, he has organised and facilitated numerous local, continental, and international collaborations leading to educational, artistic, and research projects. He has also participated in various international art festivals, exhibitions, and conferences. His artistic practice focuses on subjects of dispossession through process-based practices outside studio environments. Berhanu is currently working on an ongoing artistic research project that explores notions of mourning as an aesthetic, pedagogical, and political language and practice amidst precarious socio-political conditions. Berhanu is a PhD In-practice candidate at the Vienna Academy of Fine Arts.

Otso Aavanranta (formerly Lähdeoja) is a professor of artistic research at the University of the Arts Helsinki, composer, electronic musician, and researcher in digital arts. He holds a doctorate in music from Paris VIII University and has led a myriad of crossover artistic projects over the years. His works have included musical ensembles, solo and group albums, multimedia projects, music-poetry, installation art, and music for dance performances. He has lived and worked in Finland, Canada, Belgium, and France. Otso Lähdeoja's research approach is one rooted in research–creation; combining exploratory artistic creation and academic inquiry into a mutual feedback loop. While the tools and methods of his research stem from music and technology, the themes of enquiry open to larger, cross-disciplinary questions concerning human intersubjectivity and transindividual cognition, as well as the interplay between society and technology.

Rolf Hughes is Professor of the Epistemology of Design-Driven Research in the Department of Architecture at KU Leuven, member of Emergence of Bio-age Working Group, Chatham House, London, and Director of Artistic Research for the Experimental Architecture Group which develops pioneering transdisciplinary research, design prototypes, and immersive experiences for the emerging ecological era. His research and teaching explore the contribution of artistic research methods to developing narratives and epistemologies with a focus on 'unspeakable dialogues' between human and nonhuman agencies. A writer across creative and critical genres, he has devised interdisciplinary performances and installations at venues such as the Palais de Tokyo (Paris), the University of the Underground

(Amsterdam), the Northern Stage and the Victoria Tunnel (Newcastle), the Max Planck Institute (Florence), the Orpheus Institute (Ghent), and globally, online, via Digital Futures. Through an architectural design office titled Architecture for Living on a Damaged Planet at KU Leuven, and the elective course 'Haunted House: The Hidden Life of Buildings', Hughes combines literary, film, and performance narratives with sound art to explore the implications of our relationship with lively matter, and our role within a (re)enlivened world.

Rachel Armstrong is Professor of Regenerative Architecture in the Department of Architecture at KU Leuven, Belgium, a Senior TED Fellow and a Robert Rauschenberg Foundation, Rising Waters II confab Fellow. Armstrong holds a First-Class Honours degree with two academic prizes from the University of Cambridge (Girton College), a medical degree from the University of Oxford (The Queen's College) and holds a PhD in Architecture from the University of London (Bartlett School of Architecture). Her career is characterized by design thinking as a fusion element for interdisciplinary expertise. She pioneers an ecological, technological, and life-centred practice called 'living architecture' that considers the implications for designing and engineering in a world thrown off balance. She is the author of a number of books including *Safe as Houses: More-than-Human Design for a Post-Pandemic World* (2022); *The Art of Experiment: Post-pandemic Knowledge Practices for 21st Century Architecture and Design* with Rolf Hughes (2021), *Experimental Architecture Designing the Unknown* (2019), *Liquid Life: On Non-Linear Materiality* (2019), *Soft Living Architecture: An Alternative View of Bio-informed Practice* (2018), amonst others.

Contributor Biographies

Fee Altmann is an art historian, artistic researcher, freelance curator, and author with a focus on artistic practices in contemporary cultures at paradigmatic turning points; social and political practices of the arts and procedures of artistic research; transdisciplinarity and artistic practices of knowledge, creative producing. She has been managing director of Digitale Bühne gGmbH (digital-stage.org); board member and humanities director, Institute for Artistic Research (!KF), Berlin. She is a founding member of the Society for Artistic Research Germany, representative for Brandenburg and a mentor at the Peers Programme, ZHdK. She has had many years of experience in the international art market and the artistic academic knowledge system. Until 2013 she was the director of the foundation archive of the conceptual artist and philosopher Adrian Piper. Since 2013 she was at the Institute for Artistic Research at the Film University Babelsberg KONRAD WOLF, where she was managing director until 2020.

Christine Reeh-Peters is a German filmmaker, philosopher and artistic researcher living between Bochum and Lisbon. She holds a PhD in Philosophy of Art and Aesthetics from the Faculty of Letters, University of Lisbon. She is full professor for Film and Digital Arts at the Protestant University of Applied Sciences in Bochum. Until August 2023, Christine was junior professor for Artistic Research at Film University Babelsberg KONRAD WOLF in Potsdam. It was there that she was also head of the IKF — Institute for Artistic Research. She is film producer and director at C.R.I.M. in Lisbon and editor of several anthologies and one monograph on film-philosophy. Christine explores the complexity of narration, place and image as well as the links between philosophy, film, and artistic research.

Ruth Anderwald and Leonhard Grond are visual artists, artist-curators, artist-researchers, and currently professors for the Artistic Research programme (PhD in Art) at the University of Applied Arts, Vienna. Their work has been exhibited internationally, e.g., at Centre Pompidou, Paris; Himalayas Art Museum, Shanghai; and Tate Modern, London. In addition, they have curated screening programmes/exhibitions with i.a. Whitechapel Gallery, London; Kunsthaus Graz; and Ujazdowski Castle, Warsaw. Their artistic research projects include the EU-funded 'ART WORKS! European Culture of Resistance and Liberation' (2019–2021) with Museion Bolzano, MSU Museum of Contemporary Art Zagreb, Foundation wannseeFORUM, HKW Berlin, and Between Bridges, 'Dizziness-A Resource' (2014–2017), Academy of Fine Arts Vienna, and currently 'Navigating Dizziness Together' (2020–2024) at the University of Applied Arts Vienna, both funded by FWF PEEK. Since 2007, they have reflected on construction sites of cultural institutions, i.a., 'History in Between for House of Austrian History' (2017–2019), or 'The Construction Site of Remembrance' (2018–2023), at Memorial and Museum Auschwitz-Birkenau, commissioned by the Austrian National Funds.

Katarina Andjelkovic, PhD M.Arch.Eng., is a theorist, practicing architect, researcher, and painter. Katarina served as a Visiting Professor, Chair of Creative Architecture, at the University of Oklahoma U.S.A., Institute of Form Theory and History in Oslo, Institute of Urbanism and Landscape in Oslo, University of Belgrade – Faculty of Architecture, and guest-lecturing and mentoring at TU Delft – Faculty of architecture and the built environment, AHO – Oslo School of Architecture and Design, FAUP Porto, DIA Anhalt Dessau, SMT New York, and ITU – Istanbul Technical University. She is a winner of the the Belgrade Chamber of Commerce Award for Best Master Thesis defended at Universities in Serbia in all disciplines. Katarina has published two monographs; an upcoming book chapter, and several journal articles with Intellect UK. Andjelkovic has exhibited her artwork in seven solo exhibitions and seventy international architectural, fine arts and photography exhibitions.

Annette Arlander, DA, is an artist, researcher, and a pedagogue, one of the pioneers of Finnish performance art and a trailblazer of artistic research. Former professor in performance, art and theory at Stockholm University of the Arts and professor of artistic research at University of the Arts Helsinki. At present she is a visiting researcher at Academy of Fine Arts University of the Arts Helsinki. Her artwork moves between the traditions of performance art, video art, and environmental art. For details and publications, see https://annettearlander.com

Katarina Blomqvist is a doctoral researcher at Aalto University School of Arts, Design and Architecture in the Department of Film. She is currently working in a multidisciplinary research project 'Approaching Social Death', which is funded by the Kone Foundation, and is part of the Centre of Excellence in Research on Ageing and Care chosen by the Research Council of Finland. After studying philosophy (MA) Blomqvist has been working as an audio documentary director. In addition to academic philosophy, she has also completed a two-year education in philosophical practice. Blomquist has presented her artistic research and her documentary audio art at a Listening Academy iteration in Berlin and several international conferences including Nordic Conference on Philosophical Practice, Performance Philosophy Biennial, and the Nordic Congress of Gerontology.

Budhaditya Chattopadhyay is a contemporary artist, researcher, and writer. Chattopadhyay produces works for large-scale installations and live performances addressing contemporary issues of environment and ecology, migration, race, and decoloniality. His works have been widely exhibited, performed, or presented across the globe. Chattopadhyay has an expansive body of scholarly publications in artistic research, media theory, and aesthetics in leading peer-reviewed journals. He is the author of four books: *The Nomadic Listener* (2020), *The Auditory Setting* (2021), *Between the Headphones* (2021), and *Sound Practices in the Global South* (2022). Chattopadhyay holds a PhD in Artistic Research and Sound Studies from the Academy of Creative and Performing Arts, Leiden University, and is currently a Visiting Professor at the Critical Media Lab, Basel, Switzerland. Website: https://budhaditya.org/

Rebecca Collins is an award-winning artist and artist-researcher. She works at the intersection between contemporary performance and sound studies. Her practice, grounded in specific sites or communities, investigates the relationships between social, political, and cultural phenomena. She is interested in how critical, fictional, and performative interventions might cultivate attention towards our contemporary condition indicating potential levers for change. Rebecca shares her scholarship and practice through multiple forms including live performance, limited-edition vinyl, radio broadcasts, exhibitions, workshops, uncanny encounters, text scores, and academic/experimental publications. In 2022 she was awarded a prestigious research grant from the Royal Society of Edinburgh for 'Parameters for Understanding Uncertainty' a project invested in intellectually loitering amidst physicists who are committed to uncovering what we are yet to know about the first three minutes of the Universe. Rebecca, since 2017, is a Lecturer in Contemporary Art Theory at Edinburgh College of Art.

Tricia Crivellaro is an artist, designer, educator, and creative scholar; she holds an MA in Fashion Studies from Toronto Metropolitan University (TMU). Crivellaro explores the intersections between fashion, art, and technology through practice-led methodology. Her current research work draws on feminism and queer theories and creatively engages with experimental garment-making, creative writing as well as new media installations. Crivellaro is an Instructor at TMU as well conducting research for FDCD_3D-Lab (TMU) and Data Materialization Studio (OCAD).

Lynne Heller is a post-disciplinary artist, designer, educator, and academic who has exhibited internationally. Her interests encompass material and virtual culture, virtual/augmented reality (AR/VR), performance, graphic novels, and sculptural installation. Heller completed her MFA at the School of the Art Institute of Chicago and her PhD at University College Dublin, Ireland. Her research is practice-based, with a specialty in Digital Media Arts. She is an Adjunct Professor at OCAD University, co-director of the Data Materialization Studio, and Reviews Editor of Virtual Creativity.

Dorie Millerson is a Toronto-based artist and academic working in textiles. Exhibiting internationally for over twenty years, articles about her work have appeared in *Fiberarts, Surface Design Journal, Sculpture*, and the books *La Dentelle dans l'art contemporain* (2021) and *Artistry in Fiber, Vol. 2: Sculpture* (2017). Her writing about craft practice and pedagogy has been published in *Studio: Craft and Design in Canada, Surfacing Journal,* and *Metal Arts Guild Magazine* and the books *Digital Meets Handmade: Jewelry*

in the 21st Century (2021) and *Crafting New Traditions: Canadian Innovators and Influences* (2008). Millerson holds an MFA in textiles from NSCAD University (2003) and is an honours graduate in fibre from the Ontario College of Art & Design (2000). She is an associate professor of textiles in Material Art & Design and on the faculty in the School of Graduate Studies at OCAD University in Toronto where she has taught since 2005.

Pascal Marcel Dreier, M.A. explores and narrates more-than-human stories. To do this, he combines aspects of aesthetic research with activist, forensic, and ethnographic methods. He is a co-founder of the NGO TRACES Studio for Creative Investigation (Berlin) and a member of the networks Multispecies Studio and Minding Animals Germany. He is assistant professor for Multispecies Storytelling at the Academy of Media Arts in Cologne.

Thomas Hawranke, PhD, is media artist and professor for Motion Design and Animation at the Burg Giebichenstein University of Art and Design Halle. He conducts deep hanging out in a variety of gaming communities, loves to watch animals in virtual worlds and uses practices of play as his primary research methodology. He is co-founder of Paidia Institute and member of the artist collective susigames.

Tamara Friebel was born in Cohuna, country Victoria in Australia. She currently lives in Austria, having moved there in 2002. She studied architecture at the Royal Melbourne Institute of Technology (RMIT) in Melbourne and at the University of Applied Arts Vienna (masterclass Zaha Hadid), sociology and theology (Universities in Melbourne) and composition at the University of Music and Performing Arts Vienna (masterclass Chaya Czernowin). She completed a PhD in Composition at the University of Huddersfield (with Liza Lim) in 2013 with a portfolio of works entitled *Generative Transcriptions, an Opera of the Self.* Since 2014 she has been a postdoctoral researcher at the Karl-Franzens University of Graz as part of the mathematics and art research project 'The Collaborative Mind', and teaches courses on 'The role of intuition in forming creative flow' at the University of Music and Performing Arts Graz and gives diverse lectures at festivals and conferences.

Klemens Fellner studied mathematics and physics at the Technical University of Vienna and bassoon at the conservatory Vienna and finished his PhD in applied mathematics in 2002. His postdoctoral research included long-term visits at the ENS Cachan, Granada, UAB Barcelona, Baker Heart Research Institute Melbourne, before becoming *Universitätsassistent* at the University of Vienna and Senior Research Assistant at the University of Cambridge. Since 2011 Fellner has been Professor of Mathematics/Computational Sciences at the Institute of Mathematics and Scientific Computing at the KFU Graz. His expertise as an applied mathematician ranges from mathematical modeling to the analysis of partial differential equations. His recent research focuses on (bio)-chemical reaction-diffusion systems and the development of mathematical models for lipolysis. Fellner is currently Dean of the Faculty of Natural Sciences of the University of Graz.

Jan Giffhorn studied music theory from 2000 until 2005 at Folkwang University Essen. In 2014, he received a PhD in musicology from the University of Music and Performing Arts Vienna (MDW) for his dissertation 'Zur Sinfonik Leonard Bernsteins – Betrachtungen zu Rezeption, Ästhetik und Komposition'. Since 2017 he has been a research fellow at the Music and Arts University of the City of Vienna (MUK) at the Centre For Science and Research (ZWF).

Marina Gržinić is a full professor at the Academy of Fine Arts Vienna, head of the Studio for Post-Conceptual Art Practices (PCAP, IBK). She is principal investigator of the art-based research project 'Conviviality as Potentiality' (FWF AR679, 2021–25) and the Citizen Science project 'Citizens' Memories and Imaginaries' (FWF TCS119, 2022–23). She holds a PhD in philosophy and is an artist with a career spanning over forty years. She was the principal investigator of the research project 'Genealogy of Amnesia' (FWF AR439, 2018–2021). Her areas of expertise include contemporary philosophy, contemporary art, the study of coloniality and decoloniality, transfeminism, the analysis of racism, antisemitism, nationalism, and the study of memory and history in relation to resistance. She co-edited with J. Pristovšek and S. Uitz the volume *Opposing Colonialism, Antisemitism, and Turbo-Nationalism: Rethinking the Past for New Conviviality* (Cambridge Scholars Publishing, 2020). She is co-curator of the international group exhibition 'Stories of Traumatic Pasts: Counter-Archives for Future Memories' (with S. Uitz and C. Jauernik, Weltmuseum Wien, 2020–2021).

Jovita Pristovšek is a postdoctoral researcher at the Academy of Fine Arts Vienna for the art-based research project 'Conviviality as Potentiality' (FWF AR679, 2021–2025). She was a postdoctoral researcher in the Citizen Science project 'Citizens' Memories and Imaginaries' (FWF TCS119, 2022–2023), and the research project 'Genealogy of Amnesia' (FWF AR439, 2019–2021). She holds a PhD in Philosophy and a MA in Fine Arts. Her research interests include the relationship between aesthetics, the public sphere, and politics; epistemology; decoloniality; the analysis of racism; and the politics of representation. She is co-editor with M. Gržinić and S. Uitz of *Opposing Colonialism, Antisemitism, and Turbo-Nationalism: Rethinking the Past for New Conviviality* (Cambridge Scholars Publishing, 2020), co-editor with M. Gržinić, S. Uitz, and C. Jauernik of the exhibition catalogue *Stories of Traumatic Pasts: Colonialism, Antisemitism, and Turbo-Nationalism* (Hatje Cantz, 2020).

Sophie Uitz is a theorist and researcher specializing in political and social theories, decolonial theories, comparative cultural studies, and contemporary aesthetics. She holds a postdoctoral position at the Academy of Fine Arts Vienna in the field of artistic research and citizen science. She holds a PhD in political science from the University of Vienna and has been a lecturer in political theory. Her recent work includes the journal article 'Bedingte Politik, prekäre Rechte' (*Sozialwissenschaftliche Rundschau*, special issue: Hannah Arendt – interdisziplinäre Perspektiven, vol. 2, 2021); 'Political Remembrance for the Future: Perspectives and Limits of Arendt's Re-Framing of Memory and History as Political Concepts' (in: Gržinić, Pristovsek, Uitz (eds.), *Opposing Colonialism, Antisemitism, and Turbo-Nationalism,* Cambridge Scholars Publishing, 2020); co-curation of the international group exhibition 'Stories of Traumatic Pasts: Counter-Archives for Future Memories' (with M. Gržinić and C. Jauernik, Weltmuseum Wien, 2020–2021).

Dr. Adnan Hadzi is currently working as resident researcher at the University of Malta, as well as a participant researcher in the Erasmus XR strategic partnership research collaboration with the Immersive Lab University of Malta project. Adnan's documentary film work tracks artist pranksters The Yes Men and net provocateurs Bitnik Collective. Bitnik's practice expands from the digital to affect physical spaces, often intentionally applying loss of control to challenge established structures and mechanisms, formulating fundamental questions concerning contemporary issues.

Molly Joyce has been deemed one of the 'most versatile, prolific and intriguing composers working under the vast new-music dome' by *The Washington Post.* Her work is concerned with disability as a creative source. Molly's creative projects have been presented and commissioned by Carnegie Hall, TEDxMidAtlantic, Hirshhorn Museum and Sculpture Garden, Bang on a Can Marathon, Danspace Project, Americans for the Arts, National Sawdust, Gaudeamus Muziekweek, National Gallery of Art, Classical:NEXT, and featured on *Pitchfork,* Red Bull Radio, and WNYC's *New Sounds.* She is a graduate of Juilliard, Royal Conservatory in The Hague, Yale, and alumnus of the YoungArts Foundation. She holds an Advanced Certificate in Disability Studies from City University of New York, and is a Dean's Doctoral Fellow at the University of Virginia in Composition and Computer Technologies. She has served on the composition faculties of New York University, Wagner College, and Berklee Online. For more information: www.mollyjoyce.com

Dr. Kateřina Krtilová is a researcher at the Zurich University of the Arts. She has been a visiting professor for Media Studies at the University of Bonn, at the Department of Philosophy at the University of Vienna, and Film Studies at Charles University in Prague. She defended her PhD on Vilém Flusser's media philosophy at Bauhaus-Universität Weimar and co-organised the Vilém Flusser Summer Schools in Robion 2022 and 2023. Her research focus is on media philosophy, aesthetics practices of theory and intersections between media theory and religious practice.

Yuval Levi was born in Jerusalem and is currently based in Berlin. He graduated from Bezalel Academy of Arts and Design Jerusalem, the Department of Architecture, under the supervision of Prof. Arch Zeev Druckman. Levi is Co-founder of Archidrome Architects, an architectural office that has specialized in public and community buildings. His interests span interdisciplinary curatorial projects and (artistic) research of urban spaces using visual methods, architecture, and urban planning tools. He also engages in social, cultural, and political initiatives focusing on communities in conflict.

Kate Liston is an artist based in Gateshead, UK working with moving image, installation, writing and performance. Her practice-led PhD (2017) explored the sensation of knowledge. Recent exhibitions include: 'Town Hall Meeting of the Air', BALTIC39, Newcastle upon Tyne (collaborative solo exhibition, 2021); 'Oh-Link Zone', Black Tower Projects, London (group event and exhibition, 2018); 'Feel After the New See' at Hatton Gallery (solo exhibition, 2018); 'The Scientific Method' at The Tetley Gallery, Leeds (group exhibition, 2016); 'Feminism and the Body in Performance' at MART Gallery, Dublin (group event, 2015). She is Assistant Professor of Fine Art at Northumbria University.

Ivan Chen-Hsiu Liu is an artist and a researcher. He has a background in science, trained as a physicist at the Max-Planck Institute, Germany, and Imperial College London, UK. He is currently an Assistant Professor of Applied Arts at National Yang Ming Chiao Tung University in Taiwan, and heads the Future Narratives Lab. His current works experiment new forms of narrative to address future and contemporary issues that arise as human civilization advances.

Paola Livorsi is composer/researcher, she lives and works in Helsinki since 2001. Livorsi has been active in many multidisciplinary projects, such as: 'Rooms of Elements (2006–2007)'; 'Self-portraits, silent voices'

(2011–2012); 'Sense Disorder' (2013). For 'Imaginary Spaces' (2016), 'The end of no ending' (2017), 'Between words and life' (2019), and 'Sounding Bodies' (2020) she collaborated with the expanded cinema artist Marek Pluciennik. She realized *Medusa*, with Piia Komsi (soprano coloratura/cello), Sara Orava (visual art/stage direction), and Milla Eloranta (dance/choreography), premiered in Helsinki in August 2022. Livorsi concluded her doctoral artistic research 'Human voice and instrumental voice: an investigation of voicelikeness' in 2023 at the Sibelius Academy, Centre for Music and Technology, Helsinki. https://core.musicfinland.fi/composers/paola-livorsi
https://www.researchcatalogue.net/view/511491/2156581

Barb Macek is a writer and artistic researcher. She studied psychology and 'art and science' in Vienna. Since 2017 she has presented her poetry-based research projects in artistic and scientific contexts. Her works have been published in anthologies and literary magazines as well as in journals for artistic and transdisciplinary research. In 2018 she received the Award of Excellence of the Austrian Federal Ministry of Science for her academic achievement. In 2019 she was awarded with the annual prize of the Society for Artistic Research (SAR) for her Research Catalogue (RC)-exposition 'Between Agony and Ecstasy: Investigations into the Meaning of Pain'. In the same year her book *Lykanthropus erythematosus* was published, based on her master's thesis in 'art and science'. Currently she is a research fellow (DOC) of the Austrian Academy of Sciences (OeAW) and works on her PhD project on autoimmunity at the University of Applied Arts Vienna.

Emanuel Mathias is a visual artist based in Leipzig, Germany. He studied Fine Arts in Photography at the Academy of Fine Arts Leipzig and received his Fine Arts Diploma in 2009 and his MA in Fine Arts in 2011. Currently, he is a PhD Candidate, holding a Bauhaus Doctoral Scholarship at the Bauhaus-Universität in Weimar, Germany. Mathias has been an Assistant Researcher for the Research Project: 'Image. Text. Politics: Image-text-based artistic practices and new politics of seeing' by Prof. Eva Leitolf at the Free University Bolzano, Italy (2020–2021). He has been a guest researcher at the Max-Planck Institute for Evolutionary Anthropology Leipzig (2018–2020), and artistic/research assistant at the University of Art and Design Halle (Saale), Germany (2014–2018). He has participated in numerous national and international solo and group exhibitions and has been the recipient of several awards and scholarships. Mathias is a member of the German Society for Artistic Research, Berlin and the German Society for Aesthetics, Münster. www.emanuelmathias.com

Dr. Brigid Mc Leer is an Irish artist and researcher based in London. She is Senior Lecturer in Fine Art at Manchester Metropolitan University, UK. Her research is concerned with relations between art, writing, politics, and memory. Recent projects include, *Collateral* installation for British Textile Biennial 2021, performance lecture/play *The Triumph of Crowds,* Downtown Art, New York 2017, and her essay 'Returning in the House of Democracy' for *The Creative Critic: Writing as/about Practice* edited by Dr. Emily Orley and Katja Hilevaara (Routledge 2018).

Adelheid Mers is an artist and educator who works through performative diagrammatics, presenting work nationally and internationally in residency, conference, and exhibition settings. Educated at the Kunstakademie Düsseldorf and the University of Chicago, she is professor and chair of Arts Administration and Policy at the School of the Art Institute of Chicago. Mers currently co-leads the PSi working group, Performance & Pedagogy, co-edited an issue of *CSPA Quarterly,* and published essays with the *International Journal of Performance Arts and Digital Media,* and *Global Performance Studies.*

Pekka Niskanen is a media artist, filmmaker, researcher, and a Doctor of Fine Arts, who has been exhibiting in museums, galleries, and film festivals around Europe, North America, and Asia since 1990. He has curated several exhibitions, at e.g. Helsinki City Art Museum, Ateneum Helsinki, the Culture Capital exhibition in the Ruhr area, and the Nordic Arts Centre. In 2016, Niskanen made the video work *Community Terrors* on the terrorist attacks of November 2015 in Paris. In addition, he has written two research articles on ISIS's terrorist acts that are based on his own perceptions and on Parisian archival material. During the Bataclan Theatre attack, Niskanen was living opposite the theater, where terrorists killed ninety people in the establishment and on the adjacent street. In 2019, Niskanen directed a film about Iranian metal music, *Iranian Metal Coffee* (30 min). The film was filmed and recorded in Tehran, Iran.

Szikago Pakrel is an international, interdisciplinary arts-based research group interested in collaborative media art practices. It was founded in 2021 as a group of filmmakers, students, artistic researchers, and media practitioners from three different continents within the international network 'Fabulation for Future'. Since then, it has been consolidating as a deterritorialized art collective, actively participating in events such as SAR22, the Nomadic Image Conference in Kyrgyzstan, and the TENT Biennale in Kolkata.

Thalia Raftopoulou is an artist and researcher working at the intersections of contemporary art and sound studies. She works across mediums and listening practices, with a particular focus on affectivities within orality and matter, vibration and vocalization. She is concerned with issues of public space and the in-between of art and everyday life. Raftopoulou conducted a research on listening in the Athenian apartment building PhD, Department of Theory and Art History, Athens School of Fine Arts (2011–2021), and holds an MFA in Public Art and New Artistic Strategies, Bauhaus-Universität Weimar (2010), and a degree in visual arts from the Athens School of Fine Arts, Greece (2006).

An artist, artistic researcher, and curator, Jessica Renfro uses digital participatory practices to create playful, immersive social simulations, using the concept of 'the collective' to build new worlds. In 2021, she received an M.A. in Performance Practices from ArtEZ University in The Netherlands. Her research into participatory art has been published and presented in the APRIA journal (2020) and the 'Politics of the Machines' conference (2021).

Edgar Omar Rojas Ruiz studied music composition at the Centro de Investigación y Estudios de la Música (MX) under the tutelage of María Antonieta Lozano, Alejandro Velasco "Kavindu", and Víctor Rasgado, where he worked as a teacher between 2002 and 2014. In 2009 and 2012 respectively he obtained his Master and Doctorate Degree in Composition at the Janacek Academy of Music (CZ) and Performing Arts under the tutelage of Arnost Parsch and Ivo Medek, where he is currently a Postdoc and a member of the Research Center of the Music Faculty. He has lectured on History of Mexican and Latin American Music, and applications of the Mayan and Aztec number systems to musical composition in America, Europe, and Asia. He has published multiple publications and his music has received international awards.

Based in Vienna, Austria, Karl Salzmann is a media artist who incorporates sound and noise into his artistic practice, combining them in performances as well as through conceptual artworks and installation pieces. His work is characterized by the visual mapping and representation of sound, the incorporation of site-specific conditions and historical references, as well as the social and cultural implications of sound. Salzmann currently teaches at the University of Applied Arts in Vienna and is in the process of establishing and directing the ÆSR Lab – Applied/Experimental Sound Research Laboratory at the Zentrum Fokus Forschung since 2023. Other teaching and workshop activities include the Academy of Fine Arts in Vienna, the University of Applied Sciences in St. Pölten and the HDPK – University of Popular Arts in Berlin. Since 2021 he has been a doctoral candidate at the ARC – Artistic Research Centre of the University of Music and Performing Arts Vienna (MDW).

Lena Séraphin is a writer-artist based in Helsinki. Her postdoc research *Sharing Text* at the Faculty of Education and Welfare Studies, Åbo Akademi University in Finland studied collective writing in public space and site-specific publishing as a research practice. She holds an MA from Goldsmiths' and a doctorate awarded the Aalto University Dissertation Award in 2018 for her dissertation 'The Don Quixote Complex and Investigations into Fictionality'. She is co-founder of the Society of Artist Research Special Interest Group on Language-based Artistic Research. https://writinginpublic.space and https://lenaseraphin.com

Emma Cocker is a writer-artist and Associate Professor in Fine Art, at Nottingham Trent University. She is co-founder of the Society of Artistic Research Special Interest Group on Language-based Artistic Research. Emma was a co-researcher on the project Choreo-graphic Figures: Deviations from the Line (2014–2017) and co-editor of a special issue of *Phenomenology & Practice* on 'Practices of Phenomenological and Artistic Research'. Her writing is published in *On Not Knowing: How Artists Think; The Creative Critic: Writing as/about Practice,* and *The Yes of the No.* https://not-yet-there.blogspot.com/

Torben Snekkestad is a saxophonist and Prof. of Contemporary Music Performance, NMH, Oslo. He holds a PhD from NARP. Snekkestad's music is forged from an intensive amalgamation of technical and interpretive elements. He has worked with a vast number of esteemed musicians. www.torbensnekkestad.com

Søren Kjærgaard is a pianist and Associate Prof., RMC, Cph. Kjærgaard's work encompasses a variety of settings ranging from solo performance to ensemble formats. His work has led to various international performances and a discography of critically acclaimed albums. www.sorenkjaergaard.com

Dr. Márcio A. S. Steuernagel is a Brazilian composer, conductor, and artistic researcher. Steuernagel received his Doctor Artium degree, with distinction, from the Artistic Doctoral School of the University of Music and Performing Arts Graz in 2022, with the dissertation 'Playing with Imperfection: Imperfection in Music as a Fundamental Compositional and Performative Dimension.' Steuernagel is the main conductor of the Federal University of Paraná Philharmonic Orchestra (UFPR); Professor at the School of Music and Fine Arts of the State University of Paraná (UNESPAR), conductor of the Ensemble Móbile, and a founding member of the Ensemble entreCompositores. He lives in Curitiba, Brazil.

Ujjwal Kanishka Utkarsh is a Phd-in-Practice candidate at the Academy of Fine Arts, Vienna. He has been trying to develop a form that emerges out of the observational cinema tradition, and he continues to do so through his PhD project. For Ujjwal, this process resonates with John Cage's ideas of beauty, which he has explored through various forms. He has looked at ideas of nothingness, of being in transit and also labor practices, specifically at uncommon farming practices. His films and video works have been shown at various film and video art festivals and exhibitions globally. He regularly presents his works at conferences, particularly in the domain of artistic research.

Ujjwal primarily makes films while frequently dabbling with other forms like photography, sound, and theater. He set up and headed the film direction department at the State University of Performance and Visual Arts, Rohtak and later went on to become a regular faculty member of the film department at Srishti Institute of Art, Design and Technology. Over the last decade and a half he has continued to teach as a visiting faculty member at various universities such as the National Institute of Design, Ahmedabad, India.

Claire Waffel is a visual artist working across photography, video, and installation. Currently, she is a doctoral student at Bauhaus-Universität Weimar and an ELES Research Fellow. Her artistic research focuses on ways of addressing and engaging communities affected by the rise in sea-level. Through compiling different methodologies into a visual language, the research aims to reveal the relationships between communities, architecture, and climate change that are about to undergo radical transformations in the context of rising seas.

Andy Weir is an artist, writer, and Senior Lecturer in Fine Art at Chelsea College of Arts, University of the Arts London. His work explores politics, agencies, and subjectivities within deep time, focusing in particular on nuclear toxicity through myth and materialist philosophy. Recent exhibitions include 'Splitting the Atom', Vilnius Art Centre; 'Perpetual Uncertainty', Malmo Art Museum and Umea Art Museum, Sweden; 'The Work of Time', Z33 House for Contemporary Art, Hasselt, Belgium, and 'Neuhaus', Het Nieuwe Instituut, Rotterdam. Recent publications include articles and chapters in *Politics of Design Reframed* (Public Space, 2022), *Journal of Visual Culture* and *Realism Materialism Art.* He completed his PhD at Goldsmiths, University of London, where he continues to work with the Nuclear Cultures Research Group.

Lea Maria Wittich (*1994 in Hanover) is an artist living in Weimar. She holds an M.F.A. in 'Public Art and New Artistic Strategies' from the Bauhaus-Universität Weimar. She is an Artistic Associate and a PhD candidate at the Faculty of Art and Design. As she studied Fashion Design at UDK Berlin, her practice is rooted in craft and material processes. Her artistic work reflects on questions of social and ecological justice and the coexistence of human and non-human agents. She uses different media, in particular clothing, sculpture, and performance, often in public spaces. In addition to her practical artistic work, she realizes curatorial projects in collaboration with other creative practitioners.

Acknowledgments and Sponsors

Speaking about the 'Thanksgiving Address of the Haudenosaunee Confederacy', scholar Robin Wall Kimmerer suggests that 'recognizing abundance rather than scarcity undermines an economy that thrives by creating unmet desires…' (Kimmerer 2013: p. 111). Approaching research from a standpoint of abundance questions assumptions of scarcity in academia — of resources, of funding, of time, of opportunity, of attention. Either there will never be enough to go around, or with a sense of thanksgiving, everything we need is right here right now. Abundance goes unmentioned in the *Frascati Manual* or *Vienna Declaration,* an omission that makes the artistic research community stand out among art and design disciplines. Artistic research is a place of ideas and skill-sharing, methodological plurality, and of generosity, curiosity, and inclusivity.

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Colophon

Mend, Blend, Attend
Advancing Artistic Research

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02.07.2022

15.50	Break	
16.10	Lynne Heller,	Thinking/Sinking Into the Folds of Craft
	Tricia Crivellaro	and the Digital Turn
	Grenier,	
	Dorie Millerson,	
	Kathleen Morris	
17.10	Session Wrap-Up &	
	Discussion	
	Session 6	Atelier Jana Gunstheimer: Hauptgebäude
		Room 207 Geschwister-Scholl-Straße 8,
		99423 Weimar
14.30	Open Doors &	
	Session Intro	
14.50	Joana Blochtein	Cold Skin, Machines that Vibrate Us
	Burd	
15.20	Break	
15.40	Sally Elizabeth	The Somatic Costume Dressing Room -
	Dean	Mending and Attending Through Touch
16.40	Exploration &	
	Session Wrap-Up	
	Discussion	
	Session 7	SeaM - Studio für elektroakustische Musik:
		Coudraystraße 13a, 99423 Weimar
14.30	Open Doors &	
	Session Intro	
14.50	Christina Lammer	Blautöne: Shades of Blue
15.20	Barbara Macek	Blending Worlds with Mending Words: How to
		Transform the Autoimmune Body Into Poetry
15.50	Break	
16.10	Ruth Anderwald	Dizziness, Anxiety, and Climate Action.
		Reflecting the Possibilities of Artistic
		Research from the Viewpoint of the
		Compossible Space
17.10	Session Wrap-Up	
	Session 8	Hörsaal A: Marienstraße 13c, 99423 Weimar
14.30	Open Doors &	
	Session Intro	
14.50	Kira Kumār	Epistolary Ancestries
15.50	Break	
16.10	Thomas Hawranke	Dreaming in the Witch House
17.10	Session Wrap-Up &	
	Discussion	
	Session 9	Hörsaal B: Marienstraße 13c, 99423 Weimar
14.30	Michael Schwab,	Ten Years with the Journal for Artistic
	Henk Borgdorff	Research: Impact and Challenges
15.50	Break	
16.10	Luc Döbereiner,	Research Catalogue: A User Introduction
	Tero Heikkinen,	to the Versatile and Most Used Online
	Casper Schipper	Platform for Artistic Research
	Workshops	
09.00	Morning Warm-Up,	
	Snacks and	
	Socialising	
10.00	Adelheid Mers	Respectful, Detailed, Ethical Engagements:
		Facilitating Micro-Practices for a New
		Gentleness
10.00	Lena Séraphin,	Tender Dialogues: Suspending Artistic
	Emma Cocker	Research Writing as Meaning-Making
10.00	Nick Laessing,	Hydrogen Kitchen Workshop
	Philipp von Hilgers	
14.30	Annette Arlander	Attending to Remarkable and Unremarkable
		Trees
14.30	Lea Maria Wittich	Searching for Nature
		(Tour through the ‘Park an der Ilm’)
14.30	Artistic Programme	Sneaky Translators, a Commentary on
		Hybridity and Conferencing within
		a Conference
18.00	Berhanu Ashagrie	Keynote “Loss and the Possibility of
	Deribew	Imagining a Different ‘We’”
20.00	Self-Organized	
	Dinner	
20.00	Artistic Programme	