MY PROPOSITIONS SERVE AS ELUCIDATIONS IN THE FOLLOWING WAY: ANYONE WHO UNDERSTANDS
ME EVENTUALLY RECOGNIZES THEM AS NONSENSICAL, WHEN HE HAS
USED THEM — AS STEPS — TO CLIMB BEYOND THEM. (HE MUST, SO TO SPEAK, THROW AWAY
THE LADDER AFTER HE HAS CLIMBED UP IT.)

HE MUST TRANSCEND THESE PROPOSITIONS, AND THEN HE WILL SEE
THE WORLD ARIGHT.

MEINE SÄTZE ERLÄUTERN DADURCH, DASS SIE DER, WELCHER MICH VERSTEHT, AM ENDE ALS
UNSINNIG ERKENNT, WENN ER DURCH SIE — AUF IHNEN — ÜBER SIE
HINAUSGESTIEGEN IST. (ER MUSS SOZUSAGEN DIE LEITER WEGWERFEN, NACHDEM ER AUF
IHR HINAUFGESTIEGEN IST.)

ER MUSS DIESE SÄTZE ÜBERWINDEN, DANN SIEHT ER DIE WELT RICHTIG.
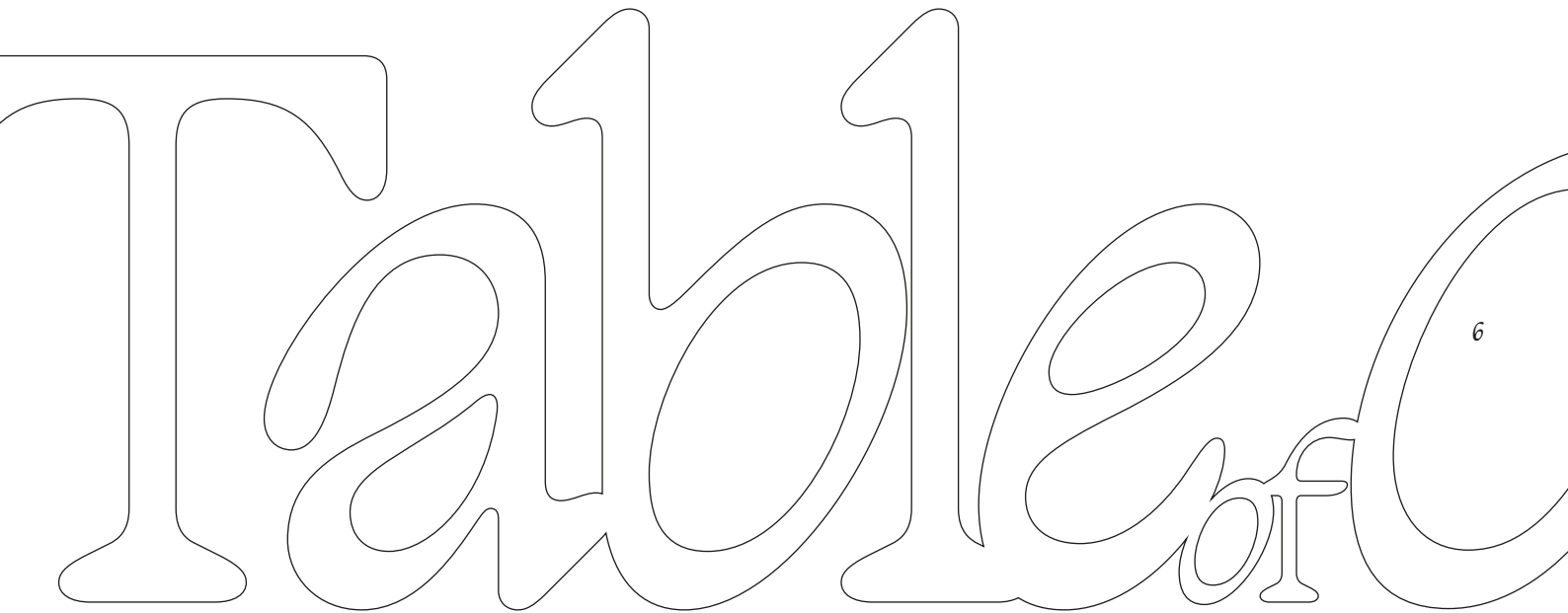
reposition

With contributions from

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Foreword

Vienna 2023

reposition was founded in 2022 to present diverse research approaches at the University of Applied Arts Vienna. The journal is open to all topics and disciplines at the Angewandte, and to researchers of all levels. We seek to shed light on a research environment that is diverse, personal, and critical. We also want to facilitate dialogues between existing theoretical and methodological positions in order to enable a challenging and dynamic research discourse. We are utilizing the Angewandte's environment to stimulate connections, discover new positions, repositions and personal encounters. We seek to further develop peer culture and enable research. Repetition is the key ... is it, though? The second issue of reposition already deviates from repetition — it introduces a repositioning. We use the act of repositioning to convey ideas in motion rather than looking for rigid boundaries and definitions, in our understanding this is about the development of an active peer culture and peer quality (keyword: peer review). Through this exercise, we discover promises for potential rather than focusing on keeping promises. Imagining new potentials offers new opportunities. We believe that a certain connection in sense and sensing, in emotion and reasoning helps to recognize exciting and promising new paths. Endless possibilities are on offer. Yet choosing the one that will make a difference allows us to formulate truly new positions, such that pull the future into the present. After all, it is not infinite offers that create solutions, but specific ones.

In total, readers will encounter eight positions in this issue. Allow yourself to be moved and transformed by these positions.

Thomas Ballhausen (author and philosopher) and Elena Peytchinska (Institute of Fine Arts & Media Art—Stage and Film Design) contribute the first few pages of reposition with *Herbarium of Words: Literary Style at the Scale of a Street*. The essay artistically explores the interrelations of space, language, and literature and takes us on a walk through Vienna's streets. The herbarium serves as a point of departure for historical observations, which is seen as a form of subjective and personal archiving of urban experiences by means of linguization. Their performative approach combines film stills, poetry, and theoretical backgrounds to transform the boundaries of text and bibliographic formats.

This is followed by Pamela Breda's (Digital Arts) contribution *Notes On Artificial Intelligence And The Rise Of New Images*. She explores how hyper-realistic computer-generated images (CGI) reshape our perception of reality and its implications for human creativity. Her considerations stem from an ongoing interdisciplinary artistic research project that combines positions from visual cultural studies, cognitive psychology, and perceptual theory with historical perspectives. Breda's contribution reflects on the historical background of CGI, its influence on various domains of individual and collective life, and its philosophical implications. While Ballhausen and Peytchinska take us on a walk around boundaries, Breda provides current viewpoints on the position of AI and its past implications.

Leo Hosp (Center Research Focus) widens our perspective through her contribution *I Can See Queerly Now. Queer Perspectives On Project Work,* which is a reflection on queer working practices. Hosp intertwines her own experiences of queerness with insights from collaborative project work within the Action for Sustainable Future (ASF) hub. Hosp's contribution refrains from defining queer research. Instead, it explores different aspects and approaches to deal with an inherently fluid term to propose a queer project work manifesto. Presented as a momentary insight into Hosp's research, it is not to be understood as a finalized outcome but an open invitation.

Gabriela Krist (Institute of Conservation) and Marie-Christine Pachler (Institute of Conservation) provide solutions for challenges in seemingly obvious everyday situations in their contribution on *Sustainable Behavior with Cultural Heritage: Study on Visitor Awareness.* This text provides insights and findings from a study of awareness-raising measures conducted at Schönbrunn palace. This site is particularly popular with tourists and must deal with the wear and damage of displayed objects. As conservators, the authors draw attention to the damage that visitors can cause, and examine different educational measures to improve awareness among tourists and staff members.

In his contribution *Post-Digital Angst—The Direct Experience,* Mong-Sum Joseph Leung (Center Research Focus, PhD candidate PhD in Art) explores anxiety in the post-digital age, examining it as a basic anthropological condition in relation to concepts such as hollowness, nullity, and the unknown. Leung intertwines personal experiences from daily life with his artistic practice and ontological reflections on the human condition, working with Heidegger's notions of *Sorge* and *Angst*, to reflect on affective experiences in a digitalized world.

Conny Zenk (Center Research Focus, PhD candidate PhD in Art), Bianca Ludewig (researcher and journalist) and Magdalena Scheicher (researcher) are interested in taking not only unusual paths but also using vehicles in different ways. In their contribution *A Collective Cycling Body Of Sound*, they reflect on the bicycle as a medium for art and sound and present activist strategies of collective cycling to open up queer-feminist, solidarity-based perspectives on the city. In doing so, they explore the possibilities of public space as a sound space and discuss insights from Zenk's activist practice. Inviting Ludewig and Scheicher for interviews, Zenk discusses bikefeminism and counterpublics, and approaches soundrides as a form of empowerment.

Continuing with the topic of sound, Sophie Luger (Institute of Architecture) and Lenia Mascha (Institute of Architecture) address the increasingly important issue of urban noise pollution. *Sound-Cape. Combating Environmental Noise in Urban Areas* explores how sound and noise prevention can be incorporated into architectural design. To develop building structures for noise control in urban environments, the authors examine contradictory historical approaches from architecture and acoustics to learn about the relation of sound and material. Their approach focuses on geometry; experiments with Chladni patterns show that geometrical and material properties of architectural façades have an impact on spatial acoustics and result in the design of ornamental elements that can reduce unwanted noise in cities.

Taking repositioning literally, we finally return to action and its suspension, or better put, to *Withdrawing the Performer. Facilitating Participatory Sense-Making,* by Imani Rameses (Center Research Focus, PhD candidate PhD in Art), Charlotta Ruth (Angewandte Performance Lab), and Jasmin Schaitl (Angewandte Performance Lab). They combine their approaches from visual arts, choreography, and cognitive neuroscience to examine participatory modalities in immersive performative settings through the lens of social cognition. They focus on the role of the facilitator, a nearly invisible and overlooked, but highly important part of any performative situation. Working with facilitator experts in a practice-based peer-to-peer exchange, the authors seek to understand different methods for reducing thresholds and modulating participatory situations.

We continue our mission to understand research differently. To this end, we proudly present these eight positions, which are endeavors of curious repositioning. We hope to have made a difference.

Alexander Damianisch
Project Lead & Editorial

Herbarium *of* Words: Literary Style *at the* Scale *of a* Street

Thomas Ballhausen is a writer, philosopher, and media scholar. He received his PhD in Language Arts (Creative Writing) at the University of Applied Arts Vienna in 2022. His research topics include aesthetics, digitality, and literature as artistic research. Together with artist Elena Peytchinska he co-authored a series of publications, most recently "Fiction Fiction" (2023; edition angewandte/De Gruyter).

Thomas Ballhausen

AUTHOR AND PHILOSOPHER

Elena Peytchinska is a visual artist, performance designer, and lecturer at the Department of Stage and Film Design (University of Applied Arts Vienna). She received a PhD in Language Arts (Creative Writing) at the University of Applied Arts Vienna in 2022. Together with poet Thomas Ballhausen she co-authored a series of publications, the most recent of which is "Fiction Fiction" (2023; edition angewandte/De Gruyter).

Elena Peytchinska

INSTITUTE OF FINE ARTS & MEDIA ART — STAGE AND FILM DESIGN

Setting the Scene

"Ah, vivre livre ou mourir!"
(after Alejandra Pizarnik)

Walking through the city and collecting words. Words picked up from the street: written words, spoken words, words enunciating sensual experience, funny words, sad words … Words measure the city and create regions, similar to the incoherent and coherent fields of a speculative atlas. Like plants, they are plucked and gently placed in a herbarium. Wordplants / plantwords: classified, declassified. They reify and display stages of material transformations. Words are lines, weaving the *text*ure through which the city can be read.

"Herbarium of Words" is a project within a series of artistic research collaborations, addressing several practices of interrelation between space and language: the potential of creative writing as a method for spatial production — in this case, within a city; the spatial agency of a book; the specific mediality of a herbarium as a repository for spatio-temporal *intra-actions* (Barad 1999), tracing and archiving our experience of the city with and through words; and the interweaving of — and walking through — various textual and textural genres: poetry, essay, bibliography, diagrams, time-space-drawings / video stills. These practices are articulated through the lyric essay "five" by Thomas Ballhausen; essayistic fragments elaborating on our methodological choices; a bibliographic catalogue of our references, which we conceive not as referential material outside of the project but as an active participant in it, acting as a literary genre with a spatiality of its own (Ballhausen 2022); and a series of video stills, "herbarium 5" by Elena Peytchinska operating as *more-than-texts* (Peytchinska 2022) and reenacting the textu(r)al body of Ballhausen's essay by exploring the visual, spatial and processual potential of a herbarium.

Methodological
Meshwork

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

We comprise our practices in a methodological mesh-work, the procedural operativeness of which weaves the layers of our various approaches to and experiences of the city (and its texts) into each other and onto the concrete spatiality of this essay on the printed page and the digital surface.

Three main influences activate the creation of the lyric essay "five" and saturate the experience of walking across Vienna while trying to avoid bumping into curious or even worried-looking pedestrians: the theory and practice of Psychogeography, the aesthetic strategies of the artistic movement Oulipo, and the concept of referential fiction, within the framework of which the selected sources included the first sentences of fairy tales, examples from the history of literature, and a historical textbook on botany. These references act as methodological preconditions for the production of the lyric essay and prompt the choice of five Viennese streets where the gathering of word-material takes place: Kaiserstraße, Burggasse, Berggasse, Ferdinandgasse, Drachengasse. The writing of the text traces the writer's subjective experience embedded in the preconceived referential programmatic, thus becoming contingent lyric cartography.

The video still series "herbarium 5" reenacts and transposes the practice along and through which "five" emerges into the specific archival spatiality of a herbarium. The fragments of the lyric essay, spacing themselves across the printed (or digital) surface, become streets: streets made of letters, words, sentences—found, invented, imagined, or referred to—which could be read not as a completed literary work but as a territory endowed with fields of attraction, material and semantic intensities, various dynamics of flow, percolation, disruption, sliding. The transposition of the gathered word-material into a digital time-based medium proceeds along the following scientific and artistic practices: the multioperative, archival practice of generating a herbarium, Jane Rendell's critical practice of Site-Writing, and Derek Jarman's technique (and aesthetics) of notation.

A herbarium aggregates various medial and spatial articulations: the diagrammatics of classifying and archiving of the gathered plants, the time involved in drying them, and the resulting de- and trans-formation of the specimens. A herbarium could also act as a personal notebook, which resonates with the subjective and somewhat random experience of a walker. Jane Rendell's practice of Site-Writing—addressing spatial aspects of critical writing, both in regard to the situatedness of the critic and the site-specificity of writing itself—offers a viable methodological tool for disentangling the complex spatio-political meshwork of a herbarium. We encounter the method of *herborizing* ideas, artifacts, and plants in Derek Jarman's sketchbooks, where the gathered material trans-forms into the future film. By reenacting the duration of plant-drying, the multioperativeness of specimen-gathering, and the diagrammatic articulation of their organization, Jarman develops a notation technique similar to that of the herbarium for his research.

The decision to transpose the word-material of the lyric essay "five" not into a video but into fragments/snapshots of a presumed, animated video is additionally motivated by Karen O'Rourke's expression "Drawing with time and space" (O'Rourke 2013, pp. 154–160). In the homonymous chapter of her seminal book "Walking and Mapping: Artists as Cartographers," O'Rourke observes the work of several filmmakers (e.g., Patrick Keiller, Marie Preston, Jana Sterback, Gus Van Sant) who apply the method of Psychogeography in their work and/or use filming as a technique for walking, replacing the "rapid-fire cutting, zooming, and panning" (O'Rourke 2013, p. 154) of the film's postproduction through the slow gaze (and gate) of the camera. For our project, we adopt the idea of *time-space-drawings* as the medial extension of a video still, thus emphasizing the temporal aspect of transposing the word-material into another spatial articulation, its processing, as well as the contingency of diagrammatic movements; however, suspending the expectation for completion embodied in a video format. Consequently, the video stills activate a mediality of their own as snapshots, marking the unknown duration and suspending the endpoint of a potential video.

Psychogeography and its Layers

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

Psychogeography could be described as a theory and practice of both conscious and modifying ways to deal with the realities and given structures of the urban landscape (Coverley 2010; Sidaway 2021). The main strategies of Psychogeography are *détournement*, which refers to productive misappropriation, and *dérive*, a playful roaming, often based on chance, like the roll of a dice. Examples from literary history that make use of these strategies of poetic exploration are, in fact, much older than Guy Debord's and his Situationist movement, which often comes to mind when thinking of them. Early examples we could identify are Daniel Defoe's "A Journal of the Plague Year" (1722) or William Blake's long poem "Jerusalem" (1804). This practice of associative mapping can be traced through the literature of the nineteenth and twentieth centuries. Baudelaire, influenced by Edgar Allan Poe's "Man of the Crowd" (1840), characterized the *flâneur* in his famous essay "Le peintre de la vie modern" (1863). One can also find traces of these specific correlations between literature and urban spaces in Louis Aragon's "Le paysan de Paris" (1926), André Breton's "Nadja" (1928) or Julio Cortazar's "Rayuela" (1963), to name a few titles. The list goes on and includes such diverse writers as J.

G. Ballard, Dave McKean, Iain Sinclair or Peter Ackroyd (Ballhausen 2012). A more recent example of great interest is Ben Lerner's novel "Leaving the Atocha Station" (2011). His book, among others, not only proves that concepts and practices of Psychogeography are still intact and of interest — the text itself reflects upon the way it is produced and shows its textual as well as spatial conditions:

"On these days I worked on what I called translation. I opened the Lorca more or less at random, transcribed the English recto onto a page of my first notebook, and began to make changes, replacing a word with whatever word I first associated with it and/or scrambling the order of the lines, and then I made whatever changes these changes suggested to me. Or I looked up the Spanish word for the English word I wanted to replace, and then replaced that word with an English word that approximated its sound ('Under the arc of the sky' became 'Under the arc of the cielo', which became 'Under the arc of the cello'). I then braided fragments of the prose I kept in my second notebook with the translations I had thus produced ('Under the arc of the cello/I open the Lorca at random', and so on)."

(Lerner 2011, p. 16)

a) systematics, anatomy

Another beginning.
Tighten the knots. Perhaps steps.

What that means anyway:
making a beginning.
To halt, picking, looking.

*When it comes to the parts
of flowers, the number five is
dominant.*

Take in the composition,
roll the dice. Drop it.

Repeat after me:

*Once upon a time.
It happened.
A long time ago.*

*A king had a daughter, who was
the fairest of them all, but proud
and cocky.*

*In days of yore, when wishing still
helped.*

Statutory beginnings. Gather
yourself, put in order.
*The first kind of system we may
call artificial or practical, one of
the second kind we may call
naturally or scientific.*

What does it even mean:
making a beginning.

*The classification given refers to
a peculiarity which all plants of
that kind share.*

emperor

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

Once Upon a time.

Open, closed.

Action toys, breezy fashion,
the clanging chain of a happily
leashed one.

A shirt made as if of chrome, *this
leaf is called labium.*

Rooms to rehearse in, to exhibit
in, the way of the tracks.

A guest performance, looking for
actors to join in.

*The individual plants differ from
each other in varying degrees.*

The danger of an unhappy chance
encounter, bottled moments.

En gros, en detail.

*Both types of reproduction
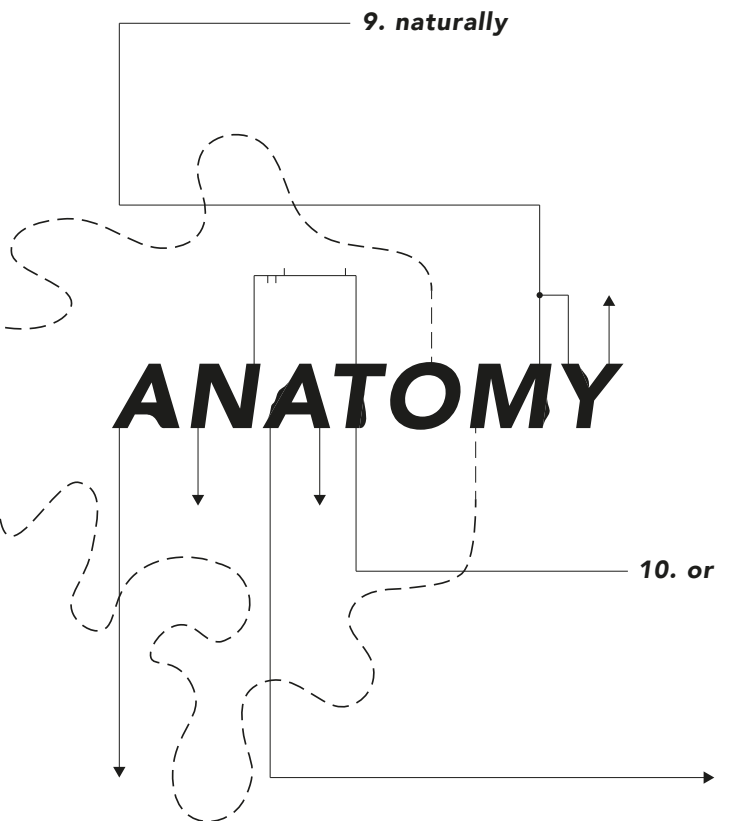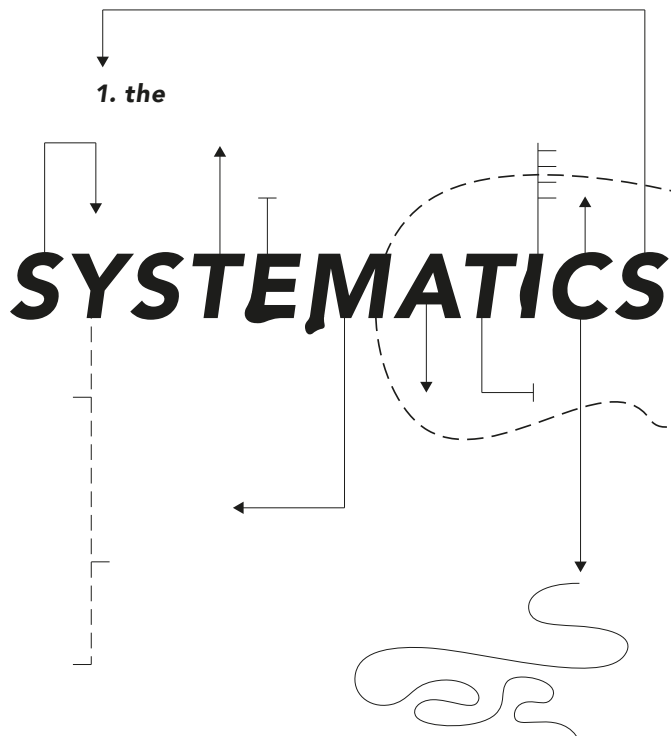alternate on a regular basis.
This effect is called generational
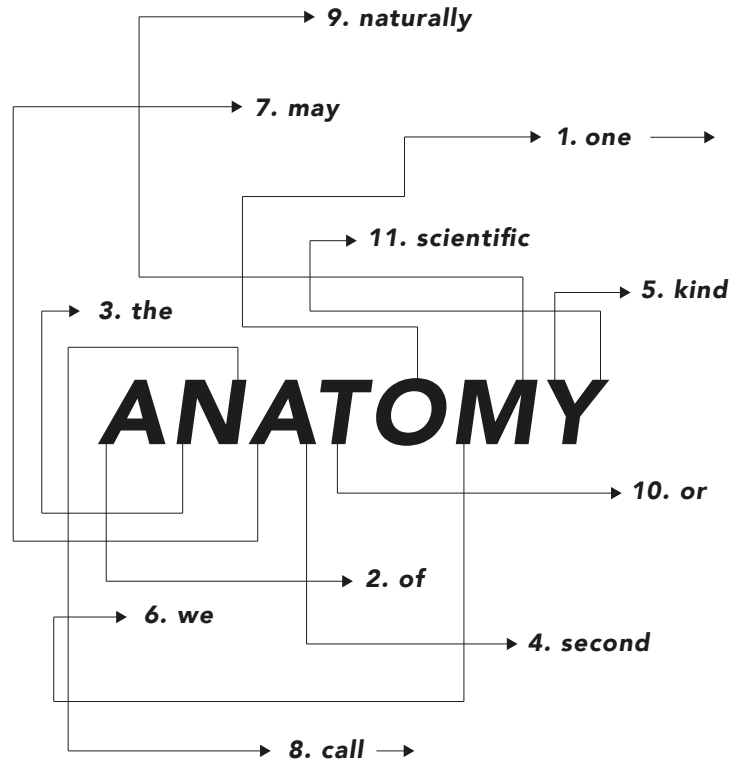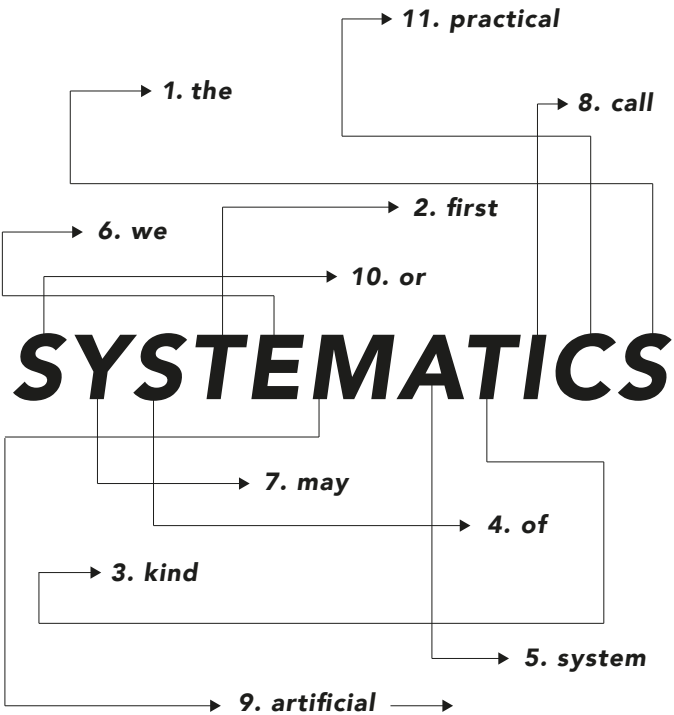succession.*

Intersections, crossings.

Kleeian Ways: Oulipo and Perec
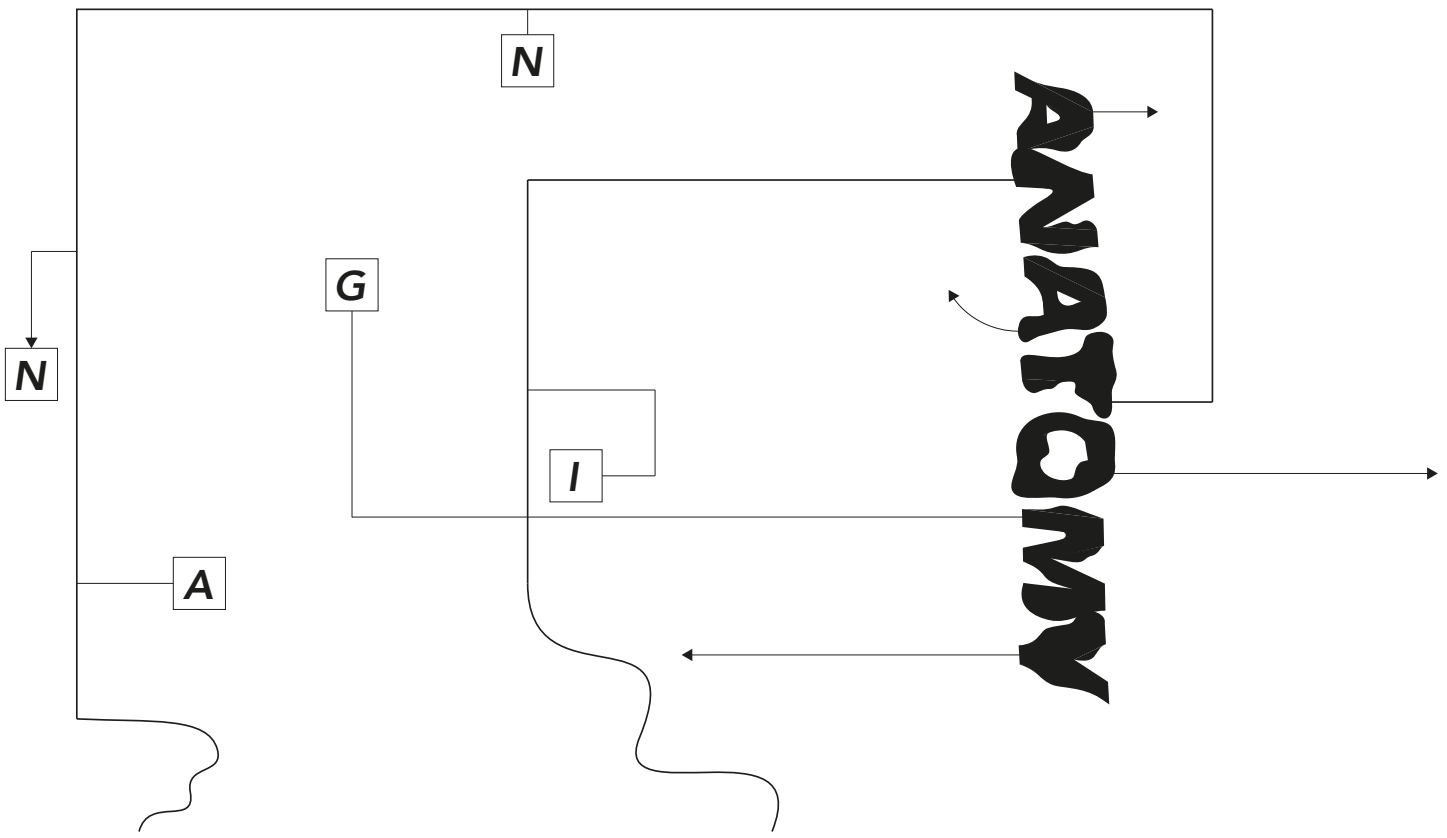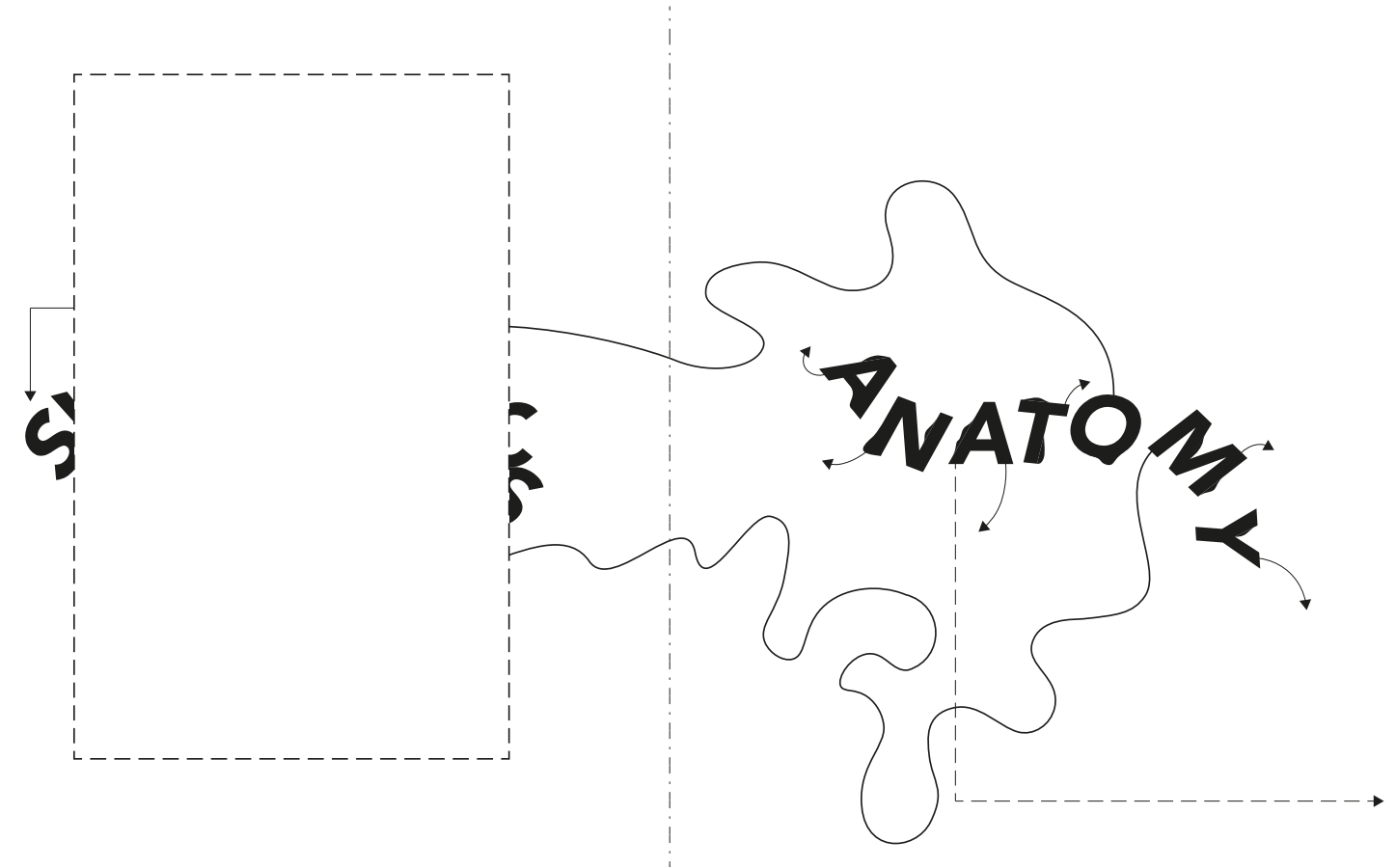
THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

A quotation from the very readable study "Many Subtle Channels: In Praise of Potential Literature" by David Levin Becker reads: "How the Oulipo, and the principles it incarnates, can make unlikely pairings—of people, of ideas, of ways of life—seem not only plausible but also promising, not only interesting but also indispensable" (Levin Becker 2012, p. 6). Oulipo is an acronym for *Ouvroir de littérature potentielle*, meaning Workshop for Potential Literature. The members of the international Oulipo, which was founded after the Second World War and still exists today, do not consider themselves a typical movement, but depending on which member one asks, see themselves as more of a secret laboratory of literary structures, a group of rats building a labyrinth from which they plan to escape, or even as a living novel. The group invented and experimented with literary constraints, pointing towards the fact that nothing like a natural text exists, but many ways to be inspired. Their writings, often dealing with the urban landscape, follow these rhetorical, mathematical, and further formal constraints, producing a vast body of literary works. Among their members are Raymond Queneau, François Le Lionnais, Italo Calvino, Harry Matthews, and even one fictional character. One of the most influential members of Oulipo is French writer Georges Perec. His "Species of Spaces," initially published in 1974 within the series "L'Espace critique" edited by Paul Virilio, explores space and attempts to exhaust it. Perec's spatial *taxonomy* begins with the book page, traversing various spatial articulations—the bed, the room, the street, the house, the city, the country—until it reaches "space" (Perec 2000). His book is not an attempt to provide us with a coherent theory of space but a literary attempt to rethink how we deal with it. His tiny but significant book includes a number of text types: a description of paintings, mini-essays, songs, notes for further projects, and quotes from other works. "Species of Spaces" is dedicated to the painter Pierre Getzler, with whom Perec exchanged a couple of letters about Paul Klee's work. Like Klee's paintings, which display their production process, Perec's book does not represent the visible but aims at a literary, transformed, performative, and unexpected visibility.

Referring to William S. Burroughs and Brion Gysin, the Dutch writer Wilfried Hou Je Bek defined Psychogeography as "city space cut up" (O'Rourke 2013, p. 7), a bottom-up approach towards given structures and conditions. If we take the Oulipo notion of an increased understanding of literature seriously, Psychogeography is not only a set of writing instruments but, as Karen O'Rourke puts it, "a toolbox for reading" (O'Rourke 2013, p. 6).

The ever-changing object of the book is directly linked to this. In "Elements of Typographic Style," Robert Bringhurst pointed out: "If the book appears to only be a paper machine, produced at their own convenience by other machines, only machines will want to read it" (Bringhurst 2013, p. 143). This is also true of our approach. When it comes to books and cities, we are obviously in need not only of creative writing but also of creative reading.

SYSTEMATICS

11. practical
1. the
8. call
2. first
6. we
10. or
7. may
4. of
3. kind
5. system
9. artificial

ANATOMY

9. naturally
7. may
1. one
11. scientific
5. kind
3. the
10. or
2. of
6. we
4. second
8. call

SYSTEMATICS

1. the

ANATOMY

9. naturally
10. or

ANATOMY

ANATOMY

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ANATOMY

castle

It happened.

You're right on this one.

Milky glass, no use calling for a locksmith.

Take out the maps, who is taking whom.

Don't step on the line, graffiti walls all around.

Trespassers will be prosecuted.

We distinguish, according to the function of the texture, the following main categories:

Vintage, second hand, colour laundry, extra beautiful.

No tragedy, just common shoplifting.
It's easy to be a nude on film, dumbstruck.

Montage, alterations, a tailor's offer.

Eavesdropping, line by line.

Peep Show, mend the look, please contact us.

Referential Fiction

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

23

The third leading influence for the production of "five" is a specific source of historical scholarly literature, an Austrian textbook on botany from 1924 (Wettstein/Schnarf 1924), printed by the Viennese publisher Hölder Pichler Tempsky, a famous publisher of school books still in existence. The sentences interweaved in the body of the lyric essay were selected on a non-linear as well as non-structural basis. This referential practice becomes a methodological strategy, thus mapping all topics and terms included in our project. The decision to obtain detailed bibliographic information reveals the concept of bibliography as an autoptic exploration of a space for thinking, reading, and writing. The resulting overlaps, duplications, and contradictions are deliberately taken into account, claiming nothing less than the bibliography as a literary space and text type. This means redeeming traceability and reference, but it also means going beyond the traditional function of bibliographies. Therefore, bibliographies could be understood as formally designed aesthetic propositions and referential fiction.

Walking Through a Herbarium

The specific book-type of a herbarium displays not only visual elements emerging through the organization and classification of the collected plant specimens but also marks the *site* where multiple operations and techniques of the preparation process intersect. The five-hundred-year-old practice of herborizing transgresses the frontiers between the scientific and the aesthetic, the objective and the personal. Practices and techniques for gathering, pressing, drying, mounting, labeling, and accessioning the specimens (British Columbia Ministry of Forests 1996; Queensland Herbarium 2016; Forrest et al. 2019) contribute to the aesthetics of collecting, archiving, and classifying (Loreck et al. 2017, p. 78), occasionally also revealing the individual work style of the collectors. In "Field Study," poet Helen Humphreys describes the democratic activity of creating a herbarium, which was a widespread practice in the nineteenth century, common to both scientists and amateurs, as it required a few simple tools: "a notebook and pencil, magnifying glass, and specimen bag" (Humphreys 2021, p. 23). Some herbarium examples were, due to the multilayered display of their classification systems, similar to notebooks, revealing much more of the personality of the collector rather than exact scientific descriptions. As an example, Humphrey evokes the herbarium notebooks of Austrian botanist Roland Beschel (1928–1971) (Humphreys 2021, p. 27). Yet, the production of early modern herbaria, in the first half of the sixteenth century, reflected the emerging technologies for observation and visualization at that time, the development of which was (among others) motivated by aspirations for colonizing *new* territories. "The myriad plant specimens brought to Europe as part of the colonial enterprise presented an organisational and epistemological challenge, necessitating new technologies of preservation and description" (Batsaki 2021, p. 394). In contrast, the current challenges of new technologies in processing and reading herbarial data, is the precision (de Lutio et al. 2021) in "extracting DNA to help decode the evolutionary history of related plants" (Humphreys 2021, p. 30), facing polytopic—or even heterotopic (Foucault 2013)—challenges in accessioning the data of the gathered specimens.

a) mountain

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

A long time ago.

Samurais and goldfish, separated
only by glass.

I stay calm, though.

Military, forbidden zone. A
well-fitting helmet, a poorly
manufactured bulletproof vest.

Please ring.

A deceased girl, walking along the
street.
Childbearingly bloated, her
tumour.

Please don't ring.

For rent, for sale, to let.

Titles on display, completely
unreadable.

Looking out for signals and
colours,
aiming for a harlequin of a text.

*This florescence is called
anthodium.*

Golden, vibrant and knee-length.

The infancy of art in a showcase,
dust barely gathered.

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12. almost
6. anyway
15. dust
5. means
4. that
46. in
45. put
14. of
13. free
3. what
47. order

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time.
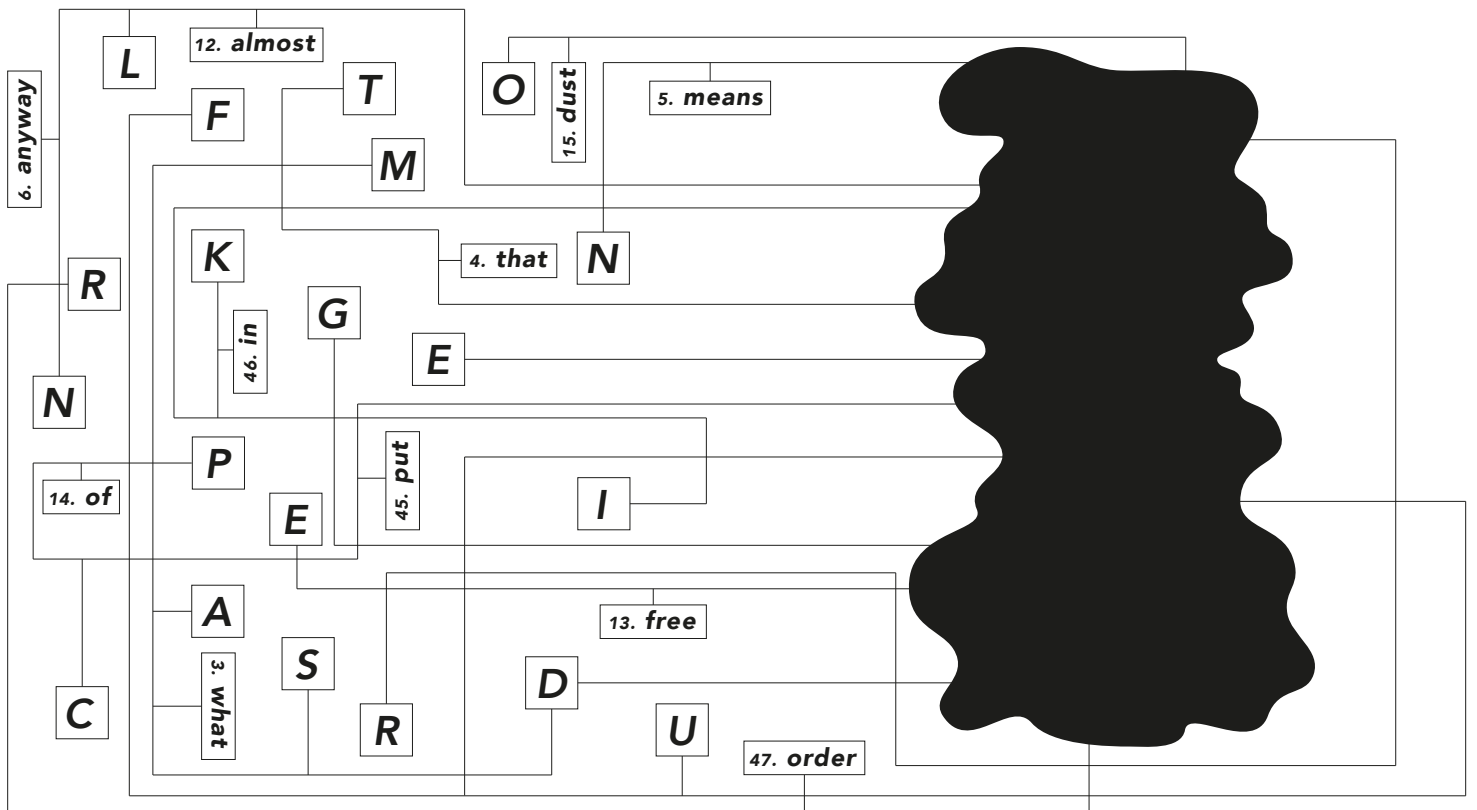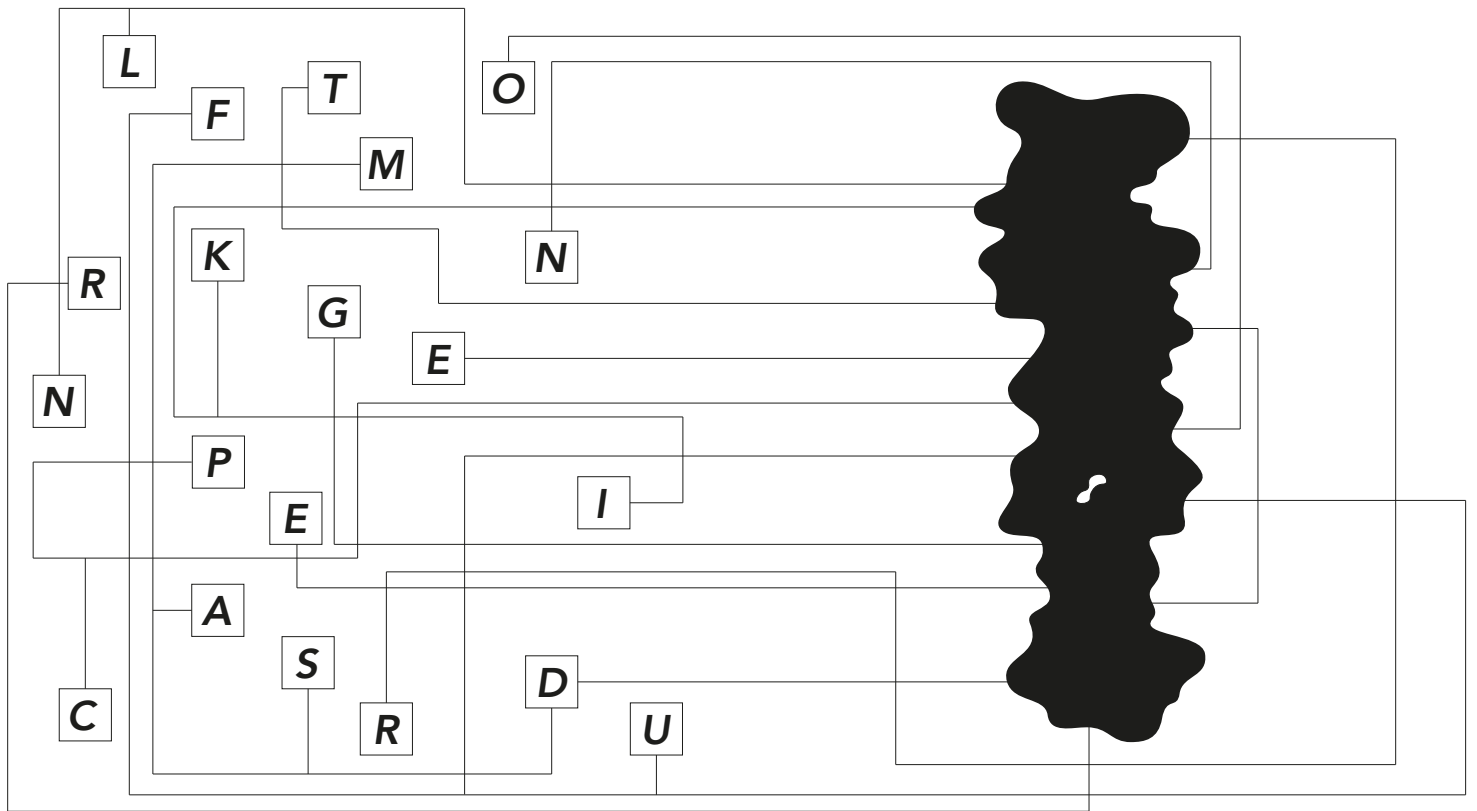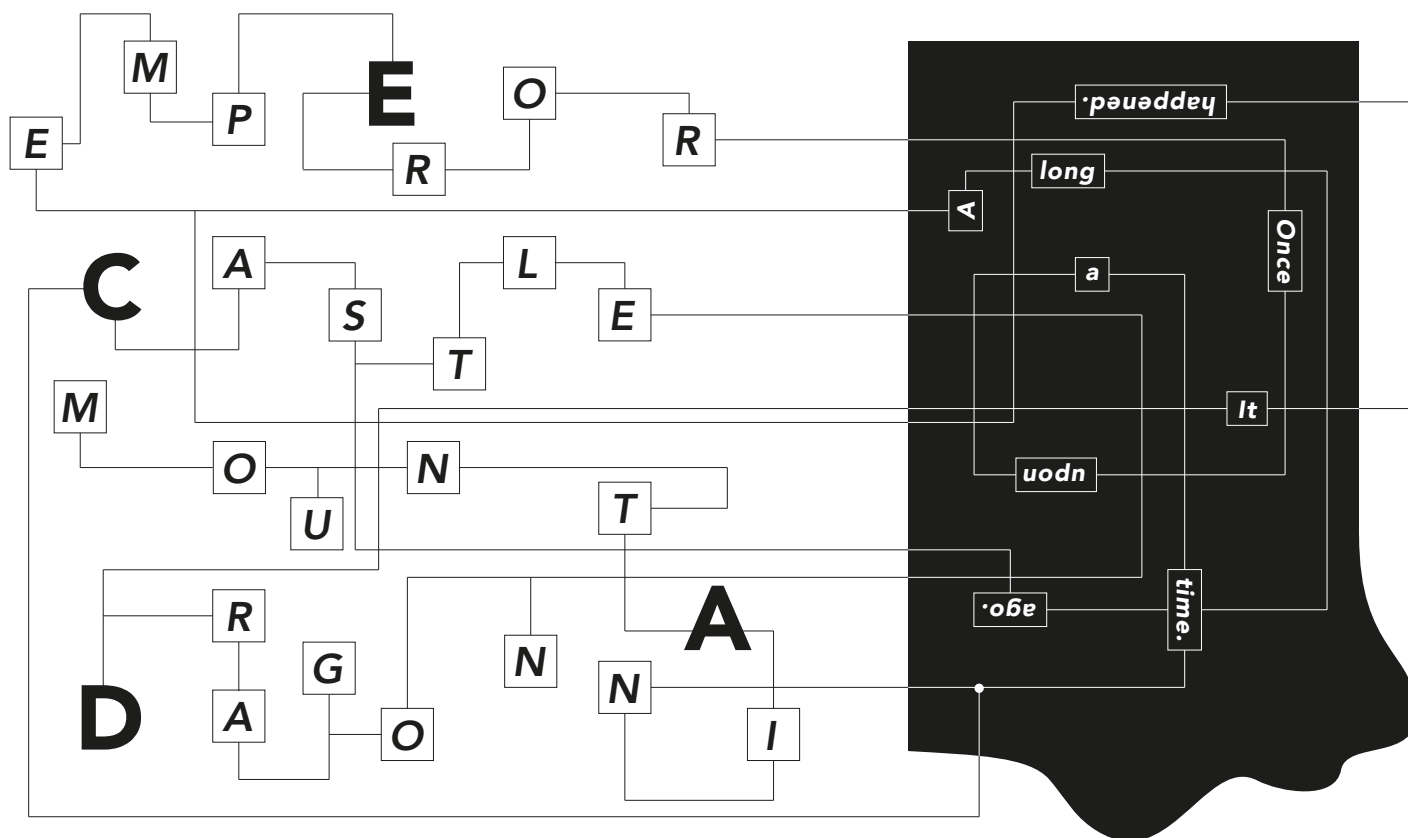
EMPEROR

CASTLE

MOUNTAIN

DRAGON

We distinguish, according to the function of the texture, the following main categories:

a)

b)

c)

d)

Ferdinand

*A king had a daughter, who was the
fairest of them all,
but proud and cocky.*

Here the past piles up, a battered
friendship
peeking around the corner.

Yesterday's ghost, in the midst of
a bit of green.

*The colour of the bastard hybrid
is thus
a crossbreed of its parents.*

Jewels, on display or kept secret,
petrifactions.

*All those damsels in distress/
Half-undressed or even less ...*

Factories of the possible, not easy
to enter.

Site-Writing/Site-Reading a Herbarium

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

The aesthetic appeal of a historic herbarium is thus embedded in a colonial mindset of appropriation—of occupying by collecting. In order to engage critically with this fact, we adopt Jane Rendell's concept of Site-Writing as a method for productively including this awareness in the process of further transposing the *herborized* word-material by shifting the focus from *collecting* to (transmedially) *dispersing* and *distributing*.

Throughout her career as an architectural designer, feminist architectural historian and theorist of critical spatial practice, Jane Rendell developed the notion of Site-Writing, emphasizing spatial aspects of art interpretation and the situatedness of both the critic and the critical writing (Rendell 2013, p. 48). In "Site-Writing: The Architecture of Art Criticism" (2010), Rendell outlines her concept by practicing it throughout the very writing of her book, thus stressing the quality of Site-Writing as an ongoing and evolving technique of spatial writing, experimenting with a variety of genres and styles embedded in a plethora of spatially articulated practices, as exemplified in the journal "Site-Reading Writing Quarterly" (https://site-readingwritingquarterly.co.uk/). With Site-Writing, Rendell foregrounds the spatiality and relationality of an artwork, its (critical) interpretation, and the very situatedness of writing: "*Site-Writing* [!] is an attempt to explore a form of situated criticism, to investigate the position of the critic, not only in relation to art objects, architectural spaces, and theoretical ideas but through the site of writing itself" (Rendell 2013, p. 53).

In "herbarium 5", the site-reading of a herbarium becomes a critical site-writing by transposing the word-specimens and entering the spatial agency of another medium, thus avoiding the appropriative gesture of collecting and classifying. The critic's situated writing involves the site itself, i.e., by experiencing various stages of transformation, the site becomes the writing. Derek Jarman's sketchbooks offer an example of such transformative operativeness by displaying a notation for working/writing along and through various medial formats and by shifting the focus from the writing critic to the spatial writing of an artist/researcher.

Taking Notes / Making Space: Derek Jarman's Sketchbooks

THOMAS BALLHAUSEN, ELENA PEYTCHINSKA

In his sketchbooks, painter, filmmaker, and writer Derek Jarman collected a variety of materials: images, thoughts, drawings, objects, and plants (Farthing/Webb-Ingall 2013), to prepare for his films. Staged on the surface of the book page, the signification and tactility of the different materials distribute their agencies across the papery terrain, weaving a meshwork of relations, memories, scores, and timelines. Jarman's practice of taking notes also included reenactments of his paintings—visually as well as procedurally. Accumulating layers of paint, drawings, texts, and dried plants, the pages of the notebooks emerge as herbarium sheets, marking the process of collecting, labeling, and structuring before transposing the various materials into the medial spaces of a film or a video. Particularly, the sketchbooks to "The Last of England" (1987) act as a visual reference for our video still series (Farthing/Webb-Ingall 2013, pp. 128–133) as well as an impulse for the production of the lyric essay "five" and prompted the decision for expanding our spatial exploration beyond the margins of a herbarium by transposing them into the mediality and spatiality of a screen. Applying techniques for generating a personal herbarium, Jarman's practice of note-taking and processing polymorphic research material activates unconventional archival strategies for (language-based) artistic research. Like tiny ecosystems, or "polyphonic assemblages" (Tsing 2015) of filmmaking, Jarman's sketchbooks offer an *un*disciplined methodology for the production of visually and spatially distributed *more-than-texts*.

dragon

In days of yore, when wishing still helped.

Staging, that's more than just a model.

The number becomes an animal, chiffre through and through.

The exposed writer, halting, transferring the city into a cahier, some characteristics inseparably tied to one other (coupled features).

Peering eyeless, a heart, always someplace else.

(After nature, diagrammed.)

Here we see another part, a flash of scales.

Just standing around like this, he arouses suspicion.
No right to consult or rectify.

People they want us to fall down/But we won't ever/Touch the ground …

These are the impositions, bottomless.

We distinguish, according to the function of the texture, the following main categories:

Open, closed.

CASTLE
MOUNTAIN

Factories of the possible, not easy to enter.

DRAGON
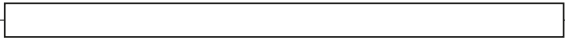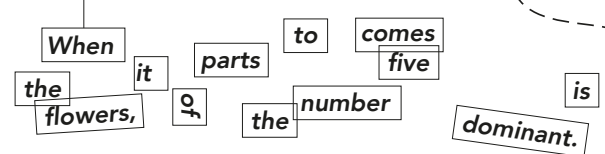
When it comes to the parts of flowers, the number five is dominant.

b) Yesterday's ghost, in the midst of a bit of green.

c) 2.

d) 3. open

e) 4. closed

f) When it parts to comes five the flowers, of the number is dominant.

b) Staging, that's more than just a model.

c) The number becomes an animal...

d) Peering eyeless, a heart, always someplace else.

e) Here, we see another part, a flash of scales.

f) These are the impositions, bottomless.

wishing a was
of helped in
upon days them
once a
ago it happened
time a
king when
still time
fairest long a
who yore of
the
had daughter
all

b)
What
c) does
d) it
e)
mean:
having made
a beginning.

2. 1.
the To follow E

five-pieced C

3. animal, M

4. another F
sign,

5. luminous. D
and
bright
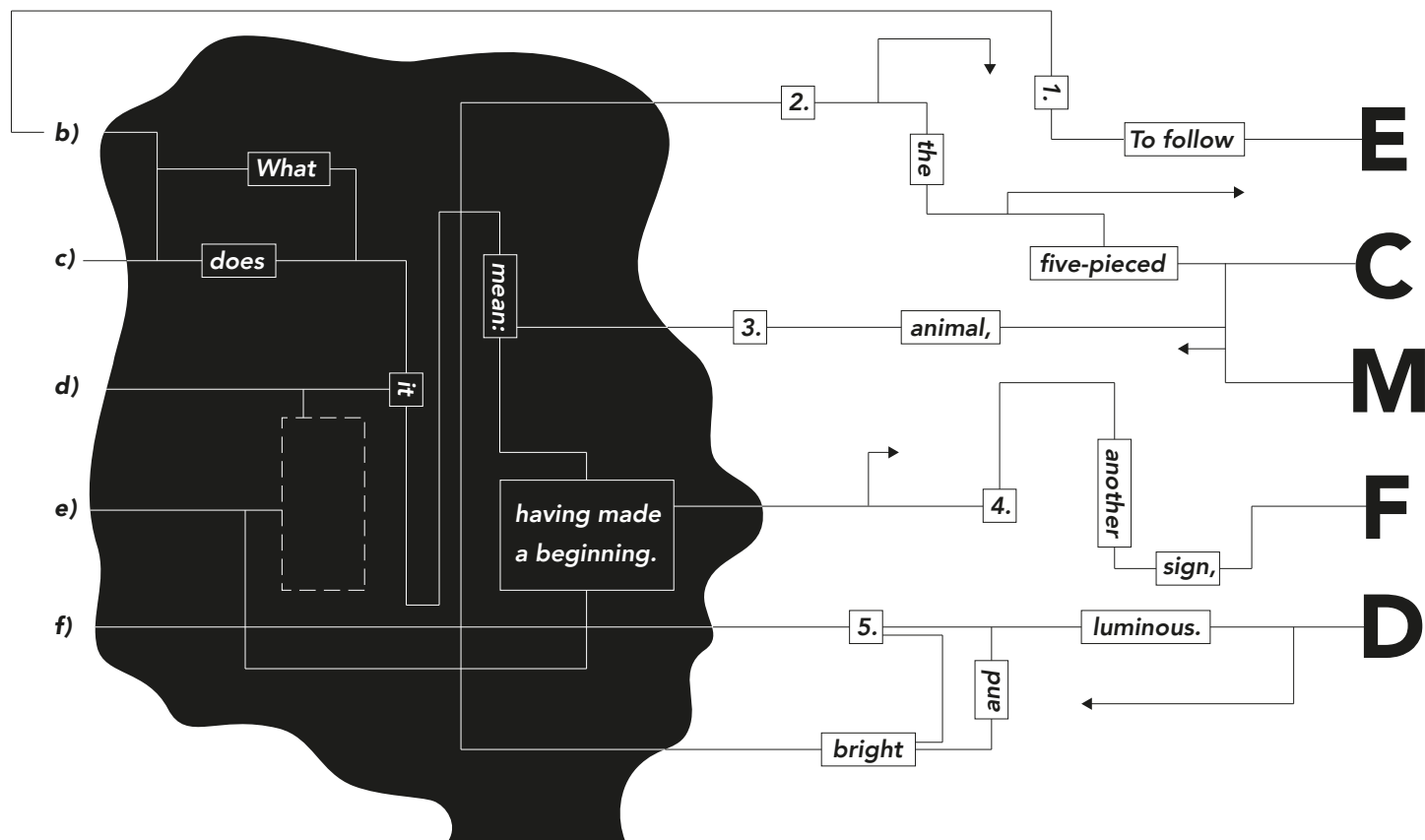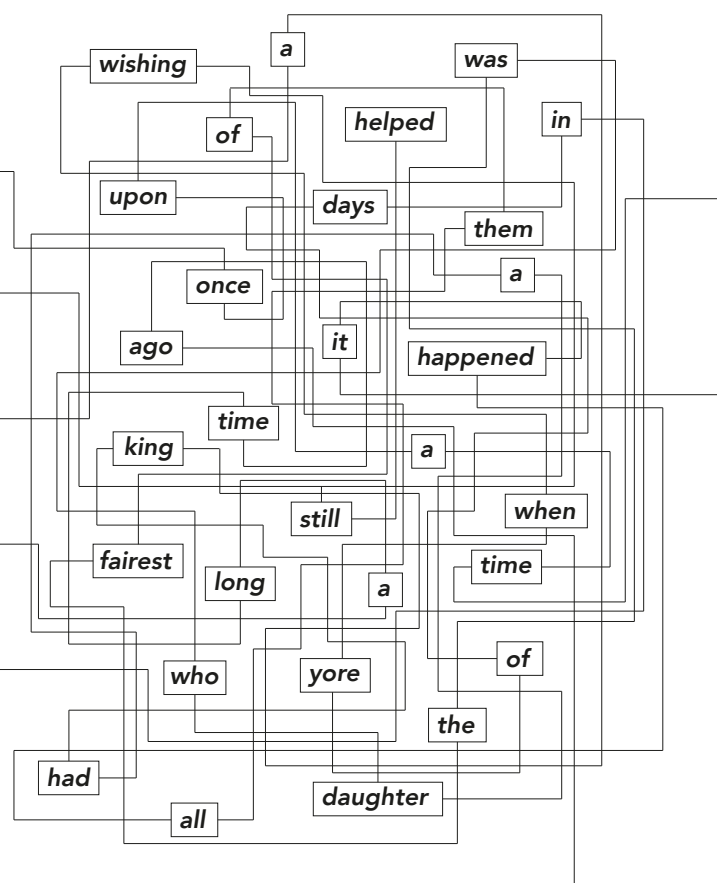
Mapping *the* Book *Space*

For the production of both the lyrical text and the video stills, the spatial agency of a book emerges as the terrain for connection, transmission, and overlapping of our various practices and methods.

We find spaces in all constituent parts of a book: its volume, the paper surface, the words — written or printed — the letters, and the blanks between them. Thus, writing becomes spacing: a practice of walking across the book page — not occupying, but inventing it. Georges Perec shares his own experience of writing as a process of materialization: the becoming-text is the material process of its affirmation, consolidation, and fixation (Perec 2000, p. 21). At the same time, the text's fluidity initiates the movement and dynamic of becoming-space. A *becoming-space-with-* (Peytchinska 2022, p. 144) where blanks and letters are equal participants in the literary production, as famously stated by Stéphane Mallarmé in his poem "Un coup de dés jamais n'abolira le hasard" (1897) (Mallarmé 1945, p. 455). The Mallarméan poetic space "spaces itself out and disseminates itself" (Blanchot 2003, p. 235); it is relational and of great complexity. It is rhythmic and possesses a quality connecting the pre- and post-production of a poem: the movement of a hammock, which lures Mallarmé into the creation of his "Sonnet en -yx" (Mallarmé 1995, p. 386), is similar to the dissemination of the typographic landscape of the poem on the printed page. In "Diagrammatic Writing" (2013), Johanna Drucker further elaborates on the supposed immobility of a book page, declaring that

"[t]he space of an apparently static page is a scene of vectors and forces. Stasis is the illusory effect of choices that bring the elements into balance" (Drucker 2013, p. 4). The space of a book page is not given but *appears* with the words spaced within it: "The first words placed define the space" (Drucker 2013, p. 3). The spatiality of a book is therefore relational, generative, complex and rhythmic, and we could add, quoting feminist political geographer Doreen Massey, "never finished; never closed" (Massey 2005, p. 9). It is an openness that "spaces itself out in the world" (Glissant 1997, p. 1). Along our methodological meshwork, our interlaced practices produce — or rather *invent* — the spatiality which they inhabit and the text(ure) through which they are mapped: the practice of walking *writes* the text of the site it traverses; the text *walks* (and we walk along with it) across the book-page, the herbarium-sheet, the digital surface, the film-screen. The writing-site is, therefore, not a mere surface where the tracing of ideas *takes* place, but a "potential cartography" (Aït-Touati et al. 2019) within the concept of which territory and map co-generate each other. By collecting, "phytographing" (Vieira 2017), transposing and spacing our wordplants, we adopt a concept of authorship as a practice directed not from the *point of view* (*point de vue*) but from the *point of life* (*point de vie*) (Aït-Touati et al. 2019; Coccia 2018): not from outside the topic of our artistic practice but amidst it, opening possible futures for more-than-human artistic research collaborations.

All figures (1-12): "Herbarium 5"
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index of names and subjects

What does it even mean: having made a beginning.
What does it even mean: setting a course.
To follow the five-pieced animal, another sign, bright
and luminous:

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Notes on Artificial Intelligence and the Rise of New Images

Pamela Breda is an artist, filmmaker, and researcher living in Vienna. She is currently a senior postdoc at the University of Applied Arts Vienna and a Professor of Film Aesthetics at Arts University Bournemouth (UK). She was appointed artist in residence at international art institutions such as Cité Internationale Des Arts (Paris, F) and the Pratt Institute (New York, USA). pamelabreda.com, vimeo.com/pamelabreda

Pamela Breda

This essay presents a series of reflections developed as part of an on-going artistic research umbrella project titled "The Unexpected." The project explores human-AI interactions, touching on topics such as cognition, emotions, feelings, artificial intelligence, and everything between these fields.

This interdisciplinary PEEK/FWF-funded project brings together artists Pamela Breda, Patricia Reis and Ruth Schnell (University of Applied Arts Vienna), and researchers Matthew Pelowski (University of Vienna), Rebecca Chamberlain (Goldsmiths University), and Catherine Weasley (King's College). The goal is to study how humans approach AI software in perceptive situations where the lines between reality and fiction become increasingly blurred—from social networking to deepfake videos to humanoid-looking robots—and the feelings and thoughts such interactions generate.[1]

Moving on from this broader research framework, my essay explores the multifaceted aspects of CGI, considering its historical evolution, its profound influence on various domains of individual and collective life, and the philosophical quandaries it introduces. In particular, the analysis will consider how hyperrealistic CGI reshapes our perception of reality, confronts the age-old debate between authenticity and artifice, and redefines the boundaries of human creativity in the digital age.

Note I.
Computer-Generated images

PAMELA BREDA

Computer-generated images, also known as CGI, have a relatively short history compared to other forms of visual art. Their development can be traced back to the early 1960s, when computer scientist Ivan Sutherland developed a program called Sketchpad, the first system to enable users to create graphical images directly on a computer screen. Sketchpad was a breakthrough because it allowed users to manipulate objects in three dimensions. Such a technology had never been available to the general public before.

In the 1970s, with advancements in computer technology, CGI began to be employed in films. A famous example is the 1973 movie "Westworld," which featured a computer-generated hand. The first fully computer-generated film was "Toy Story," which was released in 1995. Produced by Pixar Animation Studios, the film used a technique called 3D rendering to create realistic, computer-generated characters and environments.

Since then, computer-generated images have become a staple of the film industry, with many movies using CGI to create everything from characters to entire worlds. In the last decades, CGI technology has also been used in video games, architecture, engineering, and many other fields. One of the most recent ad-vancements in this domain is DALL·E, a neural network-based image generation model developed by OpenAI and released in 2020 (Bobby, 2022).[2] From a simple "script"—a textual description of a specific image—DALL·E can create hyperrealistic pictures of objects, people, and events that do not exist in the real world. The software is trained on a massive dataset of text and visual material to learn how to generate realistic and coherent images and has become a popular tool for artists, designers, and creators. However, it has also sparked controversies on copyright issues since some artists sued the company for using their images for training purposes without permission (Ivanova 2023), as well as a more general concern about the role of AI in substituting human creativity.

Notably, critics like Lev Manovich (2001) and Nora Khan (2019) have extensively explored how artificial intelligence fundamentally alters the landscape of visual culture. In studying the language of new media such as digital arts, computer games and social media, Manovich posited that a software is not just a tool, but a cultural form in its own right (Manovich 2001, p. 194). His theory focuses on the concept of "database logic," referring to the way in which digital media is organized and structured.

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The development of DALL·E can be traced back to 2014, when a team of researchers from the University of Toronto developed a neural network model called Generative Adversarial Networks (GANs), which could generate realistic images by training two neural networks against each other. Allyn, Bobby, "Surreal or too real? Breathtaking AI tool DALL-E takes its images to a bigger stage," cf. Bobby 2022.
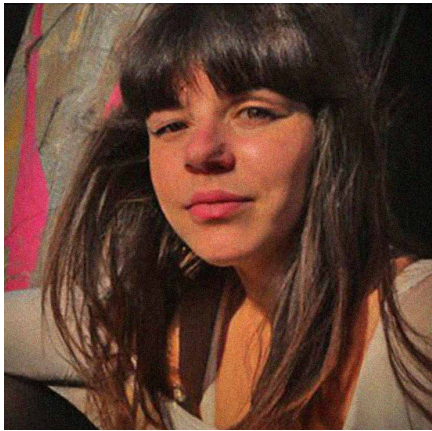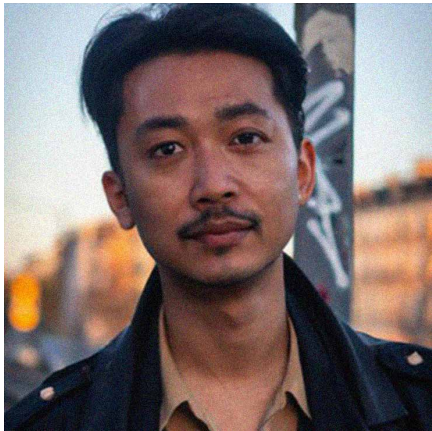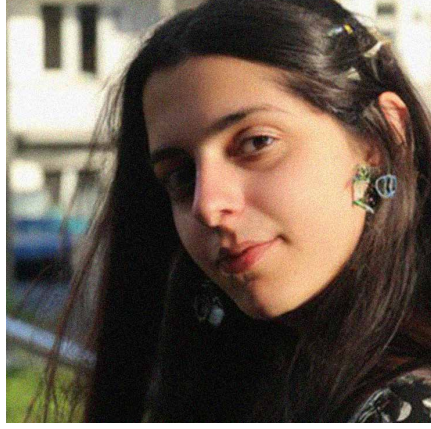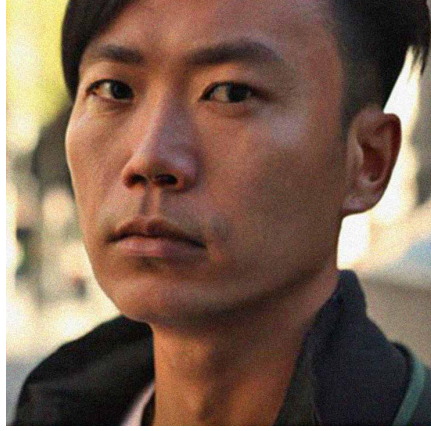
FIG. NR. 1
DALL·E generated images from the prompt: "Hyperrealistic portrait photographs". Created by Pamela Breda. Powered by GPT–4.

According to this view, the database has assumed a pivotal role in shaping contemporary culture since it is not solely a means to an end but rather a dynamic component that actively shapes and influences the experiences and interactions of users within the digital realm.

In computer games, software is not merely a tool for executing code. It is an essential part of the gaming experience since it defines the rules, physics, graphics, and interactivity of the virtual worlds that players inhabit. In the realm of visual arts, software features, algorithms, and interfaces can profoundly impact the style, aesthetics, and communicative power of digital works of art. In the context of social media, software governs the structure and dynamics of online interaction. The algorithms that determine the content that users see and their engagement with it have significant societal and cultural implications. They shape what information people are exposed to, impacting their beliefs and worldviews, and incentivize certain types of content creation and online behaviors, which potentially reinforces echo chambers, political polarization, or other cultural dynamics. They can also raise questions about privacy, surveillance, and how the attention economy impacts individual and collective values.

Continuing beyond Manovich's theories, Nora N. Khan (2019) examined the influence of artificial intelligence on the creative industries, such as generative art, computer vision, and the ethics of AI. This includes questions of misinformation and deception since AI can be used to create deepfake videos or images that deceive consumers. Additional ethical concerns include identity theft, the infringement of intellectual property rights, and privacy violations. Using hyperrealistic AI to generate realistic images or videos of individuals without their consent can lead to unauthorized surveillance, harassment, or the creation of inappropriate content.

Khan developed the concept of 'aesthetics of the algorithm', to exemplify how algorithms and machine learning systems are transforming how we experience art. According to Khan, algorithms are not simply tools that artists can use to create new works. They are increasingly shaping the very form and content of art.

The complex algorithms and data sets behind AI-generated art, however, are often opaque and difficult to understand, making it complex to evaluate the authenticity or originality of the work. AI systems often rely on vast datasets that process existing content. Potentially then, AI-generated creations could inadvertently replicate existing works, raising questions about intellectual property rights, originality, and plagiarism.

As we increasingly interact with AI that mimics human emotions (such as popular AI influencer Lil Miquela), engage in immersive virtual worlds mirroring our own (as in "The Last Of Us" videogame world), and consume content indistinguishable from reality (such as in the case of deepfake videos), we are forced to confront the question of what it truly means to be "real."

Note II.
Artificial Creativity

PAMELA BREDA

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REPOSITION NO.2

The algorithms behind computational creativity — often inspired by human creative processes, such as analogy, exploration, and serendipity — rely on various techniques, including machine learning and generative models. In this context, AI engineers are actively investigating Embodied Intelligence theory, which proposes that intelligence is not solely governed by the brain, but is also influenced by the body's interactions with the environment (Chrisley 2003). Cognitive scientist Rodney Brooks, one of the primary proponents of this theory, has argued that traditional approaches to artificial intelligence, based on symbolic processing and explicit knowledge representation, are insufficient for creating truly intelligent machines (Brooks 2001 and Brooks 2013). Instead, he proposed that intelligence emerges from the interaction between an agent's body and its environment, without the need for explicit representations or reasoning.

Other researchers have attempted to identify specific neural correlates of consciousness in the human brain, to better understand how consciousness arises. In this regard, neuroscientist Giulio Tononi (2012) proposed an Integrated Information Theory, stating that consciousness arises when a system is capable of integrating a large amount of information in a highly structured and specific way. Additionally, researchers David Chalmers (2010) and Stanislas Dehaene (2014) have been exploring the Attention-Based Consciousness theory, which posits that attention is a critical factor in shaping consciousness, i.e., an artificial system could be deemed conscious if it possesses the ability to focus its attention on specific elements within its environment.[3] This theory raises interesting possibilities when we consider its connection to the realm of AI-generated images. In this context, creativity often hinges on the system's ability to focus its attention on certain elements within its dataset or creative space. Just as human consciousness involves the selective allocation of attention to different aspects of our environment, AI systems can emulate this process, using it as a foundational element for generating original content and artworks.

In the early 1970s, when computer-generated images first appeared, they were characterized by rudimentary attempts to replicate human creativity. Their visual content lacked the depth of human consciousness, experiences, and emotions.

However, contemporary hyperrealistic AI-generated images exhibit a notable departure from these earlier instances of CGI. The high degree of detail, texture, and realism achieved by AI technology has the power to create pictures that can deceive viewers as never before. What is even more interesting is that generative software is not merely replicating established styles or techniques but producing original content on the basis of specific prompts or instructions. This phenomenon not only reshapes conventional notions of art but also, redefines the concept of the human agent as a creative force capable of birthing a unique visual outcome. Who should be credited as the author when the creative process involves both human input (programming AI) and machine autonomy (AI generating the art)? On one hand, the programmers and developers who craft the AI system undeniably play an instrumental role in shaping its abilities. They design the algorithms, select the training data, and fine-tune the model to create a machine that can generate unique visual content. In this sense, they serve as the architects and curators of the AI's creative potential. As such, it seems reasonable to credit them for the initial design and programming, akin to the way an artist might be recognized for creating a unique brush or tool. However, if AI can replicate reality with incredible precision, does this diminish the creative act or redefine creativity to include the capacity to harness and manipulate algorithms and data? Does AI possess a form of creativity or is it merely a tool for human intention?

In this situation, I believe giving appropriate credit to both the software and the artists using it is crucial. At this current point in history, however, I believe we should regard the software as a medium through which artists express their creativity. It offers the tools, algorithms, and capabilities that help to craft unique artworks. Human creators then imbue these pieces with their distinct identity and emotional depth. Whether AI's will be increasingly involved in generating original artworks in the future remains uncertain, however.

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David Chalmers, The Character of Consciousness, Oxford: Oxford University Press 2010; Constructing The World, Oxford: Oxford University Press 2012. Stanislas Dehaene, Consciousness and the Brain: Deciphering How the Brain Codes Our Thoughts, London: Penguin Books 2014.
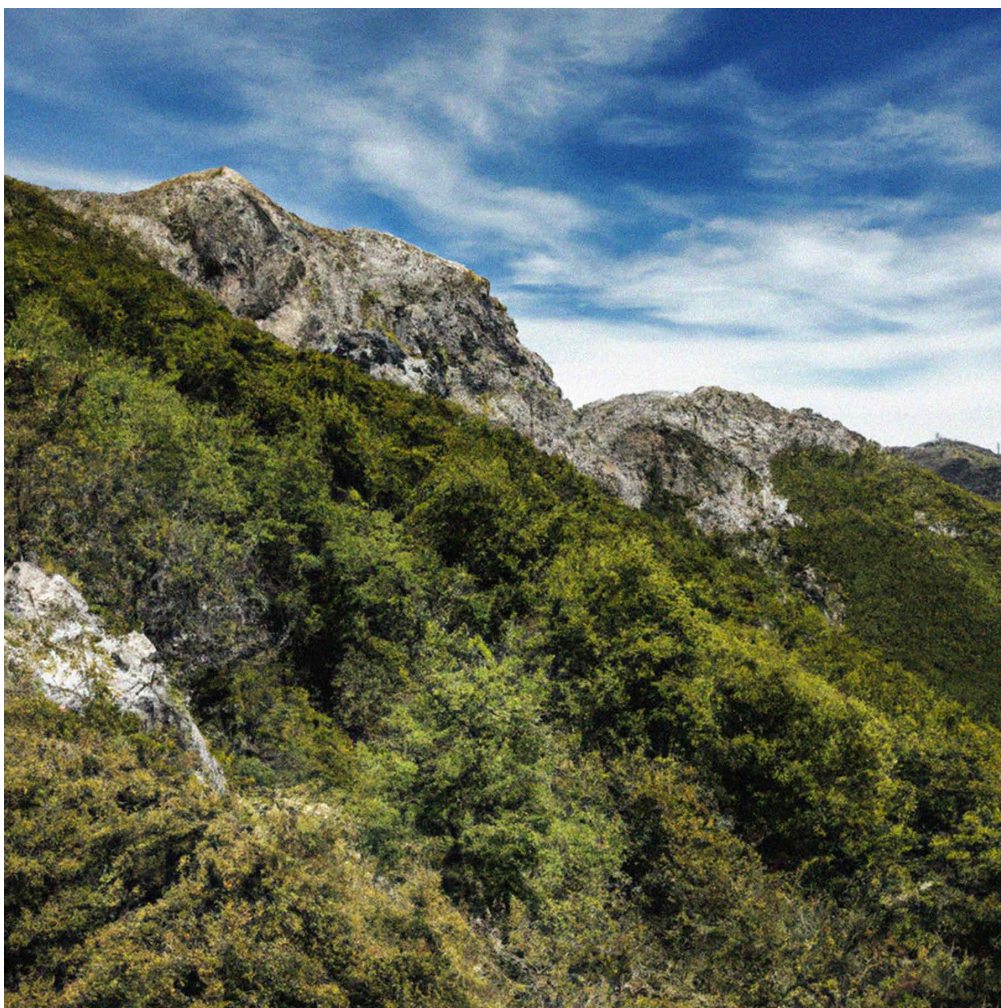
FIG. NR. 2
DALL·E generated image from the prompt: "Photograph of
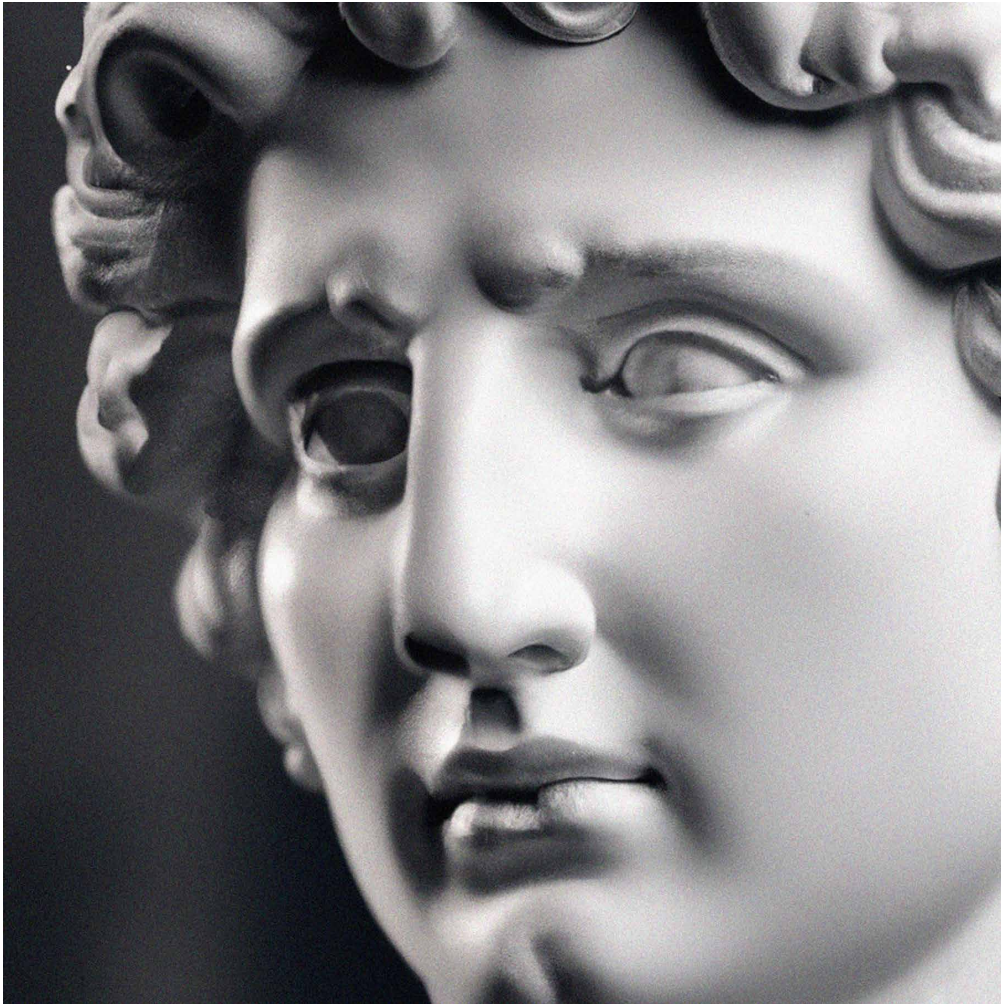a mountain landscape". Created by Pamela Breda, Powered
by GPT-4.

FIG. NR. 3
DALL·E generated image from the prompt: "Photograph of a
classical sculpture's head". Created by Pamela Breda, Powered
by GPT-4.

Note III.
More real than reality itself

Traditionally, philosophers have distinguished between two approaches to representation: mimetic and constructive. In the mimetic approach, an image is considered successful when it accurately reflects or imitates the object it represents. Conversely, the constructive approach asserts that an image is effective when it can generate a novel object or distinct reality apart from the one it represents.

Hyperrealistic images blur the line between these two approaches as they are both highly mimetic (in their level of detail and accuracy) and highly constructive (in their creation of a new reality). CGI uses advanced 3D modeling, rendering, and animation techniques to create images, videos, and animations that are highly realistic, often to the point of appearing almost indistinguishable from photographs or live-action footage. This raises the question of whether hyperrealistic images are really "representations" at all, or whether they should be considered a new kind of object altogether. This discussion echoes a historical parallel. When photography was first introduced, it challenged the traditional definition of art as representing reality. Critics debated whether a photograph, as a direct capture of a scene, could truly be considered art as it appeared to eliminate the need for an artist's intervention in the creative process. Over time, it became evident that photography was indeed an art form in its own right, as photographers used various techniques to inject their unique vision and creativity into their work. Similarly, in the realm of CGI, artists employ their skills and artistic sensibilities to create images from a digital template. These are new kind of images, however, which require an in-depth analysis of their ontological status. In this regard, we can move forward to the concept of 'simulacra', which was famously developed by Jean Baudrillard (1981).[4] According to the French critic, simulacra are copies or representations that are detached from any original reality, leading to a situation where they become more "real" than the original itself. Are these hyperrealistic images mere representations born from script, or do they possess a reality of their own, independent of the original subjects they intend to represent? What are the real-life implications such images can have beyond the digital screen?

Let us examine Metahuman, a software created by the company Epic Games, which leverages AI technology to produce incredibly lifelike and customizable 3D human characters, enabling immersive virtual experiences and content creation. Metahumans are avatars that can be employed in a variety of applications, including video games, virtual reality experiences, film and television production. As lifelike digital avatars, Metahumans represent a significant leap forward in the realm of user experiences. When applied to video games, they enable gamers to immerse themselves in virtual worlds unlike ever before, enhancing their sense of presence and personal connection within the game.[5]

In the field of film and television production, they offer a revolutionary tool for storytellers and content creators. The ability to rapidly generate highly detailed digital actors with realistic facial expressions and movements can streamline the production process, reduce costs, and offer original creative avenues. Furthermore, Metahumans can facilitate the design of characters and scenes that were once limited by practical constraints (such as the need for physical actors, elaborate costume and makeup effects, and expensive set construction), which ultimately broadens the scope of storytelling possibilities (Jacko 2012).

These types of hyperrealistic representations also carry a notable downside, however. Deepfake videos are a type of synthetic media using artificial intelligence and machine learning techniques to create highly realistic but entirely fake audiovisual content. One of the most pressing concerns regarding deepfake videos is their potential for malicious exploitation. They can convincingly mimic the appearance and voice of real individuals, and can be used to deceive, or manipulate people on an unprecedented scale.

They can be employed to create counterfeit statements and endorsements from public figures, leading to misinformation campaigns that sway public opinion or damage reputations. Moreover, deepfakes pose a substantial threat to personal privacy. Individuals can have their likeness used without consent, making them unwitting participants in fabricated scenarios or offensive content.

In his book "The Post-Truth Era: Dishonesty and Deception in Contemporary Life," Ralph Keyes (2004) examines the prevalence of dishonesty and deception in various facets of modern society, shedding light on

04
See also: Jean Baudrillard, Selected Writings, Mark Poster (ed.), Stanford: Stanford University Press 1988.

05
A video reference of how Metahuman is employed in the videogame "The Last of Us" can be seen at this link: https://www.youtube.com/watch?v=qPNileKMHyg

the erosion of truth and the consequences of living in a world where authenticity becomes hard to discern (Keyes 2004). Hyperrealistic AI content amplifies these concerns. The pervasive blurring of lines between fact and fiction not only exacerbates the issues of dishonesty and deception but also underscores the urgency of addressing the post-truth landscape, in particular the potential for misuse and manipulation of information on a grand scale.

In an age where misinformation spreads rapidly through digital channels, the ability to create highly convincing yet fake content threatens not only personal privacy but also the very foundations of trust in informational sources. As a result, individuals and communities must grapple with the ethical and societal implications of these technological advancements, seeking ways to navigate this new digital landscape while preserving the integrity of information and truth.

4. Exploring AI-Generated Content through Visual Arts

How can we deepen our understanding of such an intricate technological realm and its impact on the multifaceted spheres of human existence?

I believe that the answer lies in artistic-practice-as-research. In particular, I am developing a project along with an interdisciplinary research team which aims to deliver immersive interactive experiences as multimedia installations. These installations will be presented in museums and public spaces. Physical and digital elements, such as video projectors, sound, and 3D animations will offer the visitors the opportunity to explore and interact with hyperrealistic AI content.

In fall 2024 and spring 2025, we will approach these interactive installations as case-studies, analyzing the emotional and cognitive impact of AI Metahuman characters, DALL·E images and AI voices on individuals. We seek to trigger pleasurable or discomforting sensations such as sympathy, happiness, anger, fear, grief, etc. by exposing visitors to AI generated images or sounds, categorized as emotional responses. We are also interested in visitors' cognitive responses, such as thoughts and mental patterns that occur while they are listening, seeing and experiencing the aforementioned content. We believe that museums and public spaces serve as ideal settings for the presentation of AI interactive installations, since they enable visitors to explore the nuances of such a technology firsthand. The installations will be introduced to the public, who be encouraged to participate in our research by documenting their reactions through videos and photos while engaging with AI-generated content, thereby increasing awareness of the installations' objectives and scope.

One of the installations will focus on a video projection presented in a dimly lit space. Visitors will be greeted by a colossal screen that seems to stretch infinitely in all directions. As the lights dim further, the projection begins, showing a state-of-the-art hyperrealistic AI coming to life with astonishing detail. A second installation will invite visitors to try an Oculus Rift headset for an immersive 3D animation experience that defies the boundaries of space and time. A third installation will focus on AI-generated voices that will activate a multi-dimensional soundscape conveying a spectrum of emotions, tones, and personalities, narrating dramatic stories for the public. Through strategically placed videos and speakers, these installations are intended to create an uncanny sensation of presence and proximity.

The installations aim to elicit a wide spectrum of emotions, from awe and wonder to introspection and contemplation. Visitors will find themselves transported to alternate realities, where they can witness the AI's astonishing ability to replicate the natural world or to craft narratives that resonate deeply with human experiences. We will track the impact of these installations on the public through direct on-site observations and, whenever possible, through audio-visual documentations of the visitors' reactions. Having collected data through the above-mentioned approaches, we will analyze the interactions between the public and the AIs through a sensorial and phenomenological examination of the participants' subjective experience, conducting psychological evaluations (emotions, cognitive responses, understanding, interpersonal factors, etc.) and exploring neurophysiological responses (bodily movements, facial expression, skin/heartrate response and brain activity via mobile fNIRS).

The research outcomes will be presented through several outreach activities (exhibitions, public talks, workshops, publications) intended to reach multiple audiences, in order to make AI-related knowledge more accessible, breaking free from conventional limits which restrict information to AI experts, because of technical jargon or complex algorithms, data preprocessing, and computational resources that are typically beyond the reach of the general public.

Conclusions

As we navigate the uncharted territory of synthetic companionship and virtual experiences, it becomes clear that our relationship with reality itself is undergoing a profound transformation. This transformation, however, is accompanied by ethical and societal challenges. The societal impacts of hyperrealistic AI interactions are multifaceted. On the one hand, these technologies hold the promise to produce images so convincing that they can be harnessed for positive purposes like creating lifelike educational simulations, historical reconstructions or entertaining audio-visual content. On the other hand, they risk being exploited, for instance, in deepfake videos used for misinformation and manipulation, forgeries, identity theft and copyright infringements.

When approaching hyperrealistic AI content, we must strike a balance between benefiting from the advantages it offers and safeguarding against its potential hazards. We can embrace the innovation and creativity such technology offers, but will also need to implement comprehensive strategies and ethical frameworks to avoid negative impacts for our information landscape and digital trust. As we move towards a digital future that will increasingly be shaped by AI, it becomes necessary to comprehend the profound impact of this technology on both individual and societal levels. In this regard, the fusion of artistic practice and research not only enriches our understanding but also empowers us to make informed decisions, ensuring that we remain active participants rather than passive bystanders in the grand narrative of technological progress.

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List of Figures

I Can See
Queerly Now.
Queer
Perspectives
On Project
Work

Leo Hosp is a queer artistic and socio-scientific researcher and audio-visual artist. By moving along the intersections of art, science, sustainability, and society, they merge their backgrounds in sociology, social ecology, and visual communication. Leo investigates togetherness from multiple angles, currently focusing on queer and more-than-human perspectives in collaborative processes.

Leo
Hosp

CENTER RESEARCH FOCUS

What are queer ways of working together? What are queer perspectives, and how can such perspectives benefit collaboration? My research starts as a voyage into queerness, exploring not only the realms of the queer but also my own experiences on the way. I apply my findings to the logic of project work, investigating queer perspectives as sensing devices that can help reveal and dismantle normative structures: I am doing accompanying research on the Action for Sustainable Future (ASF) hub, a funding and support system established in 2021 by the Ludwig Boltzmann Gesellschaft (LBG) and the University of Applied Arts Vienna (Angewandte). I search for queer(ing) elements and how they are employed and examine normative structures in the ASF hub from a queer perspective. I inquire queer perspectives and their possible meanings and functions in the logic of such an innovative, transdisciplinary project. This article was written eight months before and revised three months before the end of the ASF hub's duration. Thus, it needs to be understood as a snapshot of an ongoing process, rather than a completed research report. I draw preliminary conclusions on queer perspectives on project work, as well as on (my way of) practicing queering, focusing on queer ways of collaborating and doing research.

Starting and staying personal

Conducting queer research on queering as a queer person is a complex, yet important undertaking. To me, queerness cannot be detached from queer people. I believe queer artistic research should avoid being "about" queer people but rather conceived as research with them or conducted by them. I consider the binary opposition of queer versus non-queer tricky and avoid it more often than I rely on it. For now, I will use it to claim that queer research and/or research on queering should at least genuinely include, if not be done by queer people. My point is that research on queerness should not be carried out in an objectifying or utilizing way from an outside perspective. However, as queer people, it is not our responsibility to do queer research. My concern is not with the wording, defining queer research explicitly as being done by queer people. It is about acknowledging the embeddedness of such research. Queerness itself, as I will show in this article, is not explicit or concrete: it leaves room for ambiguity, interpretation, and imagination and can be fleeting or even imperceptible.

When it comes to my own queerness, it is both impossible and undesirable to do this research objectively. Still, I deem it necessary to reflect on entanglements and keep the strands of my queerness and my research on queering distinguishable, even if they overlap and entangle. I love that I am queer. I love calling myself queer. Nevertheless, I sometimes hide my queerness, trying to be or appear less queer. I get scared that I am too much, too odd, too complicated—too queer. In the first weeks of my project, I was doing accompanying research on the ASF hub as a project that had already been running for about a year, and I struggled to fit my project into the ex-

isting structures and dynamics, trying to make my research beneficial. While doing so, the insecurities I as a person experience occasionally became mixed up with my research: I found my research too queer. I attempted to make queering useful by squeezing it into a toolbox where it can be extracted and used as a ready-made guide to improve collaborative processes in the ASF hub. I wanted queering to be a tool to foster intersectionality and sustainability. Thus, I demanded of queering the educational responsibility that I actually spoke out against. I tried to make my research less queer to be understood by non-queer people, drawing the binary distinction of queer versus non-queer that I wanted to avoid in the first place. All those actions were, in fact, re-actions to internalized fear and experiences of oppression. Every time I talk about my project I out myself. Even though I chose this research, I still find it scary to unapologetically be queer and do queer research, even in supportive environments such as the one I am privileged to work in.

I constantly remind myself that my queerness and the queerness of my research are not too much. Rather, queering is necessary for project work. A queer perspective can be a new way of looking, it invites us to question the given, break structures, and rethink the way we work together and view each other. It is beneficial and liberating for everyone. I believe that queering as a practice or perspective, understood in its norm-challenging, departing, changing character, can be done or taken by anyone. You do not have to call yourself queer for doing that, but you might find yourself orienting yourself toward queerness or even becoming queer in the process (cf. Ahmed 2006, p. 554). If that scares you, I suggest you question your belief system.

FIG. NR. 1
Leo Hosp, QR Code to *Acceleration and acknowledgment (I can see queerly now #5)*, 2022.

Approaching Queer: Preface

What helps me to embrace queerness in all its incomprehensibleness is community. After feeling stuck at the beginning of my process, I reached out to other queer people to exchange experiences and thoughts. Via my personal Instagram account and the email distribution lists *femail*,[1] *queer_f*,[2] and *critlist-vienna*,[3] I sent out a call for interview partners with a short explanation of my research on queer perspectives on project work. 13 people reached out to me and I interviewed six of them.[4] My primary goal was to exchange different meanings of and experiences with the term queer, and then shift to a discussion on what the term could mean in the context of project and collaborative work. Thus, lived experiences and expertise of queer people with the use of the term queer both aside from and in diverse collaborative processes were the focus of the conversations. None of the interviewees was familiar with or involved in the ASF hub. The interviews took place in different locations, such as my office, the yard of the Angewandte, or via Zoom. Their length varied between 30 minutes and two hours. I asked for consent to record the interviews, which three of the six people agreed to. I transcribed their content mainly summarily translated from German to English. The interviews took the form of conversations. We exchanged our definitions and implications of the term queer and its variations, namely queering or queerness. We talked about what queer perspectives are, what it means to take them, and whether and how this could be a fruitful undertaking. We shifted back and forth between exchanging personal, emotional, and often sensitive experiences as queer people, and thinking about queerness in a rather conceptual way. In addition to our conversations, I offered modeling clay to play around with. Some participants readily engaged with the clay, which led to a 3D map of queerness (see Fig. nr. 2). After it was clear that I would publish this article,

I first decided to anonymize all interviews since three people wished to stay anonymous. However, when contacting all interviewees again to get their consent on publishing their statements, one of the other three interviewees, Frederik Marroquín, pointed out how explicitly citing scientific authors and articles while rendering interviewees anonymous was not appropriate. He emphasized the relevance of giving proper credit to all involved, especially in queer, collective work. His generous and constructive feedback made me aware of how I operated with the illusion of protecting sensitive data but was instead patronizing the interviewees, making queer experiences invisible, and reinforcing the hierarchy between scientific and published knowledge and lived expertise. I was doing exactly what I critiqued from a queer perspective on research and collaborative processes. As I will elaborate on later, next to the six interviews on queerness I conducted seven other interviews with people involved in the ASF hub, the project I am accompanying with my research. Since the ASF hub is a funding organization, and many of the interviewed people are financially dependent on the ASF hub, those interviewees will remain anonymous, in agreement with all participants.

This current chapter neither provides nor aims at providing a stable definition of queer, since this would go against the core meaning of the term itself. However, it still forms the basis for this article: I interweave the interviews on queerness, my thoughts, and insights from literature to approach the term. Hence, the interviews on queerness and the interviews with individuals involved in the ASF hub cannot be lumped together in how they are handled—as I was originally planning to do with the easy way out of anonymizing them all. Thanks to Frederik Marroquín's feedback, I reconsidered the anonymization of all interviewees on queerness and queer perspectives. This means that those who wanted to or were okay with being named and whom I initially wanted to anonymize, are now being named. Naturally, the three people who wished to stay anonymous

01
Femail is a feminist distribution, information, and networking list for FLINT* people, an acronym for female, lesbian, inter, non-binary, and trans people (cf. elisa_admina/petra.4dm1n4/veeraa.aadmiinaa, *femail—Femail—der virtuelle FLINT*raum*).

02
Queer_f was established as an alternative to femail for queer people who do not fit into the terms of that list (cf. n.n., *queer (feminist) community vienna*).

03
Critlist-vienna is a list for distributing information for politically leftist people in Vienna (cf. n.n., *Liste für linke Vernetzung in Wien*).

04
The other interviews could not be held because of limited resources on either side (mainly time).

will remain so. The other three, Frederik, Élise, and Noah, will be cited by name.[5] By doing that, I aim to appreciate them and the time and resources they put into this article by participating in the interviews and providing me with feedback afterward. Since I will also address themes like burnout and unpaid work in this article, it is noteworthy that none of the interviewees got any compensation for their work and agreed to talk to and share their knowledge and experiences with me voluntarily. Finally, I also need

to mention that I reached out to the collective MYCKET,[6] since their way of working (queerly) has always been a central point of reference for me in finding my own style and practice of queering. They generously agreed to have a conversation with me, providing me with helpful feedback and thoughts. Thus, even though I am authoring this article, it is the outcome of a co-creation: People contributed on different levels by providing and sharing their expertise, experiences, or feedback.

Approaching Queer

I use queer in two different ways: First, as an umbrella term for LGBTQIA+ people, and second, as a feminist and political term that reaches beyond sexuality and gender. A queer perspective is intersectional: issues around gender norms, racism, transphobia, ableism, misogyny, colonialism, or homophobia—the list could go on—are intertwined (cf. Mary Nardini Gang 2014, Vaid-Menon 2020). Queering is about challenging and disturbing structures of the colonial construct of heteropatriarchy, which is connected to, amongst others, ableism, misogyny, or white supremacy (cf. The Anti-Violence Project 2023).

The project's title *I can see queerly now* must be read facetiously. Seeing queerly is not a fixed destination that can be reached. Rather, it is about actively (re-)taking queer perspectives and being open to uncertainty and change. Frederik Marroquín pointed out that queer is a unifying term since it constantly changes and can be (re-)interpreted. It offers multiple ways of claiming and responding. In the series *Getting Curious with Jonathan Van Ness*, Alok Vaid-Menon speaks about why non-binary and trans people are often threatening to systems of power: "We represent possibility. We rep-

resent choice, being able to create a life, a way of living, a way of loving, a way of looking that's outside of what we've been told that you should be" (Netflix 2022, min. 5:18). Queer indicates this choice and possibility, different paths, and various orientations.

One issue that Noah raised during the interviews was to include the act of stopping into the discussion of queerness. What do we need to stop to give the queer a reality, Noah asked. They did not mean to negate that the queer has a reality, but rather, what needs to be stopped in order to create a space of possibility. This demonstrates the positive, generative aspect of stopping. It is a rupture to a project logic that is oriented towards efficiency, progress, and output. Stopping includes the challenge of dealing with the openness and emptiness it enables. Furthermore, Noah talked about how we can get stuck in defining queering and its benefits and suggested being open to what has space when we stop defining the queer. Instead of exclusively trying to queer already existing structures, they advocated for moving outside of heteronormativity to see what else could arise. Noah pointed out that we "need to stop trying to forcefully create the queer through a masculine ideal of 'I want—so I create'".

FIG. NR. 2
Leo Hosp, *Queer Map*, 2022.

Noah also made the powerful statement that queer denotes searching for something that appears to be new but has actually been forgotten. Searching as an aspect of queerness was also mentioned by others: Frederik addressed how queerness includes the search for dissonance, leading to new connections. Practicing, embodying, and living queerness is about remembering and reminding ourselves and others about the beautiful diversity of life. Such an attitude can lead to varying emotional responses, from feeling threatened or confused to feeling liberated.

Queer entails opacity. Frederik described this as powerful and unifying since people can relate to it in different ways. The queer lack of transparency can refer to ways of communicating, such as using queer slang (cf. T. 2014) or queer aesthetics (cf. Furman 2020, MYCKET 2021, Reed 1996, Vallerand 2013, Vallerand 2021) — both as strategies to survive in environments that are hostile to queer people or as creative ways of resisting (cf. T. 2014). Using specific terms or aesthetics can be "a way of queers finding each other," as one anonymous interviewee pointed out. Being opaque, however, also risks gatekeeping within communities due to a lack of knowledge about established terms. Furthermore, a queer perspective could remain untransparent to non-queer people. The opacity of a queer perspective could also mean "taking nothing for granted and staying open," as Frederik formulated it. This includes an awareness of one's own beliefs: We might have learned judgmental behaviors, yet by dismantling them we can approach reality anew. We can learn to be non-judgmental and supportive even when we do not understand. Vaid-Menon states that you do not need to understand in order to be compassionate: "Why do you need to understand me in order to say that I shouldn't be experiencing violence?" (The Man Enough Podcast 2021, min. 22:02).

A queer perspective can be a helpful framework to reflect on who is considered an expert and on hierarchies around knowledge. Halberstam (2011, p. 11) argues for engaging in anti-disciplinary knowledge, and that one might "want more undisciplined knowledge, more questions and fewer answers". Foucault (2003, pp. 7f.) uses the term "subjugated" knowledge that is "naive" or "hierarchically inferior", yet "by no means [...] common knowledge or common sense but, on the contrary, a particular knowledge, a knowledge that is local, regional, or differential". Halberstam builds upon those thoughts and argues for turning towards "antidisciplinary knowledge" (Halberstam 2011, p. 11), and that we

FIG. NR. 3
Leo Hosp, QR Code to
*A moment of irritation
(I can see queerly now
#8)*, 2022.

should have "[c]onversation rather than mastery" (Halberstam 2011, p. 12) and knowledge "that seeks not to explain but to involve" (Halberstam 2011, p. 15). Following this, my research involves exploring how different forms of knowledge and knowledge production can be included in project work, questioning why some people are considered experts while others are not. I am interested in investigating what diverse knowledge is, and in what sense knowledge production can be centered not just around repeating knowledge, but rather thinking creatively and widely.

When it comes to a non-hierarchal queer perspective, it is important to think about perception: Who is being perceived, who perceives? A queer perspective can create the shift from being objectified to becoming an active subject. It can also mean practicing letting your gaze turn soft, relying on your peripheral vision, and looking in a different, softer way that allows sensing each other (cf. Lester 2022). A queer perspective then means to be aware of each other. To me, paying attention to bodies in space, where they are oriented (cf. Ahmed 2006, Ahmed 2007), and how they sense themselves and one another is the basis for collaborative processes. As queer individuals, we often face a hostile society. It teaches us the importance of community, care, and keeping each other safe. A queer perspective on and in project work, derived from queer communities, enables us to sense ourselves and others and to support one another.

In the interviews people had very different opinions about the utilization or instrumentalization of queering — some spoke out against it, while others found it acceptable. I am investigating what queer can mean, what calling an element or perspective specifically queer entails, and if and how a queer perspective can be beneficial to collaborative processes. The words of Vaid-Menon on the need for compassion have helped my understanding:

This is not about accepting trans and nonbinary people. This is about accepting yourself. [...] If you don't do that work first, everything that I say is going to be inherited as an attack from a zero-sum ideology, that makes you think that if other people thrive, you must somehow lose something. (The Man Enough Podcast 2021, min 14:26)

I find this beautiful, and I think that queerness is a freeing and joyful frequency that people can match to lighten up, which then instigates a stepping away from normative structures.

Queer(ing) involves questioning professionalism, in the sense of working playfully and experimentally without thinking too much. Many of my interview partners talked about the inherent creativity of queerness and how

creativity is necessary when working in undiscovered and unknown realms. To Frederik Marroquín, a playful and creative approach offers a "possibility-space of co-incidence". Similarly, Noah described a playground of change that is inherently queer and offers a soft environment to fall and fail. In Jack Halberstam's *The Queer Art of Failure*, the author states that under "certain circumstances failing, losing, forgetting, undoing, unbecoming, not knowing may in fact offer more creative, more cooperative, more surprising ways of being in the world. Failing is something queers do and have always done exceptionally well" (Halberstam 2011, pp. 2f.). I am interested in reframing failing since it challenges normative understandings of success, usefulness, or progress. I believe it is freeing to move away from perfectionism and effectivity. A queer perspective can reveal the possibilities that lie along non-straight, meandering paths. Again, I am following Halberstam, who frames the acts of getting and staying lost, and of detouring as fruitful possibilities (cf. Halberstam 2011, pp. 24f).

A queer perspective questions norms that have been taken for granted. This might cause uncertainty and disorientation, or, as Frederik stated, lead to "a moment of irritation." In the interviews, queerness was described as a rupture with the status quo (Frederik), a holistic departure from normative structures (Noah), traversing certain boundaries (Élise, Noah), or as a position of resistance (Élise). Similarly, the Mary Nardini Gang (2014, p. I) states that queer "is the qualitative position of opposition to presentations of stability—an identity that problematizes the manageable limits of identity. [...] Queer is a total rejection of the regime of the Normal." Understood this way, a queer perspective involves being in opposition, being angry, demanding, disturbing, or troublesome. Elucidating the claim that queer means remembering rather than reinventing, an interviewee asserted the following: rather than presenting an alternative to a given norm, queer is the root of everything. Another anonymous interviewee concurred: "The queer is the norm."

The Setup

The ASF (Action for Sustainable Future) hub was initiated in 2021 as a non-hierarchal system of mutual and collective learning and experimenting. It is embedded in the Open Innovation in Science (OIS) Impact Lab Program, which has been established by the Ludwig Boltzmann Gesellschaft (LBG). The program aims to involve societal actors in research and create networks of researchers who contribute to innovation and the increased use of OIS methods (cf. Ludwig Boltzmann Gesellschaft, *Strategic partnership — OIS Impact Labs*). The LBG is functioning as a space to experiment with innovative practices in science. By setting up the ASF hub together with the University of Applied Arts Vienna (Angewandte), fostering experimentation was carried forward: the ASF hub aims at governing research unconventionally, putting civil actors in the lead instead of just including them. It is designated as a funding system beyond the money alone and includes allocating infrastructure and other supportive and guiding arrangements. Part of this support program includes my accompanying artistic research, specifically workshops on queering and dizziness, as I will describe in the next section. However, other provisions exist as well, such as individual and group counsel, workshops and trainings on diverse themes ranging from social media to OIS methods, or network meetings in each phase, starting with support in developing the first project idea.

The ASF hub is envisioned to contribute to societal transformation for a sustainable future, providing space for, transformative, innovative, and experimental actions, as stated in its title. Six project teams initiated by societal actors have been selected and are currently supported in implementing their project ideas. The projects address themes at the intersections of society, science, and art and focus on different aspects of sustainability, defined according to the Sustainable Development Goals (SDGs) of the United Nations (cf. United Nations, *The 17 Goals*). Until the end of 2023, the ASF hub supports the projects in working on "innovative and creative ideas" to contribute to highly relevant and practical solutions to sustainability issues and thus a more sustainable society (Action for Sustainable Future hub, *About ASF hub*).

Although the structure of the ASF hub is complex, the focus of my research rests on the following aspects: The LBG and the Angewandte assume facilitating and monitoring tasks in the background, with one representative each tasked with decision-making. The two representatives form the basic management board, which also involves more members in an extended version. The hub coordination, operated by one person, is central, as it communicates between the board and the projects and oversees most organizational tasks. When refer to the ASF hub as an actor, I refer to people involved in the overall project ASF hub: the hub coordination and the extended management board. When I refer to projects of the ASF hub, I refer to all people involved in the six supported projects. The ASF hub is both an experiment and backs the projects in experimentation processes. As part of the evaluation and reflection, different accompanying research projects have been initiated. One of them is my artistic research project *I can see queerly now*. By investigating queer perspectives on project work, I dive into non-normative ways of conducting research, such as rethinking productivity and success; or including failure and getting lost as part of the plan. Experimenting is not only a vital part of the ASF hub and its projects, but also of my research, since working queerly means, amongst others, working experimentally and playfully. However, we should also pay attention to the consequences of conducting accompanying research: It is inevitable to create an object-subject duality. As I will show later, feelings of being experimented upon emerged among project members. Whether this was unintentional or not, my project added to this as well. Thus, I constantly reflect on my own position, including my mere presence in events like network meetings. Despite this, I have the possibility to continually accompany and support the ASF hub instead of merely observing it. Through regular meetings with facilitators from the hub and other accompanying researchers, I can feed my perspectives back into the hub continuously. I influence ongoing processes: Some adaptions, e.g., how network meetings are structured, are based on my feedback. Furthermore, I provide space and tools for members of the ASF hub and its projects to reflect, amongst others by (co-)hosting workshops myself, as I will demonstrate in the next section.

Queering and *Dizzying* Moments

My research on queer perspectives on project work is embedded in the artistic research on dizziness conducted by Ruth Anderwald and Leonhard Grond,[7] professors of the Artistic Research PhD Program at the Angewandte. Dizziness as a concept in motion can highlight "uncertainty as an indicator of a change in possibilities" as well as serve "as a perspective for understanding and reflecting the individual and collective processes" (Anderwald et al. 2022) marked by uncertainty or unpredictability (cf. Anderwald et al. 2018). Dizziness connects to queer's disorienting, destabilizing, and irritating character. Ahmed (2006, p. 544) describes queer moments as "moments of disorientation" that are part of our lived experience. Queerness can disrupt and reorder by following alternative paths and putting other, seemingly awry elements within reach. Changing directions and departing from "the straight and narrow" path can involve uncertainty about where one will end up, yet it also "makes new futures possible, which might involve going astray, getting lost, or even becoming queer" (Ahmed 2006, p. 554). Ahmed's words help grasp the potential of queerness and dizziness in the context of project work: New and unexpected space for action can emerge. While dizziness is a dynamic, queering is a practice that includes purpose. Queering can lead to understanding and navigating through states of dizziness due to its celebratory and liberatory qualities. Both queerness and dizziness indicate process, motion, and rousing. They have an active character and thus open new possibilities and paths. Together, they are fruitful perspectives on processes within project work, specifically, in my research within the ASF hub. The ASF hub itself has a queering and dizzying effect on normative understandings of science, funding, knowledge production, and project management. Moreover, as indicated in the abbreviation ASF — Action for Sustainable Future — it offers spaces for actions. By thinking together queerness and dizziness in my accompanying research, I aim to offer a perspective on the ASF hub that helps all people involved frame emerging queering and dizzying moments in a generative rather than destructive way. The goal is to support, make sense of, and learn from the processes within the ASF hub.

Partly together with Anderwald and Grond, partly on my own, different creative tools and artistic practices were implemented mainly by hosting workshops. Together, we held two workshops for members of the ASF hub and its projects that focused on dizziness: The concept was introduced both theoretically and artistically, followed, amongst others, by balance training, exchange on emotional baggage, visualization of roles, or exercises to experience togetherness. Finally, the workshops offered opportunities for reflection. All participants were invited to go on an inspirational walk to wander around and collect things they wanted to bring to the workshop — anything from leaves or stones to pieces of trash.[8] Through bisociative thinking, they connected the found elements with the goals of the ASF hub and the development and change of those goals (first workshop) and with performed actions and accomplishments within the ASF hub (second workshop). Individually, I hosted a workshop on queering for project members of the ASF hub, introducing queering as a concept that may help grasp power structures, make normative structures within science and project work visible and flexible, question hierarchies of expertise and knowledge, or remember the full potential of collectivity. Furthermore, I invited the participants to reflect and exchange on already existing and possible queer(ing) elements in their projects.

[7]
For more information see: https://www.on-dizziness.com/, accessed on October 14 2023.

[8]
The inspirational walk was brought in by Yuliia Strykovska, who co-hosted one of the dizziness workshops with us during my research. Yuliia Strykovska adapted the original method of Tania Anaissie, Erik Olesund, Seamus Harte, Leticia Britos Cavagnaro, and Hannah Joy Root, which can be found here: https://dschool.stanford.edu/resources/the-inspiration-walk, accessed on October 14 2023.

I started my research with a fundamental and inconsistent hypothesis: to make collaborative processes sustainably successful, one needs a queer intersectional perspective. My hypothesis is inconsistent insofar, as "success" is a highly ambiguous term that conflicts with the term "queer" since queerness involves questioning ideas of success, effectivity, or purpose. The project performs a balancing act between exploring and breaking down queering and queer perspectives into something beneficial for everyone involved in transdisciplinary collaborative processes, while also acknowledging that queer completely resists any form of utilization and instrumentalization. Queer(ing), similar to dizziness, writhes against being defined, and sometimes even against being understood.

My research is based on queering as a creative practice, including both the practice itself and its outcomes. My artistic practice is both process and product. Queering is part of the method as well as the object: I explore queering by queering. This means I am approximating queer perspectives with a practice-based approach (cf. Candy 2006) and am exploring how queer perspectives can be taken and applied by practicing and investigating queering. I practice transdisciplinary and application-oriented artistic research, involving different people from civic society to researchers from various disciplines (cf. van den Berg/Omlin/Tröndle 2012, p. 25). Specifically, as mentioned above, I strive towards practicing a queer way of accompanying research that can be applied and fed back to the ASF hub continuously. Artistic research has the potential to destroy knowledge and knowledge structures and often includes unlearning, keeping things fluid, in motion, and alterable (cf. Brellochs 2012, pp. 133, 135). Furthermore, artistic research bears the possibility to question the seemingly apparent within art and science and urges us to occupy ourselves with the other, with what goes beyond what is to what could be (cf. Grand 2012, p. 269). Thus, artistic research includes queer(ing) elements and often is inherently queer. Research on queering can be helpful for dismantling norms within research. Queerness, itself, needs to be researched from a non-normative, artistic, queer perspective.

Having been trained in the field of visual communication, visuals are powerful tools to me. Through visualizing, thoughts become graspable for discussion and reflection. My artistic practice in this project mainly includes the production of short videos, which I use to stage and reflect my research process. I am doing this practice on a weekly basis: During the week, I collect materials and thoughts on my phone, including videos, pictures, or written notes. Each Friday, I allow myself a maximum of two hours to turn the material into a short film. I post the videos on YouTube as the (currently) only way of archiving and making them publicly available, and put them together in a playlist (YouTube, *I can see queerly now. Playlist by Leo Hosp*). Each video contains a short title and description and is numbered consecutively. I mainly use material I personally collected, yet sometimes combine it with other open-source material like sound or imagery that I mention in the description, if applicable. Together, this forms the methodological routine and rules of the research game I have established. The weekly repetition and time limit help me in exploring queerness: I am forcing myself to produce something without perfectionism. The practice might seem point- or useless at times. The videos might not make any sense to others, not even to myself. Yet, they form the permission slip I have created to work queerly: playfully, experimentally, self-ironically, purposelessly, joyfully. Following Tepe, my artistic research practice is not only about analyzing the processes in the ASF hub but also about approaching them via my and other's experiences (cf. Tepe 2020). The videos help me to capture, narrate, and reflect on those experiences, making them re-experienceable and sensually perceivable. They are more or less abstract letters to me and others or just quick notes. They allow me to try out messages or concepts, or bring together what seemingly doesn't or shouldn't go together, including interweaving myself with my research process. Thus, they are a concrete example of my queer methodology. Amongst making videos and hosting workshops, I am conducting and analyzing interviews with members of the ASF hub and project members and participate in various events of the ASF hub such as network meetings. The videos mostly serve my own reflection and re-experience, while the workshops offer space for participants to reflect, thereby supporting and guiding them. The interviews and participation in events are not necessarily artistic methods but often part of artistic research (cf. Ehn 2012, p. 11). They are the most explicitly observative part of my research, which has the potential to create a subject-object hierarchy, as I mentioned above. Therefore, I want to make my position and intention very clear in the events where I participate and the interviews I conduct: I state my role as a researcher that accompanies the processes of the ASF hub to ongoingly offer feedback and support wherever needed and relevant, and draw learnings from the experimental and innovative setting of the ASF hub. I interviewed three pivotal members of the ASF hub and one member with a central position in each of four of the six funded projects.[9] All people knew the conversations were part of my research and agreed to being recorded. They consented in using their

09
While I contacted all six projects, I was not able to interview people from two of the six projects due to restricted resources and availabilities.
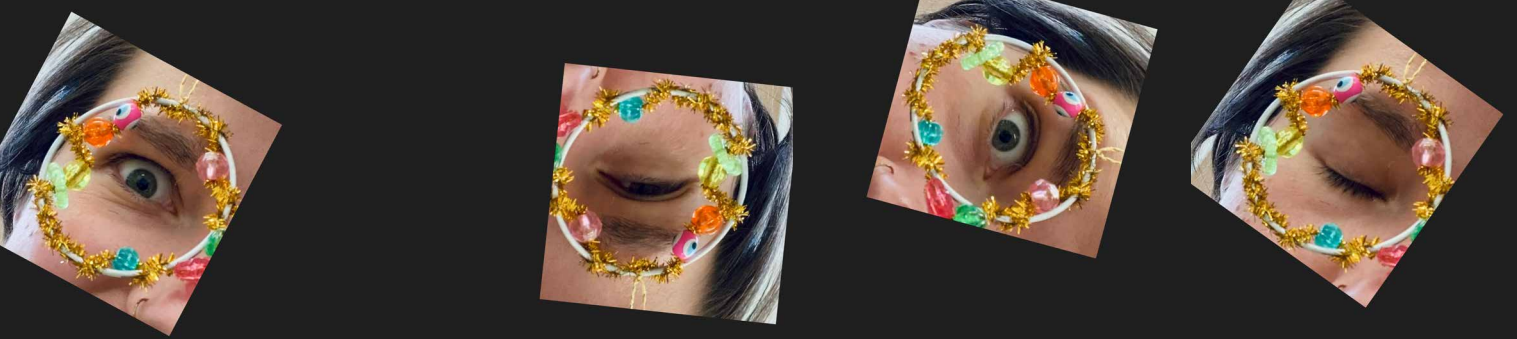
FIG. NR. 4–7
Leo Hosp, *An efficient experiment 1–4,* 2023.

statements in anonymous and translated (from German into English) versions for this article. As mentioned above, the anonymization of these interviews is motivated by the participants' wishes and depended on their diverse involvements and dependencies. Project members, for instance, are financially dependent on the ASF hub and therefore did not want their comments, critiques, or experiences to be associated with their names. The conversations took place either during walks, in parks, cafés, my office, or the office of the interviewed person. I had a guideline with topics I wanted to address: I did not target queerness or queering as an explicit theme but rather focused on sub-aspects. The main themes included the role of the interviewed person, their motivation for their work within the ASF hub, their definition of sustainability, their experiences and opinions of the particular funding and support structure, their thoughts on experimentation, innovation, efficiency, productivity, and success, feelings of togetherness within the hub, the role of joy, learnings, and their wishes for the future. However, some conversations developed quite differently, and not all topics were discussed in depth in every interview.

FIG. NR. 8
Leo Hosp, QR Code to :) (I can see queerly now #23), 2023.

My research is not only a voyage into queerness in research, but also into my own queerness as an artistic researcher. Exploring queering by queering, investigating queer perspectives by taking them — this way of working feels both like an active methodological choice and the only choice that made sense to me. It bears the risk of being unclear, vague, or not scientific enough, yet also bears the possibility to explore new ways of researching and conducting project work: leaving behind what might not work and creating new, unforeseen knowledge. Next to making videos I use other creative practices to support my research, ranging from visualization tools to bodily exercises. I chose artistic forms to reflect on and present both my process and my results. Furthermore, I am including myself as both a stakeholder and an object of my research. Following Ehn, I do not approach my research detached from myself, but take my own emotions, positions, and experiences into account as well (cf. Ehn 2012, pp. 11, 16). My queer research methods evolve constantly in the process; sometimes they allow me to approach, direct, and grasp them, yet at other times they are fleeting and withdraw themselves.

Queerness within the ASF hub

As stated above, the ASF hub was created as a space to experiment, and as an experiment itself. It foresees the combination of funding and further support initiatives, fostering inclusive and diverse knowledge production, and the use and combination of different artistic, management, and scientific methods. From the start, the goal of the ASF hub was to add surprising elements to the funding and support system, by confronting the projects with inputs they might not have conceived otherwise. All of this can already be described as queer ways of doing project work. Based on my research so far, the projects within the ASF hub engage with queerness to a different extent. The following examples of what I subsume under the term "queer elements" are by no means summaries of each project but rather glimpses into their work.[10]

Together with children and youth, the Human Rights Space created a barrier-free, interactive exhibition on human rights. It was shaped inclusively and in par-

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Further information can be found on the projects' websites: Human Rights Space https://humanrightsspace.at/, accessed on October 14 2023. MACH'S AUF! https://machs-auf.at/, accessed on October 14 2023. Re:fiction Radio https://helsinki.at/allgemein/refiction-radio/, accessed on October 14 2023. Wiener Sukzession https://www.wienersukzession.at/, accessed on October 14 2023. WurmHotel https://wurmhotel.com/, accessed on October 14 2023. Zukunftsrat Verkehr https://zukunftsrat.at/, accessed on October 14 2023.

ticipatory ways, aiming to foster a playful and creative approach to human rights. The project MACHS'S AUF! seeks to turn maker- and repair spaces more accessible for deaf and hearing-impaired people and has the goal of transmitting knowledge and innovation aside from scientific research. Re:fiction Radio aims at providing a platform of dialogue, focusing on refugees and activists. It is a free radio that resists capitalist logic, fosters the empowerment of marginalized people, works on dismantling hierarchies, aims at knowledge and skill transfer, and builds communities. The Wiener Sukzession works with the process of unsealing asphalt and concrete within public spaces. The project cultivates the moment of unsealing as an intersection between the seal and the following possibility of reshaping, as a metaphor for wider change and transformation. The project integrates various stakeholders and focuses on an approach full of relish and curiosity in uncovering hidden

values. WurmHotel builds outdoor composting systems hosting worms that turn waste into fertilizing humus. These hotels for worms are placed at different public places in Vienna, building cross-species communities. The narrative around the project addresses, amongst others, questions about who cares for whom or what is considered gross. Finally, the Zukunftsrat Verkehr is a council on traffic in Austria where members of civic society become co-creators of solutions to sustainability challenges on traffic, transport, and mobility. The citizens' council functions as a space to talk about controversial topics in productive ways.

These projects all addressed a variety of queer aspects. Inclusivity and diversity are approached intersectionally; ways of working are participatory, process-oriented, playful, and experimental; alternative ways of knowledge production and transfer are being explored and applied; joy, relish, and curiosity are part of the project work and often the main drivers; marginalized voices are amplified; artistic and creative methods are combined with science; hierarchies and capitalist logics are questioned; community-building, collectivity, and caring ways of working are fostered; sealed surfaces are being cracked to let new things emerge.

Sustainability: Chasing or Being Chased?

Sustainability, or its pursuit, is the ASF hub's context: It is a vital part of its name, Action for Sustainable Future and it appears in its main slogans, such as in "Shaping the sustainable transformation of our society!" or "Shaping sustainable societies together." (Action for Sustainable Future hub, *About ASF hub*). The ASF hub aims to foster sustainability, defined according to the SDGs of the United Nations (cf. United Nations, *The 17 Goals*). During my research, it has become clear that individuals within the ASF hub and the projects have slightly diverging understandings of sustainability. Some define it as inter- and intragenerational justice, others as enabling a good life socially, ecologically, and economically for all beings, and yet others as creating awareness for themes such as ableism or human rights. Everyone involved in the ASF hub seemed to exhibit an extremely high degree of intrinsic motivation. They felt called upon to do something good, meaningful, or empowering, and they strived for sustainability in manifold ways, and directly addressed issues that stroke them as relevant.

During the first dizziness workshop, participants revealed that they perceived the hub's initial goals as heavy and daunting. After all, wanting to shape sustainable societies seemed quite overwhelming. The participants hence emphasized a mindset of being good enough, being patient, and practicing the making of mistakes. The origi-nal focus on the far-reaching general goals has changed towards more concrete, seemingly small impacts and kicking off impact chains that can lead to a ripple effect. This includes inward impacts like strengthening competencies within the team and outward impacts as spreading ideas that can be further pursued by others. Seemingly small but blissful moments were described as the main driver to continue working within the ASF hub. This included a workshop on human rights, motivating someone to speak up against sexism, or people learning Austrian Sign Language because they heard about it in a sensitizing lecture. Those moments made sustainability concrete, tangible, and physically felt as joy. They showed people that their work had an impact and thus paid off.

Furthermore, the longevity of the ASF hub and the supported projects was mentioned. The duration of the ASF hub is confined until the end of 2023, so there is both time pressure and uncertainty about what will happen afterward. It was emphasized many times that the projects should continue beyond its runtime, even though the ASF hub as such will most likely not be continued. In the first dizziness workshop, a watering pot became the symbol for growing together and taking roots beyond the restricted project time, and to maybe sprout elsewhere as entirely new plants.

Hierarchies, Experiments, and Success

As stated above, the ASF hub has an inherent double role of providing both monetary funding as well as other supportive structures. This role shapes its innovative and experimental character but also leads to challenges. Only one person, the hub coordinator, oversees both the coordination of the support offers, as well as administrative matters including monetary decisions. From the projects' perspective, the double roles of the coordination and the ASF hub are perceived ambiguously. One person stated: "When you get money from someone, they have a certain power over you. And then it is quite hard to trust them and communicate your needs honestly because you always wonder if it influences how much money you will get." Another one said: "Monetary funding is, of course, connected to certain hierarchies and guidelines. However, those hierarchies are not as present in the hub, there is some scope to play with them and break them."

Furthermore, the support aside from money was described as both helpful and burdensome by the project members. Many described how their already limited resources were consumed by the support program, which felt detrimental to their projects' progress. One person said: "It often was unclear if the success of the hub was important, or the success of the projects. Everything was going well in our project, and it felt like the additional meetings and workshops were rather stopping us from working." Similarly, another project member described how the offers usually seemed very interesting. However, they were too many on top of being not specific enough to the project's needs. Experimental workshops that used creative and artistic methods like the dizziness and queering workshops were met with skepticism, even though many participants expressed their positive surprise afterward. Furthermore, many members of different projects described how it was unclear what was expected from them. One of my interview partners brought this to the point: "Especially in the beginning, it was not clear to me if I needed to achieve something or somehow perform well in the workshops, or if they were more about helping me."

In the interviews, the facilitators of the ASF hub described the experimental character as a positive learning experience for all. The projects got to experiment, and the LBG, together with the Angewandte, experimented too, namely with a completely new way of supporting projects. However, innovations such as the ASF hub often face high expectations, and trying to live up to them may result in trying to forcibly steer processes instead of letting them evolve freely. One member of the ASF hub said: "We are also communicating to the projects that they are part of a big learning experiment. This is certainly not easy for everyone, but I think overall it works very well." In all interviews with facilitators of the hub, however, it was mentioned that the experimental character could have been more clearly communicated and carefully implemented.

Some members of the projects stated that they were fine with the experimental character and enjoyed the freedom of trying out things, while others described how they struggled and felt like they were being experimented upon. One person said: "I think you really must be careful whom or what you call an experiment. Sometimes it can be hurtful to be perceived as an experiment." While some projects are backed by a support structure (for instance, a company or an association), others face more precarious circumstances and are financially dependent on their projects, and thereby felt like their existence was being experimented upon. Others struggled with a lack of structure and felt the

ASF hub was somehow befuddled, as one person stated: "Sometimes I wished for more clear guidelines and clarity concerning who was responsible for what." Another person told me that "the freedom was nice, but it almost felt like we as a project were coaching the hub. Some things were not clear, like when we would get money. I think the hub needed to test out and learn a lot of things itself."

Thus, to me, the experimental character of the ASF hub needs a mindset that includes openness for trial and error, for the unknown or seemingly useless things, and for stepping away from normative understandings and internalized measurements of success—all things that are part of a queer perspective. However, there are also practical requirements for experimenting. If experimenting, figuratively speaking, includes falling, a soft ground can help in trusting the experiment—there needs to be a certain baseline of clarity and a certain amount of resources, especially in terms of time and financial security.

At this point, I would also like to demonstrate the influence that accompanying research has: It furthers the experimental setting and feelings of being observed. To me, this was somewhat unavoidable. Thus, I deliberately wanted to state my role as an accompanying researcher in each interview, workshop, or event I attended. I tried to be as transparent and clear as possible in communicating my intention of researching the ASF hub itself and what can be learned from its structures and processes, rather th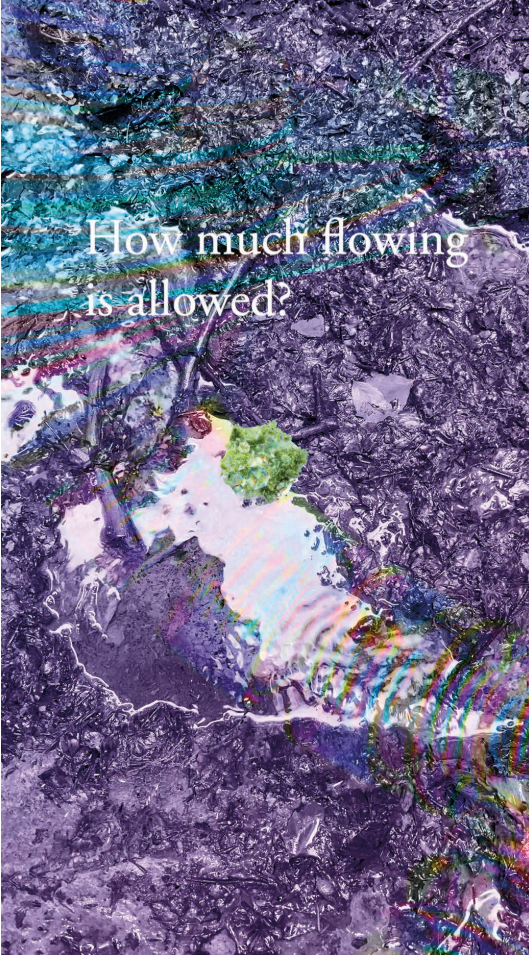an observing singled-out individuals within. I received feedback from some project members that this explanation helped them feel less researched upon or even assessed in my presence.

Furthermore, there was a difference in understanding success: mostly, success means having an impact and existing beyond 2023—to both the ASF hub as well as the projects. The general attitude towards success is rather skeptical, especially when framed within a neoliberal logic of performance or achievement. It was stated by multiple individuals that both the ASF hub and the projects are already successful in the sense of having a positive impact and getting positive resonance. Such a perspective focuses more on the process itself rather than on one specific output. One person from the ASF hub addressed this explicitly: "We were always focusing more on the process and did not measure the success of the projects in a classical sense. Rather, we were leaving it up to the projects themselves, guiding them in realizing their impact." In another interview with a member of the ASF hub, the lively and processual character was mentioned as well, stating that the goal is to answer "Yes!" to the question of "Has the ASF hub been a vital ecosystem?" after the project's runtime. Overall, collective learning shifted into focus, or as another person from the ASF hub put it: "It is not about enabling someone or learning in the sense of barely accumulating knowledge. Rather, it is about making experiences, building upon our existing and gaining new competencies. Taking something positive with us."

FIG. NR. 12
Leo Hosp, QR Code to *Flowing (I can see queerly now #41)*, 2023.

How much flowing
is allowed?

FIG. NR. 9–11
Leo Hosp, *Flowing 1–3,*
2023.

Burnout *or* Flow State

REPOSITION NO. 2

LEO HOSP

As stated above, there is a high level of energy within the ASF hub and all the projects — the shared attitude seems to be one of being motivated to work for what people care for and find meaningful. While this is a great potential, it can lead to overworking and people burning out, especially in the precarious and competitive environment of limited research funding. Due to the innovativeness of the ASF hub, there are also fewer structures and resources to build upon. Many stakeholders told me about their struggles within the process, mainly due to a lack of time, money, or work overload. People reported crying every morning or considering stopping their project. Burning out was described as rather normal, even though it should not be. One participant said: "In areas where people work for something they are truly committed to, burning out is so common. Because you have this personal connection to it, an intrinsic motivation." Another one pointed out the precarious environment: "I also realized that I am a little tired. I don't want to search and apply for funding anymore." What helped people get out of those states was counseling or coaching, learning to ask for help, saying no, and managing their time, a general mindset shift away from normative understandings of productivity, and remembering the motivation behind their work. Some phrases were:

"When I won't finish it, I won't finish it. That's the way it is."
"You don't have to manage everything on your own. It's okay to ask for help."
"I don't have to know everything."
"It's not necessarily my fault if something is not working. Maybe we just don't have enough resources."
"Sometimes it's really hard. Getting positive feedback and remembering why I am doing this is the only thing that keeps me going. That really is extremely beautiful and confirming."

When it comes to remembering their motivation, some people pointed out the role of emotions. As part of the supportive structure of the ASF hub, one workshop was about vividly imagining the best possible outcome of the project. This was often described as re-energizing. One person said: "I was so close to giving up. Going into those positive feelings of the best-case scenario helped me so much! It's so important to work with emotions!"

A Joyful Pause

When it comes to conclusions, the need for more apparently empty space and time was mentioned most often by project members. They experienced the ASF hub program as too packed, not leaving many opportunities for the projects to think about how they could connect with each other, what kind of support they needed, or to reflect on what had happened so far. They wanted more open formats with a loose structure. Furthermore, many project members stated that a physical space for hanging out, connecting, or co-working would have been a good idea. From the perspective of the ASF hub, it can be challenging to allow for apparent nothingness, letting things develop on their own, and thereby resisting the urge to provide a tight program to ensure a positive outcome.

To me, pausing and taking a break is extremely powerful. It allows us to take a step back and reflect, recharge, and rest. However, it is important to not utilize the pause as a tool to simply be more productive. Pausing and resting means resisting the capitalist logic of growth and productivity, especially when done for the mere purpose of pausing and resting. Similarly, I think working joyfully just to experience joy is powerful. I am including this as part of my method, trying to set-up my research practice in a way that feels most joyful within the given circumstances. My video practice is a concrete example of this — it is a way of reflecting on my process that I find highly enjoyable. In one of my interviews, a participant said: "A lot of work is great if it's joyful work that doesn't overstrain you." Another one also pointed out the importance of joy: "For me, this was actually one of my motivations to do this project: The possibility to experiment, just have fun, and not think too much."

The project MYCKET is a lovely example here since it is a project where joy is and will be the focus: "Everything should continue to be driven by joy. Hopefully, by working like that, we will transform the way things are being done" (Bonnevier 2023). To me, this is the ideal scenario where the creative energy of engaged people can unfold instead of burning out. Again, the question is how such a scenario can be created and what requirements on a structural level are needed. I do think, however, as Bonnevier pointed out, a queer way of working can also transform the way things are being done — both in terms of bottom-up and top-down processes.

FIG. NR. 13
Leo Hosp, QR Code to
*A joyful pause! (I can
see queerly now #46)*,
2023.

Queer Perspectives on Project Work

Since this article is being written at a point in time where eight months were left of the hub's runtime, revised after only three months were left, it is too early to draw conclusions. I am hence summing up my present thoughts and reflecting on my research in the status quo. I started this research with the intention to accompany the processes of the ASF hub, looking for queer elements, and investigating what queer perspectives on project work could be. I strived to provide support, guidance, and inspiration: both for ongoing processes and for reflections that could help set up future projects. I don't want to force the use of queerness as a concept or insist on calling certain ways of working specifically queer. Yet, I find it fruitful to see queerness as an invitation to look through a kaleidoscope or a prism, that both offers new, fun, playful, fascinating perspectives, which can make normative structures visible and flexible and might help to develop new ways of collaboration.

A lot of queer elements are present in the ASF hub and its projects, in my opinion. This ranges from the innovative way the whole structure has been set up, to individual actions and ways of working. In the following paragraphs, I am summing up preliminary findings and learnings from my research process, touching upon multiple queer aspects. In doing so, I also formulate questions that can be utilized beyond the ASF hub as learnings for future, similar undertakings, with an eye to what needs to be considered in terms of facilitation and design.

First, everyone's extremely high motivation is a great potential, yet also bears the possibility of overworking, if not properly monitored, especially in already precarious and competitive environments such as project funding. I think it is necessary to find ways of fanning this energy carefully, so it does not burn (people) out. Therefore, one of the main takeaway questions is: how can we create a sustainable environment where high levels of energy and motivation thrive and accelerate in a positive way, and where project work becomes a state of flow, instead of leading people into burnout? I believe structural changes are needed, as well as a queer way of doing project work that is focused on joy, care, process, and curiosity instead of outdated models of competition, outcome, and success. Doing things queerly creates new, sustainable structures and makes old ones crumble.

Pressure emerges from the high, dizzying, seemingly unreachable goal of shaping society's transformation to sustainability. In the ASF hub, part of this has been resolved by breaking down the big goal into smaller

impacts. Nevertheless, it remains important to challenge normative understandings of effectiveness and success and think about what sort of expectations are bestowed upon innovations—or, as one member of the ASF hub said, how to deal with the question of "So, did you save the world already?" This is connected to the perception of time. One lesson was that things always take more time than expected and that it is hard to stay with the process and not feel continuously behind, or not proceeding fast enough. As I argued above, slowing down and taking breaks is important. How then can we feel like we are always on time while embracing a seemingly slow process?

Within the ASF hub, success is overall understood as processual positive impact and collective learning that can create further impact chains that continue to grow. Due to the support's experimental character, however, it was not always clear whose success was fostered. To me and everyone I interviewed, the ASF hub and its projects are already successful—in the sense of having a positive impact. Apart from the question of how to shape sustainable ways of working together, the question of success is not whether positive effects can be discerned, but rather what kinds of positive effects emerge, how we can reveal them, or where they might lead.

For the project teams, the combination of monetary funding and further support the ASF hub provides is perceived as innovative and both beneficial and challenging. Further frustrations emerged through unclear communication of responsibilities. The hierarchies created by monetary funding are hard to combine with support which needs trust and intimacy, so it was suggested many times by project members that the monetary funding should be disentangled from the provided support. Even though the ASF hub was set up as a non-hierarchal system, certain hierarchies cannot be avoided and need to be acknowledged and mitigated. To me, this entanglement is connected to responsibility. When it comes to creating a safer space where people use their creative energy to experiment together, the question arises: who is responsible for creating and sustaining such a space? The aim of the ASF hub is to enable a system of mutual learning, one that is co-created and collectively shaped. However, certain hierarchies are also interlinked with responsibilities. I wonder: who is taking and should take what kinds of responsibilities? Is it even possible or desirable to distribute responsibilities equally and have no hierarchies? Who is accountable for what? This ties back to the ASF hub as an experiment. Experiments need a certain mindset

FIG. NR. 14
Leo Hosp, *I can see queerly now*, 2022.

and practical requirements, including an environment where everyone feels safe to experiment together. For the project members, this has not always been the case. The feeling of being experimented upon, at some points even with their existence, has been a challenge. I believe that experiments need to be guided and the role(s) of each participant clearly allocated and communicated.

I believe that frustration is inherent to project work to some extent. In the context of the ASF hub and its projects, the precarious environment of research (funding) is a stressor. I believe that acknowledging, talking about, and reflecting on frustration points is a first step towards overcoming them. However, it also showed that there is a real lack of resources—mainly financial, timewise, and/or the fact that the hub was short-staffed. This is a hindrance to reflective work and the translation of this work into further actions. Related questions include: How much reflection is needed? What resources are required, and what is being done with the results of the reflection?

Finally, joining what might not belong together is an important characteristic of the ASF hub that bears both frustration and new possibilities, such as joining art and science or joining projects with different topics and approaches. A queer way of working and taking and fostering queer perspectives can be described as one unifying element the ASF hub and its projects have in common in all their heterogeneity. Negativity emerges from feeling disconnected from each other. Reminding ourselves of our similarities, reinforcing togetherness, and staying open for possibilities of connecting things that might not go well together at first glance are ways of navigating through that paralyzing dizziness, and tapping back into our creative power. Even though the ASF hub is made up of different projects with diverse themes, the common ground is already determined by its name: Action for Sustainable Future. The individuals work in diverging areas, yet creating actions to strive toward sustainability is the unifying aspect that holds everything together.

Methodological Reflections

During my process, I have often felt doubtful and lost, like I won't be able to generate any meaningful results. Now, after a year of doing research, I can see the whole picture more clearly. The insights on the ASF hub are one part of my results, which I explained in the sections on sustainability; hierarchies, experiments, and success; motivation and burnout; and joyful pausing, and which I reflected from a queer perspective. The development of my practice of queering and queer perspectives in project work forms the other part. In this reflective section, I will focus on the potential and challenges of this practice. A methodological part might seem misplaced, appearing so late in this article, but is a main outcome of my research.

My accompanying research has the potential to point out and remind participants of their common ground from a more detached perspective and through creative tools. Looking back on my process, the audio-visual thinking through producing videos has proven to be extremely fruitful. They are like pages of my research notebook and reflections on interviews, observations, and

participations in events. They helped me to think creatively, stage questions or themes I was pondering, or formulate messages I could not put into mere words. In retrospect, all videos create a season of queer perspectives with weekly episodes. During the runtime, the themes shift and evolve: starting with a voyage into queerness, queer elements as being omnipresent, and queering as a practice, they shift into queer perspectives on project work. Today, with three more months left of the ASF hub's runtime, I arrive at investigating togetherness with our individual and collective surroundings, including togetherness with nature and other beings. I investigate what can be learned in terms of collaborative processes that work towards sustainability and are sustainable in itself. With these thoughts in mind, I develop perspectives to feed back into the interviews and workshops.

The interviews themselves, both the ones I held at the beginning with other queer people as well as the ones with members and members of its projects, were relevant not only for collecting information but more so for exchange. The interviews on

FIG. NR. 17
Leo Hosp, QR Code to *Forestal Reminder (I can see queerly now #42)*, 2023.

queerness and queer perspectives helped me in grasping queerness and describing it for the means of this research project, but some interviewees also stated that it brought clarity around the term for themselves and possible own projects. Often, they were more like conversations of co-regulation since it allowed us to exchange experiences of being queer in research settings. Furthermore, the thoughts Frederik Marroquín provoked on anonymization, giving credits, and hierarchies of expertise enriched this article. Not only did they push me to give more appropriate credit to the interviewees but they also led me to critically rethink my research practice.

Similarly, the interviews with ASF hub people went beyond the mere collection of data: Many of the interviewed people said how nice it was to talk about the hub and their projects, to speak on themes like success or self-care within project work, and their learnings. They stated that it helped them to reflect on what had happened, realize accomplishments, and get a clearer view of what was still ahead of them. Next to being grateful for the resources all interviewees put into this article by participating, I am thankful for the trust they displayed. All conversations were intimate and trustful. Many people shared emotional, grave and joyful information with me. Thus, the interviews impacted me. I felt many emotions, ranging from energized to disheartened afterward. I experienced similar emotions during the events I attended. I felt joyful during and after network meetings listening to other people's motivation and accomplishments, and I felt sad and hopeless when people shared existential struggles or serious themes they addressed in their projects.

Including those emotions in the workshops was part of my working method. I incorporated exercises like the Stinky Fish, for example, where people were invited to reflect on what they were carrying around and thus bringing to the workshop but would rather not talk about on their own, which could be anything from struggles with their family or not having slept enough (cf. Hyper Island, *Stinky Fish*). We noted down moments of joy, shared them with others, and kept the notes to remind ourselves of this joy later. Given my own experience, and the participants' feedback, such simple exercises created a sense of trust at the beginning of workshops or meetings. The workshops I held alone and those I held with Ruth Anderwald and Leonhard Grond sought to provide spaces for reflection. We wanted to remind all participants of their common ground and the goals they shared, providing togetherness in view of the difficult and dizzying task of creating steps toward sustainability. The people who participated described the workshops as fruitful and inspiring, yet only a few people attended the workshops to begin with. From talking to project members and facilitators of the hub, this was most likely due to a lack of resources and a general skepticism and doubt towards experimental and artistic workshops. I do think that this is fine since the workshops were merely an offer, not an obligation. However, at the same time, I would have wished for more participation and interest in them—a wish that is explicitly shared by the board and coordinator of the ASF hub.

Investigating queer perspectives on project work also meant applying them to my research. Amongst others, this meant reframing success by not labeling low participant numbers as a failure of a particular workshop, but rather focusing on the positive experiences of people who did attend. It included cherishing moments of joy and trust, and actively pointing out accomplishments of myself and others, no matter how big or small. I meant allowing myself to be involved and to show it, to be touched and get emotional, and not only accepting this but viewing it as a significant part of my research. Sometimes, it entailed acting in ways that felt unprofessional yet in ways that were driven by joy, such as playing around with modeling clay or making videos just for the purpose of making them.

Overall, I am only starting to grasp what queering means for me, and what aspects queer perspectives imply. This way of working has been an experiment and aligned well with hub's experimental character. Queering has a big potential to uncover and dismantle normative structures and foster transformation and innovation, connected with community and care. My research allowed for multiple stimuli and points of view, enabling procreative moments of transformation, transitions, and change. However, the question prevails of how to make queering and queer perspectives available. Should it be understood and utilized as a method? How can we communicate its potential and relevance? It requires more time and people to investigate queering and queer perspectives in project work and collaborative processes in general, possibly by co-creating a queer (un)common body of knowledge. One challenge that is general yet also specific to the ASF hub is how to measure or access experimental, innovative, non-normative, and queer undertakings, and how to communicate findings and learnings. The question of the (probably unusual, vague, or relative) nature of themes like expertise, care, learning, togetherness, or success becomes ever more relevant. Finding an answer to this question needs time and a willingness to see things queerly.

I am ending this preliminary report by proposing a manifesto of doing project work in queer ways. It is not complete, final, nor in a particular order. Rather, it is an invitation to start seeing queerly by just attempting it. Since I cannot draw final conclusions on queering and queer perspectives, and possibly never can, this manifesto is both outcome and a mere snapshot of my research. It might appear out of context or to be standing alone, creating an unsatisfactory rupture in the reading flow. Manifestos can initiate change, inspire movements, provoke thoughts, or shape discourses. By ending with this manifesto, I intentionally do not conclude my article. Instead, I open it up, inviting readers to ponder about queer perspectives in project work: what is missing? What could be left out or adapted? And how can this manifesto be implemented?

The Queer Project Work Manifesto

Embrace and plan failure.
Embrace and plan dizziness.
Practice care and compassion instead of understanding.
Dream.
Include nothingness.
Disturb normative power structures.
Celebrate marginalized experiences.
Embrace transformation and change.
Slow down.
Embrace not knowing.
Include sensations of your body and mind.
Combine things that you do not think go together.
Ask for help.
Seek joy and follow the process.
Let go of all expectations. Use positive expectations of best-case scenarios to put you in a state of joy, and then let those expectations go too.
Let yourself be surprised.
Commit to twisted and branched paths, and to getting lost.
Remember your common ground with others.

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Sustainable Behavior with Cultural Heritage: Study on Visitor Awareness

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schoenbrunn.at/ueber-schoenbrunn/wissenschaft-forschung

Marie–Christine Pachler

INSTITUTE FOR CONSERVATION

Schönbrunn Palace is Austria's most visited tourist attraction (Statistik Austria, Kulturstatistik 2021). The numerous visitors to the palace's historic state rooms pose a particular challenge for conservators, as the majority of mechanical damage to the historic furnishings is caused by inconsiderate and/or careless behavior of tourists in the palace. Following the implementation of a comprehensive awareness-raising campaign in the summer of 2022, in which visitors were informed about sustainable behavior in the cultural environment to prevent damage, this thesis examines whether and to what extent awareness can be positively influenced by educating people about the consequences of their own actions.
This study is intended to evaluate efficient methods for raising visitor awareness, so that mechanical damage to historical furnishings can be prevented and/or minimized in the future. This is a challenge, particularly in areas that are difficult or impossible to secure with barriers.

GABRIELA KRIST, MARIE-CHRISTINE PACHLER

Origin of the Research Study — Background and Motivation

GABRIELA KRIST, MARIE-CHRISTINE PACHLER

The author, an academic conservator, has been actively engaged at Schönbrunn Palace since 2016, playing a key role in overseeing the condition assessments of the historical furnishings within the palace's staterooms. Her many years of work have provided her with comprehensive insight into the damage that has occurred in the rooms throughout her time at Schönbrunn Palace. This facilitated the observation of the evolution of mechanical damage, primarily caused by tourists visiting the palace. This includes losses in the historical furnishings, such as the breaking off of three-dimensional elements like gilded carved applications, loss of paint layers and areas where the painted and gilded surfaces have been abraded to an extent that the wooden support is exposed. Textiles that have been rubbed through, as well as scratched surfaces are also part of the mechanically induced damage that occurs in the palace.

In 2020, work began to develop long-term solutions to protect valuable historical furnishings in the palace as part of a dissertation project. This dissertation was written under the supervision of Prof. Gabriela Krist, Head of the Institute for Conservation and Restoration at the University of Applied Arts in Vienna. Gabriela Krist was awarded the UNESCO Chair for the Conservation of Cultural Heritage in 2019. The Institute of Conservation and Restoration enjoys a special reputation because of its commitment to restoring World Heritage Sites *(Austrian Commission for UNESCO, Vienna, Science, New UNESCO Chair for Austria)*. The UNESCO World Heritage Convention represents an international agreement established by the international community to protect cultural and natural heritage. This agreement has the central task of identifying, preserving, and sustainably protecting exceptional cultural and natural sites with universal value *(Austrian UNESCO Commission, Vienna, World Heritage)*. UNESCO inscribed Schönbrunn Palace and the surrounding park on the World Heritage List in 1996 (Austrian *UNESCO Commission, Vienna, World Heritage, Schönbrunn Palace, and Gardens*).

Marie-Christine Pachler's research focuses on mass tourism in cultural institutions and the associated direct and indirect damage, using Schönbrunn Palace as an example. Pachler visited 18 historical sites focusing on mass tourism and/or UNESCO World Heritage status in France, Germany, the Czech Republic, and Hungary over the last two years (2022–2023), which are confronted with high visitor numbers. As a "visitor", she paid particular attention to how the objects were protected from mechanical damage by tourists. With a few exceptions, there was little or no information in the historical rooms visited regarding the rules of conduct that apply in the cultural context and whether, for example, touching the surfaces is permitted. There are hardly any explanations as to how contact with historical surfaces could cause damage.

During a professional exchange in the framework of the European Residences Mobility Grant,[1] where Pachler, as an employee of the Schönbrunn Group, had the opportunity to exchange ideas with specialist restorers from the Prussian Palaces and Gardens Foundation in September 2023, the problem of visitor behavior in connection with the preservation of valuable objects was discussed intensively. It became clear once again that regardless of the specific historical palaces in which conservators work, this problem is a common challenge.

Foreword

Schönbrunn Palace, the former summer residence of the Habsburgs, was given its present Rococo style appearance mainly under Maria Theresa (Iby/Koller 2007, p. 127). Franz Joseph (1830–1916) was the only Habsburger who lived there permanently and during the whole year. He preferred a modest and bourgeois style of furnishing (ibid., p. 267). What is unique about Schönbrunn is the preservation of the historical inventory that grew over the centuries until the end of the monarchy *(Austrian UNESCO Commission, Vienna, World Heritage Site, Schönbrunn Palace and Gardens)*. Today, visitors from all over the world can visit the 40 historic rooms and halls on the Beletage. In 2022, 1,096,414 visitors were guests in the historic staterooms despite partial travel restrictions.[2]

Although a large proportion of income flows into the maintenance of the palace complex, the risk of mechanical damage to historic furnishings increases with the number of visitors. They cause damage and wear (Thomsen 1980, p. 47f.), as they often consciously or unconsciously come into contact with historic surfaces or objects in the palace—through clothing that brushes against surfaces, people leaning against surfaces, or touching them. This leads to damage and deterioration of the substance, jeopardizing the preservation of objects and furnishings. In historic houses, conservation problems thus require specific strategies (Henry/Jessup 2018 p.121ff).

The preservation of cultural heritage sites and monuments is laid down in internationally recognized charters and guidelines. For example, the 1964 Venice Charter estab-

lished important principles and guidelines for dealing with historic buildings at an international level. The Charter emphasizes the importance of authenticity, respect for the surviving original character, and the integration of contemporary needs to ensure that historic sites are properly preserved and maintained: "The common responsibility to safeguard ancient monuments for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity" (Küpper 2014).

The Nara Document (1994) builds on and expands the principles of the Venice Charter. The document was developed at the Nara Conference (Japan) in cooperation with UNESCO, ICCROM,[3] and ICOMOS[4] to establish guidelines for the evaluation and conservation of the authenticity of cultural heritage sites: "Increasing awareness within the public of this fundamental dimension of heritage is an absolute necessity in order to arrive at concrete measures for safeguarding the vestiges of the past. This means developing greater understanding of the values represented by the cultural properties themselves, as well as respecting the role such monuments and sites play in contemporary society" (ICOMOS, 2023). Furthermore, the 2005 Faro Convention emphasizes that cultural heritage is not a static concept but is shaped by professionals and, at the same time, by the society that interacts with it. The preamble emphasizes the need to actively involve all members of society in the continuous process of defining and managing cultural heritage (Council of Europe 2021, p. 20). It should, there-

01
Mobility program for members of the European Royal Residences Network.

02
Number of tickets sold according to the Management Information System (MIS).

03
ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) is an international organization dedicated to the conservation of World Heritage sites through information exchange, research, cooperation and funding programmes.

04
ICOMOS (International Council on Monuments and Sites) is an international organization that focuses on the preservation and protection of cultural heritage worldwide. Its tasks include the evaluation of cultural monuments, the development of guidelines for monument conservation and the promotion of conscious measures for the preservation of cultural heritage.

fore, be a concern for professionals to communicate to the public the opportunities and considerations behind the efforts to preserve cultural heritage (Flückiger 2018, p. 16). In the past, several efforts have brought restoration content closer to the public and visitors to cultural sites. The focus is mostly on communicating the restoration work: "We want to take a step towards greater awareness, which is called for in our ethics papers" (ibid., p.117ff).[5]

In *Verborgene Wissenschaft? (Hidden Science),* Andrea Funck devoted herself to the topic of restoration in museums in 2016. By evaluating expert interviews, a visitor analysis, and the evaluation of two visitor engagement opportunities (a tour in the restoration workshops and three restoration films of the permanent exhibition) at the Landesmuseum Württemberg, Andrea Funck showed how the mediation of restoration content could be improved (Funck 2016, p. 202f). In 2018, Flavia Flückiger analyzed the knowledge transfer in the field of conservation and restoration in the area of public relations using selected examples as part of her Master's thesis in Bern. The results of her work were incorporated into a guide for sharing conservation expertise (Flückiger 2018, p.6). The European Heritage Days, known as the Day of the Monument in Austria, take place every year. The aim was to raise awareness of the diversity and value of cultural heritage in society (Bazil 2023). The annual Restoration Day showcases the often-hidden work of restorers. Throughout Europe, people are invited to get to know exemplary conservation and restoration projects in studios and on construction sites and to learn from experts about the profession of conservators and high-quality restorations (Association of Conservators 2023).

However, one neglected aspect is that most visitors do not realize that they contribute to the potential damaging of objects. In exhibitions such as "Im Detail. Die Welt der Konservierung und Restaurierung" which took place in cooperation with the University of Applied Arts Vienna from November 2022 to August 2023 at the Tyrolean State Museum (Ferdinandeum), visitors were given insight into the working world of conservators. Case studies have illustrated the diverse tasks involved in researching, preserving, and presenting works of art. Causes of damage such as climate, light, and biogenic infestation were also displayed. A work of art that was damaged by a visitor's carelessness during the exhibition was also shown (Probst 2023).

The "Conservator at Work" exhibition by the Institute of Conservation at the University of Applied Arts Vienna ran from October 23 to the end of November 2023 at the Postsparkasse. A wide range of conservation projects from various disciplines were presented here. The exhibition was accompanied by lectures on conservation science, which allowed visitors to engage with the topic of cultural heritage and sensitization, enter a di-

O5
Translated from German.
O6
Translated from German.
O7
The implementation of measures to reduce mechanical damage, such as targeted visitor guidance and the allocation of timeslots to better distribute the flow of visitors throughout the day, has already been implemented and evaluated at Schönbrunn Palace.

alogue, and ask questions (University of Applied Arts Vienna, Institute for Conservation 2023).

Although it is not yet a standard practice, there is growing awareness of the importance of visitor research. Museums, in particular, are increasingly exploring this topic. For example, a visitor structure analysis of the Leibniz Association's eight research museums examines who visits which museums, for which reasons, and how often. The challenge often lies in translating insights gained into concrete actions and measures (Thoma et al. 2022, p.19).

However, to date, no documented study has been found that has investigated the effect of awareness-raising measures on visitor behavior.

As mentioned, there are few indications in historical houses urging visitors not to touch historical objects. On the websites of cultural institutions, rules of conduct are sometimes mentioned in-house. In addition, the following text is quoted on the website of the Bavarian Palace Administration: "The realization that restoration can never restore an object to its original condition contributes to a higher appreciation of restored objects. Lack of care can lead to damage" (Bavarian Administration of Palaces, Gardens, and Lakes, Preventive Conservation).[6]

In some scenes, a short video with prohibition signs emphasizes the appeal of mindfulness. Furthermore, some historic houses require the storage of backpacks or ask visitors to wear them on front, and dedicated supervisors admonish visitors to behave accordingly. To ensure the preservation of collections, conservators convey an understanding of preventive conservation to both supervisors and staff of the respective cultural institutions (Lloyd/Staniforth 2000, p. 118). Close cooperation and open communication are essential (Thomsen 1980, p. 47f). In addition to colleagues, visitors must also be made aware of sustainable behavior and damage prevention because our cultural heritage affects the entire world population; therefore, we bear responsibility for its preservation. Cultural heritage is a fragile and nonrenewable resource (Luger 2023). In the summer of 2022, an awareness-raising campaign was launched at Schönbrunn Palace to inform visitors and internal and external employees about sustainable behavior in dealing with cultural heritage. The campaign's content will be communicated to everyone in the palace via various media (digital, print, and 3D). It will show the consequences that carelessness and ill-considered actions can have for historic furnishings. The aim is to create greater awareness of sustainability and personal responsibility to prevent and minimize future damage to historic furnishings in advance.[7]

An evaluation was conducted to measure the results of the tourist awareness campaign. Over 1500 visitors were surveyed on various media using questionnaires in the run-up to the awareness-raising measures (t0) and after implementation (t1).
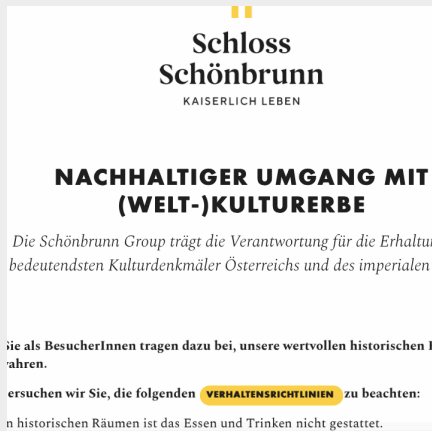
FIG. NR. 1
Schönbrunn Palace Kultur- und Betriebsgesm.b.H, measures
implemented (t1) 2022: A: "Do not touch" symbol, B: educa-
tional film (comic), C: tactile objects (4 pieces), D: gold leaf,
E: half-restored armchair, F: information folder, G: poster,
H: website, I: social media.

^{3.} Methodology

GABRIELA KRIST, MARIE-CHRISTINE PACHLER

^{3.1} Objective of the Evaluation

Evaluation research is concerned with the scientifically sound assessment of facts and intervention measures concerning various evaluation criteria, such as effectiveness, efficiency, acceptance, or sustainability (Döring/Bortz 2016, p. 977).

The results of the study should primarily be used to obtain evidence of the impact of the planned awareness-raising measures compared to the status quo (before implementation of the measures = t0), to improve the evaluated intervention (implemented measures, or after implementation of the measures = t1), or to make decisions about use, non-use, or continuation (ibid., p. 977).

Before the measures were implemented (t0), the historical furnishings were protected by glazing and cord barriers. Based on observations images of the damage, it became clear that barriers only prevented visitors from touching historic surfaces to a limited extent. They often lean over glazing or cords to haptically explore the objects they see or brush against the unprotected interior areas with their bags, robes, and bodies. It was assumed that by creating greater awareness of sustainable behavior and more mindfulness in the cultural environment, less mechanical damage would be caused to the equipment in the future. This question was answered as either positive or negative. In the successful implementation of awareness-raising measures, visitors would need to perceive, understand, deem them meaningful, and act accordingly.

Figure 1 shows the measures implemented that were the focus of the evaluation.

Brief description and location of the measures: The awareness-raising measures have been placed at various locations in the palace: in the Ticket Center (adjacent building), as well as on the first floor and the Beletage of the palace (see Fig. 2). Several "Do not touch" symbols (Fig. 1. A) were placed in the staterooms to remind visitors that the historical surfaces in the palace must not be touched. A half-restored armchair (Fig. 1 E) in the Fishbone Room at the beginning of the palace tour showed clear signs of wear and damage on the left side caused by touching and improper handling. The accompanying text explains how damage is caused by touch and the effort involved in restoring this armchair. Further three-dimensional objects, such as tactile objects (Fig. 1 C) and a gold leaf (Fig. 1 D), are located in the central vestibule in front of the turnstile on the first floor. The four tactile objects illustrate that touching them can cause damage, as frequent contact with tourists has worn down the right-hand side, and the surface is badly damaged. The left side was covered with acrylic glass and was intact. The gold leaf displays how thin and fragile the gold layer is on the gilded surfaces of the staterooms. In addition, a comic film (Fig. 1 B) and posters (Fig. 1 G) in the central vestibule inform visitors about sustainable behavior in the cultural environment. The film displays the behavior that can lead to damage and why this should be avoided in the palace. The comic is also displayed in the entrance area on the first floor and in the Ticket Center. There is also another poster on sustainability at the Ticket Center. A folder (Fig. 1 F), which also contains information on sustainability, can be picked up from the checkroom in the palace's entrance area.

In addition to data collection, the focus of the evaluation process, in line with current evaluation research and practice, is on enabling/creating a continuous, systematized learning process.

The degree of setting and achieving the goals was determined based on the evaluation questions defined together with two evaluators.[8]

The degree of achievement was measured using both quantitative and qualitative data (Gollwitzer/Jäger 2014, p. 60f). This information was collected through a questionnaire survey (3.2.), reflections, and discussions in kick-off and final workshops (3.3.).[9] In addition, to create more in-depth findings, several more studies were conducted to measure the achievement of objectives. They included participatory observations of visitors and internal and external employees, as well as interviews with tourists, employees, guides, the top management of the Schönbrunn Group, and the management of the visitors areas Schönbrunn Palace.

[8] Experts from the fields of evaluation and psychology, Lorena Hoormann and Monika Finsterwald.

[9] In *participant observation,* the researcher is actively involved. By comparison, in *non-participant observation,* the situation is assessed from the outside with distance.

3.2 Questionnaire

Two online surveys were conducted in June and July 2022, t0 and t1 respectively. The questionnaire was made available in two languages (German and English). It could be completed via a link (online ticket orders), QR code (signage in the palace), and touch terminal at the end of the palace tour.

The first survey, t0, took place with visitors and employees (internal and external) over 2.5 weeks. The second survey, t1, ran for three weeks to ensure questionnaires were returned for comparison.

The questionnaire consisted of three parts. The first part had the function of a teaser/motivator for participation in a "short quiz" (multiple choice) and also contained pictures. The answers to the questions are displayed at the end of the questionnaire.

The following questions were asked:

— Approximately how many hours are needed to restore one-half of this armchair (Fig. 2. left)?
— How much would it cost to restore an entire armchair?
— There are many gold elements in Schönbrunn Palace, though it's important to note that most of them are not made of pure gold but rather gilded.
— How fragile (fine, sensitive, and delicate) is the gold leaf used to produce gilding?
— How long does it take for one person to restore and reconstruct the polished white frame in the Great Gallery (Fig. 3. center)?
— Who did this bed belong to (Fig. 3. right)?
— What do you think causes the most damage to historical surfaces in palace rooms in the long term?

In the middle section, questions were asked about the personal importance of protecting cultural property, prevention of damage to cultural property, and protection options:

— How important do you personally find the topic "protecting cultural heritage"?
— How do you think the historical objects in the palace could best be protected?

— How aware are you of the potential impact of your behavior on the preservation of the palace rooms?
— What makes you feel well-informed?

The middle part of the survey was supplemented for t1 with the following two additional questions.

— What kind of information did you notice during your visit to the palace?
— Which of these pieces of information fosters the highest awareness regarding the potential conservation implications your individual conduct may have on the rooms of the palace?

The last part of the questionnaire covered sociodemographic factors, the "type of visit to the palace," and, in the broadest sense, the cultural affinity of the respondents.

— Country, age, gender
— How did you walk through the palace? E.g., audio guide, guided tour
— The frequency of visits to museums and exhibitions

For the evaluation, it was of interest whether the assessments of visitors at t0 and t1 differed. The data were analyzed both descriptively and inferentially using mean and significance tests.[10] The analysis was conducted using SPSS software.[11]

Where the scale level allowed, mean values and standard deviations were calculated. Nonparametric methods (Mann-Whitney U tests [DATAtab Team 2023] or Chi2 tests (Döring/Bortz 2016, p. 967)) were applied for both comparing the two survey dates (t0, t1) and group comparisons.

3.3 Workshops

The workshops served as the basis for implementing the evaluation measures. This exchange formed an important groundwork for interpreting the results. The participants consisted of the project management, two evaluators, the management of visitor areas, and employees of the Schönbrunn Group who were directly or indirectly affected by the implementation and/or impact of the measures.

[10] Descriptive analysis refers to the description of data and the identification of patterns in the data at hand, while inferential statistical analysis aims to draw conclusions about a broader population based on the samples collected. In this case, both descriptive and inferential statistical methods were used, with mean and significance tests used as statistical tools to gain insight into the data and draw statistical conclusions.

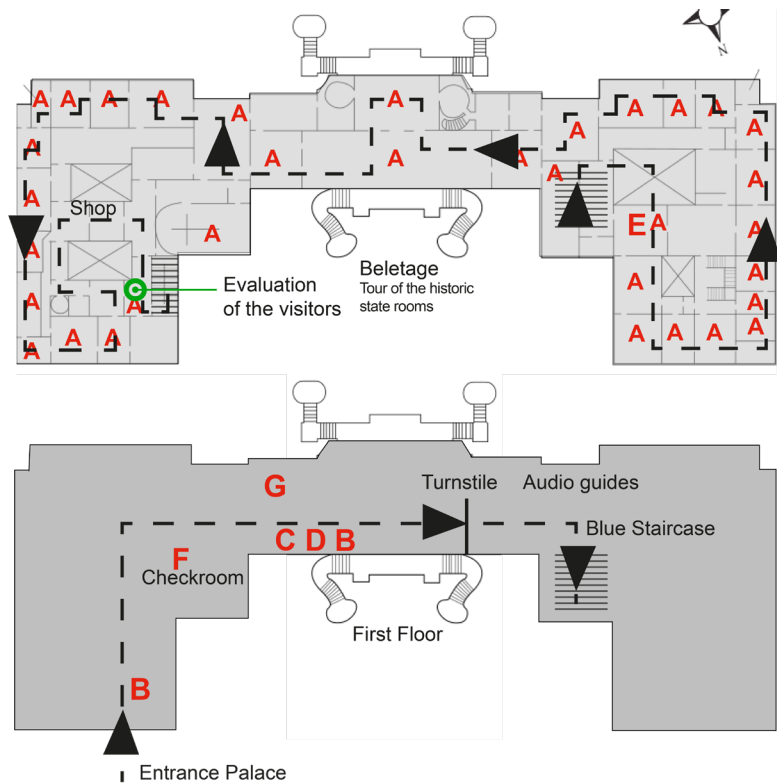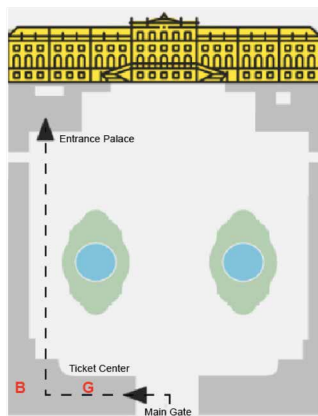[11] Statistics program used in the social sciences and psychology.

FIG. NR. 2
Schloss Schönbrunn Kultur- und Betriebsgesm.b.H, location and brief description of the awareness-raising measures in the palace, 2022.

FIG. NR. 3
Schönbrunn Palace Kultur- und Betriebsgesm.b.H, from left to right: Half-restored armchair, The Great Gallery (polished surfaces of the wall was marked with red arrows), The Imperial Couple's Bedroom 2022.

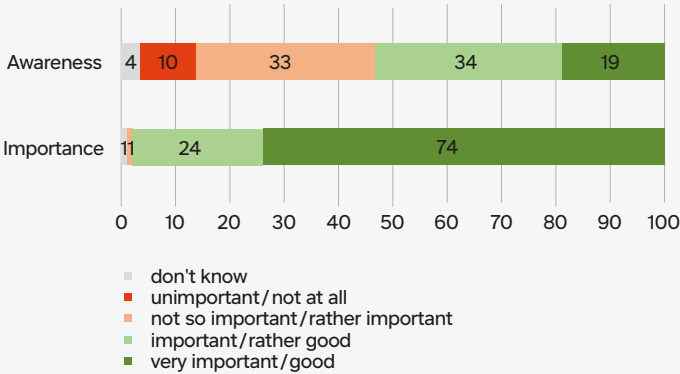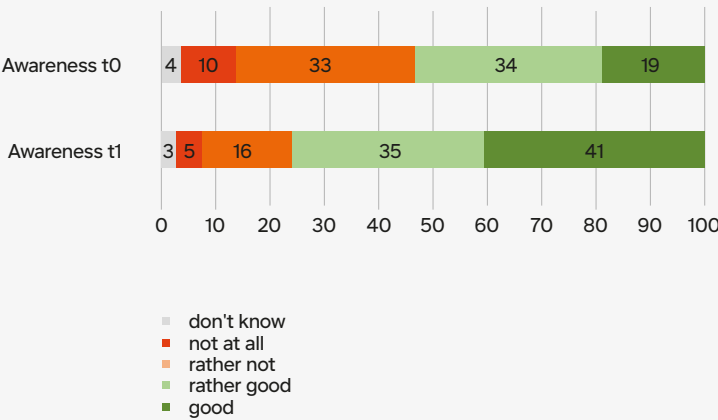## Assessment of importance and awareness
(visitors; t0; percent)

Awareness	4	10	33	34	19
Importance	1	1	24	74

0 10 20 30 40 50 60 70 80 90 100

- don't know
- unimportant / not at all
- not so important / rather important
- important / rather good
- very important / good

Assessment of awareness: comparison
t0 and t1 in %

Awareness t0	4	10	33	34	19
Awareness t1	3	5	16	35	41

0 10 20 30 40 50 60 70 80 90 100

- don't know
- not at all
- rather not
- rather good
- good

Results
4.

During the evaluation, a response rate of 1.2% for all visitors at t0 (n=62,810) and 1% at t1 (n=72,532) was achieved for the online questionnaire. The response to the questionnaire can be rated as highly satisfactory, especially when it is considered that hardly any feedback forms are usually completed by tourists in the palace. A response rate of 0.2% is typically achieved. Based on the size of the population (n=total number of visitors), the required minimum sample size of (nmin = 659) was achieved with a confidence interval of 99% and a margin of error of 5%. More than twice as many people participated in the study as originally required.

4.1 Before Implementation of the Measures (t0) Visitors

In the first survey, most visitors said that protecting cultural assets was very important to them. However, only one in five respondents felt very well informed about the effects their own behavior in the historic palace rooms could have on the preservation of the furnishings. One in seven respondents did not feel informed at all or could not say for sure (do not know). Thus, the need for education was displayed before the awareness-raising measures were implemented.

When asked how visitors felt that cultural assets could best be protected, just over half of the respondents felt that dust protection, light protection, and information be effective protective measures. A third considered surveillance measures useful. Examples of other measures for the open-response option are:

— More protection against contact with visitors
— "Cover fancy stuff with glass"
— More seats
— Determining the number of visitors per day
— Education, environmental controls
— A complete ban on visits, although it would be regrettable.

The survey revealed that visitors underestimated the time and money required for restoration. Less than half of the respondents could estimate the hours and costs involved in restoring a chair. When estimating the time required for restoring the polished white frame in the Great Gallery,[12] 19.2% only guessed the correct answer.

[12] The restoration took place between 2010 and 2012.

[13] U = 228,351,000; Z = −2.761; p<0.01

[14] Chi2(1) = 7.51; p<0.01

Employees

Employees were also invited to complete the online questionnaire t0. The primary aim was to draw attention to the project and underline the importance of sustainable behavior in the cultural environment. Approximately 40 employees participated in this survey. Before implementing the measures, 21% of employees felt insufficiently (little) informed about the effects of their behavior on the protection of cultural assets or were not informed at all. They mentioned dust protection and information provision as the best protective measures for cultural assets.

4.2 After the Implementation of the Measures

The personal weighting of cultural property protection was just as high in the post-survey (t1) as in the pre-survey (t0). Given the positive results of the first survey, an increase was hardly expected (ceiling effect) (Hemmerich 2023). There were significant differences in the results for the question of awareness. Respondents from t1 stated that they were more informed than respondents from t0.[13] In t0, 53% of participants thought they were relatively well or well-informed. In t1, this figure represents 75% of respondents (Fig. 4).

In particular, it was significantly more frequently stated that visitors felt informed by cues in the palace.[14] Clarification through prior knowledge and guidance from the guide were mentioned about as often as in t0. This is noteworthy because most respondents toured the state rooms with an audio guide (88%). These measures are not currently mentioned in the audio guides. This means that visitors independently perceived them.

Table 1: Comparison of t0 and t1 – How the visitors were informed:

Informed by ...	t0 (%)	t1 (%)
Prior knowledge	50.74	49.10
Indications in the palace	42.93	50.07
Advice from the guide	28.13	31.03
Other/ Miscellaneous	2.42	0.97

The symbol signs (Fig. 1A) in the historic staterooms and the half-restored armchair (62.9%) (Fig. 1 E) were most frequently observed (83.6%).
Respondents also stated that the symbols (73%) and the armchair (32%) were the best way of explaining the "right" behavior (see Figure 6).
Online measures were registered the least (websites: approximately 15.7%; social media: approx. 6.6%).

4.3 Subdivision into groups

Based on the available data, the differences in the following groups can be calculated at t0 and t1:
— between visitors from Europe and North America
— between visitors from different European countries (Germany, Austria, France, and Italy);
— between visitors with an affinity for culture and those with a lower affinity for culture.

4.4 Country Clusters

Several external factors influence the tourism system. Developments such as globalization, changes in demographics and lifestyles, and the global COVID-19 pandemic have impacted visitors' travel behavior.
The latter shaped the travel behavior of visitors to Vienna during the evaluation in the summer of 2022. At that time, Vienna recorded an increase in European overnight stays compared to the previous year, but tourists from Asia accounted for only 1/10 of the previous volume (before the pandemic). The number of visitors from the USA rose above the pre-crisis level in 2019 (City of Vienna 2023). The geographical composition of the evaluation samples is shown (Fig. 7).
To ensure that the awareness-raising measures were understandable for international

visitors to Schönbrunn Palace and to be able to adapt and expand them if necessary, after the evaluation, the samples of visitors were divided according to their countries of origin as part of the detailed analyses.
It was assumed that different nations receive and perceive the information provided in different ways and may differ in their views on the protection of cultural property, education, and personal responsibility.
At the time of the evaluation, the following classification was made based on the number of visitors:
Classification of visitors by continent: Europe (t0: 75%; t1: 76%) and North America (t0: 16%; t1: 17%)
Classification of visitors by European country: Germany, Austria, France, and Italy.
The results confirmed some of the considerations: However, it must be mentioned that the distribution across continents and countries was not even, as respondents from Europe and Germany were significantly more frequently represented at the time of the surveys than participants from other regions.[15]

Comparison "Europe and North America"

In both t0 and t1, there were no differences between European and North American visitors concerning the importance of protecting cultural property, the perceived level of enlightenment, and what makes visitors feel enlightened.
European visitors were significantly more likely to say that they saw "surveillance" as a suitable protection option (in both t0 and t1).[16]
On the other hand, North American visitors are significantly more likely to think that protection through "information" is the most suitable approach.[17] This tendency was already visible in t0, and was mentioned significantly more often in t1.
Furthermore, the comparison between North America and Europe shows that the former perceived three-dimensional objects (tactile objects,[18] the gold leaf,[19] and the armchair[20]) significantly more often. On the other hand, the latter tended to perceive information on websites[21] and symbols[22] more frequently.
European visitors also significantly mentioned symbols as more important for raising sustainability awareness.
In comparing European countries, no significant differences were found regarding the personal weighting of cultural protection and enlightenment. Respondents from Germany perceived the "half-restored armchair"[23] most frequently. The other measures were rated roughly equally by European respondents.

15 Presumably due to the change in travel behavior caused by the circumstances of the COVID-19 pandemic.
16 t0: Chi2(1)= 5.539; p<0.05; t1: Chi2(1)= 11.333, p<0.001
17 t1: Chi2(1)= 6.841, p<0.01
18 t1: Chi2(1)= 15.539, p<0.001
19 t1: Chi2(1)= 24.061b, p<0.001
20 t1: Chi2(1)= 4.591, p<0.05
21 t1: Chi2(1)= 17.271, p<0.001
22 t1: Chi2(1)= 3.846, p<0.05
23 t1: Chi2(1)= 9.593, p<0.05

Perception and assessment of the measures (visitors; t1; %)

Symbol
Armchair
Tactile objects
Gold leaf
Movie
Poster
Website
Folder
Social Media

0   20   40   60   80   100

■ Perception of the measures
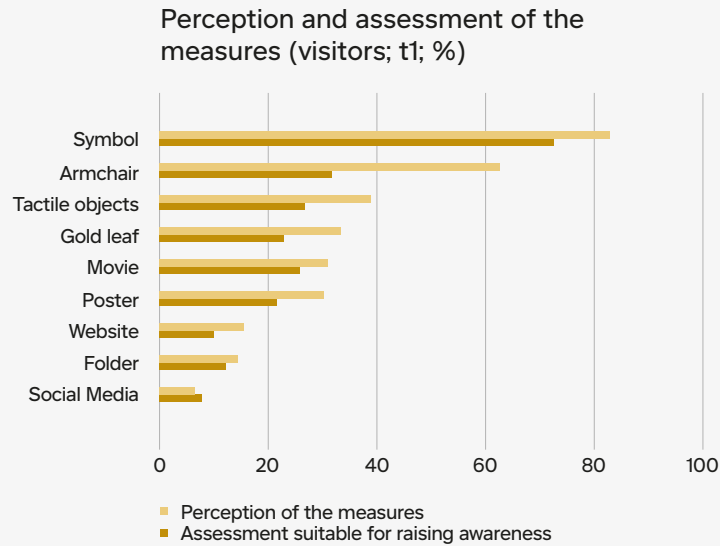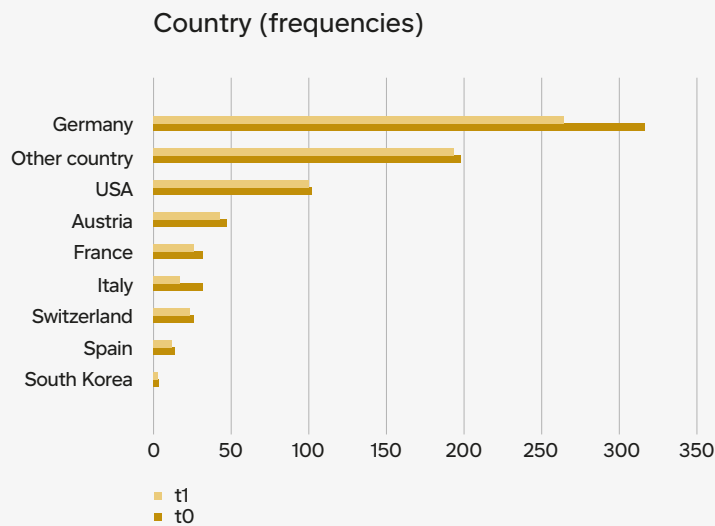■ Assessment suitable for raising awareness

FIG. NR. 6
Pachler, t1 visitors' perception and assessment of measures to protect cultural assets, 2022.

FIG. NR. 7
Pachler, comparison of t0 and t1 sample breakdown by continent or country according to frequency. Note: The "other country" cluster mainly includes Belgium, Canada, UK, NL, Poland, Czech Republic and Hungary (9<n<27), 2022.

Country (frequencies)

Germany
Other country
USA
Austria
France
Italy
Switzerland
Spain
South Korea

0   50   100   150   200   250   300   350

■ t1
■ t0

4.5 Cultural Affinity

For the detailed analyses, the sample of visitors was divided into "culturally oriented" (t0: 50.4%, t1: 53%) and "less culturally oriented" (t0: 49.6%, t1: 47%) individuals. It was assumed that the importance of cultural heritage protection, the degree of awareness and personal feelings on it, and the understanding of sustainable behavior in palace rooms vary between the two groups.

It was also assumed that there may be differences in the perception of information measures and amount of information received. Some of these assumptions were confirmed: The protection of cultural assets is significantly more important for people with an affinity for culture (both in t0 and t1) than for people with a distance to culture.[24] On the other hand, there was no statistically significant difference (both in t0 and t1) with regard to the general assessment of awareness of one's own behavior in the palace rooms and its pos-

[24] t0: Chi2(1)= 14.655, p<0.05; t1: Chi2(1)= 24.597, p<0.001
[25] t0: Chi2(1)= 4.246, p<0.05; t1: Chi2(1)= 14.418, p<0.001
[26] t1: Chi2(1)= 4.914, p < 0.05
[27] t1: Chi2(1)= 6.384, p<0.05
[28] t1: Chi2(1)= 4.200, p<0.05
[29] t1: Chi2(1)= 5.928, p<0.05

sible effects on the preservation of the furnishings. There is a difference in what makes people feel informed: culture-savvy people state significantly more often that they have prior knowledge.[25]

In t1, people with a greater affinity for culture are significantly more likely to believe that providing information could protect cultural assets.[26]

In addition, people with an affinity for culture were significantly more aware of the measures outside the historic state rooms (tactile objects,[27] gold leaf objects,[28] and posters[29]) than respondents with less affinity for culture. They appear to have been more attentive even before entering historic staterooms than those who visited cultural institutions less frequently. There were no differences between the two groups when asked directly which measures they felt were particularly suitable for raising awareness. In this regard, visitors agreed that the don't touch symbols and the armchair are the most suitable means for education.

5. Conclusion

GABRIELA KRIST, MARIE-CHRISTINE PACHLER

The protection of cultural assets holds predominantly high significance among the respondents. The evaluation revealed a significant difference in the personal assessment of their level of awareness when comparing t0 to t1. At t0, approximately half of the respondents claimed to be relatively well or well-informed. After the implementation of the measures, around three-quarters of visitors felt well-informed. Thus, this study proved that information and education contribute to a higher awareness of sustainable behavior in the cultural environment.

The educational measures placed in the staterooms (symbol signs and half-restored armchairs) were predominantly mentioned as a suitable medium to educate on sustainable behavior in the cultural environment. However, the study showed that the perception of the measures, their positioning in the palace, and the origin of the visitors, or their cultural affinity, play a role. Therefore, combining measures seems to be the best way to reach as many visitors as possible.

It is recommended that more awareness-raising measures be implemented in historic staterooms/on the tour, as this is where they were best perceived. In addition, placing the touch objects and gold leaf in the historic rooms of Schönbrunn Palace enables a better connection to the original materials. Although staterooms are the best choice for placing educational measures, locations on palace grounds associated with waiting times are also the second-best option for providing effective information. The effectiveness of the measures portfolio could be significantly increased if the audio guide were also used for awareness-raising. In contrast to the current bilingual awareness campaign, information on the audio guide is presented in 16 languages. Additionally, it is recommended that guides provide information on sustainable behavior during their tours. It became apparent that there is a need for action among employees regarding education and knowledge transfer. They also consider sensitization through information materials to be useful. Protecting cultural assets through the provision of information appears to be effective not only for visitors but also for employees. The active involvement of employees as multipliers is essential for successful visitor sensitization, especially for those who work directly in the historic premises in the vicinity of visitor flow.

Sensitizing visitors to sustainable behavior in the cultural environment is an ongoing process intended to benefit our cultural heritage. To increase the effectiveness of awareness-raising measures, it is advisable to provide information on the consequences of careless and incorrect behavior several times on cultural sites through various communication channels. In addition, exchanges between conservators, employees, and visitors should be promoted to achieve a mutual learning process.

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List of Figures

Post-Digital Angst— The Direct Experience

Mong-Sum Joseph Leung is a doctoral artist-researcher based in Hong Kong and Vienna. His artistic research focuses on the manifestations of affects, particularly anxiety (Angst), in various socio-political contexts.

Mong-Sum Joseph Leung

CENTER RESEARCH FOCUS,
PHD CANDIDATE PHD IN ART

What does it mean by the 'Post-digital'? Is it not absurd to speak of the end of digital technology when the world is ever more digitalized? To understand the term, one must realize that it does not describe the end of digital technology, but instead, a sociocultural condition that is saturated by it (Blas, 2014), resulting in "new cultural, symbolic, and material forms" (Klein, 2021, pp. 28–29), or in the context of this research, in new affective forms.

The post-digital condition is thus categorized by the uncertainty brought forth by digital saturation and alludes to an unknown in our current circumstances. How does this naturalization of digital technology influence our ways of living and affective experiences? With this question in mind, the ongoing project titled "Post-digital Angst"[1] delves into the various experiences and forms of 'Angst' that we have come to encounter in the current post-digital "messy state" (Cramer, 2014). As art critic Gene McHugh (2011) wrote in his performative WordPress blog titled *Post-Internet* (http://122909a. com/),

> [A]ny hope for the Internet to make things easier, *to reduce the anxiety of my existence*, was simply over—it failed—and it was just another thing to deal with. What we mean when we say "Internet" became not a thing *world one sought escape from* … sigh … It became the place where business was conducted, and bills were paid. It became the place where people tracked you down. (McHugh, 2011, p. 5)

With the extensive naturalization of digital technology in our daily lives, the conventional split between the digital world (primarily the Internet) and the actual (material) world has been widely dissolved. As McHugh noted, there is no longer a clear separation between the Angst that we got from the 'digital world' and that from the 'real world,' as the digital world is the real world. The fact that we have come to be anxious regardless of the socio-technological realm we are in, signifies how Angst has always been a condition that is immanently rooted.

01
The complete project of "Post-digital Angst" will be comprised of three main chapters. The current essay marks the project's first chapter, delving into the "direct" experience of Angst from the personal perspective. Subsequently, the second chapter of the project titled the *The Dynamics of Angst* will take on an inter-subjective angle, whereas the third and final chapter titled *The Dispositif of Angst* will delve into the political and systemic dimensions of Angst.

The project, therefore, wishes to examine the issue of "Post-digital Angst," not as a phenomenon that originates from digital technology per se but rather as an immanent human condition that catches on the post-digital landscape. If the ever-frequent global emergencies have reminded us of one thing, we have never been free of the burden of existential predicaments amid an uncertain future. In the face of the increasing disquiets and Angst in the current times, perhaps a revisit to our human conditions could be crucial in shedding light on how we should address these dreadful circumstances.

The following essay serves as the first chapter of a three-part project in which I have focused on the personal and direct experiences of Angst in the Post-digital world. For us to study and, more importantly, apprehend the idea of Angst, it is crucial to take on a 'situated approach,' as the apprehension of Angst denotes an understanding that is not solely intellectual and cognitive but also embodied and affective. The very word "apprehension" could have two meanings: (1) "to understand" (to have mentally grasped) and (2) "to be anxious" (to be mentally grasped) (Merriam-Webster, n.d.). By this logic, one is to grasp (apprehend) the concept of Angst when they are simultaneously grasped (apprehended) by Angst, and it is so often that Angst has grasped us before we come to grasp it. Angst thus functions as a form of "tacit knowledge"—a "nonlinguistic, intuitive, and even at times unconscious form of knowledge" (Donmoyer 2008, p. 861). In approaching the "tacitness" of Angst, I have utilized our daily encounters in the Digital Milieu as handles for ruminations on the issue. This 'situatedness' is crucial, as it enables the incorporation of the most immediate and direct experience of Angst in the discursive formulation. This situated approach is further facilitated by artistic practice, which serves as a process for various discourses and perspectives, whether personal or theoretical, to collide and synthesize. The following essay, therefore, comprises a triad of artistic practices, situated encounters, and theoretical references, which interweave into an exploration of our direct experiences of Angst in the Digital Milieu.

A Sense of Hollowness

MONG-SUM JOSEPH LEUNG

I would like to start with a sense of hollowness, which has instinctual arisen when I try to apprehend the condition of our 'post-digital Angst.' While the term 'hollowness' is often used interchangeably with 'emptiness' or 'nothingness,' my choice has been deliberated with reference to the semantic nuance it entails, which could provide insights regarding the nature of our Angst in the Digital Milieu.

Etymologically, it is easy to notice how the word "hollow" derives from "hole," or in old English "holh," meaning "cavity" — "an unfilled space within a mass" (Merriam-Webster, n.d.). Therefore, the state of hollowness is neither solely positive nor negative, but a negative in positive; in other words, a state of privation amid abundance, thus contrasting it from pure emptiness or nothingness, which does not share such an aporic nature. In describing the plague of spiritual hollowness after WW1, T.S. Eliot (1888—1965) wrote:

We are the hollow men
We are the stuffed men [...]
Shape without form, shade without color,
Paralyzed force, gesture without motion
(Eliot, 1963, p. 79)

02
Pronounced in Mandarin: *xu1*

03
When used to signify 'area,' the character is written with the element of 'earth' 「土」 (tou2), resulting in the derivative form of the character 「墟」 with the same pronunciation.

04
The pictorial formation of the character 「虛」 can be dissected vertically with the top being 「虍」 (fu2), meaning 'tiger' and signifying for wild animals, while the bottom being 「丘」 (jau1), meaning 'hill' or 'mountain'. An image of a mountain full of wild animals could therefore be induced from such pictorial deconstruction. The referenced etymology was proposed by Ching Dynasty grammatologist Duan Yucai [段玉裁] (1735—1815), with the original Chinese definition quoted as followed: 「虛本謂大丘。大則空曠。故引伸之爲空虛。」 (Yucai, 1949, p. 88)

The conflicting experience of being both "hollow" and "stuffed" situates these men in a state of limbo, where their "stuffness" only contrasts their innate hollowness. Alluding such ambivalent feelings in the post-digital world, do we not similarly find ourselves stuffed with an abundance of information yet remained internally hollowed? This stuffness of information is nevertheless an accentuation of spatiality within us as if a hole has been revealed in us.

To further trace this relationship between 'hollowness' and 'spatiality', one could turn to the Chinese character 「虛」 (pronounced as heoi1 in Cantonese).[2] The character of 「虛」 comes to entail two general meanings: 1) a feeling of hollowness and 2) a dwelling area (or sometimes a 'deserted area').[3] The character, therefore, signifies the feeling of being hollow, but also the primal condition of spatiality that begets such feeling. Interestingly, 「虛」 was archaically used to symbolize a 'big mountain' 「大丘」 (daai6 jau1),[4] and it is through the envisioning of a mountain that we can understand how the double meaning has been derived; when one embodies the mountain's extensive spatiality, an innate hollowness could consequently emerge.
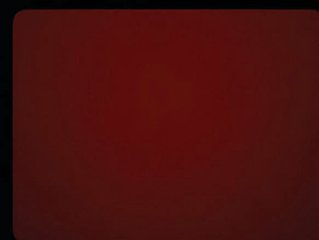
FIG. NR. 1
Mong-sum Joseph Leung, *Untitled
(Face time)*, 2023 — From the series
"Untitled (Conditions)".

FIG. NR. 2
Mong-sum Joseph Leung, *Untitled (Mount)*, 2023 — from the series *"Untitled (Conditions)"*.

The feeling of hollowness is, therefore, a symptom that is indicative of our immanent possibility, where an existential cavity and, indeed, a hole remains inside us, waiting to be fulfilled and actualized. Do we not find ourselves in the Digital Milieu as if we are in the middle of a vast mountain, where rapid technological development has unveiled to us an expansive spatiality and, with it, possibility? Hollowness is thus the state of inertia that arises as the paralysis of possibility, where one is stuffed with an abundance and yet remains empty, in turn becoming what T. S Eliot called a "gesture without motion" (Eliot 1963, p. 79)—a conflicting state in which one struggles with stagnancy and lethargy.

If the state of hollowness evinces an inert orientation, Angst precedes such inertia and resides in the initial disorientation, manifesting as what Søren Kierkegaard (1813—1855) called the "dizziness of freedom" (Kierkegaard 1844, p. 61).

For Kierkegaard, Angst arises when one realizes their freedom and existential possibility, thus disclosing them to the "anxious possibility of being able" (Ibid., p. 44). It is therefore not surprising that one could feel dizzy in the Digital Milieu when the extensive habituation of digital technology has given us 'ability' together with 'anxiety', as one finds themselves in a constant struggle with their potential for making various choices. To situate this experience in the very moment of my writing, I have gathered research sources spanning across four desktops, 20 windows, and 30 websites, all of which are running simultaneously on my computer as I converge pieces of information into a single word document. I am therefore anxious, not only because I must actualize this piece of writing, but also because I am confronted with the possible content that I am able to include in my writing. The Internet has facilitated my ability to research, as it has enabled me to access various types of information embedded with hyperlinks. Yet, these hyperlinks will often lead me to other hyperlinks, which could go on ad infinitum, as if I am looking down into a yawning abyss of information. In the face of this overwhelming chain of information deferral, I have often found myself instinctively drifting away from my thesis writing, as the "infin-mation" has made me ever more anxious, and I must confess that at times I simply wished to stay "inclosed" and remain hollow. Indeed, it might be a temporary solution for one to defend against Angst by retreating to hollowness, where our "apathy and lack of feeling" (May 1973, p. 25) has allowed us to ignore and "shut up" (May 1977, p. 45) the anxious possibility of oneself, just as I have attempted to escape dizziness through laziness, which of course, has only fueled my persisting unfulfilment.

While the Digital Milieu has ever-more possibilities and choices, the experience of Angst and hollowness is certainly not exclusive to the post-digital condition. It would be too naïve for one to consider the habituation of digital and network technology as the main cause of our Angst, as our struggles with Angst has remained an existential issue that haunted us across all epochs. It is easy to blame the uncertainty of the post-digital condition as the cause of our Angst, but such induction is, at best, superficial and, at worst, luddite-like. As Rollo May (1909—1994) put it, "on the deepest level, the question of which age we live in is irrelevant." (Ibid., p. 273) It is not that technological development has made us free in the Digital Milieu; we have always been free existentially, or to paraphrase Kierkegaard, we are freedom (Kierkegaard 1849, p. 29). The possibilities brought forth by technological development merely awaken our innate freedom, which through our realization of it, has manifested as Angst. The moments of post-digital Angst are therefore variations of our existential Angst, which arises when the 'dizziness of freedom' reveals itself in our daily experiences of Digital Milieu. The Post-digital Angst is therefore not so much a new phenomenon than a 'situated revelation', and it is within the scope of this project to study the specific post-digital conditions and situations in which Angst is revealed.

A Revelation of Nullity

Perhaps the feeling of hollowness is only possible in the first place because there exists an essential 'lack' in our Being—a 'nullity' (or nothingness) that resides at the core of our existence. This is what Martin Heidegger (1889—1976) referred to as our primordial "guiltiness" (in German Schuld). Such existential guiltiness does not connote the colloquial or, at times, religious sense of "blameworthiness," nor does it imply any moral failure (Wrathall 2021, p. 365). Rather, it refers to the ineradicable and unjustifiable nullity (in German Nichtigkeit) of our Being for which we are nonetheless responsible. Heidegger explicitly suggested that we did not "acquire" this nullity. It is not a result of the privation of something; rather, such nullity has primordially existed in the first place, as the basis of our Being (Heidegger 1927, p. 329). It is with this primordial nullity and guiltiness, where one could find themselves equipped with a "constant neediness" in their lives, (Scott, 2010, p. 61) and such "mode" of existence is what Heidegger called as "*Care*" (in German *Sorge*).

While colloquially associated with "love" and "sympathy," the word Care (Sorge) originated from Latin cura, meaning "devotedness" as well as "anxious exertion" (Heidegger 1927, p. 243). Care is therefore a form of general anxiety, which fundamentally structures the way we exist and engage with the world. As Heidegger explains:

> Having to do with something, producing something, attending to something and looking after it, making use of something, giving something up and letting it go, undertaking, accomplishing, evincing, interrogating, considering, discussing, determining...All these ways of Being-in have concern [besorge] as their kind of Being (Heidegger, 1927, p. 83, emphasis added).

Thus, Care predisposes our *Being-in-the-world* as the ontological structure of our existence and underlies everything we do—to the extent that even when someone is "neglecting, renouncing" or "taking a rest", they are still existentially *Caring*, although deficiently (Ibid., p.83).

Living in the Digital Milieu, one is often tasked with multiple things to take care of. The development of network technology has enabled us to take care of various tasks remotely. This heightened our sense of engagement with the Digital Milieu, as if we were dragged along by the rapid flow of information and communication, producing frictions and anxiousness. Considering the times of the pandemic, we have managed to maintain our Care with the help of emails, social media and online meeting platforms like ZOOM and it was common for many to work even more during the lockdown as if they were dragged on through virtual means 24/7. It is, therefore, easy for one to hold the digital infrastructure as the cause for our increasing need to 'care' and to accuse technology for 'dragging us' along, yet the development of network technology and its extensive application are nonetheless part of the capitalistic mechanism, of which runs on our ontological "Care" (Sorge) in its operation—it is not so much that information, social media, or emails are 'dragging' us, but rather we are the ones that are constantly 'grabbing' them. The digital infrastructure simply functions as means for us to 'take care', and the very 'need to care' emanates not from digital technology, but rather our ontological devotedness to the world.

While Care (*Sorge*) is a quotidian anxiety that persists in our existence, Heidegger considered *Angst* as the profound and momentary "mood" that reveals the authentic nature of our Being. (Bergo, 2021, p. 34). For

Heidegger, we exist "inauthentically" for the most part of our lives, situated in our daily surroundings and immersed in our "average everydayness". In this banality, we have mostly acted as "they-self," as we have steadily fit into the crowd and "fled" from our true self (Heidegger, 1927, p. 230). Still, there exists a profound moment when we come to our "conscience"—when we are withdrawn from our everyday life and confronted with a sense of existential unsteadiness. This revelatory moment is what Heidegger called "Angst", in which we are "individualized" from our everyday environments and brought "face-to-face" with ourselves. It is in Angst when one might encounter questions such as 'what am I doing?', 'who am I?' or 'what should I do?', as we are "disclosed" to the "nullity" of our Being and the "utter insignificance" of what is in-the-world. We have come to realize that there is not an absolute reason why we are who we are, and doing what we are doing. The fact is, we were "thrown" into the world without any choice, while constantly "projected" towards indefiniteness, only to ultimately reach complete nothingness upon death. Thus, Heidegger said: "In that in the face of which one has anxiety, the 'It is nothing and nowhere' becomes manifest" (Ibid., p.231). Yet, such "nothing" is not "totally nothing," but "nothing ready-to-hand" (Ibid., p.232). By realizing the nullity of our Being, we have also learned about its possibilities. While in Angst, we are confronted with "the 'nothing' of the world," we are also disclosed to the "ownmost potentiality-for-Being," which includes the "freedom of choosing itself and taking hold of itself" (Ibid.). Ultimately, we could choose to live authentically by embracing the unavoidable nullity and possibility of our finite Being. Instead of being "carried along," we could "resolutely" resume our existential responsibility and carry out our own choices in life.

To situate the profound experience of Angst in a post-digital context, I would like to recall a personal encounter. On a Sunday afternoon, I was casually lying on my bed while scrolling through my phone. Since I was browsing through social media and fully submerged in "they-self", I was unaware that my phone was running out of battery. Thus, in a split second, the image on my phone was withdrawn, and the screen turned pitch black. Amidst such nothingness, another image has emerged—a reflection. While I have used the phone as a doorway for my daily escapism, it had become a mirror that confront *myself with myself*; it is in such anxious moment when I was withdrawn from my daily (digital) environment and individualized into a pre-digital vacuum—in which I asked myself: what am I doing?

One of the most anxious experiences in the Digital Milieu is nonetheless the moment of 'information latency,' denoting the time for information to be transferred across servers and devices. (Cambridge University Press, n.d.) A common example of such a 'delay' would be the time to load a webpage, or in the same manner, any piece of information that is to-be-accessed through digital devices. I have come to notice how the level of information latency correlates with the degree of one's Angst: from having a weak signal to losing internet access—our most radical Angst arises when our device has stopped functioning or, indeed, become absented, leading to the loss of information-at-hand. While the term 'latency' is now widely applied in the context of information technology, it was originally derived from Latin "lateo", meaning "concealed" (Wedgwood 1872, p. 378). Thus, it is in the moment of information latency when the information-at-hand is concealed. Yet, this concealment is also simultaneously an unconcealment; as it also unconceals oneself from they-self. Since our worldly affairs in the Digital Milieu are highly entangled with the Internet and the digital infrastructure, the very concealment (latency) of the Internet and digital information withdraws us from our "average everydayness" and brings us face-to-face with ourselves as such and it is in this very moment of self-confrontation one becomes anxious.

I have noticed the increased tendency to text right before my flight takes off, as there is an ever-strong desire for connection when one is facing the imminent loss of it. Yet, it is not so much that I am anxious about the 'absence' of the social media and the Internet, but rather the 'presence' of the nothing that is revealed throughout the flight. It is amid the various selection of movies and entertainment when one is nonetheless compelled to ask: What should I do now? When confronting the nullity of our Being, we might feel uncomfortable or, indeed, uncanny. This "uncanniness" in Angst is what Heidegger called "unheimlich," which could be literally translated as "not-at-home." For most of our lives we are "fallen" and "absorbed" in our everyday environments; we seek to stay in our comfort zone and dwell in a stable condition that makes us feel "at-home." Nonetheless, such homeliness is shattered when one encounter profound Angst, in which we are withdrawn from the stability of our everyday lives and individualized as oneself. It is therefore in Angst when the "everyday familiarity collapses," and the experience of uncanniness (*unheimlichkeit*) arises, as one is indeed "*not-at-home*" (Ibid., p.233).

Although the moment of information latency could induce Angst and uncanniness, it can also serve as a "moment of vision" (in German *Augenblick*) to review our lives and recognize the indefinite possibilities at hand. While such latency of information will only be gradually minimized by the rapid development of telecommunications (e.g., the competition of 5G and many more generations ahead), there will always be existential moments when one is individualized and confronted with themselves. Essentially, it is not detrimental to be 'wired in,' as this is simply the nature of our Being, but we should always be aware of the imminent resurgence of Angst, as it will always continue to haunt us in various situations. Instead of fleeing from it, one should, therefore, embrace it by taking hold of the possibility and freedom ahead; only through which can we resolutely own our lives.
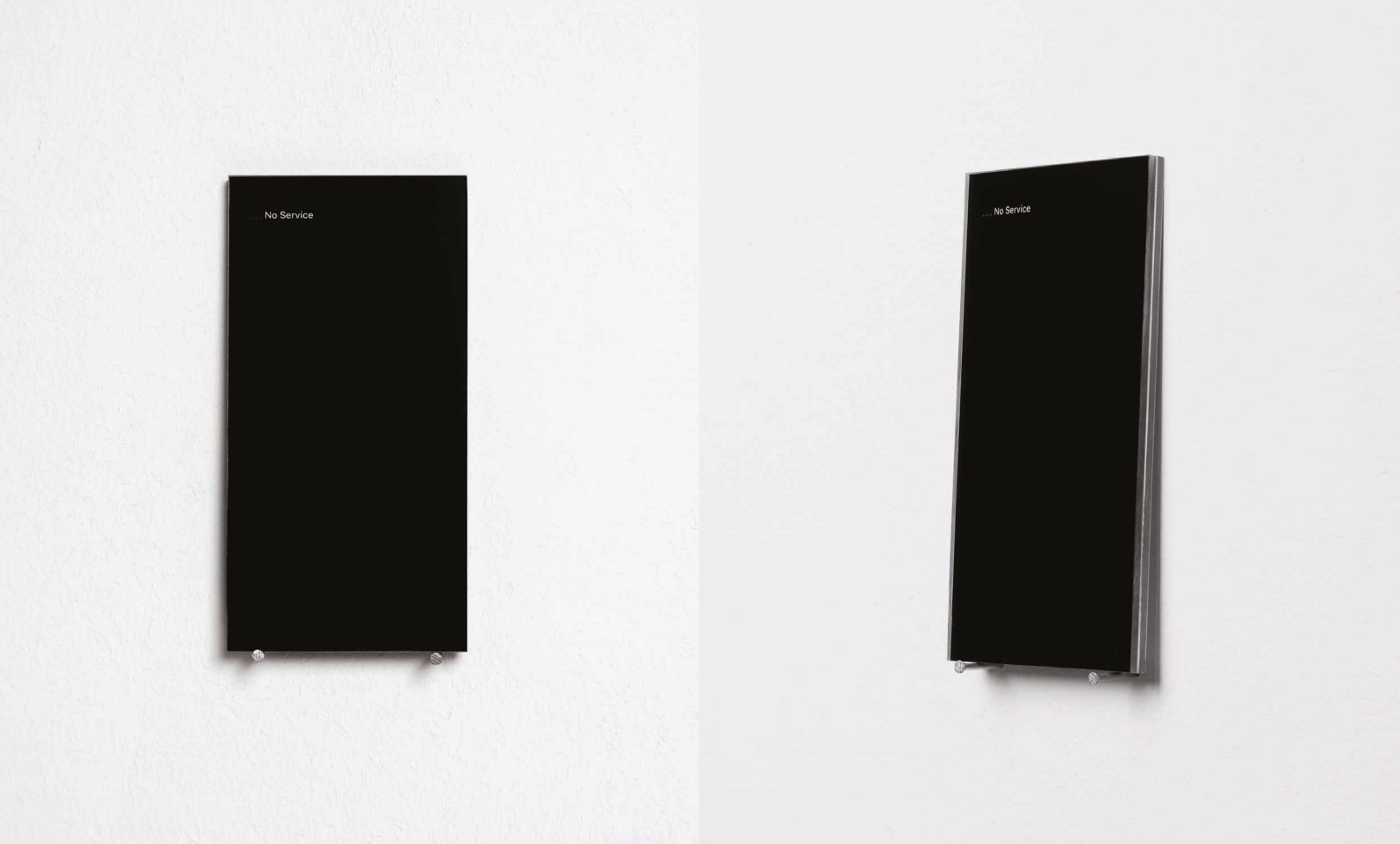
FIG. NR. 3, 4
Mong-sum Joseph Leung, *Untitled (No Service),* 2023, screen-
shot from phone mounted on aluminum dibond and laminat-
ed with plexiglass.

An Unheimliche Apparition

It is common to experience a sense of uncanniness (unheimlichkeit) when encountering eerie and peculiar situations in life, which are often marked by the presence of absence, such as in a haunting apparition. I have once encountered a ghostly TikTok video while browsing Facebook (a rather strange phenomenon that is worth further discussion, perhaps). The video was uploaded by a TikTok user called D.M.Wesley (@Dommatigian) (Wesley, 2022), who claimed that his apartment, built in 1932, was haunted. To prove his claim, he managed to capture a paranormal sighting with his phone. In the video, Wesley was sitting in his living room when a loud and repetitive banging sounded from his closet. The banging seemed to be directed toward the Cross hanging outside the room, which eventually dropped on the floor. To trace the source of the banging, Wesley proceeded to open the door of the closet and looked inside. Yet what he encountered was neither a ghost, nor an animal, but rather 'nothing'—and it was then when the banging had stopped.

I had seen the reposted video on a Taiwanese media page, where a user jokingly posed a rather profound question: "Is it scarier to have seen 'something' after you have opened the door, or to have seen 'nothing?'" (Tsou 2023)
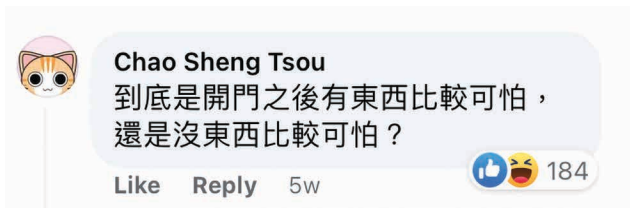
FIG. NR. 6
Screenshot of Chao Sheung Tsou's comment on Facebook in original Chinese, 2023.

The answer to this rhetorical question is, of course, the latter—that it is profoundly "scarier" to encounter "nothing" than "something". Crucially, it is not 'fear' that we experience in the face of nothing, but rather 'Angst'; as it is in fear when one is threatened by 'definite' entities within-the-world, whereas in Angst, one is confronted by an 'indefiniteness' of "nothing and nowhere" (Heidegger 1927, p. 230). Thus, it could be less intimidating, or even comforting, to see a 'specter' as opposed to nothing, since a specter is nonetheless a form of presence that could partially fill the nullity-at-hand. In the case of horror films, do ghosts and monsters not serve as a form of definite object onto which we can channel and fixate our objectless Angst? A specter is, therefore, a futile projection towards the nullity of our Being, an 'apparition' that sources from our immanent Angst.

An apparition is thus not something "alien or new," but rather what was once familiar, yet "estranged" or, at times, "repressed". The return of such forsaken familiarity is therefore "unheimlich" (uncanny or unfamiliar), in the literal sense, what is now "un-familiar" has resulted from the estrangement of what was once "familiar" (Freud 1919, p. 245).

Prior to Heidegger, Sigmund Freud (1856–1939) similarly discussed the issue of uncanniness in his widely influential essay *Das Unheimliche* (The Uncanny), first published in 1919. In search for the semantic meaning of uncanniness (unheimlich), Freud quoted Schelling that "'Unheimlich' is the name for everything that ought to have remained secret and hidden but has come to light" (Ibid., p. 224). Based on such definition, Freud proceeded to analyze the unheimliche from a psychoanalytic perspective and explain how such unfamiliar feelings come from the recurrence of what was once familiar. This could be the return of "infantile complexes" which was previously "repressed" or the re-confirmation of "primitive beliefs" that were thought to be surmounted (Ibid., p. 249). In either case, what is considered uncanny involves the "doubling" of oneself—the return of an estranged self that has come to haunt us from our past.

An appparition might seem daunting and foreign at first, yet upon closer inspection, one might come to realize a deep-seated familiarity that spectrally trembles. If one is to truly unveil the haunting specter, it can only be revealed that behind the shroud was an estranged face of our own.

I once walked by an antique shop and saw a pair of candleholders through the window. They seemed to be emanating a sense of uncanniness, as if they were a 'double' that reaffirms each other's presence. Yet I was not only interested in the holders per se, but also the 'spectrality' they implied. Staring into the vessels, I started seeing an apparition; a recurrence of the candles that were once burned on these holders, as if their ghostly flames had returned from the past to the present and flickered before my very eyes. It was from the nullity of these holders, where I saw the light and heat that was once aflame, as if what was hidden has come into light, revealing themselves as the holders' haunting past.

Seeing the sun at midnight

FIG. NR. *9*
Mong-sum Joseph Leung, *Doppelgänger,* 2023, pure silver
candleholders, 3D-printed candles in resin from found-
model, a set of two

The Internet essentially shares such spectrality of these flames, and the haunting nature of digitalization resides in the possibility for a piece of information to be infinitely reproduced, disseminated, and stored—a status close to immortality, with which it will remain transferrable and accessible forever, thus making it a specter that virtually lingers. At times, I have re-encountered memes and cute animal videos on social media. Despite having seen them, I do enjoy my revisit to them, as they serve as a reminder of a laugh and provide me with a sense of familiarity and warmth. On the contrary, perhaps one could imagine the "Angst" for having leaked their personal information online—sextapes, nudes, identifications, passwords and more; a part of our deeply private and personal self that will remain accessible and reproducible forever, leaving us in agony and helplessness as we are repeatedly haunted by our previous self.

When we encounter repeating objects, numbers, or events in life, it is common to feel "helpless" as we feel trapped in a loop of "inescapable" recurrences (Ibid., p. 237). For Freud, such repeating experiences are uncanny as they remind us of an instinctive compulsion in our unconsciousness—what he called "repetition compulsion." Such compulsion is powerful enough to override our basic instinct to seek pleasure and compels us to repeat even the most traumatic experience in our lives. It is thus, in a loop of repeating patterns when we can feel hopeless, as if we are "daemonically" possessed and dominated by our uncanny compulsion to repeat (Ibid., p. 238).

Looking through the psychoanalytical lens, we can find similar experience from YouTube advertisements, which seems to be recurring in an uncanny way. Considering the experience of browsing YouTube, our desire to watch videos is often rejected by the spontaneous and repetitive episodes of advertisements. Psychoanalytically, such rejection could be considered as a form of "*castration*"; a concept that is not to be taken in a literal fashion, but rather in the sense that we have encountered "the loss of a prized object" and the "separation" from what we desire. It is through such "object-loss" that one has come to be anxious, thus developing an impulse to repress (Freud, 1927, as cited in May 1977, p. 142). While rejected, we are contrarily offered "the skip button"; a chance to reconcile our loss and repress our Angst. Yet, we have learned from Psychoanalysis that "repression knows no negation" (Vardoulakis 2006, p. 101), and our urging desire to repress the ad has only served to register them. As our Angst to repress grows stronger within a five-second window, whatever is shown in this period has nevertheless been reinforced by our very attempt to repress it. Thus, even without watching the full advertisement, we could still be haunted by this five-second fragment. While we could go on with our life thinking that we have successfully repressed and skipped the ad, it will come to be uncanny when the slogan or melody of the ad suddenly recurs in our minds. Often in the most banal moments, we could find ourselves involuntarily humming the melody of the ad and repeating the catchline; and only by then do we realize our possession by this capitalistic specter, which persists to recur in haunting us.

A Call of Unknown in the Post-Digital

The Netflix series *Black Mirror,* directed by Charlie Brooker (2011), portrayed a dystopian world in which the development of new technology has led to many uncanny and dark events. Yet what is truly uncanny about the series is not the showcasing of technology's detrimental development but rather the recurrence of human conditions that we have yet to escape. Despite the extensive technological development, we have remained haunted by our existential struggles; "isolation," "lack of meaning," "freedom," and "death" (Yalom 1989, p. 8)—a set of unanswerable questions that has persisted to interrogate us, as if a 'call of unknown' that is spectrally ringing across space and time.

I was once texting a friend in the elevator to whom I was sending a question. Yet, due to the lack of signal, the question was trapped and suspended on my phone. It is in this moment of information latency, when what was originally directed 'outwards' turned 'inwards', and the banal question had momentarily morphed into a more profound form of 'questioning'—an existential interrogation of my life. These suspensive moments in the Digital Milieu could indeed be anxious, yet one is nevertheless offered a chance to reflect upon their lives and realize the possibilities at-hand. It is common for us to remain "inclosed" when facing such anxious questioning, yet Kierkegaard (1844, p. 124) has reminded us that "freedom is constantly communicating." While there is no absolute answer to one's existential vocation, the way to 'authenticity' lies in the process of communication. It is in Angst when one might feel uncomfortable and uncanny, but it is also in this existential vacuum when we come to realize our freedom—our freedom to live, our freedom to change and our freedom to pick up this 'call of unknown'.

FIG. NR. 10
Mong-sum Joseph Leung, *Untitled (W),* 2023, resin-coating on UV print, laminated on acrylic with magnet.

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List of Figures

A Collective Cycling Body of Sound

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Riding a bicycle connects me not only to various districts and neighborhoods of the city but also offers a unique perspective on the urban landscape. Suddenly, I become part of the diverse soundscape and constant flow of vehicles that define our urban environment. Engaging in cycling movements, I had the opportunity to encounter numerous communities, especially in European and Asian cities such as Vienna, Graz, Ljubljana, Timisoara, Shanghai, Beijing, Hong Kong, Seoul and Yogyakarta. These include FLINTA* cycling communities, fixed gear nightrides, and hardcourt bike polo. Furthermore, I focused on performing art with bicycles in my artistic practice, especially in public spaces using sound art. Experiences in creating artistic projects such as *Soundrides*,[1] *SPIRAL BIKE*,[2] *Velodrome*,[3] and BIOSPHERE[4] have provided a diverse outlook on sound art and cycling engaged performances in public space. In this way, I become part of a music scene and cycling community in each city.

The weekly Tuesday Nightride[5] organized by Factory Five started in Shanghai in 2012 with hundreds of participants and took place for several years. I will hardly forget the sensation of riding the vast, empty streets at night. The densely constructed architecture of a megacity, with its countless concrete pathways and bridges, was incredibly impressive. During the winter, Shanghai and Beijing were shrouded in a smog that would envelop the entire city, causing people to wear respirator masks for several months. This is why there is a bicycle collective called Big Dirty Cycling—巨脏[6] which addresses the air pollution in the Chinese capital. The first Critical Mass[7] took place in San Francisco in 1992 and still symbolizes

○1
RAD Performance, *Soundrides*, 2022 URL: https://radperformance.at/projekte/soundrides-2022/.
○2
RAD Performance, *SPIRAL BIKE*, 2023 URL: https://radperformance.at/projekte/spiral-bike/
○3
RAD Performance, *Velodrome*, 09.02.2022 URL: https://radperformance.at/en/projekte/velodrome-3/
○4
RAD Performance, BIOSPHERE, URL: https://radperformance.at/en/projekte/biosphere-2/
○5
Factory Five „Nightrides with Factory Five", 23.05.2012 URL: https://wearefactoryfive.com/blogs/news/night-rides-with-factory-five-every-tuesday-at-21h00, accessed on October 20 2023.
○6
Harrison Schaaf, Big Dirty Cycling—巨脏, 2013 URL: http://harrisonschaaf.com/big-dirty-cycling, accessed on October 20 2023.
○7
Critical Mass San Francisco, 21.09.2022 URL: https://www.sfcriticalmass.org/, accessed on October 20 2023.
○8
The Vienna Bikekitchen, URL: http://bikekitchen.net/index.php/Home, accessed on October 20 2023.

FIG. NR. 1:
RAD Performance SPIRAL BIKE, 2023. Video: Ioana Tarchila

a shift towards mobility in favor of inclusive and climate-friendly infrastructure and cities. The feeling of taking over the city and public space with hundreds of people on bikes, the trust towards the community and the people who guided me through on my first nightride in Shanghai, is something I carry to every Soundride and every city.

Inspired by the dense megacity and the weekly nightrides, I started to organize similar nightrides in Vienna in 2013. They took place on Thursdays because the Vienna Bike Kitchen was open that day, which was the starting point for our nightrides. The Vienna Bike Kitchen[8] is a DIY bicycle shop where you can learn how to repair your bike. It is a very empowering environment and collective, and always open on certain days to address FLINTA* (female, lesbian, intersex, non-binary, transgender, agender persons). I knew of the Bike Kitchen and the Critical Mass beforehand, but something changed while organizing the nightrides. I think I discovered the bicycle as a medium, not just for exploring but also to produce art and sound. The first bicycle-related performance was named *Art Ride X* and it had the format of an alley-cat race but was not competitive and used the concept of checkpoints for artistic interventions. An alley-cat is a game or event similar to a treasure hunt and popular among bike messengers. Together with my artistic partner and collaborator for many years, Daniel Aschwanden, I eventually invited artists I was on tour within China, such as Soviet Pop, Li Qing, and Li Weisi, and various Viennese artists such as Matthias Hurtl and Gratis Kaiserin for music and performative interventions along the route.

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In the next few years, I developed the participatory and performative project *RAD* Performance. *RAD* refers to the word wheel or bicycle in German, but also to the queer-feminist bike collective RADS.[9] As the bike collective RADS we started by taking Luna Rides together with FLINTA* friends. With each Luna Ride, a community was created, and mobile safe spaces and alliances were formed. A Luna Ride is a group ride during a full moon and similar to Critical Mass, it is about making cyclists, especially FLINTA* persons, visible in public space, but also about co-creating inclusive and feminist urban spaces and pursuing an approach to feminist actions in public space. O.V.A.S.,[10] a bicycle brigade established in Los Angeles in 2010 works in a similar fashion. The weekly Flinktas[11] rides, which have been running every Wednesday since 2022, also follow the concept of FLINTA* Rides on racing bikes.

The first workshop of RAD Performance was created by artists such as Hypercycle.[12] Together we created Cyberheikel, noise bikes for the posse, and eventually a bike noise orchestra was riding the streets (Workshop *beat se streets by* Hypercycle, 2017). Cyberheikel[13] as a tek noise band played their first performance at the Vienna Bikekitchen in winter 2017. This has been the starting point of a long-lasting artistic collaboration and friendship. With each Soundride, a collective body of sound is created, a multitude of (amplified) voices and relations in the city. The acoustics of the urban space complement, overlay, and extend the electronic compositions. Acoustic and spatial experiences are created through the choral movement of bodies and loudspeakers on bicycles and following Brandon LaBelle's perspective, "… acoustics dramatically contributes to a sense of orientation as well as belonging, lending to how we navigate through spaces and environments in capturing a sense of place: how we synchronize, attune, and align with others" (LaBelle 2021).

09
RADS — queer-feminist bike collective, URL: https://www.instagram.com/rads_bg/?hl=de, accessed on October 20 2023.

10
O.V.A.S — Psycho-Brigade, URL: https://ovarianpsycos.com/, accessed on October 20 2023.

11
flinktas — collective FLINTA* racing, URL: https://www.instagram.com/@flinktas_vienna/, accessed on October 20 2023.

12
Hypercycle fällt aus, URL: https://hypercycle.current.at/hc_diy.html, accessed on October 20 2023.

13
Conny Zenk, *Cyberheikel*, URL: https://connyzenk.com/2019/09/05/cyberheikel/, accessed on October 20 2023.

FIG. NR. 2
RAD Performance SPIRAL BIKE,
2023.

FIG. NR. 3
RAD Performance SPIRAL BIKE,
2023.

Sound and Architecture: Mobile Concerts in Public Spaces

A current project I would like to highlight is *SPIRAL BIKE*, which takes place in the Viennese bicycle spirals. Bicycle spirals are circular ramps on bridges that allow cyclists to cross the Südbahnhof Bridge, Brigittenauer Bridge, and Prater Bridge with their bicycles. The center is characterized by an open space and when you stand in the middle and look up, it is like standing in an arena and looking into a circular panorama with several platforms. We were allowed to officially enter the spiral with people for the first time and it felt like we were not only occupying this place with our bicycles but also collectively performing in it.

Multiple cyclists and soundbikes inside the spiral, create a distinctive spatial sound experience. Sound takes center stage, not just by moving around us but through ascending and descending the spiral with the performers. This creates a unique auditory experience and allows the spatial perception of sound through different choreographies on bikes.

Moderation is a significant part, and I consciously invite the audience to listen and try to direct their attention to the urban space and the various auditory experiences. At the same time, the audience can take on different listening positions and explore the location itself. It creates a relaxed atmosphere where many things become possible, which would not be conceivable in a traditional concert hall. Our perception is sharpened, and sounds are recognized as part of the city, traffic, and infrastructure, becoming visible as layers of the performance.

For the *SPIRAL BIKE* project, different artists collaborated and played with various technical configurations. The initial rehearsals took place with two Soundbikes near the Ernst Happel stadium in Vienna's Prater. Our first setup was with just two speakers so that we could initially work with the sonic characteristics of the Soundbikes. A performance at the Reclaim![14] festival (STWST Linz, 2023) already involved two Soundbikes.

Since every rehearsal also requires performers to ride the Soundbikes, the second rehearsal for the Brigittenauer Bridge included choreographic rehearsals and a small setup of four Soundbikes. The focus of the rehearsal was to understand the sonic properties of the bike spiral and the movement of the Soundbikes within the architecture. The performance then involved two to four Soundbikes on the ground and two to four riding Soundbikes, with the artists deciding how to divide their setup based on their experiences during the rehearsal. In addition, I developed different movement scores for the performers on the Soundbikes, sketching and test riding the choreography together with experienced performers and bike messengers.

The Südbahnhof Bridge, due to its architecture and acoustic conditions, presented a more challenging environment and required an extension with a multi-channel speaker ring on the ground, consisting of eight speakers and two subs in total, in addition to the six mobile Soundbikes. Similar to previous performances at *Velodrome*,[15] the ring could also be played as a separate layer. During the rehearsal, both the ground speaker ring and the Soundbikes were tested in the architecture of the Südbahnhof Bridge a few days before the performance.

SPIRAL BIKE was the first art project in the typically closed inner area of the bike spiral of Südbahnhof Bridge. Permission was required to enter the location. Rehearsals were possible with the agreement of the city of Vienna. However, many unknown parameters cannot be rehearsed, primarily because the concert space of the bike spiral also serves as a public space, and the bridge must remain accessible and open for regular traffic. Of course, this creates interesting situations and sounds as well. The surrounding and acoustic aspects of the architecture and the soundscape of the city, provide a setup for compo-

14
Stadtwerkststatt, *Reclaim! 2023* URL: https://newcontext.stwst.at/night_creature_s_deamons#symposium, accessed on October 20 2023.

15
Conny Zenk, *Velodrome*, 2022 URL: https://radperformance.at/projekte/velodrome-reclaim-2/, accessed on October 20 2023.

sitional ideas, movement, and choreography, as well as interaction and participation of the audience.

These movements are simple but can have diverse acoustic effects. For example, when a swarm of sound bikes descends the spiral at high speed compared to slow movements while ascending. The choreography is derived, among other things, from movements in the *Cycle Circle Dance*[16] (*Radreigen*).

Cycle Circle Dance is an example of bicycle culture popular around the turn of the last century, in which quadrille, gymnastics, and parade elements took place and have been performed with bicycles in gymnasiums or on squares throughout Vienna and other cities in Europe. From the very beginning, *Cycle Circle Dance*, also named *Radreigen*, was practiced as a dance visible in public places, which constantly reformed itself in terms of its gender constellation. This fluid aspect in a historical movement practice inspired us to take up a tradition that had disappeared and transform it into a contemporary context. Fluidity, aspects of the hybrid, and the in-between are developed into a choreography of a contemporary *Cycle Circle Dance*[17] and reinforced by the choral composition of sounds. In 2020, I delved into the intersection of bicycle history and sound art through the Artistic Research Pilot Project *Dance Your Bike!*[18] Based on historical drawings and formations, a graphic notation was developed as the basis for possible 6—12 channel compositions.

The idea that performers ride up and down during each concert, carrying sounds through the levels of urban architecture creates a unique concert setting. The audience is free to move within the spiral or simply sit in the center and observe what is happening in and around the spiral. It is a traffic junction where a lot happens, both visually and acoustically. When a person on a skateboard passes by a Soundbike, or a car driving over the bridge, these sounds as the soundscape of the city, overlay and expand the composition and performance.

16
RAD Performance, *Cycle Circle Dance Workshops*, 2021 URL: https://radperformance.at/projekte/dance-your-bike-workshops/

17
RAD Performance Dance Your Bike! 2021 URL: https://radperformance.at/projekte/dance-your-bike/

18
Dance Your Bike!, Research, 2021 URL: https://radperformance.at/projekte/dance-your-bike-research/

19
Ventil Records, URL: http://ventil-records.com/, see also: RAD Performance, Mix by Ventil Records, URL: https://www.youtube.com/watch?v=_WYDjRIE3FI

20
RAD Performane, Mix by Opal Opal, Eastbloc Sound, URL: https://on.soundcloud.com/Pb5jG

21
RAD Performance, Mix by Sara Zlanabitnikg, arooo.records, URL: https://on.soundcloud.com/bbTrF

RAD Performance is happening from dusk till dawn and this increases the change of sound, light, and of course the impression of the architecture and the city. To reinforce this moment, additional lightning is created to illuminate the space and expand the architecture with laser projections.

Performances in public spaces not only create a different setting but also enable participation and mobility of the audience in contrast to the classic performance or concert space. Situations that are not possible in the concert hall become commonplace in public spaces, such as an audience driving past or a change of location and movement during the concert.

The audience is involved in different ways: by riding together, exploring new areas and districts, and by collectively changing speed, stopping at a red lights, driving over an intersection, and occupying an architecture or urban space. The feeling of collective experience becomes even stronger when it is an unknown place that is usually not used as a concert space.

The short, almost flash mob-like appearance of a Soundride creates fascination and enthusiasm among passersby. Usually, a very diverse audience is joining the ride and therefore I pay particular attention to mixes of different styles and genres that are often post-pop or post-club and are, therefore, easier to access and very suitable for riding. Soundrides with Ventil Records,[19] Eastbloc Sound,[20] or arooo.records[21] are also experimental examples of successful Soundrides with different labels and DJs from Vienna and abroad.

Our mobile screen printing workshop, is inviting the audience to print their T-shirts, and was dedicated to the statement: *CAR IS OVER.* The poster says: Respect Existence or Expect Resistance. It aims to describe an inclusive and feminist city, a city that prioritizes public transport, cycling, and walking routes. A city in which cars take up less space and which becomes a living space for us.

Soundbikes: Driving Voices of Resistance

What and who determines the sound of a city, and how have urban soundscapes changed since Bluetooth speakers and smartphones have become ubiquitous in the world of sound? Sound excerpts and atmospheres of the city form the basis for the soundtracks. Electrosmog clouds glimmer above the traveling drones of urban infrastructure — fragments of voices and poetry overlay long-forgotten territories. Distorted sounds cross our paths, stretching and amplifying them. Traces of sounds connect conversations with places and patterns of memory.

The symbolism of cycling is closely tied to the visibility of cyclists in public spaces, the associated shift in mobility, feminist urban and spatial appropriation, as well as its activist potential. The positioning of the bicycle as an anti-authoritarian, feminist, and/or activist symbol could also be observed in 2020 in Ljubljana, Slovenia. During the Friday Protests[22] against the authoritarian government in Slovenia, the bicycle became a symbol of resistance against right-wing ideology.

Other collectives whose rides I joined in 2020 included the Tallbike Crew Pit Dhuwur[23] from Yogyakarta. They organized weekly collective group rides and viewed their actions in the context of climate justice using their bicycle as an image for a change. The Tallbike Crew Pit Dhuwur is celebrating its 17th anniversary in 2023. Yogyakarta is not only a city with hundreds of self-built tall bikes and swing bikes but also a city with a great experimental and noise scene, where Jogja Noise Bombing takes to the streets with concerts. One of the most outstanding media artists and critical voices against corruption is Venzha. In *Garden of the Blind*,[24] he uses the bicycle as an interface for simple electronic circuits (1999–2002). Another example of the bike as an instrument or sound source is the project *Synth Bike 3.0*[25] by Sam Battle under the pseudonym Look Mum No Computer (London 2016). *Kreishell*[26] by Apephonie Production (Linz 2022) is maybe the largest analog bicycle-powered drum machine in the world.

There is already a long tradition of Soundbikes at Critical Mass, but during the pandemic, the signifi-cance of *Soundrides* in public spaces has grown considerably. I observed numerous international collectives reaching out to me through social media, sharing information, and engaging in discussions, including technical matters for Soundbikes. Notable examples include groups like Musimovil[27] from Montevideo, Uruguay, and Marabiyak Sound[28] from Pamplona, Spain. In most Soundbikes, the focus is on volume and bass, as seen with sound system collectives such as MoveAroundSound[29] from Rotterdam and Technovélo[30] in Paris. The primary objective is not just collective rides but also the occupation of public space. The audience often uses borrowed city bikes, and the core element is the collective experience through the occupation of public spaces with sound and bass. Together with the Cycling Community around Critical Masa Timisoara and Pedallez, RAD Performance organised the first Soundride in Romania 2021, leading to a series of workshops and the development of Sonic Cargo Bikes.[31]

Soundbikes also have certain requirements, such as mobility and therefore, Soundbikes, at least before the battery-powered and Bluetooth speakers boom, were mostly *do-it-yourself* projects. Furthermore, there are still no high-end speakers available on the market that support mobility and the specific measurements of cargo bicycles. Together with my partner, Georg Hartl, I have developed loudspeakers for cargo bikes over several years that have a remarkable sound quality, with a high precision of playback quality, and that are optimally built to the size of the cargo bicycles. The use of waveguides also increases the range and efficiency. An important criterion was the latency-free and multi-channel transmission of musical material to the speakers. The operation of the radio links using directional antennas and the choice of the 600Mhz band also ensures the highest possible reliability. Since we both have been very interested and active in underground techno, we have been always keen on self-built speakers, and the loudspeaker as a Soundbike becomes an artistic object by itself.

22
Wikipedia, 2020–2021 Slovenian protests, URL: https://en.wikipedia.org/wiki/2020%E2%80%932021_Slovenian_protests

23
Tallbike Crew Pit Dhuwur, Yogyakarta, Indonesia, Instagram, 2023, https://www.instagram.com/tallbike_yk/

24
Arsip Indonesian Visual Art Archive, Venzha "Garden of the Blind", 1999–2002, URL: https://www.youtube.com/watch?v=zQv_5gJrHJ8

25
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26
Stadtwerkstatt Linz, Apephonie Production, "Kreishell", 2022, URL: https://newcontext.stwst.at/koproduktion_kreishell

27
Muslimovil, Montevideo, Urugay, Instagram URL: https://www.instagram.com/musimovil/

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Marabiyak Sound, Pamplona, Spain, Instagram URL: https://www.instagram.com/marabiyaksound/

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Move Around Soundsystem, Rotterdam, Netherland, URL: www.movearoundsound.nl

30
Technovélo Paris, Instagram 2023, URL: https://www.instagram.com/technovelo/

31
Pedallez TM, Sonic Cargo Bikes, URL: https://pedallez.ro/soniccargo/

Collective Listening in Public Space
How can cities be reimagined through collective listening?

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The city and its acoustic environment are constantly in motion. What influence do the sonic environment and surrounding noise of the city have on our perception? Is there a different openness and acceptance towards noises in compositions insofar as they are surrounded and overlaid by the noise of the city? I am particularly interested in moving sound sources in urban space and their dynamics and range, as well as the limits of what can be heard and driven. What acoustic and physical experiences can arise?

Examples of sounds from public space and associated compositions can be found in Dávid Somló's[32] *Mandala* (Budapest, 2015), Kaffe Matthews' project *Radio Cycle*[33] (London, 2003), where she leads the audience through the city by bicycle, acting as a mobile live radio station. *The Radio Cyborg Transmitter*[34] by Reni Hoffmüller (Graz, 2021) is a sensor-equipped bicycle that uses Geiger counters and other sensors to record emission values and fine dust.

In Skatebored we Noize[35] (Milan 2009) is a project by the artist and musician DJ Balli,[36] who sonified the noise of skateboards for a live concert. *Sound Skater*[37] (2022) by the collective SOUNDER is confronting city sounds and nature sounds in a temporary rewilding by keeping the sounds in constant motion. Skaters are creating a dynamic interactive soundscape around and through the audience.

Thinking with Pauline Oliveros, "[h]earing is something that happens to us because we have ears—it is our primary life, and maybe all of our lifetimes. Listening is what creates culture. Listening is very diverse and takes many different forms as cultures take many different forms" (Oliveros 2005). In this sense, I would like to consider co-creation as a process of artistic research to open a dialogue within a diverse field of practice and to connect various fields of knowledge.

In the words of Sara Ahmed: "What moves us, what makes us feel, is also that which holds us in place, or gives us a dwelling place. Hence, movement does not cut the body off from the 'where' of its inhabitance, but connects bodies to other bodies: attachment takes place through movement, through being moved by the proximity of others" (Ahmed 2015).

With RAD Performance I am also inviting people who don't normally cycle, as well as passionate cyclists, to engage with experimental and electronic music. Audiences from the music scene mix with people who are interested in cycling and the city, architecture, and urban spaces. Many know the Critical Mass and appreciate the experience of cycling in a group. I have organized Soundrides in many different cities, but it is always important to have local partners who know their participants and the cycling scene. When I started getting interested in experimental music in my early 20s, I alternated between concert spaces and raves in warehouses. Art in public space enters the public sphere and consciously confronts a very diverse audience. As a transdisciplinary artist, I am visible in various genres, and at the same time, I find it particularly important that art remains open and accessible and can grow beyond its scene.

With RAD Performance I aim to explore compositions for the bicycle and public space, realized in motion with an array of mobile speakers. The city becomes a stage, and the bicycle becomes the medium. We move through the city with a critical voice, listening to the soundscapes of different squares, streets, and neighborhoods and the associated social, political, and historical environment. With each Soundride, a collective body of sound is created, a multiplicity of (amplified) voices and relationships of the city. The cyclists are an expression of a manifestation of the questioning of the city, its power structures, and its implications.

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[32] Dávid Somló, Mandala, 2015 URL: https://davidsomlo.com/Mandala

[33] Kaffe Mathews, Radio Cycle, 2006 URL: https://www.kaffematthews.net/project/radio-cycle-1014fm

[34] Esc Medienkunstlabor Graz, Reni Hoffmüller, "Radio Cyborg Transmitter", 2021, URL: https://esc.mur.at/de/projekt/radio-cyborgs-radio-cyborg-transmitter

[35] DJ Balli "In Skatebored we Noize", Milan 2009, Youtube URL: https://www.youtube.com/watch?v=uWJAgTNjH2s, accessed on October 20 2023

[36] SONIC BELLIGERANZA RECORDS, Bologna, https://sonicbelligeranza.com/, accessed on October 20 2023

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Further acknowledgments
within the text:

FIG. NR. 4–7
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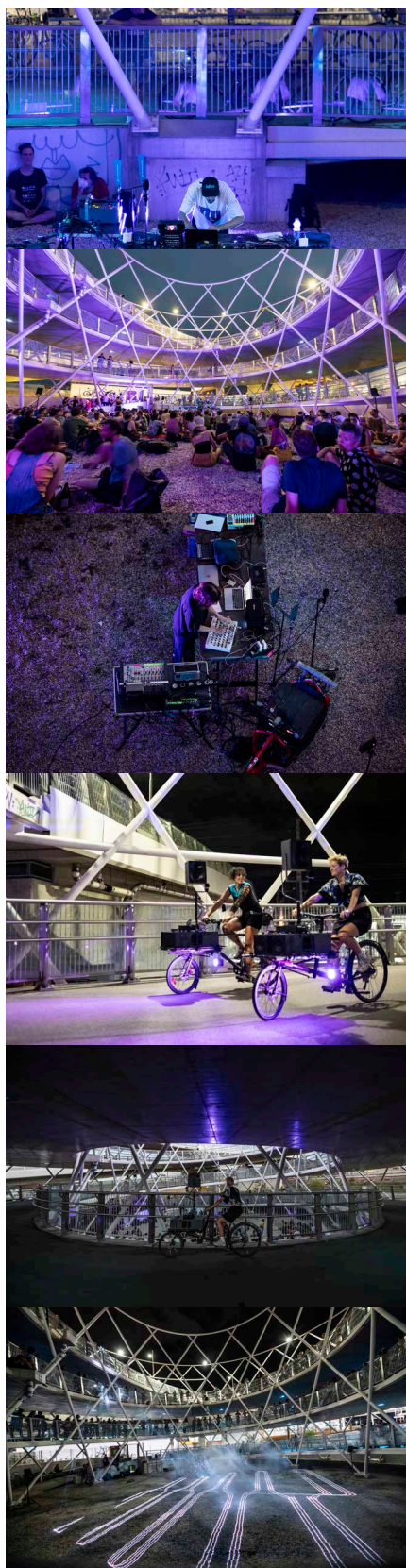
FIG. NR. 8
RAD Performance SPIRAL BIKE,
2023.

FIG. NR. 9–14
RAD Performance SPIRAL BIKE,
2023.

FIG. NR. 15–17
RAD Performance SPIRAL BIKE,
2023.

The Soundride as a Means of Empowerment

Interview by Conny Zenk with Bianca Ludewig (wiseup.de)

1 What does it mean for you as a researcher of music and sound to listen to music on the move and in motion?

Listening to music in motion is an exceptional experience that is visual, auditory, sensory, and immersive in a unique way. Moving around by walking, running, cycling, rollerblading, skateboarding, or taking the train dynamizes the experience of movement. Before Walkmans, portable audio devices, boomboxes, or portable radios were invented, this was reserved solely for car drivers. Now we, as listeners, are mobile, and I experience this as a particular form of 'acoustic cocooning,' as Karin Bijisterveld (2010) has called it; Brandon LaBelle (2008) calls it 'sonic bubble,' and Tia De Nora (2000) uses the phrase 'auditory scaffolding.' This has given rise to new body and spatial concepts. Bijsterveld (2010) interprets the present as a time of 'techno-cocooning,' which means using technology to create sensory spheres of privacy. Approached as emotional protective shells, music also has a mood-regulating effect and helps to endure the fear of loneliness or estrangement in everyday urban life better.
Playing your own music also serves to escape an externally determined urban sound environment. For example, car noises have been identified as the most annoying by EU citizens.[38] This territorial use of music serves to demarcate one's own space from public space but also serves to appropriate spaces and give them new meanings. As sociologist Malte Friedrich put it, the result is a (new) dialectic of proximity and distance (see Friedrich 2010). The result is a self-determined sound space, an aesthetic interplay of sound and visual perception of the urban space, and an essential means of occupying places and creating auditory territories. I too was a passionate Walkman user and enjoyed listening to loud music in the car. I have not had a car for a long time; instead, the bicycle is now my everyday means of transportation. In view of climate change, we can confidently state that bicycles represent the future more than cars, even if Austria's chancellor does not want to admit it.[39]

2 How do you perceive the city through music, and how do you listen to it while taking a soundride with other cyclists?

[38] European Local Transport Information Service, 21. April 2009 (vgl. Bijsterveld 2010).

[39] Exxpress, "Kanzler Nehammer im eXXpress-Interview: 'Österreich bleibt ein Autoland'", 25 March 2023, URL: https://exxpress.at/kanzler-nehammer-im-exxpress-interview-oesterreich-bleibt-ein-autoland, accessed on 17 April 2023.

When cycling in the city, I rarely listen to music with headphones. The risk of not hearing sounds that can decide over life and death is too great. Cycling becomes much more enjoyable when you can listen to music via a sound system, hear the outside noises simultaneously, and are part of a community where everyone pays attention to the traffic and each other. Riding in community prevents cocooning, characterized through immersing yourself in sounds and music alone (privacy). While I exhaust quickly when cycling alone, losing my desire or stamina after an hour or so, several hours can pass without me noticing when I ride in community. The monthly Critical Mass bike demo provides an opportunity for such collective cycling. Sound always accompanies us, ringing from many individual, often self-built, stereo systems or Bluetooth speakers. However, as diverse as the participants in Critical Mass are, so are the sounds. For sound-savvy people like me, who are fixated on listening, it makes a fundamental difference whether I can hear music. If the sound affects me, then I feel at home in the world. The space that the sound occupies becomes mine; a kind of placemaking unfolds. According to Brandon LaBelle, only an appropriation of the street that moves and listens allows us to understand the urban environment's architecture, objects and textures (cf. LaBelle 2008, p. 193).

3 Since 2016, the queer-feminist bicycle collective RADS has been organizing Luna Rides in Vienna, collective rides during full moon with a group of FLINTA* people. What do Luna Rides mean to you, and do you experience them as a collective appropriation of the city?

Unfortunately, I have not been on a Luna Ride for a while, hopefully soon again. For me, cycling is a spatial appropriation practice; previously unknown areas are appropriated and cycled on and thus potentially become paths on individual cognitive maps of the city. Like almost everything during the COVID-19 pandemic, the Critical Mass came to a standstill as well. We were encouraged to ride in smaller groups. This is where you step in, together with all RADS with whom you jointly organized feminist rides in Vienna.

In general, it is much nicer to ride at night, with fewer cars and less fumes. Everything looks more beautiful in the moonlight. When we were denouncing femicides, the "Kieberer" (the police) were never far away. I still remember the chase that started in front of the "Trafik" (tobacco shop) in the 9th district …

The start and end points of a soundride are important as well. For example, *Biosphere* had a spectacular starting point unknown to me, namely the Freie Mitte in the 2nd district. Likewise, I was hardly familiar with the endpoint at Schlingermarkt in Floridsdorf because the Viennese from the inner city rarely frequented it. With Biosphere, we conquered the square with a live concert by Flonky Chonks, who performed their underground hit on the climate apocalypse, *Flächendeckend 30*. Those who don't know the song yet should definitely have a listen I found the final stop of this year's Soundride in cooperation with Urbanize particularly great. During the ride, the DJs were transported in cargo bikes until we reached Rustensteg near Westbahnhof, another place where people did not linger but merely crossed over. The Rustensteg is a great balcony, a loge from which bikers can enjoy a magnificent view of the full moon.

4 Cycling was a safe way to get around the city during the COVID-19 pandemic and a sign of protest in many cities, such as Ljubljana. What significance did the soundrides have to you during the COVID-19 pandemic?

As I mentioned before, I am very fixated on listening, and for lovers of experimental electronic music, your soundrides are a highlight and an improvement of collective cycling. They were also of great help in surviving the COVID-19 pandemic and lockdowns. We collectively helped eachother against uncertainty, while retaining the distance by our means of transport. Apart from such crises, collective exercise in fresh air makes me feel at home: Raising money for a good cause, joining a demonstration, or simply listening to mobile music together and causing public annoyance. As you know, a considerable intersection between bicycle activists and experimental music makers in Vienna exists, who come together at concerts or in the Bikekitchen. Electronic experimental music can take many forms, but noise, ambient, sound art, post-club—sounds that oscillate between music and non-music—are rarely heard at a Critical Mass, at the Danube, or anywhere else in public.

40
A sound system is a mobile disco. The street discotheques operated in Kingston in the 1940s, most of which were self-built, offered DJs the opportunity to earn money with street parties in an insecure economy. The principle of the sound system spread through the Jamaican diaspora, especially in Europe and the USA. A sound system always describes a collective, a network of human and non-human actors (cf. Ludewig 2019).

41
According to Paul Gilroy, the Black Atlantic describes the historical and contemporary movements of people of African descent across the Atlantic—from Africa to Europe, to the Caribbean, to America and later vice versa. It encompasses those musical forms and styles that can be traced back to Africa, the Caribbean and Latin America, and also refers to their entire diaspora (cf. Ludewig 2019, 77). For Gilroy, modernity begins with slavery and the experiences of slavery, colonialism, exploitation, flight and migration are conveyed through the music of the Black Atlantic. He interprets "the art, music or science of the Black Atlantic as a counterculture to modernity" (Ludewig 2019, 35).

42
RADS, Anna Lerchenbaumer, Chora Malik x Stefan Vogelsinger, Elisabeth Schimana, Katharina Klement, Ida Böh, Lisa Hall, Shortwave Collective, Selina Traun, Marie Vermont, Nina Bauer, Wiseup! Radio (my contribution: https://soundcloud.com/wiseupradio/cutup-4-0803-feminist-bikeride) Mix 8.3.2023: https://soundcloud.com/rad-performance/wiseupradio-dance-patriarchy-part2

5 Over the last three years, you have witnessed me and Georg Hartl developing a special sound system for soundrides, with speakers distributed among several bikes. What aspects of the soundrides and sound systems seem particularly important to you?

It enables as many people as possible to participate in the sound. At the same time, the loudspeakers controlled via audio radio are also played as multi-channel audio. In specific architectural constructions (bridges, archways, ramps, etc.), special multi-channel listening experiences are made possible, which is impressive. Your routes are just as important, as they already enable or prevent experiences in sound and space.40 Sound systems have their roots in DIY culture, arrived via the *Black Atlantic* route41 (see Gilroy 1993), and are the result of a cultural technique of diasporic futurism, which are emphasized in my book on gabber (see Ludewig 2019). Sound systems are part of a tradition of appropriation, which concerns cultural identities and attitudes and are simultaneously visual, sonic, and mobile (cf. LaBelle 2008, p. 197).

According to LaBelle, our bodies react to music, we align ourselves with it, and orient ourselves to it: "Music thus aids in the alignment of the body with a self-defined choreography" (2008, p. 190). Furthermore, music becomes an extension of our moving bodies and mediates the relationship between the self and the world, which is also expressed by the term 'auditory latching.' The resulting combination of music and image is usually not repeatable in this exact combination. Heike Weber, who researches the history of science and technology, interprets this as a rare space-sound experience (cf. Weber 2008).

For your sound rides, you invited various labels, organizers, DJs, or musicians to arrange a special soundtrack for a route (e.g., Ventil Records, Global Fyre, Lauter Lärm, female:pressure), which took us to places that were mostly unknown to me, such as a container loading station or a beach on the Danube. Architectures were encountered in a new way, and sounds were experienced anew. The use of self-chosen musical accompaniment by cyclists is a new means of experiencing and negotiating the environment.

6 Soundrides always take place in a community with other cyclists. What do you mean by an audiosocial community?

Music and sound counter the rhythms imposed by existing architecture and public spaces with a personal structure and rhythm. I use the term 'audio-social' for my research on music communities; I adopted it from the British

philosopher and music producer Steve Goodman (2005) and developed it further. Goodman is concerned with 'networked collective bodies' that form around musical speed, rhythm, and atmosphere. The sonic materiality of music is central. Ideally, audiosocial communities function as ecosystems; in addition to people, they also include music machines, media, practices, and spaces. Such communities aim to combat fear as a postmodern phenomenon through rhythm, speed, vibrations, and atmospheres. It is about collective rituals, not necessarily resistance, but resilience and intransigence. Through rituals of repetition, musical culture emerges, forms, and exists. Music and society, men and machines, come together in audiosocial communities. The terrain of the affective and sonic social is explored. For Goodman, rhythm and tempo are the necessary, albeit abstract, glue that hold the collective together. Rhythms and tempos glue this matrix of audio collectives together through loose sharing of resonance and frequency (cf. Goodman 2005, p. 142). The riders of the sound rides are a 'sonic body,' a term often used in dub/dubstep research, such as by Steve Goodman or Paul Jason (2016). In contrast to the bodily experience of sound materiality and affectivity in the individual, the sonic body is always a collective body created, for instance, when synchronizing with other bodies on the dance floor or bikerides. The collective is at the forefront here, as innovations in music and art can never be achieved by a single person but always emerge from collective processes. Brian Eno describes this form of swarm intelligence as 'senius,' by which he denotes the intuition and inventiveness of an entire cultural scene (cf. Eno 1995, quoted in Goodman 2005, 147).

7 The sound system plays a central role in sound rides. It provides the group with the necessary volume and visibility. What potential do you perceive in the volume and noise of a Critical Mass?

They take account of another important significance of the sound system, namely as 'message machines' and 'total megaphones,' as LaBelle has aptly described it: "in which customization expresses social and cultural dissent through appropriative tactics. […] of carving a space for itself, one driven by rhythm" (LaBelle 2008, p. 200). While sound rides with experimental music do not focus on language or vocals, this was different on March 8. We were concerned with articulating demands or taking circumstances to the street that we found dissatisfying.[42] Feminist Bikeride 2022 was preceded by an open call by you. You asked for thematic submissions and then put together a soundtrack for the ride and the subsequent protest to emphasize our demands acoustically. The snippets of speech and sounds that could be heard from the contributions dealt with underpayment, abortion, motherhood, and femicide. When we drove past passersby through the city, this was intended to be annoying and gain temporary attention. And it did; what an empowering feeling.

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RADS, Queer Museum Vienna, Vienna Roller Derby, Rollerstrizzis, Hermes Radbotinnen, FLINTA* Bikepolo Vienna, among others.

8 You produced a mix for the Soundride on March 8, 2023 — what impressions would you like to share with us?

The mix turned out to be too complex for the significantly larger number of participants this time, as we were part of the Take Back The Streets! bike demo.[43] The soundscape, peppered with speech samples from feminist artists, nonetheless made for brief confrontations and ironic situations with passersby. Above all, with exclusively male police officers (!) who accompanied these demonstrations. Our community dynamically rolled through the city from Yppenplatz to the Votivkirche on bicycles, skateboards, rollerblades, and other self-made constructions. As LaBelle puts it, our means of transportation become extensions of our lived identities as "signifying practices that aim to counter or correspond to what it means to be on the street, in full view." (2008, p. 201). I particularly appreciate the diverse community of participants, including men. The feminist sound collages, including mine, are aimed primarily at men. To FLINTA*s, the seriousness of the situation and the need for change are crystal clear. Without the help of men, we cannot deconstruct the patriarchy. The neoliberal patriarchy forces them into constructed roles as well, to fuel capitalist growth. Labor power is being extracted from us all. The mix also aimed to demonstrate how patriarchy permeated everything, including the music we are listening to. Therefore, it influences how women* (female-read and female-identifying) feel and love. If you listen carefully, many of the female pop icons from the 1980s I grew up with transport submissive, if not masochistic self-images in their early hit records. It is a bit like the Bechdel-Wallace test; everything revolves around men; when you start to pay attention to it, it becomes omnipresent. That's an astounding influence, especially when you are young. I wanted to include some of these songs in the mix, and inserted little glitches in the tracks to draw attention to the fact that something was wrong.

For outsiders, the cultural negotiation process is most noticeable at Feminist Bikerides. Still, the feminist dimension always resonates at your soundrides, too, where the sound system is usually carried by FLINTA* bike messengers, often in specially designed superheroine costumes. Soundrides can make negotiation processes audible and tangible, not only because we form and organize ourselves according to rhythm in space but also because our visual and sonic appearance contrasts or conflicts with other images and impressions of the city. Just as music and its technologies are strongly gendered, this has also been true of mobility because freedom of movement is enjoyed above all, by those who have privileges and can afford it. Soundride is a format that precisely expresses this as social practice: "Respect Existance or Expect Resistance" (flyer bike performance, Feminist Bikeride 2023).

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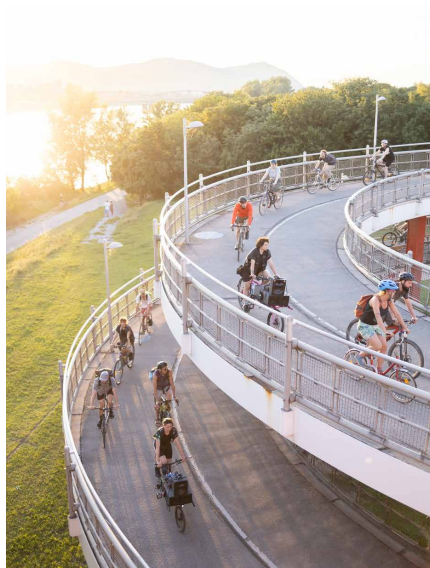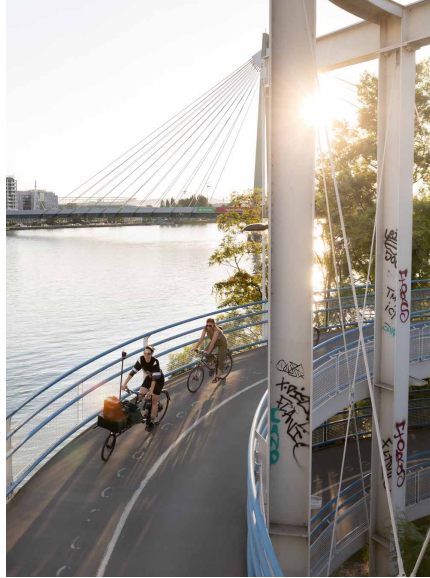
FIG. NR. 18–20
RAD Performance SPIRAL BIKE,
2023.

FIG. NR. 21
RAD Performance SPIRAL BIKE,
2023.

FIG. NR. 22
RAD Performance SPIRAL BIKE,
2023.
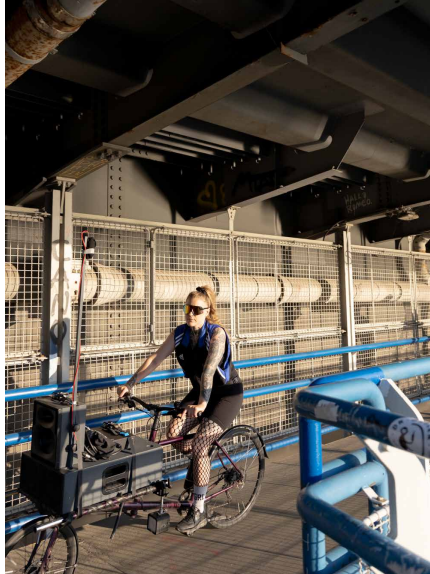
FIG. NR. 23–25
RAD Performance SPIRAL BIKE,
2023.

Bikefeminism & Cycling Counterpublics

Interview by Conny Zenk with

Magdalena Scheicher

Magdalena Scheicher began writing about the RAD Performance project, feminist urbanism, and theories of performativity in collaboration with Conny Zenk. Several transdisciplinary collaborations are planned for 2024.

1 In what context do you see the RAD Performance, and what do you understand by bicycle feminism?

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The experimental, urbanist art practice of RAD Performance takes up elements of the bicycle activism of a 'Critical Mass.' It combines them with avant-garde artistic elements: A bicycle group equipped with mobile loudspeakers moves through the city as a sound performance. It is mainly FLINTA* who produce the volume and noise of a moving, collective body and a critical voice for the public space. The sound rides are audible and visible and develop a self-empowering and collective political force in which diversity and unity are celebrated, and gray areas and border crossings in urban space explored. The aim is to deconstruct predetermined routes, their implicit logic, and psychogeographical contours, and to intervene in the (acoustic) system. A transportation network becomes a space for performance and negotiation. The RAD Performance examines bicycles as a means of emancipation and counter-public production in the context of a vibrant Viennese bicycle history. Connections between movements on pedals and feminist aspirations have not only existed since recent times: the Viennese bicycle boom around 1900 already had an emancipatory aspect, and the first wave of the women's rights movement was closely linked to the bicycle and the increasing mobility of women (Ebner 2022). Since then, the bicycle has become a medium that enables women* to occupy spaces in the city and redesign them together.

2 What potential does the bicycle (still) have when it comes to queer-feminist approaches and aspects of public space?

Contemporary approaches to 'bicycle feminism' focus on ecological issues and redistribution of freedom of movement in urban spaces. They are loud, colorful, and queer—they create spaces free from neoliberal power relations and resist repressive patriarchal body politics. Concerning the special format of RAD Performance, art-theoretical and art-historical perspectives are particularly interesting: RAD Performance uses new media and interfaces and locates itself within contemporary discourse-theoretical debates. As a performance art project, it ties in with a canon of avant-garde artistic modes of expression and their transdisciplinary and multimedia nature. In many cases, the history of performance art is a history of feminist protests. The production and appropriation of (public) spaces through performative practices has always been central to the history of performance, considering the interventions of the feminist avant-garde.

In its subversion and innovation, the actionism of RAD Performance extends beyond purely symbolic staging. The production of gender differences is counteracted in a real and active way when female and queer bodies do not act as symbols of marginalization and objectification but as active and collective agents who take up space. In the sense of Hannah Arendt and Judith Butler, both the public sphere and gender are first produced or performed in socio-political processes (Arendt 1998, Butler 1990, Butler 2016, p. 15). Historical emancipation movements such as the suffragettes' demonstrations at the beginning of the 20th century always show a unique interweaving of the reciprocal relationships between public (urban) space, performative choreographic elements, and gender in the production of feminist counter-publics (Krasny 2019, p. 34ff). Bicycle activists mobilize beyond learned motives for movement and action. They explored the potential for resistance in the performative to dismantle the stability of the heteronormative order. The bicycle functions not only as a symbol of freedom but also as a vehicle and agent. It breaks with the convention and renegotiates the distribution of freedom of movement.

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Soundscape

Combating Environmental Noise in Urban Areas

Sophie Luger is a licensed architect, currently working and teaching in Vienna. Her interests range from urban interventions to exhibition design and projects focusing on sound behavior. She gained further qualifications in acoustic building and sound performance and is currently investigating the potential of building facades as effective sound-absorbing elements with L. Mascha.

Sophie Luger

INSTITUTE OF ARCHITECTURE

Lenia Mascha is a Vienna-based architect, with an overarching research focus on composition, time-based media, and emerging technologies across architecture, design, and the arts. Parallel to practicing, she is currently teaching at the University of Applied Arts in Vienna and conducting research together with S. Luger on the potential of building facades as effective sound-absorbing elements.

Lenia Mascha

INSTITUTE OF ARCHITECTURE

"Noises are the sounds we learned to ignore."

R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 1994

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In February 2022, we initiated an architectural research project on acoustic ecology and architectural design. The reasons for doing this were manifold. First and foremost, we felt it was important to address the impact of noise pollution on the welfare of cities, an often-overlooked aspect of city planning and urban design. In particular, urban soundscapes affect the health and well-being of all life coexisting in urban spaces. Rethinking architectural design to create a more sustainable acoustic environment is an approach that goes hand-in-hand with a joint attempt by architects and designers to bring environmental concerns to the foreground of their disciplines today and direct their efforts toward a sustainable and ecologically aware urban future. As architects with a strong focus on design, we saw the potential to employ our own experience in computation, urban strategies, architectural practice, and pedagogy to address architecture's relevance to the field of environmental acoustics. This research area has been commonly associated within the architectural profession with building physics and product solutions for noise abatement; however, it has not been prioritized in the design decisions of early conceptual phases of planning. Several measurements and planning principles can be employed to redirect sound and shield critical areas from noise, like optimal building position and well-considered floor plans (Jaramillo and Steel, 2015). We decided to focus our attention, however, on a possible performance of architectural facades and the retargeted role of geometry and ornamentation on building skins for noise regulation. Recent studies on urban acoustics show the potential of building envelopes to provide acoustic comfort to outdoor spaces (Crippa et al. 2019; Krimm et al. 2017), thus highlighting the role of buildings in defining the public space both spatially and aurally. In our study, we aimed to extend this premise further through an interdisciplinary design approach that draws its methods from art, science, and technology. We sought to explore a sound-informed design strategy through the study of vibrational phenomena and the ability of sound to produce ornamental figures. The early pathways of our research journey have been formed by ideas on sound behavior and architectural acoustics, together with experiments in digital simulations and physical measurements, which we are going to present in this article. Titled "SoundCape," the project was initiated with the support of the Angewandte Program for Inter- and Transdisciplinary Projects in Art and Research (INTRA), which is funded by the Austrian Federal Ministry of Education, Science, and Research.

Working on the SoundCape project, we investigated which geometries could inform the design of building elements to reduce noise pollution in urban environments. More specifically, could ornamentation become a highly specialized agent in reducing unwanted noise in cities today? To seek answers, we first had to address a more profound question: What is sound, and how does it relate to material and geometry?

The Mysterious Correlation of Sound, Geometry, and Material

SOPHIE LUGER, LENIA MASCHA

In his 1912 essay "The Mystery of Acoustics," Viennese architect Adolf Loos asserted an almost supernatural relationship between materials and architectural acoustics (Loos 1995). As a famous adversary of ornament and the non-modern world, Loos rejected the common principles of acoustic solutions related to architectural dimensions of space and instead proclaimed that exceptional acoustics result from architectural materials. He placed his emphasis not on inherent physical properties of matter but on such developed in time after long-term exposure to "good" music. The Viennese architect considered the classical orchestras of the imperial music halls of his time as such music. In his view, the materials' physical properties could change and improve their acoustic resonance when impregnated long enough with these compositions. For Loos, it was the distinction between soaking matter in "good" or "bad" sounds that resulted in a better or worse aural experience. Similarly, his polemic writings asserted a distinction between a primitive and a modern world that embraced or rejected ornamentation in architecture and design respectively (Loos 2019, p.188). We can assume that this distinction did not merely derive from the architect's aesthetic dogma but has coincided with the acoustic theory of his time, including the writings on "unmusical sound" by Hermann von Helmholtz and his definition of noise "*as sound composed of nonperiodic vibrations compared to music which consists of periodic vibrations*" (Schafer 1998, p.182). Even if Loos' acoustic arguments were not supported by scientific measurements and have probably raised a series of objections in the acoustic engineering community, they did highlight a thought-provoking architectural understanding of space. This understanding surpassed static models of geometric cartesian characteristics as an active field of interactions between sound energy and materials that could transform one-another in time. In other words, "The Mystery of Acoustics" proposed the radical idea that a two-way transformational relationship between sound and matter is possible and affected by sound's musicality.

The relationship between sound and matter has been continuously studied in acoustic theory. Particle motion through sound vibrations has been physically proven and researched by many protagonists in the field. Most notably, particle motion was studied by the 18th-century scientist and musician Ernst Chladni in his work on vibrating acoustic plates. Chladni's famous physical experiments relied on a violin bow and a metal plate with dispersed tiny sand particles. Fixing the plate on its center and drawing the bow over its edge in various positions, resulted in the vibration of the metal plate, and, subsequently, in the sand particles' motion. Chladni's research would set a fundamental cornerstone for modern acoustics (Zhou et al. 2016) and became a major inspiration for scientists and artists. Two centuries later, Hans Jenny revisited the Chladni patterns and produced an extraordinary body of work that cataloged a series of solid and liquid sonorous patterns and figures sculpted by sound and magnetic fields on different materials (Jenny 2002). Jenny's experiments and cymatic research anchored their existence on the art-science spectrum. They constituted a major precedent for the studying, simulating, and understanding sound phenomena in an empirical and visual way. In a rigorous comparative study between Loos' polemical writings and the Chladni experiments, an interesting discussion arises, bringing the concepts of sound and ornamentation to the fore. Though Loos supported the idea of sound's ability to penetrate and change the acoustic efficiency of materials and architecture, he undermined the role of geometry and space dimensions. The aphorism of unnecessary decoration and superfluous ornamentation of utilitarian objects (Loos 2019) echoed the general modern view that defined the architecture of the 20th century. However, in the context of spatial acoustics, geometry plays an important role in sound quality. Geometrical characteristics, including typology, proportions, complexity, cavities, and porosity, result in dispersing, enhancing, and absorbing sound energy. Furthermore, decorative patterns on the walls of, for example, Renaissance concert

halls, facilitate sound diffusion while they also contribute to eliminating echoes and focalizations (Jaramillo/Steel 2014, p.162–167).

The experiments of Chladni and Jenny reveal a morphological footprint of sound frequencies on vibrating materials that can appear exceptionally intricate and ornamental. When Chladni excited the plates with a violin bow, he generated two-dimensional standing waves that represented the plates' inherent frequencies.[1] Standing wave nodes appear as individual points in one dimension, while they materialize as lines in two dimensions. Therefore, the patterns are not exactly visualizations of sound. They constitute sound-driven formations because the sand particles oscillate with the changing sound frequency. They get moved away from the sound wave's antinodes to accumulate and settle on the nodal lines emerging on the metal plate (Coughlin 2000, p.133). Chladni patterns also depend very much on the material of the plate, whose geometrical (size, shape, thickness) and physical properties (material density) significantly influence the patterns of the generated sand particles. When the applied sound frequency corresponds to its few dominant eigenmodes, the patterns are well-defined and clear to see. The sand patterns appear more chaotic when the

01
These resonance phenomena manifest in finite elongated plates when a minimal amount of vibrational energy escapes through their edges. These vibrational patterns observed within these resonances are referred to as modes (Möser 2000, p. 141).

applied sound consists of a wider range of frequencies, and the interference of multiple modes leads to a less defined outcome. Therefore, different sound frequencies result in different formations, and pure-tone sound events (single frequencies) generate clearer figures when they correspond to the particular eigenmode of the plate.

To study the Chladni patterns empirically, we conducted physical experiments using sand particles on a centrally fixed 12" carbon fiber plate, with an integrated loudspeaker at its center, connected to a computer source. Running the experiment with different sound inputs, we observed that the voice of an opera singer penetrating the metal sheet through the loudspeaker behind it could also result in similarly clear sound patterns. In contrast, noisy or very loud sounds would spread the particles all over the plate, most of the time. We could thus reflect on Loos' "good" music and Helmholtz's "musical sound", bringing aesthetics, artistic expression, and physics in close dialogue. Both Loos' arguments on the mystery of acoustics and the research by Chladni/Jenny reveal an inspiring point of departure. Together, they highlight how sound penetrates physical bodies, oscillates our cells, and evokes movement, going beyond an emotional or a psychological response.
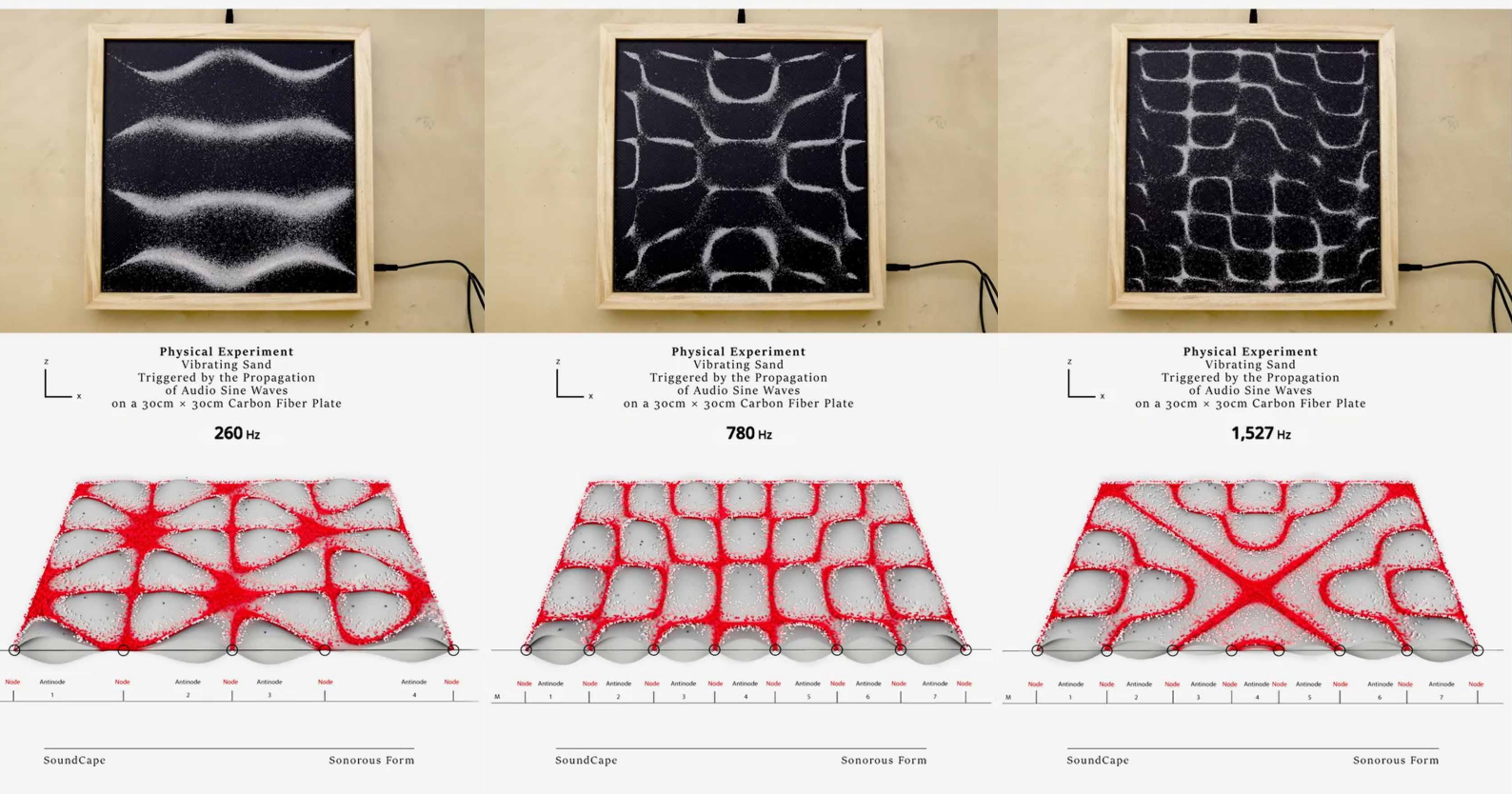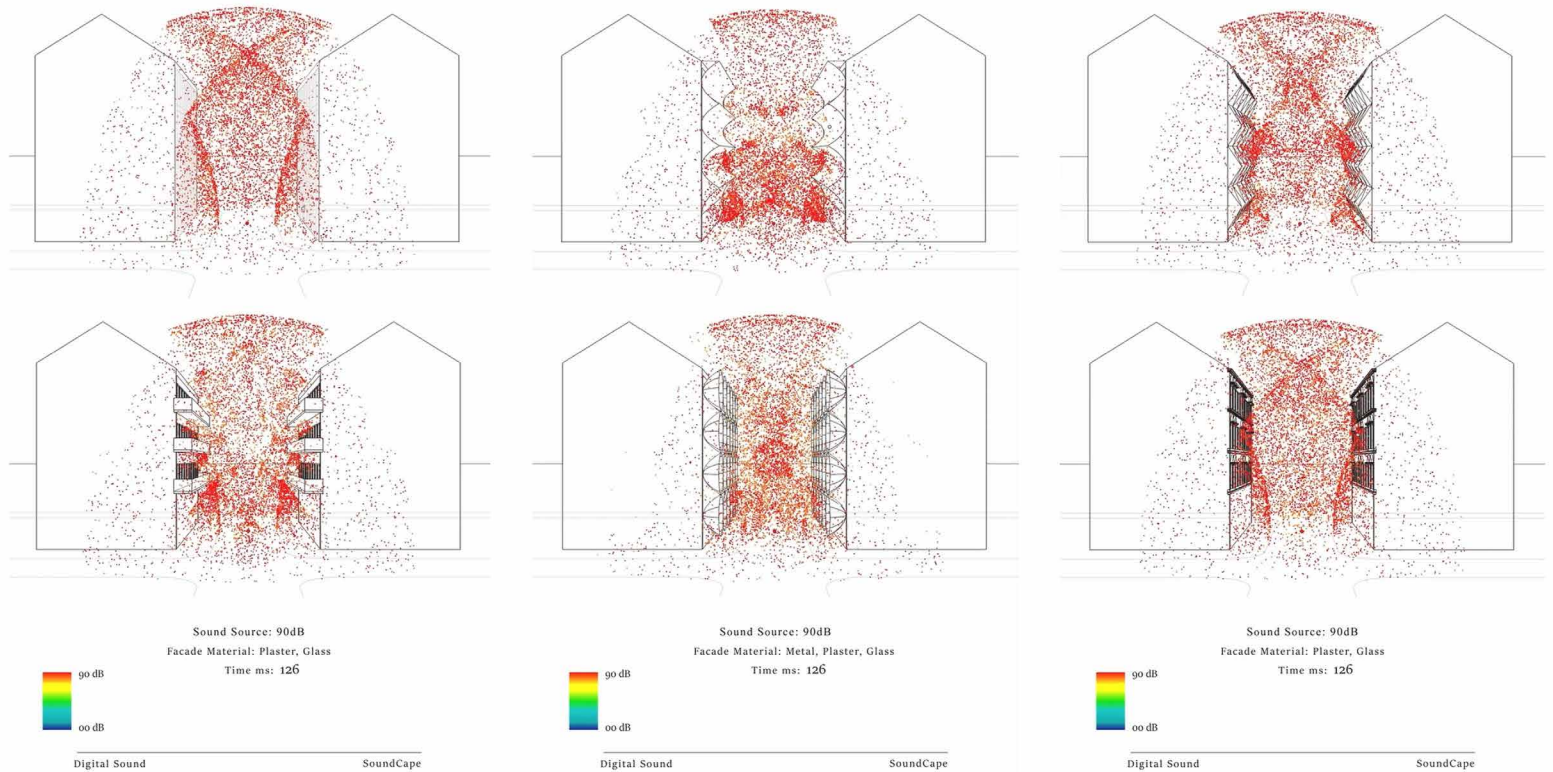
Physical Experiment
Vibrating Sand
Triggered by the Propagation
of Audio Sine Waves
on a 30cm × 30cm Carbon Fiber Plate

260 Hz

SoundCape — Sonorous Form

Physical Experiment
Vibrating Sand
Triggered by the Propagation
of Audio Sine Waves
on a 30cm × 30cm Carbon Fiber Plate

780 Hz

SoundCape — Sonorous Form

Physical Experiment
Vibrating Sand
Triggered by the Propagation
of Audio Sine Waves
on a 30cm × 30cm Carbon Fiber Plate

1,527 Hz

SoundCape — Sonorous Form

FIG. NR. 1
Physical experiments using a Chladni plate in connection with digitally simulated diagrams of the plate's vibration modes.

FIG. NR. 3
Acoustical simulation of abstracted facade geometries visualizing various focalization effects and sound dispersion within the street canyon using "Pachyderm Acoustical Simulation."

Sound Source: 90dB
Facade Material: Plaster, Glass
Time ms: 126

Sound Source: 90dB
Facade Material: Metal, Plaster, Glass
Time ms: 126

Sound Source: 90dB
Facade Material: Plaster, Glass
Time ms: 126

90 dB
00 dB

Digital Sound — SoundCape

90 dB
00 dB

Digital Sound — SoundCape

90 dB
00 dB

Digital Sound — SoundCape

Sound Ornaments

SOPHIE LUGER, LENIA MASCHA

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Today, we could argue that the architectural surfaces of modern cities are impregnated with all sounds but silence. When M. Schafer (2012) provided his definition of the city soundscape, he extensively addressed the impact of technological sounds and their contribution to noise emissions in the urban sphere. This urban cacophony, often understood as an inseparable part of the city's livelihood and lifestyle, bounces back from the walls, streets, and physical objects it impacts. It penetrates our bodies and significantly influences the well-being and health of millions of people and ecosystems (World Health Organization 2010; European Environmental Agency 2020).

In SoundCape, we acknowledge that architectural facades' geometrical and material properties impact spatial acoustics and environmental noise regulation. Hence, there is a strong potential for architectural design to improve the environmental acoustics of cities. Since Adolf Loos' time, the role of ornament in architecture has changed profoundly. Advances in digital technologies have been constantly retooling the architectural discipline, providing many possibilities for design, composition, simulations, and the intelligent performance of complex geometries. Computation has further enabled a new understanding of spatial acoustics. Sound can now become visible, and it can be rendered and simulated to reveal new ways of acoustic optimization. Innovations in architectural materials, together with digital design

FIG. NR. 2
Video documentation of the physical experiments using a Chladni plate in connection with digitally simulated diagrams of the plate's vibration modes. QR Code.

FIG. NR. 4
Video showcasing the acoustical simulation of abstracted facade geometries visualizing various focalization effects and sound dispersion within the street canyon using "Pachyderm Acoustical Simulation." QR Code.

and production techniques, can also help in developing new acoustic solutions for architecture. SoundCape examined the effect of different facade geometries on noise levels in densely populated urban areas, using a simplified model of two buildings with various architectural skins that were facing each other. The materials applied to the building fronts were mostly sound-reflective, such as metal or glass, and plaster as another commonly used facade material. We employed the open-source acoustic simulation platform, "Pachyderm Acoustical Simulation" to visualize sound dispersion and reverberation time changes for comparison. The platform is embedded in the parametric design environment of Grasshopper, a plugin for the 3D modeling tool Rhinoceros. The resulting simulation shows that various facade elements might potentially affect sound levels through the build-up within the street canyon. Additionally, the animations visualized the possibility of focalization effects and sound dispersion through the proportions and different geometries of the abstracted facades. Alongside acoustic models on an urban scale, our research also ran a parallel course that was driven by the Chladni sonorous figures. This parallel investigation did not start from a given premise where vibrational phenomena are connected with environmental acoustics. Noise emissions in the open field have nothing to do with particles' movement on the metal plate. Yet, the

sound's visual footprint on the shaken sand gave us the first clues for our geometrical investigation. Our literature research, and in particular, the experiments of Chladni and Jenny, have pointed out the visual traces of physical sound phenomena that remain invisible most of the time and are thus difficult to grasp. In that way, we acknowledged their potential to pave the ground for architectural acoustics to benefit from. What further motivated us to investigate their acoustic characteristics has been related to their basic organizational and geometrical principles. We intuitively discussed formal associations to Helmholtz Resonators or Schröder Diffusors, which are commonly applied to enhance room acoustics in various ways. Specifically, Helmholtz resonators are used to absorb selected frequencies through the proportional relationship between their opening, neck, and volume (Jaramillo/Steel, p. 219–229). Searching for traces of similar geometrical attributes with sound absorption capabilities led us to explore vibrational patterns more deeply. Vibrational phenomena can be described by mathematical equations. By translating them as lines of code in our modeling software, we generated a three-dimensional digital model that we were able to control and manipulate by feeding different values to the multiple parameters of the function. In order to develop the same experiments in three-dimensional space beyond the two-dimensional plane, we followed the research paper titled "Chladni Figures Revisited—A Peek Into the Third Dimension" by Martin Skrodszki, Ulrich Reitebuch and Konrad Polthier (2016). The paper provided us with the mathematical formulas that described the Chladni patterns in three dimensions. Once we parametrized our digital models, we could produce infinite results of these sonorous forms. Could we translate these sonorous figures following their inherited organizational grid lines and continuously evershifting wavy nodes to an acoustic facade design?

FIG. NR. 6
Digital simulation of Chladni figures, generated with the mathematical equations describing their vibrational movement. QR code.
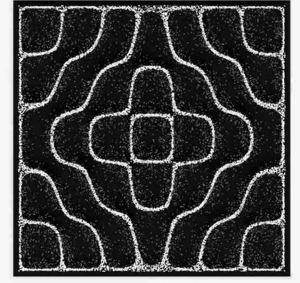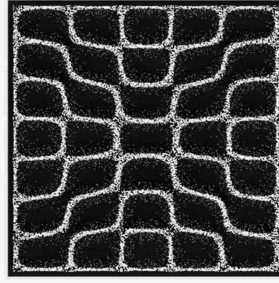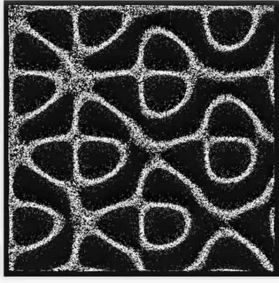
FIG. NR. 8
Digital simulation of the Chladni figures, generated with the mathematical equations that describe their vibrational movement in the third dimension. QR Code.

Similar to the physical experiments of vibrating sand patterns, not all the resulting models appear equally clear, appealing, or share the same acoustic potential. For this reason, we selected three of the numberless possible results, which provoked our interest and intuition regarding acoustic performance. Their unique complexity and natural intricacy have motivated us to further test them in the context of the research question: Could their entangled continuous surfaces and cavities capture sound energy and thus work as sound absorbers? Material and scale were expected to influence the result significantly. Therefore, we paused our design research and shifted the focus to digital fabrication. The three exemplary forms were 3D printed in quartz sand, a material that can achieve extreme precision in fabricating complex geometrical forms. It has a rough, porous texture and is water-resistant, qualities that are very important for weather protection in the outdoors. For this reason, we excluded other effective sound-absorbing materials like soft and spongy matter or foam and felt, as harsh weather conditions, safety aspects, and wildlife must be considered in the free field.

In order to test the acoustic characteristics of the selected quartz sand objects, which were 20×20×20 cm in size, we performed acoustic-physical measurements. The tests were conducted with the support of the engineering office "Akustik-Design Austria." The chosen research methodology included an acoustic camera (CAE SoundCam 1.0.) and a small loudspeaker emitting pink noise, followed by a detailed analysis and presentation of the findings.
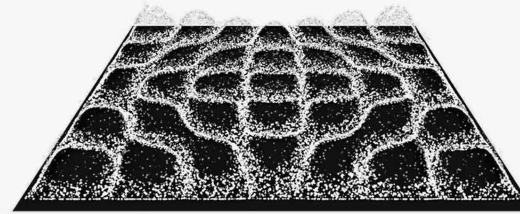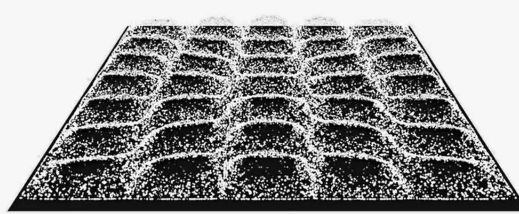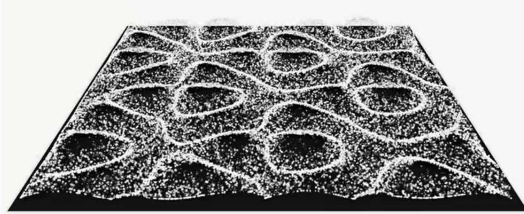
Digital Simulation

$a \times \sin(n \times \pi \times x) \times \sin(m \times \pi \times y)$
$+ b \times \sin(m \times \pi \times x) \times \sin(n \times \pi \times y)$

SoundCape   Sonorous Form

Digital Simulation

$a \times \sin(n \times \pi \times x) \times \sin(m \times \pi \times y)$
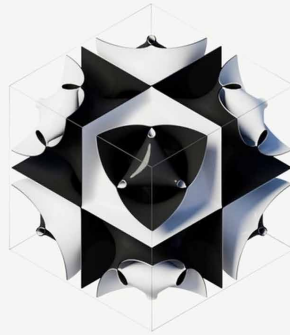$+ b \times \sin(m \times \pi \times x) \times \sin(n \times \pi \times y)$

SoundCape   Sonorous Form

Digital Simulation

$a \times \sin(n \times \pi \times x) \times \sin(m \times \pi \times y)$
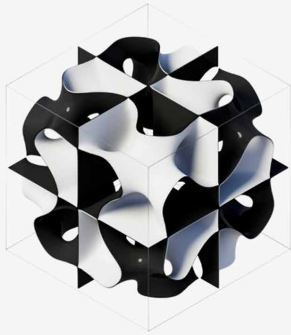$+ b \times \sin(m \times \pi \times x) \times \sin(n \times \pi \times y)$

SoundCape   Sonorous Form

FIG. NR. 5
Video still showing the digital simulation of Chladni figures, generated
with the mathematical equations describing their vibrational movement.

FIG. NR. 7
Video still showing the digital simulation visualizing the Chladni figures,
generated with the mathematical equations that describe their vibration-
al movement in the third dimension.

$A \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times z)$
$+ B \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times y)$
$+ C \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times z)$
$+ D \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times x)$
$+ E \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times y)$
$+ F \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times x)$

$u=3, v=1, w=2$

$A=0.2, B=2, C=2, D=0.2, E=0.2, F=2$

$x = x \times 100 \quad, y = y \times 100 \quad, z = z \times 100$

SoundCape   Sonorous Form

$A \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times z)$
$+ B \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times y)$
$+ C \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times z)$
$+ D \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times x)$
$+ E \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times y)$
$+ F \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times x)$

$u=2, v=4, w=1$

$A=1, B=1, C=1, D=1, E=1, F=1$

$x = x \times 100 \quad, y = y \times 100 \quad, z = z \times 100$

SoundCape   Sonorous Form

$A \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times z)$
$+ B \times \sin(u \times \pi \times x) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times y)$
$+ C \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times z)$
$+ D \times \sin(u \times \pi \times y) \times \sin(v \times \pi \times z) \times \sin(w \times \pi \times x)$
$+ E \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times x) \times \sin(w \times \pi \times y)$
$+ F \times \sin(u \times \pi \times z) \times \sin(v \times \pi \times y) \times \sin(w \times \pi \times x)$

$u=1.8, v=4, w=1$

$A=2, B=3, C=2, D=2, E=2, F=2$

$x = x \times 100 \quad, y = y \times 100 \quad, z = z \times 100$
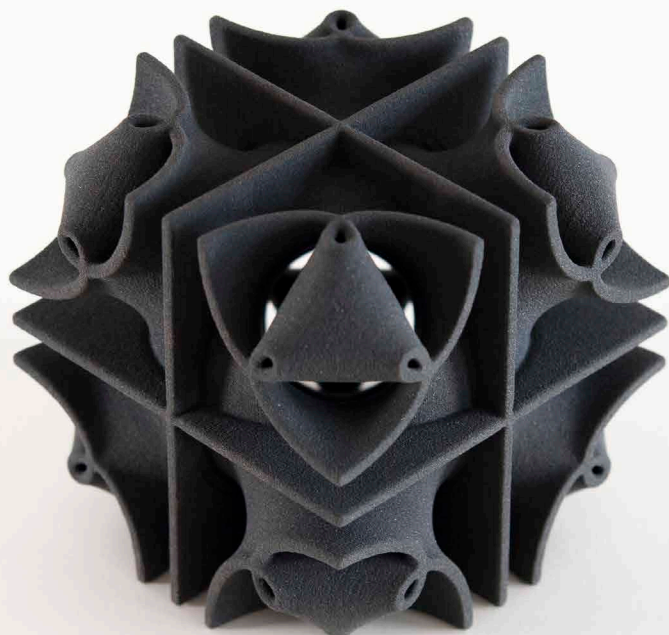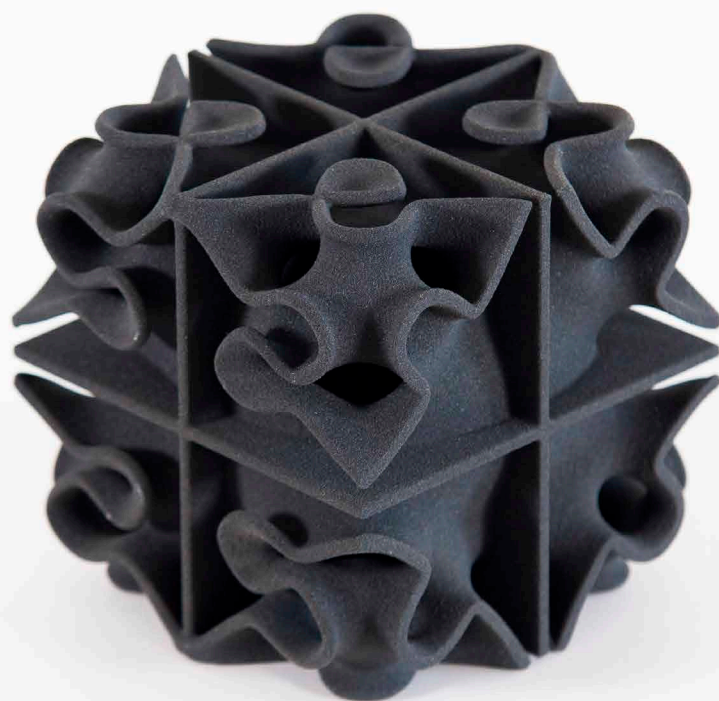
SoundCape   Sonorous Form

FIG. NR. 9
S. Luger L. Mascha, *SoundCape*,
2022, Quartz-sand element 1

FIG. NR. 10
S. Luger L. Mascha, *SoundCape*,
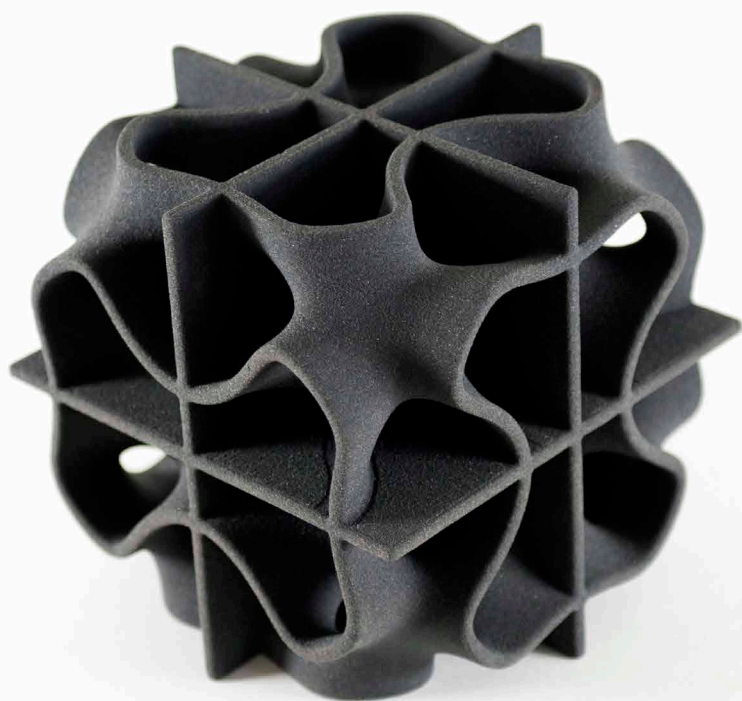2022, Quartz-sand element 2

The measurement conditions and equipment used during the study were meticulously documented, including the study period and spatial conditions. The impact of perpendicular incident sound waves and waves at an angle to the object were measured to investigate the three distinct elements' shape-specific sound transmission and sound reflection characteristics. Furthermore, it was tested how the measurement would change if objects were filled with fibrous material, such as sheep wool. Examining sound transmission measurements involved positioning the element between a loudspeaker and the acoustic camera, irradiating it with pink noise, and recording sound pressure levels and frequency spectra. The results indicate the varying degrees of sound pressure reduction introduced by the examined elements and were presented in a spectrogram format, providing visual representations of frequency characteristics and sound pressure levels, with color coding indicating sound levels. The study revealed differences in how the three blocks transmit sound, leading to element-specific spectral changes. Investigating sound reflections at different points on the elements and their response to pink noise turned out to be more revealing. The image shows that introducing the examined object into the sound propagation path results in varying sound reflection reduction for each object.

While all elements showed some absorptive characteristics, one element, in particular, showed unexpectedly high-level differences to the incoming sound, measuring 7,3 dB. Although the described setup does not replace a standard-compliant measurement of the sound absorption coefficient in a reverberation room, it provides interesting clues regarding which geometrical properties we should investigate further. The results provided a good basis for analyzing the 3D printed objects and ideas on which areas to further focus on when developing the objects' geometry.
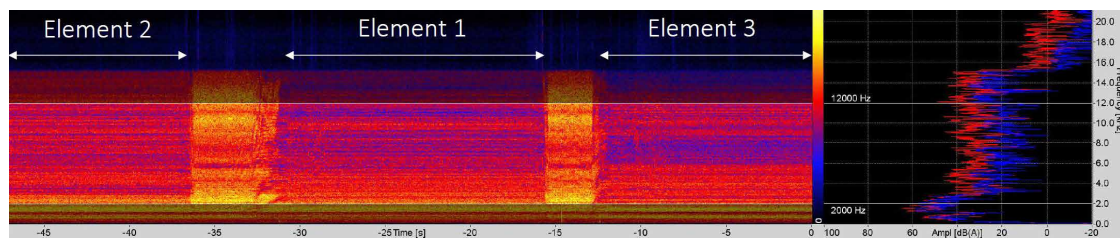
FIG. NR. 12

Sound Transmission Measurement: Three distinct quartz-sand objects were examined, each possessing unique surface characteristics and cavity structures. The measurement results were summarized in a spectrogram format, visually representing the frequency characteristics and sound pressure levels.

FIG. NR. 13

Introducing the examined elements into the sound propagation path caused different reductions in sound reflections.

Conclusion

SOPHIE LUGER, LENIA MASCHA
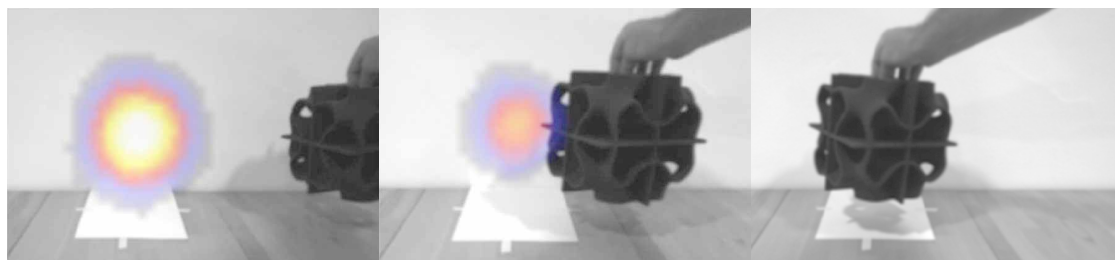
The first stages of our research focused on generating and gaining control over the synthesis of sound-informed ornamental structures and their acoustic evaluation. The jump to the urban scale has been hypothesized and supported by our comparative studies of the acoustic simulation on city fronts. The open-source simulation tools have proven to be useful in further investigating simplified models of building facades and their capacity to disperse, focus, and redirect sound. Yet due to the increased level of detail of the generated forms, the physical measurements proved to be a valuable addition for acoustic evaluation. Projecting the next steps, the research outcomes should be further evaluated in order to gain a better understanding of the three-dimensional patterns in different scales and combinations, ultimately leading to an optimized design for achieving the most optimal noise-regulating capability. For contributing to a more viable proposal, these forms would also need to take into consideration the appropriate scale of intervention, the contextual conditions including the location of the noise sources, the type of noise, and the appropriate materials in addition to safety and environmental factors. Defining the next steps of the research, we aim to design a facade panel prototype, in scale 1:1, with concrete considerations on its materiality, structural assembly, and durability. This panel could be further tested in a reverberation room and during different timeframes in the open field, where natural parameters, weather conditions, and the natural decay of building materials and their conservation could be addressed. Of course, the complexity and multifactorial nature of environmental noise call for multiple responses and many action steps to achieve a healthy and qualitative city soundscape. Architectural practice can strengthen one part of this response, yet a synergy between urban planning, architectural design, and building physics is required in order to provide sound-regulating solutions for public spaces.
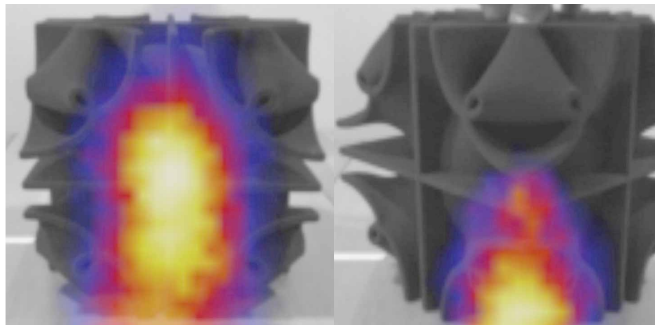
Acknowledgments

FIG. NR. 14
Perpendicular Sound
Incidence—Reflections on Element 2,
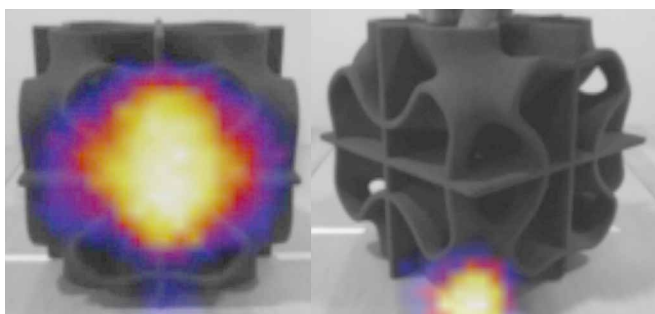Level Difference: 5.4 dB

FIG. NR. 15
Perpendicular Sound
Incidence—Reflections on Element 3, Level
Difference: 7 dB

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Fig. nr. 4: Video showcasing the acoustical simulation of abstracted facade geometries visualizing various focalization effects and sound dispersion within the street canyon using "Pachyderm Acoustical Simulation" © Sophie Luger and Lenia Mascha 2022

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Fig. nr. 11: S. Luger L. Mascha, *SoundCape*, 2022, Quartz-sand element 3, Photo © Simos Batzakis 2022

Fig. nr. 12: Sound Transmission Measurement: Three distinct quartz-sand objects were examined, each possessing unique surface characteristics and cavity structures. The measurement results were summarized in a spectrogram format, visually representing the frequency characteristics and sound pressure levels. © Akustik-Design Österreich, Dr. Harald Graf-Müller, www.akustikdesign.at

Fig. nr. 13: Introducing the examined elements into the sound propagation path caused different reductions in sound reflections. © Akustik-Design Österreich, Dr. Harald Graf-Müller, www.akustikdesign.at

Fig. nr. 14: Perpendicular Sound Incidence—Reflections on Element 2, Level Difference: 5.4 dB © Akustik-Design Österreich, Dr. Harald Graf-Müller, www.akustikdesign.at

Fig. nr. 15: Perpendicular Sound Incidence—Reflections on Element 3, Level Difference: 7 dB © Akustik-Design Österreich, Dr. Harald Graf-Müller, www.akustikdesign.at

Withdrawing the Performer
Facilitating Participatory Sense-Making

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Imani Rameses
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Charlotta Ruth works with choreography and ludic systems with a media-independent, but site- and context-specific approach. Her work has been co-produced by MDT and Dansens Hus in Stockholm, Tanzquartier, brut, WUK, Brunnenpassage, and City Games Vienna. Ruth concluded her PhD in Artistic Research in 2022 and currently works as a senior artist at the Angewandte Performance Lab. charlottaruth.com

Charlotta Ruth
ANGEWANDTE PERFORMANCE LAB

Jasmin Schaitl is a visual artist and member of the working group of the Angewandte Performance Lab, and develops participatory, performative settings that integrate approaches from contemplative practices, engage the sense of touch, and enable re-experiencing memories. She focuses on cultivating individual agency through facilitating formats for reflection and contemplation. jasminschaitl.com
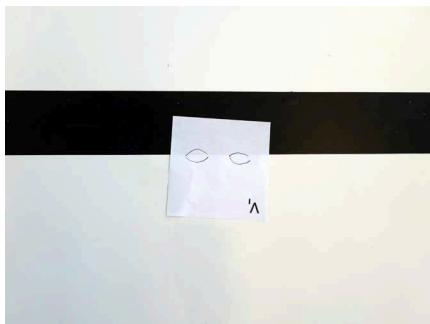
Jasmin Schaitl
ANGEWANDTE PERFORMANCE LAB

FIG. NR. 1
Jasmin Schaitl, chair, 2022, setting photograph of Philipp Ehmann's work during the lab "Choreographic Clues".

FIG. NR. 2
Jasmin Schaitl, eyes, 2022, photograph of the card from Philipp Ehmann's work, given to the participants during the lab "Choreographic Clues".

Introduction—Opening Case Study

The door opens, and you and three other people enter a large white space. A person sits with their back straight in a plain office chair, located slightly off the room's center. A black line taped on the floor separates you from the person. Two black crosses are taped on the floor, one situated on a diagonal angle away from the chair, the other closer to you but still behind the line. You have been given a small white card with a pair of eyes printed on it and instructed to engage with the situation.[1]

When the participants in the research project WITHDRAWING THE PERFORMER were faced with this playful invitation, they knew their actions were going to transform the situation. Despite the participants adding themselves to the room or turning the person in the chair, nothing happened. The person on the chair either kept still or insisted on moving back to the original position, staring straight ahead. The participants' curiosity engaged them enough to figure out the logic, and little by little, the actions of the participants began making sense even if the riddle was not solved.

Apart from the person in the chair, another person in the room knew the answer to the participatory experiment. This person had planned and prepared the situation, opened the door, and now stood gently on the side, observing. This person, Philipp Ehmann, theatre maker and transdisciplinary multimedia artist, was one of six experts who were invited to share their facilitating practice inside the one-year pilot artistic research project WITHDRAWING THE PERFORMER at the University of Applied Arts, Vienna (November 2021 until November 2022).

WITHDRAWING THE PERFORMER focuses on the role of the performer-facilitator and especially on facilitating a low threshold for audience/visitors to engage in participatory encounters that depend on active contribution or collaboration.

The project emerged from the artistic participatory practices of the main researchers, choreographer Charlotta Ruth and visual artist Jasmin Schaitl. Ruth's artistic curiosity can be described as expanded choreography,[2] with an exploration of ludic structures at its center. Her practice is based on methods of scores, games, and play, usually in group settings. The works range between dance scores, analog and digital writing practices, to large-scale participatory environments (e.g., Treasure Hunting WUK Performing Arts 2016 and Questionology[3] brut wien 2021) where visitors become part of a flexible, creative 'machine' enhanced with digital components and algorithmic processing. Schaitl's participatory work engages the mind and sense of touch and is inspired by mindfulness practices and performative, bodily approaches. Her practice moved from creating visual artworks and performance pieces to creating frames for autonomous experiences for the witnesses and participants of a performative event or an exhibition. These works invite personal memories to be reactivated and re-experienced. Through creating frames for retrieval processes of memories, participants are simultaneously exercising their skill of imagination, a crucial tool for humans to envision and be aware of their role in the multitude of complex future scenarios.

Ruth's and Schaitl's different approaches to facilitating participation provided two adjacent tracks for exploring participatory performance and laid the ground for interdisciplinary research to emerge. In this paper, we will specifically look at participation and the facilitator role through the lens of participatory sense-making, a concept borrowed from social cognition analyzing "the interaction between individuals in a social encounter" (De Jaegher/Di Paolo 2007, p.1).

[1] This is an example of a participatory work offered by Philipp Ehmann during the "Choreographic Clues" Laboratory within the research project of WITHDRAWING THE PERFORMER in June 2022

[2] For Ruth expanded choreography means applying choreographic thinking to processes other than dance e.g. how time and space is composed inside a text. "...an open cluster of tools that can be used as a generic capacity both for analysis and production" (Spångberg 2012).

[3] Questionology was created together with artist Cordula Daus.

Understanding Participation— A Scientific Perspective

Understanding the term participation from a social cognition perspective requires a brief glance into the foundations of the field, starting from Premack and Woodruff's publication introducing the concept "theory of mind". The Theory of Mind is the idea that people ascribe mental states to each other and use these states to infer knowledge, beliefs, and actions of another person (Premack/Woodruff 1978, p. 525). Inputting states of mind is the initial step necessary for determining how one should engage with each other on the levels of physical and psychological coordination. Micheal Tomasello extended theory of mind to claim that coordinated interactions should be more attributed to a uniquely human trait—shared intentionality—which is enabled through participating with others in collaborative activities with shared goals and intentions. He hypothesized that this sort of participation "requires not only especially powerful forms of intention reading and cultural learning but also a unique motivation to share psychological states with others [...]" (Tomasello et al. 2005, p.1). Shared goals and intentions transform an interaction into coordinated action with 'we intentionality'—collective desires then result in interdependent creation.

Our Entry Points into Participation

We refer to participation through participatory art as developed in the canon of French 20th century art practices of Surrealism, Dadaism, Happenings, and Situationism. In the realm of performing arts, the 'performative turn' marks a point in time when audience participants in performances were granted more autonomy and freer (inter)action, referring here to works such as *Fluxus happenings* by Allan Kaprow, Carolee Schneemann or Claes Oldenburg in the 60s and 70s in New York, who welcomed direct audience involvement into their pieces. This interaction is afforded through the simultaneous presence of the actor and spectator during the event, described by Fischer-Lichte as "co-presence" (Fischer-Lichte 2008). Each individual, each physical co-presence, affects what is happening in that present moment, and a feedback loop is created between performer/situation and audience/participant. This allows and requires a constant re-evaluation of a situation, which in consequence, opens up more possibilities for facilitation, making visible the importance of having tools to navigate such transformative situations. We believe that facilitating participation through artistic settings is a relevant process for participants to engage in a uniquely offered scenario. Their engagement in such novel situations encourages the development of creativity which carries a ripple effect into non-artistic fields, such as daily life decisions, political engagements, educational involvement and so on. Nevertheless, we are aware of the decades of critical outlook on participation and its transformations or misused applications (cf. Miessen 2017), as well as the complexity and possibly problematic development of staging spectators within not exclusively immersive theatre (cf. Schuetz 2022).

In WITHDRAWING THE PERFORMER, we have researched how co-presence is modulated at different degrees through an artistic practice-based approach, when the performer-facilitator moves to the periphery of the encounter. The research was fueled by a curiosity to investigate the tacit knowledge at play in the active work of a facilitator when modulating participatory situations and, through this knowledge, devel-

op vocabulary and reflection frameworks for sharing methodologies of facilitating participatory practices. As the research is based on performative practice, it is important to note that we think of facilitation as a specific type of performing where the attention is geared towards the situation and the participants and how relational material is stirred rather than a more classic performance or lecturing format where the performer is at the center of attention. We invited cognitive neuroscientist and performer Imani Rameses as a core member of the research team. Rameses was invited to assist us both understanding what happens inside participatory encounters through a neuroscience and cognitive science perspective, as well as developing conceptual frameworks and vocabulary that can be bridged beyond artistic practice-based knowledge into social cognition and scientific interdisciplinary research. The project further invited guest researcher practitioners Philipp Ehmann, Mariella Greil, Dennis Johnson, Anne Juren, Krõõt Juurak, and Christian Schröder as experts of facilitation in the fields of choreography, visual and sound art, art therapy, game/play, and mindfulness. Their participatory practices and approaches share the common denominator: placing the participant at the center.

04
Gry Worre Hallberg describes how in 2014, the performers of the Sisters Academy, a Danish-based performance art, activist, and research project, merged with 200 students and 20 teachers of an educational institution in Odense, Denmark, where the Sisters Academy made their first intervention.

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In this paper, we are looking at the facilitation of artistic participatory encounters through the lens of social cognition. We specifically apply the concept of participatory sense-making (PSM) to describe and develop our findings. Based on our findings in this practice-based research setting, this paper will also elaborate on how social cognition can be expanded through artistic research. We are aware that the interrelation between the situation and the participant is complex and needs to be addressed, for instance, in relation to degrees of immersion. In some situations, the roles of the performer and audience resolve. There was "no audience only different levels of participation" (cf. Worre Hallberg 2017, p.132).[4] Based on the theoretical framework that Ruth uses in her ludic and systemic approaches, we also considered how the concept of the 'magic circle', borrowed from game theory, supports immersion. The magic circle describes how the framing of a game draws a line around a situation where other rules are established, even if reality continues parallel to the game.

Research on participation often focuses on the participant account; see, for instance, Sarah Hoghart and Emma Bramly's text on one-to-one performance (Hoghart/Bramly 2017, p. 137–142). In WITHDRAWING THE PERFORMER, we are researching the facilitator. When focusing on the facilitator role, we are investigating tools and approaches for modulating participation. When examining facilitation, our thinking was supported by performance studies researcher Astrid Breel's distinction between "processes" and "participatory outcomes". Participatory outcome results from a work "[in which] the artist has created a pre-determined structure that the participants contribute within; their participation *is* the performance" (Breel 2017, p. 37). Participation as a process, on the other hand, invites the audience/participant to co-create the performance. By examining how the facilitator plans for participation and how they are engaged in a constant live modulation of relations, we hope to articulate and create an understanding of how this artistic knowledge can be trained, practiced, and transferred to other areas of social exchange.

Participatory Sense-Making

Francisco Varela, Evan Thompson, and Elanor Rosch offered a theory of embodied cognition to understand the coordination of action as modulated by one's own body and the modulation being informed by one's perceptions of the expressiveness of another body (cf. Francisco Varela et al. 1991; cf. Lakoff and Johnson 1980; cf. Shaun Gallagher 2005). They specifically emphasized the importance of the embodied action as a foundation for the interaction process itself, later refined into what is known as 'enactive cognition.' The enactive perspective of cognition is a sort of "non-reductive naturalism" that views cognitive processes as deeply entangled with action, i.e., making sense of the world arises from how you enact the world—cognition is a form of practice in itself (cf. Di Paolo 2007; cf. Thompson/Varela 2001; cf. Varela et al. 1991). Cognitive and psychological theories on the mind and bodily inferences, intentions, and the general ability to understand others culminate into a comprehensive schema for understanding the significance of participation within social cognition.

For WITHDRAWING THE PERFORMER, we focused on Hanne De Jaegher and Ezequiel Di Paolo's concept of participatory sense-making. Grounding their ideas within the enactive approach, they offered a new approach to understanding social interaction (cf. De Jaegher/Di Paolo 2007). Similar to the key principles of the enactive approach, participatory sense-making is an inherently active process: the environment needs to be acted upon for meaning to arise (cf. De Jaegher/Di Paolo 2007). De Jaegher and Di Paolo define participatory sense-making as

> [...] the coordination of intentional activity in interaction, whereby individual sense-making processes are affected and new domains of social sense-making can be generated that were not available to each individual on her own. (De Jaegher/Di Paolo 2007, p. 497f).

Participatory *Sense*-Making and Participatory Performance Practices

IMANI RAMESES, CHARLOTTA RUTH, JASMIN SCHAITL

To understand the subtle but essential notion of moving from individual sense-making to social sense-making, one must look at what De Jaegher and Di Paolo consider two determining factors for participatory sense-making: 1) understanding what constitutes an interaction to be a coregulated and autonomously processed e.g., walking on a sidewalk without bumping into each other, and 2) understanding how meaning and meaning-making are generated from cognitively engaging in the interaction itself, e.g., the process of collaborating with someone without using words.

For WITHDRAWING THE PERFORMER, we initiated our collaborative research with a re-contextualization of the main researchers' practices by focusing on the character and degree of participation in previously realized performative works. We shared our practices, actively and retroactively denoting the qualities and emergence of each respective participatory element. This first phase was tightly co-shaped in collaboration with Rameses' knowledge of neuroscience and cognitive sciences. This led us to extend our vocabulary for participation within artistic participatory formats using concepts from social cognition. In a second step, the practice-based peer-to-peer exchange took place with invited artist-facilitator experts Ehmann, Greil, Johnson, Juren, Juurak, and Schröder. During two intensive laboratories, we examined the vast realm of performative, artistic methods and frames that invite participation to which principal researchers and guest researchers contributed. Each lab consisted of four consecutive days, where Ruth and Schaitl shared and experienced their participatory practices en vivo, together with the invited guest research-

ers. Based on this exchange of practices, each researcher took the role of both facilitator and participant in the other facilitators' practices. This research environment enabled us to carefully and critically reflect upon different approaches that allow participation while also enabling enough time to experiment and expand ideas that arose on-site when the different practices met. We investigated how voluntary or agreed actions unfolded and how to balance gestures of inviting, guiding, and facilitating in order to observe as well as enable the process of sense-making. Through phenomenological interviews, we further tried to grasp the active and spontaneous decision-making and sense-making process at play when we were facilitating. These interviews were conducted by Rameses. Her interviews took a phenomenological look at each researcher's practice (guest experts and main researchers) by inviting them to share more insights about their respective practices. PSM was then used by Rameses, Ruth & Schaitl as a lens to understand different facilitator methods for reducing thresholds and modulating the participatory situation. In other words, with the help of PSM as a lens, we were mapping artistic tools for preparing the space; devising methods of caring for or nudging participants through different approaches; and collecting concrete examples of how people can enter the experiment in a state of comfort, curiosity, flow, or in some cases, urgency and immersion. We specially became curious in how the facilitator can create a space for potential contingent sense-making. Returning to the opening case study by Philipp Ehmann, using the lens of participatory sense-making, the interaction could be understood in the following way:

Rules/Logics: Active Coupling Regulation and Maintaining Individual Autonomy

A) Active Coupling Regulation:

De Jaegher and Di Paolo suggest active coupling occurs between individuals when one, or ideally both, individuals are regulating how said coupling occurs (De Jaegher/Di Paolo 2007, p. 490). For example, in the opening case study, there is an active coupling supported through the regulation of the interaction between participants and the situation, i.e., between participants themselves and the person in the chair that reacts when the chair is moved, for example. This interaction gives the participants feedback on whether they are getting closer to solving the participatory riddle and allows them to actively regulate how they engage with each interaction. Though engaging with the clear aim of solving the riddle, the participants are engaging in a more process-like participation where the common figuring out becomes the performance experience — not only the goal.

The role of the facilitator: The facilitator is, in this case, not actively regulating the interaction. Instead, they are attentively observing how the interaction unfolds from the side, ready to step in only if needed. In fact, the facilitator has consciously chosen to limit their interaction to initial instructions and silent co-presence.

B) Maintaining Individual Autonomy:

Sustaining individual autonomy occurs when the process itself has some form of temporary autonomy. In the case study, autonomy is highly sustained because the facilitator is not controlling the actions of the people. Although the autonomy of the interaction may induce a change in the gradation of individual autonomy, the autonomy of the individuals must also be secured (De Jaegher/Di Paolo 2007, pp. 492f). Individual autonomy is sustained with the interactions through each individual's implicit agreement to remain a participant. This is demonstrated through their continued engagement in the practice (the interaction) rather than quitting and leaving the room.

The role of the facilitator: The facilitator's role (facilitator's autonomy) has been transported onto the instructions (a sheet of paper with a pair of eyes on it and the black tape indications in the room) and implicitly subsumed by the participants and their own decision-making processes. The facilitation has also taken place prior to the situation; planning of the rules, the clues, and the space. The peripheral position of the facilitator, the almost-withdrawn-performer, provides the participants with a frame where they are encouraged to actively engage with the task as there is no role model indicating the process of sense-making.

When looking at the two rules above in the context of participatory performance practices, we noticed that the degree of participation and the emergence of sense-making is predicated on the implicit and explicit parameters introduced by the facilitator. This situation would have played out differently if the facilitator had chosen to engage with the participants rather than remaining an observer off to the side. Thus, we recognized that this simple choice (of the facilitator) to allow the sense-making to arise between the participants and the situation is crucial for it to turn into an interaction that constitutes itself by how the participants themselves choose to engage, play with and relate to the given circumstances.

De Jaegher proposes that in situations like this, relational patterns linger on. "Even when no other is immediately present, we engage in relational patterns that affect our sense-making and are affected by it, such that a social interaction is sustained over time" (De Jaegher et al. 2016, p. 8). For example, waiters are often polite to their guests in the restaurant; however, this overt politeness may transfer to other settings — informing their interactions outside the restaurant. Individuals embed and utilize their previous understanding of social contexts to engage in new social contexts.

Thus, as long as the person intentionally shapes their interactions through previous social experiences and presuppositions, this person engages in participatory sense-making. We were curious to know, however, which factors enabled such interactions. And what happens when the logic of a situation moves beyond everyday interactions, as is the case in play and art?

> If we accept that games can be regarded as systems, then we should also regard players as system thinkers who play through making sense of things, consciously and subconsciously interpreting meanings and establishing relationships [...] (Fabricatore 2018, p. 88)

During our practice-based research in the peer-to-peer labs, interactions such as a one-to-one engagement between a person and a situation occurred. From an artistic perspective, it brings attention to how materials, immaterial materials (e.g., time) and spatial set-up prepared by the facilitator, facilitate sense-making, causing questions to arise such as: What happens when participatory sense-making occurs between one person and a situation itself rather than only through person to person interaction? Let us use the PSM logic to take a deeper look again at the opening case study by Philipp Ehmann, but this time as a hypothetical interaction between one participant and the situation:

Rules/Logics: Active Coupling Regulation and Maintaining Individual Autonomy

A) Active Coupling Regulation:

The coordination and, consequently, the co-regulation between the participant and the way they choose to interact occurs in the space, the tape on the floor, and the person in the chair. The participant is regulating the interaction through self-regulation influenced by the feedback received from the interaction itself (cf. De Jaegher et al. 2016). However, the person in the chair has, inside the magic circle drawn up by the facilitator for the situation, become embedded within the performance itself. They only engage with the participants through a distinct set of rules, providing us with a good example of how sense-making is not occurring between two agents, but rather between the participant and their responses to the consequences of their own decisions. The following question re-appears: What enables participatory sense-making between a participant and a situation? Here, from the perspective of game theory, we can ask: How is the facilitator drawing the 'magic circle,' and how does the logic of this specific rule allow for a shift of participatory engagement? We also can observe that through sense-making between the participant and their responses to the consequences, the performance engages in a participatory outcome that needs the participant to actively engage.

B) Maintaining Individual Autonomy:

Individual autonomy is sustained. Still, the participants' role has been transformed into being a performer or (en)actor. As a performer, they are active in solving and testing the limits of the situation, modulating their ways of engagement, eventually rendering them to become a part of the performance themselves. Their involvement is becoming the outcome (cf. Breel 2015), a sort of product or artistic object of what is experienced. A new question arises: How does role ambiguity affect the sustaining of individual autonomy which consequentially impacts the capacity and the nature of how sense-making can arise within an interaction?

Expanding Participatory Sense-Making

De Jaegher and Di Paolo argue that "encounters are not social if an interactor's autonomy is lost" (De Jaegher/Di Paolo 2007, p. 495). WITHDRAWING THE PERFORMER acted as a research environment from which to look at how autonomy is facilitated within each participatory, performative practice of the six invited facilitator experts and two main researchers. During the examination of each participatory performative practice, we came to recognize that we must extend the demarcations of what De Jaegher and Di Paolo define as 'social interaction'—i.e., to what degree role autonomy is sustained and how to account for interactions between participant and situation—in order to highlight and underline the artistic research quality and essence that re-informs an applied practice-research for theoretical contexts. To get an idea of how these unaddressed fringes of social cognition became revealed, we'll take a look at a few more of the participatory performance practices that, after the labs, were shared in a public series of four Saturdays at Angewandte Performance Lab and Künstlerhaus Vienna in October—November 2022:

Example A — Krõõt Juurak — Choreographer, Performer

Krõõt Juurak shared their participatory practice, *Performance Therapy.* It was attended by students and researchers of the University of Applied Arts Vienna as well as artists from the free scene. Krõõt Juurak's *Performance Therapy* invited us as participants to attend the interaction through becoming more than ourselves. Instead of the expected format of a name round, we were invited to pick 1) a name, 2) a pronoun, 3) a present mood, and 4) a future desired mood. Each participant voiced their new identities, and Juurak wrote them onto a flipchart for everyone to see — carefully spelling names and pronouns correctly. Something important happened right before this introduction. Juurak told us a more personal anecdote of an invisible child, a character in Moomin (which Juurak afterward explained was a spontaneous idea). The anecdote invited us as participants to welcome insecurities or enter a situation with a more open attitude. We believe this loosened the role autonomy between the facilitator and us participants.

As previously mentioned, we used phenomenological interview methods, mostly informed by microphenomenology,[5] to interview each facilitator after they shared their practice. In the public series, these interviews were conducted with the participants being present. Juurak's perspective on this specific moment of their facilitation looked the following way:

> I started the session by explaining what Performance Therapy is, and that I do not actually fully know what it is, but basically it is doing things (tasks) and expecting the tasks to work on us therapeutically. Then I told a little story about how, when I was supposed to plan for this session the same morning, I instead started watching Moomins with my 4-year-old kid, and how the content of it blew me away — the episode was about a child who had become invisible because their care-taker had been overly sarcastic. […] Then I proposed to go in a circle, like in a workshop where everyone will state their name.

Krõõt Juurak, written record of the practice contribution "Performance Therapy" in the frame of WITHDRAWING THE PERFORMER Saturday series October-November 2022 Angewandte Performance Laboratory, Vienna, 2022.

Again, Juurak's spontaneous personal inserts, along with their practice of renaming, affected how much the autonomy of the participant and the facilitator could be maintained. Within participatory, performative contexts, questioning or putting identity at play is often theoretically connected to Judith Butler's concept of the performativity of Gender. To use identity as a participatory process tool, however, is also an established practice within gaming and role-play where you create gaming identities or enter into a character. To us, Juurak's example challenged our perspectives on what identity means and to what degree a fixed notion of identity is necessary for social interactions. With the lens of PSM: It questions to which degree a fixed identity is needed for a social interaction to create sense-making. De Jaegher and Di Paolo mention that identity informs one's sense of autonomy and that we must recognize which identities are at play within each "interactor" (De Jaegher/Di Paolo 2007, p. 495). Within participatory, performative practices, it often becomes rather difficult to recognize which identities are at play when the facilitator is purposefully ambiguating said identities. Perhaps the more meaningful recognition is then to question: what type of sense-making can occur when identity becomes a malleable material for the interaction? What happens to autonomy when we are inviting in other identities and possible non-identities?

05
Microphenomenology is a qualitative interview method used to acutely analyze lived experience.

From a Facilitator's Perspective

IMANI RAMESES, CHARLOTTA RUTH, JASMIN SCHAITL

Additionally, using the interactions inside participatory performance as an example, it becomes clear that 'making sense' is dependent on active feedback between the situation and the participant, which again expands the meaning of maintaining autonomy. The tools used by the facilitator of an artistic encounter often establish situations in which novel understandings and experiences of sense-making can emerge. The social encounter develops based on who the participant actively becomes within the frame (magic circle) established by and in relation to the performative situation. This artistic perspective illuminates how interactions in more everyday social situations cannot be looked upon as fixed relationships. If we treat identities not as fixed states but rather as states of becoming, the interaction transforms into expanded domains of relational dynamics. Here, it is interesting to think about how Bruno Latour has criticized the name of the Actor-Network Theory (ANT) for expressing something static where, when understanding interaction, it needs to be kept in motion.

> Being connected, being interconnected, being heterogeneous, is not enough […] It's the work, and the movement, and the flow, and the changes that should be stressed. (Latour 2004, p. 63)

Participatory practices demonstrate the interworking interplay between how social situations unfurl and eventually take shape, taking place as temporary and sometimes fictive situations in the social world. When actively moving in and out of these temporary belongings, the everyday social environment also becomes more tangible by resonating with the experiences in the magic circle of participatory situations, forming a more nuanced understanding of what makes up "the social."

Our Contribution
Nontrivial Effort, Immaterial Material Exchange

As demonstrated above, when examining participation by applying PSM theories to participatory performance practices, there may be room for expanding the ideas of participatory sense-making to include unique circumstances, such as role-ambiguity and participant-situation interactions. Based on our artistic and practice-based research, we began expanding the PSM logic by focusing on two important interaction parameters: 1) Nontrivial Effort and Immaterial Material Exchange as two key areas of interest for guest researchers reflecting on enigmatic interaction experiences. 1) What happens when participatory sense-making arises between a participant and a situation? 2) How do role ambiguity and responsibility affect individual autonomy, which consequentially impacts the capacity and the nature of how sense-making arises in interactions? We suggest that these two parameters, that emerged from within the frame of participatory art practices, not only answer our questions but prove influential to the understanding of interaction dynamics in other fields.

Nontrivial
Effort

IMANI RAMESES, CHARLOTTA RUTH, JASMIN SCHAITL

It's often not easy to delineate to which degree an individual has controlled, contributed or shaped an experience—rather, our experiences we make when attending artworks move in an ebb and flow of collective singularity. However, the sense-making we experience, the grasping of logic, relates to the feedback loop we engage in when participating. By this, we mean the feedback between what we contribute and how this contribution in turn shapes the situation, or, to put it in other words, the coupling regulation. In other writings on participation, "agency" is also discussed (Breel 2017, p. 55ff). Agency, as argued by Breel, however, does not include reciprocity. Agency can be given, but being given space to do something does not automatically encompass how it logically contributes, is embedded in, or even affects the situation. To better understand sense-making, we borrowed the term *nontrivial effort* from ergodic literature—literature that requires nontrivial effort to traverse the text (cf. Laitinen 2022). The term was initially introduced by Norwegian literary and game scholar Espen J. Aarseth and describes a text that requires readers to be engaged unconventionally, beyond the inevitable eye movements and occasional page-turning (cf. Aarseth 1997). From the perspective of facilitating a participatory experience, the author has, in ergodic literature, left space for the reader to actively engage in co-creating the text and meaning-making.

Inspired by this literary genre, we suggest that nontrivial effort are at the core of participatory sense-making. The facilitator engages the participant to a degree that has a concrete effect on the outcome, turning it into a process. In other words, the degree of contribution or nontrivial effort towards the situation or experience increases sense-making. From a facilitator's perspective, this largely means letting go of control for the exact outcome and entering more process-oriented participation, co-creating the situation with the participants. However, this remains a fine modulation between the facilitator and the process at play. If we, in the opening example, imagine not only withdrawing the facilitator to the periphery but also deciding not to care about the rules, sense-making is broken.

In the opening case study, nontrivial effort is required for the participatory element of the situation to evolve into a co-created experience. Nothing happens if the participant does not engage in or put forth the effort. At the same time, if the participant invests effort without receiving feedback from the situation, the participant might quit the interaction, and sense-making ceases to occur (a simple example here would be pushing a button without any effect). The situation depends on the (non)-trivial effort of the participant, and the participant depends on the (non)-trivial feedback from the situation—"a codependent relationship" (Laitinen 2022).

Example B — Anne Juren, Choreographer, Feldenkrais Practitioner

Juren shared one of her *fantasmical anatomies* lessons during the first lab. While lying on the ground, with eyes closed, Juren's voice, amplified through speakers, guided us as participants into bodily sensations, formations, abstract or sometimes absurd and surreal feelings, expectations, and reconfigurations. This verbal guidance connected touch and imagination and invited mind drifting.

Obviously, it is essential for participants to make an effort to enter the imagination and stay tuned to the audible voice. At the same time, if the participant actually puts effort into following or does not follow the voice's imaginative guidance, it does not affect the outcome for other participants from an outside perspective of the facilitation. Guidance into one's own imaginative realms of body and mind happens mostly within the participants' body and mind complexity. Interestingly, one could argue that a pre-recorded fantasmical anatomy lesson works in the same way as a live lesson. Juren explains, however, that her live voice guidance is crucial and is each time adapted and transformed in accordance to how she can sense and adapt her guidance in the very moment, verbally and non-verbally, adjusting to tones or pauses, to support the participants' mental travel. Therefore, not only her voice, but also her presence acts as a force that holds space and supports the growth of nontrivial effort from the participant. Such a live lesson implies a co-dependent relationship between participants and facilitator, as in the opening case study.

Juren's perspective on her facilitation when asked if there is a way to describe how this connectedness with the participants is initiating:

> When it affects my own body. Repetition, feeling the white floor, feeling the density of the walls. It's not easy to cross over. I was doing this thing on my own and when we start to have a specific texture in the context we are in, I feel that is the moment when something starts to work — I am at work as much as the people. Anne Juren (interview 18.05.2022, excerpt)

The presence offered by Juren's facilitation holds the space for the participants to feel that they have the freedom to drift while also feeling like their mental imagination and its wanderings are valuable to the experience — a nontrivial contribution to the performance. Juren's practice shows how pivotal it is for the feedback loop between the facilitator, participant, and situation to be interconnected. The facilitator is the enabler of the situation while, at the same time, allowing it to be porous enough that the participant is able to make sense of the encounter using their own potential — an exemplary demonstration of co-creation.

Immaterial Material

We, the two main researchers, encounter and engage with what we call "immaterial material" through our experience of working in performative art contexts. In dance, for instance, both time and space are very crucial elements for composition, even if we cannot touch them as material objects.

Example C — Philipp Ehmann, Theatre Maker and Transdisciplinary Multimedia Artist Working with Playful Methods

Philipp Ehmann responded in the following way when interviewed on how he facilitated the situation of the opening case study explained:

> You need to structure time in a way that allows for an uncommon arrival at where you need to be emotionally and physically. Slowly the time frame it requires to negotiate a space maybe makes it easy to negotiate and access another space. For me as a facilitator, time stops. […] Time for the people in the immerse is different from time for the facilitator.
> Philipp Ehmann (interview 22.06.22, excerpt)

There is a nuance that rests not only in how the facilitator's words are presented but also in how the facilitator's guidance builds, gives, and holds space, consequentially creating a whelm that affects how immaterial material arises within the minds and bodies of the participants.

For example, in literature, the subtext can be considered as immaterial material. The situations invite the reader into an active thought process. Similarly, in participatory art, the relationships between visitors as well as their reactions, imaginations, and/or thoughts, become material ingredients informing the way the performance progresses. In a participatory, performative event, the visitor or participant arrives as a physical being with individual backgrounds, thoughts, and life circumstances that affect how a person reacts and responds to the given situation. One can think of it as if everyone brings an individual potential subtext along.

Therefore, to suggest that immaterial material, such as the planning of time, enables sense-making within the subject-situation interaction, we must be aware that the subject is already in an active and ongoing participatory sense-making with themselves before encountering additional influences from the performance situation. Considering such preluding and arguably provisional states, we turn towards affect theory as a lens from which to conceive the potentialities of immaterial material before and after the performative situation. We consider them to be "forces in the in-betweenness and residing as accumulative beside-ness" (Seigworth/Gregg 2010, p. 3). The subject then acts based on those forces that were present before entering the performance, which then informs those forces that are generated and engaged with during the performative encounter. The meeting of forces (the foregrounding force of the subject and the performative force of the situation) occurs and incrementally generates what affect theories call the plane of potentiality—within that plane, the countless potentialities of sense-making wait to emerge.

The individual, emotional, and social package that each person brings into a participatory setting is an unpredictable, vivid, transformative element that is sensitively handled by the facilitator by inviting, providing space, and working with flexible planning that is open toward the contingency of the participants' contribution. The way in which the facilitator invites these particular immaterial materials influences the initial ability of the participant to feel invited to engage with the situation and the role ambiguity they may elicit. The immaterial material here must work directly and immediately with the participants or as a support for the participants to linger so that role ambiguity does not become overwhelming and/or disorienting. Otherwise, the person will perhaps become frustrated and lose the desire to interact. This initial immaterial material elicitation sets the situation and makes space for the participants' minds to make their own connections, eliciting the participants into a motivated approach toward participating in the practice (cf. Eysenck 2013; cf. Bandura 1999). The facilitator's job is to, through instructing with time, space, props, words, body, … resolve or play with the creation, questions, and negotiation that happens in the mind of the participants. As in any social interaction, a participant will be more perceptive if they can relate and understand how to engage. The complexity of how relational immaterial material is elicited from the facilitator as well as from the participant informs the nontrivial effort required to engage in the practice. In the second step, this influences the choices made within the encounter.

Thoughts on Participant-Situation Interaction

De Jaegher introduced ideas of social interaction to mean:

> [...] if there is only interactional organization, we cannot yet speak of a social interaction. Similarly, if one of the participants completely dominates the interaction, we are not dealing with a social interaction (it would be like interacting with an object, not with another subject) (De Jaegher et al. 2016, p. 6).

The PSM approach could benefit from an expansion into more hybrid subject-object relationships. The participant is not merely interacting with the objects in space or the facilitator's instructions. The participant is engaging with the situation and their own decisions. The idea does not speak against the concept of participatory sense-making; both De Jaegher and Goffman argue that the interaction does not require another subject to be physically present because the social norms are so pervasive that usually, people continue to behave socially "appropriate" as if someone was present (cf. De Jaegher 2016, cf. Goffman 1956). Even if you are alone in a subway you would still tend to behave the same way as if you were not alone. This is due to the social environment you find yourself in and that you are used to, no matter whether someone is actually physically present. However, De Jaegher and Goffman have not done extensive research into what type of social interaction is at play when these types of participant-situation interactions occur.

Conclusion

Through the practice-based experiences inside the two labs and the public series of four events, this research project aimed at learning more about facilitating participation. What is especially noteworthy is the situation when a facilitator moves to the periphery. In this case, the sense-making is generated through the situation, and a more process-based participation is enabled. This project led to an applied and directly experienced understanding of PSM. As artistic research always grows from and is nourished through an existing artistic practice, it is often transformed back into an artistic expression (in various media and artistic formats). What we have discussed in this paper is also being applied in the facilitations we practice on a regular basis. Our research, therefore, remains vivid and can address open questions and temporary conclusions. This constant movement of applying, experiencing, reflecting, adapting, and reconfiguring is what artistic research, embedding scientific research, such as our project, can actively contribute to a wider and more complex application of PSM. This is where we see potential, not only in relation to the concept of PSM, but also for interdisciplinary research embracing artistic research.

When coming across relevant ideas on De Jaegher and Di Paolo's concept of participatory sense-making, the framework undoubtedly supported us in creating a certain analytical distance from which to understand participation. At the same time, we are surprised to notice that many researchers speak on social interaction without operating on a socially engaged level. This may be because participatory sense-making is difficult to embody within scientific methodologies due to their self-demarcated objectives and empirical claims and limitations. As demonstrated in this paper, participatory performative practices can function as an excellent research environment for understanding what constitutes the "social." The necessity of artistic research to be included in the discourse on social cognition — to broaden, extend, and also apply new methods into scientific and cultural contexts is thus urgent.

As of now, social cognition and, specifically, cognitive science comprises six dominating fields: philosophy, psychology, artificial intelligence, neuroscience, linguistics, and anthropology. Gentner argues that cognitive science was, is, and should continue to be pluralist (cf. Genter 2019). Pluralism, in this case, means including many different fields of science without hegemony. As proposed by Mark Dingmanse, "interaction constitutes cognition" (Dingmanse et al. 2023, p. 2), this would mean that to comprehensively understand what it means to cognate, researchers themselves must learn how to interact and integrate multiple perspectives into their work. This is what we continuously train through performative practices. The notions of participation, social, and interaction would benefit from a truly interactive discourse where we make sense of social cognition with more transdisciplinary methods. We propose that a fully pluralist framework would embrace many different fields of research, including artistic research.

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