

Destabilised Composing

Re-thinking instrumental practices

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I hereby declare that the work presented in this thesis has
been carried out by myself except as otherwise specified.

Signed,

Abstract

Destabilised Composing is a practice based research project, conducted as part of a PhD in music composition, that rethinks the practice of instrumental composition through defamiliarizing some of its elements. This study examines dynamics of defamiliarization, alienation, and estrangement within an ecology of musical practices, emerging from my own studio work that encompasses composing for, developing and making instruments, and attending to the spaces and places they resonate in. Finding alternative relationships within each of these niches assists in revitalising the notion of composing, along with the figure of the composer. To examine these ideas through practice, this dissertation is accompanied by a portfolio of nine works that embody this re-orientation, six of which are discussed in detail. In alienating the notion of space and place in music, site specificity is addressed through spatial elements within the works, interventions in ‘aural architectures’ of performance spaces, as per Blesser and Salter, and the usage of field recordings as a compositional device. Instruments are defamiliarized through unconventional use, preparation and creation of entirely new ones, thus demonstrating how novel ergodynamics of experimental musical instruments allow for a different experience of musicking. Aligned with Brechtian principles of alienation, these methods uncover musicians’ operating mechanisms and diverge from traditional performance practices. These approaches estrange the notion of composing, subvert habitual modes of new music making and extend it towards broader art making practices, collaboration and interdisciplinarity. The included portfolio works follow Oliveros’ call for ‘auralization’ in embracing non-ocular approaches to dealing with sound, and showcase how incorporating new, altered instrumental, notated and site-specific elements transforms the practise of composing music, resulting in aesthetically diverse, enriched and interdisciplinary works. This research wishes to inspire practitioners to consciously navigate the ecology of their musical practices by providing insights into the potential of defamiliarizing these elements within creative endeavours.

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¹ Even though this text was finalised in the aftermath of the Hamas terror attack on October 7th 2023 and the war that followed in the Middle East, it was researched and written much earlier. Living daily through the geopolitical, collective and personal-emotional shockwaves which the war has caused, I feel unable to comment on these recent developments and I am leaving these discussions as they are, knowing all too well that they are now read differently, as a testimony for how quickly volatile realities and places change.

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PermaBears (2021) - for Saxophone, Cello and fixed media

Premiered on 22.8.2021 by ensemble Mosaik at Acker Stadt Palace, Berlin

Lessons from the spine: Ivsha (2020-21) - for Flute and fixed media

Premiered on 15.8.2021 by Roy Amotz at Shalom Music Festival, Cologne

The Imaginary Conservatory (2021) - for trio on *Alufon-Virginal*

Premiered on 3.7.2021 by ensemble FICTA at Tzlil Meudcan Festival, Tel-Aviv

Top-Game (2019) - for ensemble and live-video

Premiered on 3.11.2019 by ensemble MusikFabrik in WDR Sendsaal, Cologne

Playing with our Hearts (2019) - for people and papers

Premiered on 3.11.2019 by school children from Cologne in WDR Sendsaal, Cologne

Sirena (2018-9) - for quartet and fixed media

Premiered on 10.2.2019 by ensemble Ascolta at ECLAT festival, Stuttgart

7 Walks in & around Blitzdorf (2018) - for quintet and a sound sculpture

Premiered on 31.10.2018 by ensemble Zafraan in Archive Kabinett, Berlin

Groundwork Θ (2017) - for 12 players and fixed media

Premiered on 2.12.2017 by Israeli Contemporary Players at Tectonics Festival, Tel-Aviv

² The accompanying portfolio can be downloaded here:

<https://www.dropbox.com/scl/fo/7ogkdnlo4z966bm1gob49/h?rlkey=frdbz34odc02qbhaa7r4ghdvq&dl=0>
Or listened and viewed here: www.kaddari.net

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allow thine own intellect

to melt away gradually,

beginning from the extremities.

— The Tibetan Book of the Dead

Introduction

This PhD project is an attempt to trace, map and destabilise processes of composing music, re-thinking this practice by defamiliarizing elements within it. This exploration of different connections within an ecology of musical practices³ emerged from my own studio work which involves composing for, making and developing of instruments, and attending to the spaces and places in which they resonate using various ways of scoring these compositions. In each of these niches, sets of affordances within this environment,⁴ alternative relationships are established. They are maintained by dynamics of defamiliarization, alienation and estrangement in order to revitalise both the notion of composing, as well as the figure of the composer.

Auralizing Composing

This investigation is initiated by considering a most private niche - the nook of the inner ear and my personal desire to experience subtle sounds I often hear inside my head - externalised in the outside world. This need for sonic manifestation, finding ways to realise imaginary internal sounds with available means, has been for me a driving force behind decades of practising methods of organising sounds,⁵ composing and improvising, yielding along the way and in various degrees of success, compelling and often substantial results. My formal training as a composer initially drew heavily on serial procedures, almost a hundred years after their modern formulation by Arnold Schoenberg, permuting notated twelve tone rows as guides prior to composing within the “dimensional space in which musical ideas are presented”.⁶ Fittingly, Schoenberg’s metaphor for creation is the instantaneous moment in which the monotheistic god made the primordial light by his speech, reifying the divine romantic paradigm where a creator must envision something original that is brought into the

³ Randall Harlow, “Ecologies of Practice in Musical Performance,” *MUSICultures* 45, no. 1-2 (2019): 215-237, 217, <https://journals.lib.unb.ca/index.php/MC/article/view/28942>.

⁴ James J. Gibson, *The ecological approach to visual perception: classic edition*, (Psychology press, 2014), 120.

⁵ Christoph Cox and Daniel Warner, *Audio culture: readings in modern music*, (New York: Continuum, 2004), 18.

⁶ Arnold Schoenberg, *Style and idea: selected writings of Arnold Schoenberg*, ed. Leonard Stein, (Berkeley, CA: Univ. of California Press, 1984), 115.

world by the power of this vision.⁷

A vision, or the act of rendering visible, lies at the core of *fantasy* - a word of Greek origin that denotes, in Ursula le Guin's words, "an appearance... the faculty of imagination... a whim".⁸ It is a substantial whim, as for her imagination is a fundamental mode of thinking.⁹ However, could such a mode accommodate a less visually oriented form of fantasy? Perhaps a kind of auditory imagination which is not based on ocular metaphors would better suit the conceptualisation of composing as the realisation of internally conceived sounds.¹⁰

In a short and poignant text, Pauline Oliveros outlined such an approach by adopting the term 'auralization', coined by architect Mendel Kleiner, in order to escape this reign of optic within her thought.¹¹ Oliveros suggested that while 'imagination' generally denotes an internal mental projection across all senses, there is a cognitive dissonance in using such a visual term for the process of sounding internally. Hence 'auralization' is "apt for referring to inner sound and sounding, or sounds and sounding perceived subjectively through inner listening".¹² Offering a vocabulary fit for speaking about not-yet-acoustic sound, auralization directs language towards the different sensibilities involved with sound's subjective internal projection, while stressing the importance of our ears and bodies as the enabling apparatus. At the same time, this neologism also draws attention to the ocularcentrism embedded in 'imagination' as a concept. Oliveros' subtle provocation alienates the conventional notion of creative process and foregrounds a different, expanded way of thinking of composing.

In a similar fashion that 'auralization' alienates 'imagination' by offering a non-ocular vocabulary to engage with sound, bringing to awareness its corporeal aspects, Isabelle Stengers' notion of an 'ecology of practices'¹³ may draw attention to composing's embeddedness within a broader creative environment. Stengers builds upon Brian Massumi's

⁷ Ibid., 102.

⁸ Ursula K. Le Guin, *The Wave in the Mind: Talks and Essays on the Writer, the Reader, and the Imagination*, (Boulder, CO: Shambhala Publications, 2004), 60.

⁹ Ibid., 278.

¹⁰ For the effects of technology on auditory imagination see: Don Ihde, *Embodied Technics*, (Automatic Press / VIP, 2010).

¹¹ Mendel Kleiner, Bengt-Inge Dalenbäck, and Peter Svensson, "Auralization-an overview," *Journal of the Audio Engineering Society* 41, no. 11 (1993): 861-875.

¹² Pauline Oliveros, "Auralizing in the Sonosphere: A Vocabulary for Inner Sound and Sounding," *Journal of Visual Culture* 10, no. 2 (August 2011): 163, doi:10.1177/1470412911402881.

¹³ Isabelle Stengers, "Introductory Notes on an Ecology of Practices", *Cultural Studies Review* 11, no. 1 (12 August 2013): 183-96, 184, doi:10.5130/csr.v11i1.3459.

idea of a political ecology to reflect on the habitat, or the context of practices as they co-become.¹⁴ In the same way that each living species is unique, she argues that no practice is like any other, therefore the specific context frames and circumscribes the labour and the methods undertaken in any given one. Thinking about practices through and in relation to other ones gives rise to a more ecological way of thinking, aware of their multiple connections and exchange. When working inside a context, a practice should seek to recognise its borders and push against them in order to re-establish these very borders. This concept relates to practices not as they already are, but rather as they may become, looking for new possibilities for them to be present and to connect. Building on Spinoza, Stengers notes that while we cannot know what a practice could become, we do know that the way we define or address a practice is never separate from its surroundings.¹⁵

When applied to the domain of composing, the ecology of musical practices recognizes that the practice of organising sounds is a multi faceted process. In my studio work, it is produced by engaging with different musical instruments - whether through playing with, preparing or making them - along with walking and recording in places, reading, writing, editing, scoring, mixing and, crucially, continuously listening and auralizing. Each is a distinct niche within this broader ecological framework, and this current project seeks to reorient the practice through altering these various elements. This is done by thinking ‘through their middle’,¹⁶ meaning - without a grounding definition of composition other than the endeavours it involves. As such, this concept allows for a necessary destabilisation of the practice, rethinking it in relation to other practices and connecting its different niches in new, stimulating ways. This PhD research embraces a conception of instrumental composing as a process that begins with a conscious focus on auralizing sound and grows through dynamic interactions, connecting a plurality of ideas, places, instruments and collaborators in renewed engagements that challenge and redefine the boundaries of the practice.

¹⁴ Ibid., 183.

¹⁵ Ibid., 185-6.

¹⁶ Ibid. 187.

Research Questions

This research focuses on how my musical practice utilises diverse methods of composing as a means of defamiliarizing relations with musical instruments - through exploring new instrumental affordances,¹⁷ and with spaces - by un-habituating their perception through music making attuned to specific places or times. The objective of this project was to develop such means of creating work - tools, methods and processes undertaken, through a portfolio of compositions and a written reflection.

Respectively, the works commented on in this dissertation are driven by three clusters of questions, spiralling inwards. The first cluster begins by addressing space and place. In order to be heard, Sound requires a medium to travel through, and composing, playing and performing are always situated, taking place somewhere.¹⁸ In organising sounds and events through space and time, internal, mental and imaginary places interfere and intermingle with external, physical, acoustic and politicised ones. Which raises the question: How might composed music defamiliarize a given space or a place?

The second cluster addresses instruments. When composing instrumental music, the instrument is the main agent which affords and limits the possibilities for sonic manifestation.¹⁹ While the interface between the playing body and a traditional or established musical instrument is often a result of a decades long relationship, new experimental musical instruments provide a fresh ground for new ergodynamics and forms of relation.²⁰ The questions asked are: How do novel ergodynamics of experimental musical instruments allow a different way of experiencing musicking?²¹ What changes and what is kept the same?

The third cluster revolves around the auralizing self and asks: What happens when we

¹⁷ Jonathan De Souza, *Music at hand: Instruments, bodies, and cognition*, (Oxford Univ. Press, 2017), 12.

¹⁸ F. Alton Everest and Ken C. Pohlmann, *Master handbook of acoustics*, (McGraw-Hill Education, 2015), 153.

¹⁹ Donald A. Norman, *The design of everyday things*, (New York: Currency Doubleday, 1988), 9.

²⁰ Thor Magnusson, *Sonic Writing: Technologies of Material, Symbolic, and Signal Inscriptions*, (New York, NY: Bloomsbury Publications, 2019), 10.

²¹ Christopher Small, *Musicking : The Meanings of Performing and Listening*, (Connecticut: Wesleyan univ. Press, 1998), 9.

re-think, alternate and destabilise some of the building blocks of compositional practice? And, joined by the former clusters, what happens when instruments and the places where they resonate are subjected to such processes?

Considering these clusters of questions, my main hypothesis is that by following these threads, composing actively diverges into an ecology of musical practices: a specific and ‘non-neutral’ tool for thinking that relates to the practice not as it already is but as it may become.²² Composing itself is thus destabilised as it transforms from a relatively defined, fixed activity, into a multidimensional navigation through unknown, interdisciplinary environments. A prolonged spatio-temporal exploration that looks and listens for paths to bring a plurality of ideas together, form them into coherent musical experiences and communicate them to interpreting performers and a listening public. What could an account of defamiliarization of instruments and places through composing processes teach us about possibilities for contemporary music making?

Chapter Outline

The three chapters of this thesis comment on six of the nine compositions featured in the portfolio, aligned with the central themes of this inquiry. As a result, certain works are revisited in various sections, where their relevant aspects and connections to the overarching themes are discussed. But beforehand, the portfolio works are introduced in the second part of this introduction, offering an overview of their context, content and technical details. The final part of this introduction provides an outline to my compositional approach, focusing on one of my compositions, *Sirena*, as a case study of my decision making process, followed by four ‘headers’ which correlate to my compositional thinking.

Chapter One, ‘Framework’, outlines the background and reasons for the move towards defamiliarization and experimentation in the context of contemporary composition. It begins with an exploration of Lydia Goehr’s critique of the *Werktreue* model of musical production,²³ outlines my personal motivations as a composer for moving away from more conventional

²² Stengers, *Introductory Notes on an Ecology of Practices*, 185.

²³ Lydia Goehr, *The Imaginary Museum of Musical Works*, (Oxford Univ. Press, 2007), 185.

composing approaches and provides some historical and philosophical context for the concepts of defamiliarization and alienation. It proceeds to examine the work of two composers, Johannes Kreidler and Jennifer Walshe, focusing on how their practices alienate and redefine the role and figure of the composer. The next two chapters offer a detailed look at the mechanisms of defamiliarization and destabilisation of two elements in this ecology of musical practices: Chapter Two, 'Destabilising Place', discusses different strategies of working with and incorporating site specific elements within the portfolio works. These include employing field-recordings as auditory scores, relating to the unique architectures of the performance spaces using loudspeakers or sound-sculptures, and incorporating walking and movement into the performance. Chapter Three, 'Defamiliarizing instruments', explores the unconventional usages and generative functions of musical instruments in the portfolio works, looking at the evolving dynamics between these instruments and the musicians, highlighting their interplay and mutual influence. Finally, Appendix A outlines the works not discussed within this text and Appendix B provides clarifications about the different roles the scores play within the portfolio works. Viewed as a "niche" within the broader ecology of musical practices outlined earlier, scores take on diverse forms and may contain idiosyncrasies or inconsistencies, which are disclosed and explained in that appendix.

Portfolio Outline

In this section, the six portfolio works that underpin the following discussions are introduced, embodying the intention of destabilising the practice through non-standard usage of instruments and incorporation of site specific elements. The first three works deal heavily with the notion of place, using field recordings from politicised sites as foundational layers for composing and as auditory scores. This investigation includes *Groundwork Θ*, for a walking ensemble; *7 Walks in & around Blitzdorf*, a musical performance within a sound installation; and *Sirena*, for an instrumental quartet with fixed-media. The latter part of the portfolio is informed by earlier works and explores further novel instrumental contexts. *Top-Game* shares with *Groundwork Θ* experimenting with ensemble direction but introduces a new family of self developed instruments. *The Imaginary Conservatory* focuses on the performative learning process of another novel instrument, and *72 Prompts for Rays of Disarray* integrates a light instrument into a musical ensemble. All these works share an exploration of diverse scoring methods, each tailored for the specific project's needs. Presented chronologically, their creation spans from 2017 to 2021. In-depth discussions on these works are located in the 'Compositional Approach' section, in Chapter Two, 'Destabilising Place', and Chapter Three, 'Defamiliarising Instruments'. Documentation of the works themselves, together with recordings, scores, fixed-media parts and photographs can be found in the folder included as part of this submission. The three additional works, concerned with slightly different themes, are thus outside the scope of the discussions and are introduced in Appendix A.

1. Groundwork Θ

for 12 players and fixed media (2017) 22'

*Groundwork Θ*²⁴ (from here *Groundwork*) is a work for ensemble, exploring the relationships between instrumental performers and the space in which they move, through listening. This work rests on two assumptions: 1. Music and sound have the capacity to

²⁴ 'Θ - tet', being the ninth letter in the Phoenician alphabet is used here as a cryptic marker of the archaic origins of the problem of 'working the ground'. For a poetic-philosophic treatment of this problem see: Timothy Morton, *Dark ecology: For a logic of future coexistence*, (Columbia Univ. Press, 2016), 38.

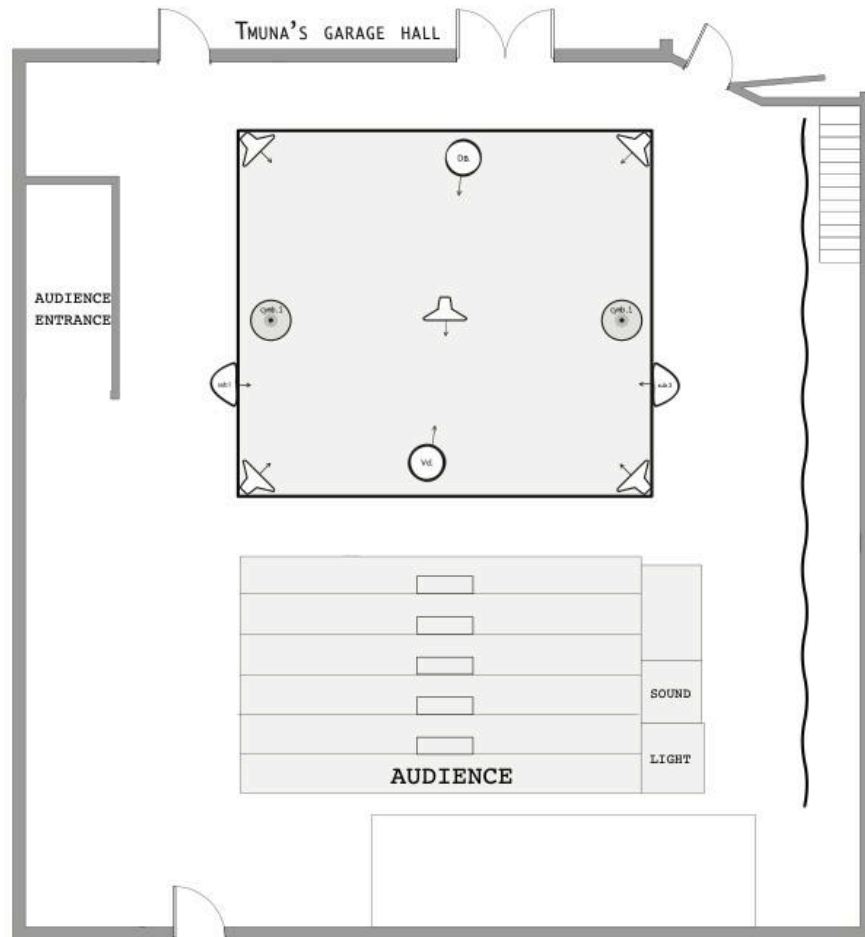
transform a space, unnamed and general, into a particular place; 2. Your body is a place, the contact points between you and your prosthesis-instrument are a place, as is the room in which you listen, the city and the land. *Groundwork* questions how all of these places come together, orbit and collide, temporarily transforming a black box like theatre hall in Tel-Aviv into a different place, through a composition based on recorded sound-walks along the borders of Israel. By opening a liminal space, these recordings facilitate a possible listening perspective where the border is experienced not as a line - a limit one should not approach or transgress, but a locus with thickness and volume in and of itself. Sound also easily reveals the anthropocentric aspect of the border: Weather does not care about it, and the elemental sounds, as well as all other non-human creatures, almost completely ignore it.

Capturing the intricacy of the border and its inability to truly separate, *Groundwork* ties together the recordings with the moving bodies and sounds of the ensemble. Within the performance hall, twelve musicians are divided into two groups, each navigating their own half of the stage, guided by the field recordings which are emitted from the stage's four corners and which provide a kind of a spatial auditory score. Set up as an interdependent mobile, the sounds the musicians play are regulated by their position on stage, their proximity to one another and the sounds they perceive. Even though they are instructed not to react to sounds from outside their territory, they inevitably often do so, resulting in a highly fused drone texture that accentuates their sonorous unity despite the imaginary divide.

Bordering choreography, performance and a musical composition, this piece sets a situation in motion that probes the thresholds between the individual performers, the stage, the hall and the place where it is situated. The audience is surrounded with this sonic constellation and experiences the tension between submerging into the sounds themselves, which can be quite enticing, and being aware of the concrete politicised and unsettled origin of these sounds. By blurring external sounds with internal ones, concrete with abstract, *Groundwork* challenges and reframes the perception of place for everyone involved.

Commissioned by Tectonics Festival and premiered by Israeli Contemporary Players on December 2nd 2017, in Tmuna Theatre, Tel-Aviv.

STATIC STAGE POSITIONS



INSTRUMENTATION

- Flute
- Bass-Clarinet
- Saxophone (Alt/Tenor)
- Trumpet
- French-Horn
- Trombone
- 2 Satelite-Boxes with bows and small spatulas

- 2 Crash cymbals each with two bows
- Cello with round metal clips
- Double-Bass with round metal clips
- Soundman

SPEAKERS

- 5 PA speakers, 2 Subwoofers

Speakers are positioned on the 4 corners of the stage, and one in the middle. The four corners correspond with compass directions rounded to nearest wind (North, East, South, West).

Fig. 1, *Groundwork 0* - map of 'Garage Hall' in Tmuna Theatre, score excerpt.

2. 7 Walks in & Around Blitzdorf

for quintet on self-made instruments and a sound-sculpture (2018) 60'

Blitzdorf was an artistic research project conducted at the Graduate School in the Centre for Advanced Studies (BAS) at Berlin's art University (UdK) between 2016-18, in collaboration with visual artists Ido Gordon and David Chaki. Dealing with memories of the war of 1948 in the territory of Israel-Palestine, we immersed ourselves in what might be called its *suppressed geographies* - namely the hundreds of villages that were depopulated during the war and are still standing in various degrees of ruin.²⁵

An initial question I wanted to explore with this project was whether a place could hold memory of the sounds it used to vibrate. Reacting to the idea of acoustic vibration that, even if inaudible, could resonate for a very long time,²⁶ we made extended field trips into some twenty deserted villages, surveyed their architecture and conducted field-recordings on site. Nowadays these villages are 'non-places' with severed memory and relation,²⁷ gaps in the land: They are not marked on the official maps, even though the neighbouring villages carry the Hebraized versions of their names: *Danial* became *Dani'el*, *Hadita* became *Hadid* to name but a few examples.²⁸ We photographed and recorded materials, which I later worked with in an 'elsewhere', namely the contrasting geography of contemporary Berlin. Feeling the acute gap between Europe and the Middle-East, we developed new experimental musical instruments that encapsulate in their materiality themes of a militarised land and of transportation-deportation, in order to deal with such complex relations without resorting to traditional European musical instruments, which carry so much historical baggage.²⁹

²⁵ Zochrot, *Nakba map*, https://www.zochrot.org/publication_articles/view/54772/en (Accessed 25.12.2023).

²⁶ Maayan Tsadka, "From Caves to Churches", *Maarav, A Journal for Art and Culture*, 10, <http://maarav.org.il/english/2019/10/03/caves-churches-maayan-tsadka/>, (Accessed 25.12.2023).

²⁷ Marc Augé, "*Non-places: Introduction to an Anthropology of Supermodernity*", (Verso Books, 1995), 78.

²⁸ Zochrot, *Nakba map*.

²⁹ De Souza, *Music at Hand*, 17.



Fig. 2, *Blitzdorf*, installation view, Archive Kabinett, October 2018, Berlin.

As part of the work, an ensemble of four experimental musical instruments and a sound sculpture were designed and created (Fig. 2): *Jerry*, a wind instrument made of a military water canister, partially filled with water and excited by blowing into it through a long plastic straw that was made into a mouthpiece; (1) *Spachtelim*, a percussion instrument that featured a series of metal spatulas mounted along an aluminium rod and bowed in various combinations; (2) *Satbox*, an idiophone constructed from a cardboard shipping box, designed to be worn around the player's waist and played by bowing its flaps; (3) *Alufon*, an instrument consisting of five aluminium beams attached to two acoustic guitars with a single steel string stretched between their bodies; (4) *Rauch*, a sound sculpture made out of foam boards and equipped with a multi channel transducer array, emitting through its sides a montage of field recordings and other research-derived sounds. All these instruments, their morphologies and their sounds, were inspired by the altered and renewed perspective on the spatial and historical context of the villages and the broader territory of Israel-Palestine.

Featuring these field-recordings and new instruments, an hour-long composed piece for quintet and fixed-media was performed twice during the final presentation of the project. Titled '*7 Walks in & around Blitzdorf*' (from here *7 Walks*), the work opened up a sonic continuum in which the field-recordings were composed and montaged into a multi channel

soundtrack that was emitted through a sound sculpture, which served as a ‘ghost’ conductor for live musicians. The musicians drew musical cues from sounds perceived in the recordings and used them to navigate and circulate the hall, hence the title (Fig. 3). *Blitzdorf* is the name of a fictional village, emptied of its unknown inhabitants in a war. This place is so marked, so dense with history that it manifests itself in reality as a sculptural-musical environment. Referring to and dispersing the sounds of absence from the emptied villages across the Israeli territory, it is the result of collisions between the grand narratives of the historical moment of 1948 and our own estranged situatedness at the much-too-long aftershock of that shaping event.

Funded by the Einstein Stifting and the Initiative Neue-Musik Berlin, this work was premiered by ensemble Zafraan on October 31st, 2018 in Archive Kabinett Gallery, Berlin.

Walk #1 Al Malkia border

You are at the border between Israel & Lebanon. It is very pastoral and beautiful, with insects, birds and agriculture on both sides of a militarized fence. It is calm on the surface but underneath there is unrest. After a while (7'30" in tape) a big military Hummer arrives to check why are civilians there. Bass drums (BD.) sometime accentuate our walking along the fence.

Walk's Scheme:



- Be silent **40%** of the time

Jerry I+II **A.** Wait outside for 7'30", until you hear Hummer arrives.
B. Enter the hall, following each other, walking slowly around & towards the stage. When in playing position, mount the Mouthpieces to a straw.
B-C. Begin blending in with: **6) Land Bass: 8) Harmonic**, React to birds with: **12) Finger-Tap**.

Alufon I+II **A.** Wait outside for 4', then enter the hall, following each other, walking slowly around & towards the stage. Carry **Pray-Bowl** and **Super-Ball** mallets. When reaching Alufon, blend in with:
SB. on beams; **PB.** pp echoes BD. sounds; **SB.** mallet tremolo with birds (see video tutorial).
B. As you hear the Hummer vehicle, move to playing softly with **SB.** along the spring; **SB.** on Guitar's back.
C. I: Continues with **SB.**; Add **PB.** soft hits as echoes to BD. Sounds.
II: Gradually move to taking **1 Bow**, play pp-p on **beams**.

SatBox **A-C.** Enter immediately as you hear the tape. Play while walking very slowly along the periphery of the room. You are a cubist bird: Imitate and respond sporadically to the bird calls (and insects) you hear.

Fig. 3, 7 walks in and around Blitzdorf, score excerpt.

3. Sirena

For quartet and fixed media (2018-19) 13'

Sirena (Hebrew for siren) was another attempt at defamiliarizing my relation to a place by basing a musical performance within a hall on environmental field-recordings conducted in Israel. In order to engage with places on a large scale and broad context, while staying very close to the sounding instruments, this composition was orchestrated for an amplified instrumental quartet - Trumpet, Trombone and two percussionists, together with a pre-recorded soundtrack, which draws mainly on recorded sounds of air-raid sirens (Fig. 4). These field recordings were conducted in two towns in Israel during the national day of remembrance and were later digitally processed to convolve and interact one with the other, creating holes and artefacts in their sound spectra. Within the performance hall, the recorded air-raid sirens were heard as thick and pervasive clusters through loudspeakers and were accompanied by the quartet, realising a score detailing playing techniques in and along the gaps of the sirens' sound and their rotary mechanism.³⁰ This work utilised the ritual aspects of the concert and constructed a counterpoint between the live sound of the chamber ensemble and the recording of the sirens, experienced as an opaque and ominous aggregate. With these layers of polyphony, the ensemble opened the possibility of listening to the sirens as both air-raid horns who mark the memory of the dead, and as alluding to the Greek mythological sirens who used sound as temptation, drawing sailors towards their imminent death.

Sirena was commissioned by ECLAT festival and premiered by ensemble Ascolta on February 2nd, 2019 in Theaterhaus Stuttgart.

³⁰ Hoermann, *Electronic Sirens*, <https://www.hoermann-ws.de/de/sirenen/elektronische-sirenen-sirenenanlagen>, (Accessed, 25.12.2023).



Fig. 4, *Sirena*, performance still, Theaterhaus Stuttgart, 10.2.2019.

4. Top-Game

For ensemble and live-video (2019) circa 25'

Top-Game is a work for ensemble and live-video projection, in which nine amplified musicians playing traditional instruments are guided by three musicians playing musical spin-tops. This new family of experimental musical instruments was developed in collaboration with artist Kerstin Ergenzinger of the Sono-Choreographic Collective and consists of magnet-mounted discs that emit spinning magnetic fields while rotating, picked up by copper coils. Sonifying the movement of the spin-tops, these pickups make audible the permanently descending frequencies of the rotational speed of the tops, who are tuned by different ratios and formations of their attached magnets. Three spin-top operators, termed *inductors*, sit on the floor and lead the performance through nine spinning rounds, surrounded by a mixed ensemble of nine musicians on traditional instruments who interpret their sounds and motions (Fig. 5).

This project was an attempt to combine new experimental musical instruments with a traditional ensemble in the context of a concert hall. Adjusting the enclosure of the hall, a

place that starkly limits the modes of activity possible within it,³¹ included the incorporation of a live-video element by Kerstin Ergenzinger, projecting each of the spin-tops' base plates above the ensemble and rendering the spin-tops' action on the stage's floor visible in real time for the audience to follow. Public and performers alike become both listeners and viewers, immersed in an audio-visual experience of “purposeful purposelessness or a purposeless play”,³² that forever life affirming and inviting renewed meetings of each musician with their own instrument, with new musical instruments and with the rest of the ensemble. While the arrival points of such audible meetings are always contingent, when reached they do offer a different spin on being and playing and musicking together.

Top-Game was commissioned by ensemble MusikFabrik and premiered in the West German Radio (WDR Funkhaus) concert hall in Cologne on the 3rd of November 2019, along with *Playing with our Hearts*.



Fig. 5, *Top-Game*, performance still, WDR Hall, Cologne, 3.11.2019.

³¹ Small, *Musicking: The Meanings of Performing*, 23.

³² John Cage, *Silence: lectures and writings*. (Wesleyan univ. Press, 2012), 12.

5. The Imaginary Conservatory

For a trio on Alufon-Virginal (2021) circa four hours

The Imaginary Conservatory - Sessions I-IV: Unmastered-class with Alufon-Virginal (from here *The Imaginary Conservatory*) is a durational performance for ensemble, a custom made instrument and pre-recorded media. In seeking to learn more about the process of composing by paying close attention to the dynamics between instrument, performer and place, the work sets up a situation where these elements were explicitly altered. Within a gallery space, ensemble musicians were asked to perform on the *Alufon-Virginal*, a newly built experimental musical instrument developed with artist Ido Gordon, which they have never played, touched, heard or even seen before. Their initial interaction with the instrument was put on public display and was listened to as a durational performance (Fig. 6).

In order to facilitate tapping into the performers' sonic sensibilities and intuitions, which go beyond their standard instrumental mastery, *The Imaginary Conservatory's* text score mitigates this challenge in two ways. It features an inner section titled '*14 prompts to studying real or imaginary instruments*' offering a range of ideas and tactics for the performance, with this text also accessible in the gallery on a note stand. But even more important, each performer was tasked with recording their own sound-walk in an environment of their choosing, to serve as a base layer and a performance aid. During the performance, each gave an hour-long solo set, using the pre-recorded sound walks as auditory scores accompanying and reacting to it on the *Alufon-Virginal*. The session culminated by a tutti set, where the ensemble collectively performed on the instrument, accompanied by a recorded sound-walk provided by me.

The Imaginary Conservatory's combination of contextually grounded elements - field-recordings, performers in a unique and vulnerable situation and a bespoke instrument built for the performance, established a direct connection between the work and its environment, enhanced the site and time specific nature of the performance and nudged the common composer-centred approach towards a more collaborative and horizontal constellation.

Responding to an invitation from *Tzvil-Meudcan* festival, *The Imaginary Conservatory* was developed with a grant from the Israeli Lottery cultural fund and premiered by ensemble FICTA on July 3rd, 2021 at Loushy gallery, Tel-Aviv.



Fig. 6, *The Imaginary Conservatory*, performance still, Loushy Gallery, Tel-Aviv, 3.07.2021.

6. 72 Prompts for Rays of Disarray

For ensemble, light projection and fixed media (2020-21) circa 60'

72 Prompts for Rays of Disarray (from here *72 Prompts*) is an hour long work composed for a chamber ensemble consisting of - Saxophone, Electric-Guitar, Accordion, Keyboard, Double-Bass and Percussion. This musical ensemble was joined by a seventh instrument - live analog light projection, along with a pre-recorded electronic part. This work provided the opportunity of addressing the question of collective learning across different modalities, to examine the dynamics of balancing freedom with structure and to alter the rehearsal process in an attempt to form and re-form a musical group through musicking.

From the get go, this commission was defined by *Radar* ensemble as a collaboration between them and the freelance light artist Kathrin Bethge, joining the ensemble and I specifically for the development and performance of this work. This condition has clearly set the task of incorporating a new temporary member into the ensemble and lent itself to an exploration of the dynamics of such a process. Small's notion of musicking stresses that music making, and especially performance, is an activity with both individual and societal aspects.³³ Aligned with this rejection of the self-contained, hermetic existence of the musical work, *72 Prompts* acknowledges all the forces that come together to allow a musical performance and treats them all as equally active. It thus places the focus on the action of 'ensembling', or the mutual processes of being and playing together as a group while musicking. In turning the object of the ensemble into a verb, it questions the view that an ensemble exists independently of its activity, a being without doing, and shows how a plurality of actions, techniques and practices come together in collective music making. To facilitate this experiment as an ongoing process of egalitarian musicking, the work was conceived as a modular text score that relinquishes control and positions the composer as a facilitator more than an absolute author (Fig. 7).

72 Prompts unfolds as an improvisatory realisation of the prompts as a joint effort by the musicians and the light artist. Playing for an hour a parcour of their choice, a selection of the prompts, the ensemble reacts to each other, to the light and to the performance space as they interpret the various instructional modes of the score. The result is a captivating immersive audio-visual collage that spans across multiple styles, textures and densities and celebrates the ensembles adaptability and cooperation (Fig. 8).

Commissioned by ensemble Radar and premiered by them, together with light-artist Kathrin Bethge, on November 27th, 2021 at the Protestant-Reformed church in Lübeck.

³³ Small, *Musicking: The Meanings of Performing*, 10.

51.

Curtain Gaze

With eyes closed, look into the projected lights. Play and follow the intensities you see on your inner eyelids.

Fig. 7, *72 Prompts for Rays of Disarray* - Prompt No. 51, score excerpt.



Fig. 8, *72 Prompts for Rays of Disarray*, performance still, Lübeck, 27.11.2021.

Compositional approach

In the remaining part of this introduction and as a way of bridging the portfolio outline with the following thematic chapters, I will discuss aspects of my compositional method, starting by taking a look at the decision-making process of one of the portfolio works and then unpacking four main areas of engagement within my process. My compositional technique is characterised by adhering to the compoundness of the process, to the multiple activities it entails, and a wish to expand and alienate it to myself, all the while working towards its ossification as a musical text. In order to hold this multiplicity, I try to avoid following a predetermined plan, and instead let the materials and the thinking paths each work opens lead its development. Prototyping new musical instruments, for instance, was never an initial goal of those works, but rather a specific solution to a problem. In the case of *7 Walks*, I wanted to avoid using Western instruments for music that explicitly deal with a non-European place, but also thought that it would be problematic to use established middle-eastern instruments, since I have very little connection, or understanding of them.

It is crucial for me to engage with the musical materials I choose to work with as closely as I can. My process is thus first and foremost grounded in the primary actions themselves - of listening, recording and playing instruments - and in trying on the instrument sounds I envision others producing. Drawing on Heidegger's concept of 'the thing' (*Das Ding*) and Salome Voegelin's interpretation of 'sound thing' as a verb - a dynamic, transitive, and contingent entity - my approach aligns with the idea that sound is constantly forming and in motion, both producing and following time.³⁴ This *perpetuo-mobile* quality of sound also resonates with Christopher Small's assertion that "there is no such thing as music"³⁵ and his insistence on the importance of human action in creating musical meaning. According to him, since music is not a noun or a thing but a performed activity, it is necessary to think and discuss it as a verb. Hence his introduced neologism 'musicking' describes participating in any capacity in a musical performance.³⁶ In the context of this current research, these approaches ascribe the act of compos-ing with much more significance than 'composition' as

³⁴ Salomé Voegelin, *Listening to Noise and Silence: Towards a Philosophy of Sound Art* (New York: Continuum, 2010), 14.

³⁵ Small, *Musicking: The Meanings of Performing*, 2.

³⁶ *Ibid.*, 9.

a static, known thing.

Yet, the act of finalising works through their realisation remains important in my practice, akin to the metaphor of minerals ossifying into bones. Ossifying a work as a potential-holding score for musical performance serves both to leave a concrete outcome of the endeavour and to facilitate further learning through the closure of a creative cycle. This necessity is also influenced by the practicalities of delivering outcomes for commissioned projects, where economic, temporal and material constraints are significant. These constraints in turn provide a positive limiting factor that prevents these defamiliarizing and often expansive processes from going astray. To shed more light on these creative dynamics I will now outline the decision-making process in *Sirena* and then examine four compositional aspects characterising my portfolio works: the use of context as material, the choice of sonorities and textures, their formal organisation and their arrangement through various scoring strategies.



Sirena was commissioned by and for ECLAT music festival in Stuttgart, with set duration of ten to fifteen minutes, the instrumentation of ensemble *Ascolta*, to be played in a theatre hall equipped with a very good PA system. Prior to composing, I was also aware that as a ‘traditional’ format of New-Music concert, it will feature a number of shorter works by unrelated composers, unified only by the ensemble’s setup. These constraints led me to choose to auralize this composition as a kind of a musical intervention, one that is centred around a different joint listening situation - listening to air-raid sirens on Israeli national memorial days, as outlined below. Juxtaposing the two sounding spaces, the outside one captured by digitally manipulated field-recordings of sirens, with the inside, consisting of amplified instruments on stage that correspond through their playing techniques with the ergonomics of the sirens, provided a kind of a narrative arc for the composition. Within this arc, ominous sirens come in and overpower an acoustic ensemble twice, creating a vacuous feeling in the middle section when absence which raises expectation for their imminent return.

Air-raid sirens are a remnant of the British mandate over Palestine, and consist of numerous horns which are spread out across the country and can simultaneously sound an alarm in case of a military air-raid. In present day Israel, a more modern system has been put into place for alerting the people of emergency situations, but the horns still remain in place, and are put to use twice a year: On the evening and morning of the national day of remembrance they sound a fixed continuous tone, for one and two minutes respectively in what is defined as a ceremonial ‘moment of silence’ commemorating fallen soldiers. During these minutes, hundreds of sirens fill the air with their wails, but since they were never tuned to a unified pitch, they form a chord. The constitution of this aggregate changes according to the listeners’ position across the geography, but wherever one may go it is still audible, as if the state conducts a vast, non-consensual open-air concert.

During a field-trip to Israel-Palestine in 2017, I recorded the Memorial Day sirens in two historically significant locations: the evening sirens near the ancient town of Bir-Saba, in today’s city of Be’er-Sheva, and the morning sirens in the town of Lod. Both sites are ancient human settlements, rich with histories of war and violence, lie approximately eighty kilometres apart in an aerial line, resulting in a different sounding chord in the two recordings. Envisioning the entire space between these locations filled with sounds, I began to process and manipulate the recordings, using Mammut, an open-source software providing FFT analysis for complex and unexpected interactions between two sound sources.³⁷ Taking an experimental approach of a tinkerer, I multiplied and manipulated the two files to create a deviated and distorted spectra of the sirens. These two processed recordings were used as the main fixed-media layer of the performance, analogous to the memorial day’s evening and morning sirens.

³⁷ Mammut software, <https://notam.no/prosjekter/mammut/>, (Accessed 5.12.2023).



Fig. 9, Array of percussion instruments tested for *Sirena*, September 2018.

The siren sounds serve as a *memento mori* in the national context and by connecting these recordings with live instrumental sounds, this metaphor was brought into the context of the concert. The next step was writing the instrumental parts for the ensemble to perform with the recordings. For this task, an organological view of the air-raid sirens was taken, defining three main elements of this instrument as rotation, perforation and resonance (Fig. 9). Orchestrating according to these principles, the acoustic instruments stand as human-operated metonyms of the purely mechanical inspiration: The rotation principle is reflected in the choice of percussion instruments that include a Tamboorim and Tingsha-Bells played by rotating metal marbles inside and on them (Fig. 10); The perforated is manifested through the use of siren disc-whistles³⁸ at the end of the piece, and the resonance is made present by the inclusion of a Trumpet and a Trombone.

The choice of these sounds also assists in blending the live performers with the soundtrack. In the brass, singing while playing and split-tone techniques were chosen. Their pitches establish a thick chordal sonority by the two horns that also allows for a very narrow

³⁸ Such as Acme's disc-whistle, <https://www.acmewhistles.co.uk/whistles-accessories/acme-classics/acme-siren-147>, (Accessed, 5.12.2023).

glissando, creating interferences with the recorded sound and adding some internal movement into these relatively static sections. In the sections where the sirens are not playing, far less resonating air sound techniques imitate the movement and rhythm of the rotating percussion sounds. These latter sounds follow a trajectory of gradually opening or adding resonance. At the start of the piece a rotating marble on a Tamborim is used, with various 'mutes' on the drum-head's skin (Fig. 10 - Sections 1-2); The middle section calls for a rhythmic 'rubbing together' of the Tingsha bells, again gradually uncovering the instrument for a brightening of its timbre (Sections 4-5); And towards the end, maximum resonance is achieved by 'bowing' a small cymbal with a brass rod, producing a very bright sonority (Sections 7-7b). The piece culminates after the second sirens' recording with a sudden reduction of resonance - the percussionists on the disc whistles join the brass instruments' air sounds, in a whimsical gesture that also signals that nothing has changed.

Perc. II sirena Bnaya Halperin-Kaddari

1. Silently take position. Slowly take 1 Marble & hold it frozen above Tamborim. Drop Marble into Tamborim. Take 2nd Marble, place hand above Trm. & wait for the silence to thicken. Drop Marble into Trm. Casio beeps. Perc. I joins.

2. Tpt. Split Siren. Siren off. Tbn. off. Smoothly place Trm. on table. Take Cymbals. Perc. I.

3. Tpt. Split Siren. Siren off. Tbn. off. Smoothly place Trm. on table. Take Cymbals. Perc. I.

4. Tpt. Split. Tpt. Split. Tpt. Split. Tpt. off. fully closed. Short, irregular, perpendicular rotation.

5. Que Perc. II + Tpt. Both horns. ritardando. single rot. sim. -4" -4". Transition smoothly to slow rot. p no accent.

6. Siren. 1. Place Disc-Whistle in mouth. 2. Position Cymbal like this: 3. Take brass pipe.

7. Sirens off. (complete stroke). Tutti sync. Inhale together quickly. Hold breath.

7b. Cmb. D.W. Breathe freely. Full, long stroke with pipe on Cmb. side. Adjust pressure while 'bowing' to maintain the rich emerging harmonics.

*a Degrees of 'mutes' for marbles rotating in Tamborim (schematic drawings):

Fig. 10, *Sirena*, score excerpt.

In order to control the blend between the instrumental sounds and the recordings, the *Sirena*'s score combined traditional western notation with novel graphic symbols and verbal cues. Directing the flow of time is informed by Christian Wolff's system for auditory cues,³⁹ where the two main rhythmic punctuators within this notation are those instructing "Play when you hear" a certain sound by a fellow performer or by the soundtrack, and 'action fermatas' denoting the time it takes to comfortably complete the notated action.⁴⁰ Using these non-precise methods to progress through the parts both creates tension and allows for freedom: The performers must actively listen and notice the sounds around them and react when they hear the described cue, but at the same time these cues often follow the natural time it takes the musicians to bring their gestures to a conclusion.

This tension between accuracy and the contingency on the level of the score is present throughout *Sirena* and is manifested through the use of instruments, as well as of musical space. Instrumentally, the fragile, unstable and fluctuating sounds of the brass split-note techniques stand in opposition to the steady, fixed and all pervasive sound of the soundtrack sirens. This fricative super-position of the soundtrack and instrumental sirens establishes a spatial contrast between the 'outside' sounds of the processed field-recordings and those of the amplified instruments played 'inside' the hall. The amplification also allows for the soft and un-projecting sounds, small percussion objects and air-sounds, to blend with the texture and further bend the scale of space. As elaborated in chapter two, the combination of closely miked, non-pitched 'small' fricative sounds with the 'large' sounds of the manipulated recorded sirens that still carry a sense of vastness, evokes a somewhat paradoxical juxtaposition which brings to the listeners' awareness the artificiality and constructedness of these sounding spaces.



This examination of the decision making process in *Sirena* illustrates a typical compositional process across the portfolio works, often characterised by a layering of conceptual, historical and technical constraints for the production of a thought-provoking auditory experience.

³⁹ Christian Wolff, *For 1, 2 or 3 people : for any instrument(s)*, (Leipzig: Edition Peters, 2021).

⁴⁰ *Sirena*, 3.

Chapters two and three further discuss how aspects of instrumental compositional practice are defamiliarized focusing on compositional strategies related to the properties of place, the performance space and altered relations with musical instruments. To better understand these strategies, the following is a reflection on my compositional methods, clustered around four key areas: (1) engaging with the context of the work, (2) the selection of sound material, (3) the development of emerging structures and with their textual representation in notated scores.

Engaging with Context

Working with the immediate context of each composition is an important aspect of my work since it allows the incorporation of extra-musical source material as inspiration, involving activities such as listening to the environment, conducting field recordings, and studying relevant literature. For instance, as mentioned above, the juxtaposition of ‘external’ sounds with the hall in *Sirena*, draws parallels between a chamber-music concert and the collective ritual of silently listening to air-raid sirens. *Groundwork* utilised the architecture of the performance space as a cue for the spatial arrangement of performers and audio-monitors, responding to the liminality of the hall’s location with field recordings from the Israeli borders. In *72 Prompts*, a whole section of the score deals with spatial interactions between the performers and the architecture in which they play. Contextual engagements allow softening the boundaries of work and the locus of its performance.

My composing process involves contemplating about the place in which the performance will take place. While it begins with the work’s context - the available or potential instruments and the questions the work may deal with, I attempt to also establish a feeling of its performance by gathering as much information as I can on the space and its surroundings and by forming a detailed mental image of the concert setting. In the case of *Groundwork*, the characteristics and idiosyncrasies of the Tmuna fringe theatre (originally an auto garage situated in a noisy industrial area on the outskirts of Tel-Aviv and still acoustically untreated) have led to the idea of basing the work on environmental field

recordings. Integrating liminality with specificity, these recordings from the nation-state's border zones were coupled with the unique sounds of the ensembles' percussion instruments, and eventually with sounds from directly outside the hall, creating a multi-scalar and contextualised sonic texture.

While the core of this gesture was communicated to the audience through printed program notes, the details and more nuanced context supporting such decisions in my works often remain undisclosed. This is due to two main reasons: First, many of these ideas and references stem from my embodied experience of such locations and their histories. By leaving the concrete context not fully transparent, I encourage the listening community to engage in reflection and interpretation, an element that also reinforces alienation effects, discussed in the coming chapters. This is joined by a second personal belief that the emotional resonance and the aura of these concepts, even when abstracted into non-semantic musical performances, are conveyed effectively. For instance, in *Sirena*, the overpowering presence of the fixed-media part over the live instrumentalists generates a heavy, uneasy atmosphere. In the context of abstract concert music, explaining the precise origins of the recordings felt unnecessary and redundant, as their affective power was sufficient to render the experience I was after.

Sound materials

From the various materials gathered, such as field recordings and surveys, personal fascinations, reflections and concepts, I establish a sonic palette of instrumental and recorded sounds for each work. This is often done by drawing metaphors between ideas or places and between instrumental sounds. As will be discussed in chapter three, the instruments for *7 Walks* for example are based on aspects of the environment that inspired their making - reacting to the barren contested landscape with military water canisters that sound their liquids, or to ruined structures with bowed spatulas. Such sonic palettes are in turn carefully examined, considering their timbral, pitch and rhythmic qualities. Rather than abiding by systemic rules, such as tonal or serial, for the aspects of the craft governing the choice and

succession of sound events I tend to follow an array of perceptual and compositional guidelines. Focusing on the particular dynamics of the given instrumental force, I often rely on auditory perceptual tendencies to find the right sounds or playing techniques. Principles of spectral blendings,⁴¹ aspects of saliency and masking,⁴² sound morphologies,⁴³ sound types⁴⁴ and rhythmic groupings,⁴⁵ all play a role in the construction of musical texture in my work. The choices of playing techniques and gestures often reflect how these considerations are manifested in solo, chamber and ensemble orchestration. In *Top-Game* for instance, the main instruction is for the performers to play a glissando corresponding with the perceived pitch emitted by an electro-magnetic spin-top and in *Sirena* fricative sounds played by percussion fill in areas of the sonic spectrum unoccupied by the fixed media part thus blending with it. *Groundwork* and *7 Walks*' instructions for the performers to blend with the speaker emitted sounds by coordinating their onsets with perceptible sound objects coming from it, demonstrate a more generalised application of such principles.

To a degree, my compositional techniques, and through it my aesthetics as a whole, are marked by a dialectic relation between the accuracy and detail-oriented aspects of the craft I draw from, such as the aforementioned serial, spectral and electronic schools of musical thought, and between improvised, experimental, conceptual and less strict avenues of musicking. This unresolvable tension serves as a generative force leading to many of the solutions I resort to while composing. A prominent example of it can be heard in the usage of non-standard playing techniques, which the portfolio works so often require.

Across the portfolio, instrumental sounds often lean towards 'extended' playing techniques, like string and wind multiphonics, and split-tones on brass. These techniques are applied differently in each work: For instance, in *Groundwork*, multiphonics are deduced and transcribed from an analysis of cymbals' frequency content, allowing players to choose which

⁴¹ Joshua Fineberg, "Guide to the basic concepts and techniques of spectral music," *Contemporary Music Review* 19, no. 2 (2000): 81-113.

⁴² Gérard Grisey, "Tempus ex Machina: A composer's reflections on musical time," *Contemporary music review* 2, no. 1 (1987): 239-275.

⁴³ Denis Smalley, "Spectromorphology: explaining sound-shapes," *Organised sound* 2, no. 2 (1997): 107-126.

⁴⁴ Helmut Lachenmann, *Klangtypen der neuen Musik*, Ichthys Verlag Stuttgart, 1970.

⁴⁵ Olivier Messiaen, *Technique De Mon Langage Musical*, (Paris: Leduc, 1956).

multiphonic to play based on their stage position and auditory perception. Similarly, *Top-Game* instructs musicians to select a fitting multiphonic sonority when they hear a ‘multiphonic like’ sound from the spinning cymbal. In *Sirena*, split-tone and singing-while-playing techniques are used in order to blend with the chords of recorded sirens. Regardless of their various functions, these playing techniques all demand continuous presence from performers, emphasising the significance of intention and effort needed to hold these fragile sonorities, at times while moving themselves. Unstable sounds like these require mindful engagement and an acceptance of breakage and failure as integral aspects of sounding and musicking.

Non-standard playing techniques act as a bridge within my work between the concrete and the conceptual, the body and the sound, and between my position as an ‘omniscient’ composer and that of a facilitator of a happening. These techniques often alter the ergonomic and bodily connection between the player and the instrument, alterations that require the performer to bring a renewed attention to the task of producing sound. This can be seen for example in the usage of multiphonics and split-tones in the woodwinds and brass in *Groundwork*, *Sirena* and *Top-Game*, as well as in the novel or altered instruments that result in new ergodynamics in *7 Walks* or *The Imaginary Conservatory*. Unstable playing techniques that demand the musician be present and aware of their exact mode of sound production, thus acting as a mechanism to promote heightened somatic awareness, similar to the awareness I try to cultivate in myself.

Moreover, since dynamism and vitality are already inherent in the playing techniques I choose, using them as the base for musical textures affords arriving at an interesting, layered and rich result while using relatively simple means in regard to notated instructions. Virtually all the portfolio works follow the objective of achieving high sonic complexity through economical musical means, whether by using a reduced sonic palette as in *Groundwork*, by introducing limited aleatoric aspects as in *Sirena*, or by modularising the forming of the work as in *72 Prompts*. In *Top-Game*, this complexity was accomplished while using another novel instrument’s complex sound as a modulator of instrumental play. By instructing the musicians to correlate their played sounds and ‘map’ them to the pitch and rhythmic profile of musical spin-tops in front of them, this composition went beyond utilising and stacking of playing

techniques in the making of a texture. It asked the musicians to really follow someone else, to be induced by the Tops' dynamics and behaviour and to still orient themselves in relation to their human partners. In doing so, this set of conditions and instructions established a complex situation that I as the composer have relatively little control over. The amalgamation of uncontrolled elements, fragile playing techniques, new and contingent experimental musical instruments and high degree of interpretive freedom given to the ensemble, tilted the balance between me as an author, the performing ensemble and their sounding instruments.

In this regard, admittedly, the premiere of this work was not entirely successful. Requesting such a level of commitment to a contingent and chaotic dynamic from an established, esteemed musical ensemble proved to cause resistance, which, to my ears, came through in the eventual rendering of the work. Some of the musicians have misunderstood the situation of being led by spin-tops and took even more liberty than the score allowed. This probably points to an inaccuracy in the notational register and goes to testify that in listening to the connections and tensions between playing techniques, the levels of control over the result and the wish to move towards facilitating more loose musical happenings which still carry force and cohesion, the human aspect regarding the precise kind of performers should not be overlooked.

Listening to Forming Structures

Even though the non systematic tendency towards sources of inspiration and sound selection is reflected in my approach to form and structure as well, most of the portfolio works do maintain formal cohesiveness. This is achieved mostly by scaling up the micro considerations from the sound materials and arranging their succession in a musical logic fitting the particular work. The portfolio works utilised various strategies towards this goal: *Groundwork* and *7 Walks* incorporated field-recordings, episodic by nature, as sections to build a multi-movement form that corresponds with the idea of walking; *Top-Game* used circular motions and was thus organised as successive 'rounds' without considerable development; Exploring the dynamics of learning a new instrument, *The Imaginary Conservatory* offered

four longer ‘sessions’ in a durational, more open performance and 72 *Prompts* categorisation of different instructional prompts asked for a collaborative construction of a modular performance out of them.

Top-Game may serve to demonstrate this approach as it establishes the musical structure using relatively few elements. It scaled the idea of a cyclical ‘spin’ to the level of form, calling for nine similar rounds of spinning, starkly reducing the notion of development by limiting it to a few quantitative changes in playing techniques or directionality of tone. This chaining of nine spinning rounds, that while spinning different tops in various combinations offered no fundamental change in the unfolding of the piece, induced a static feeling and gave a sense that this ‘playified’,⁴⁶ ritual, could potentially go on without an end. Ritualistic aspects of music have for long been a subject of inquiry⁴⁷ and the concert as a sacred place has been well discussed and criticised.⁴⁸ Projecting the dynamics of cyclicity and spin onto the formal level of the work, *Top-Game* used repetition, stasis and theatricality, by positioning of the ensemble standing in an arc-shaped and the usage of video projection, in order to question the ‘success’ of a musical form and performance. Given that the task of the musicians was to truly follow the spin-tops, repeatedly, in a challenging situation where the sounds are at times masked or too low to discern, as long as the musicians stayed true to their attempts, success or failure became secondary, if not negligible. Concomitantly, the form itself is a result of the scaled-up, macro following of the internal, micro logic of the spin.

Top-Game shares with the rest of the portfolio the process of a global form resulting out of negotiations between micro and macro elements of the work. Macro elements being the aforementioned context, objectives and questions driving the work and micro aspects being the sounds themselves and their auralized projection through time. Together with a commitment to relatively minimalist approach that favours ‘flat’ or non-dramatic structures

⁴⁶ Since the work did not introduce game design elements into a non-game environment, as defined by Deterding et. al, the less structural ‘playification’ is used here, even though these terms are very much related. For ‘Gamification’ see: Sebastian Deterding, Dan Dixon, Rilla Khaled and Lennart Nacke, “From Game Design Elements to Gamefulness: Defining Gamification,” *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, 9–15. New York: ACM, 2011; For ‘Playification, see: Ivan Mosca, “+10! Gamification and deGamification,” *GAME 1(1)*, 2012, http://www.gamejournal.it/plus10_gamification-and-degamification/#.UwtTd_R5OA8.

⁴⁷ Richard Elfyn Jones, *Music and the Numinous, Consciousness, Literature & the Arts*, (Amsterdam: Rodopi, 2007), 23.

⁴⁸ Small, *Musicking: The Meanings of Performing*, 66.

and with a rejection of control over elements in ways that feels too arbitrary or subjective, the decision making process for each of the works navigates along a spectrum of formal possibilities such as closed-open, micro-macro, material-ideal, controlled and loose and focuses on structuring the work along the way each time anew. This process is deeply tied with the status and usage of the score within these works, which I shall now turn to consider.

Scoring Strategies

The opening motto of this dissertation is a quote taken from the astonishingly detailed instruction manual, or score, for dying in Tibetan Buddhism. In the Tibetan book of the dead, death is portrayed as a threshold and as a fundamentally transformative process, the unfolding result of which depends on the preparedness of the dying person's consciousness.⁴⁹ Firmly rooted in life's realm, a quality the portfolio scores try to hold follows a similar dynamic: While initially the smooth activity of the score is disturbed, un-habituating the flow of performance practice and forcing practitioners to reconsider their intuitions and to think, in the end, after thoroughly learning and using them, the scores are to be 'melted' away and make way for a less restricted mode of musicking. The scores' importance then lies in their function and role during the process more than as a resulting object that demands fidelity to the text. Additionally, stemming from professional expectations to deliver a sufficient musical document for the work, these scores act as another positive limiting factor on composing and help facilitate unique learning processes of the music by its performers. Despite this, most of these scores are not constructed in a way that fully allows a performance without me helping and mediating it. This is again due to a combination of two pragmatic aspects: a reality where a second performance of a work is quite rare, which in turn leads to a personal interest in being involved with its realisation, if and when such an opportunity arises.

Within them, these scores resort to notational solutions informed by approaches spanning from Fluxus scores⁵⁰ and other avant-garde experiments from the second half of the

⁴⁹ Robert Thurman, *The Tibetan book of the dead: Liberation through understanding in the between*, (NY: Bantam, 1993), 18.

⁵⁰ La Monte Young and Jackson Mac Low, *An anthology of chance operations*, (New York: Jackson Mac Low,

20th century,⁵¹ to contemporary takes captured in graphical anthologies⁵² or textual ones.⁵³ Even though they are inspired by attempts at pushing the envelope and the definition of the score itself, such as in projects like Goni Peles' *Scorecraft*,⁵⁴ my own scores make no claim for novelty or defamiliarization of the notion of score as such, and function as a tool to alter thinking about and going through processes of work realisation. Consequently, neither accepting or rejecting them, they utilise notational conventions without fully abiding by them.

Providing a tool for thinking and memorisation also during the process of composing, the portfolio scores deploy graphical and text notation, and at times directly commenting on the dynamics of the realisation process and rehearsals. They also document a somewhat chronological shift from more modernist leaning, graphically notated, descriptive scores,⁵⁵ like those of *Top-Game* or *Sirena*, to later works communicating through text which try to be better attuned to the mode of play by using a more prescriptive approach, demonstrated in *72 Prompts* or *The Imaginary Conservatory*. In drawing inspiration from experimental text scores of the 1960', such as Pauline Oliveros' *Old sound new sound borrowed sound blue*⁵⁶ or LaMonte Young's *Composition 1960* series of conceptual, poetical instructions,⁵⁷ *The Imaginary Conservatory* and *72 Prompts*'s build on these approaches in treating the score as a facilitator of a mode of musicking, rather than as an organiser of specific sounds and gestures. As these two works capture the interplay of elements involved in my scoring process, they may serve as the concluding examples for this chapter.

The Imaginary Conservatory's score, formatted for an iPad, consists of three sections: (A) a brief work description, (B) fourteen poetic instructions, and (C) performance guidelines. The first and third sections adopt an instructional style, while the central part, titled "*14 Prompts for Exploring Imaginary or Real Instruments*," takes on a more poetic and lyrical tone, guiding learners through instrumental exploration using short, poetic exercises.

1963).

⁵¹ John Cage, *Notations*, (New York: Something Else Press, 1969).

⁵² Theresa Sauer, *Notations 21*, (New York: Mark Batty Publisher, 2009).

⁵³ James Saunders and John Lely, *Word Events: Perspectives on Verbal Notation*, (United Kingdom: Bloomsbury Academic, 2012).

⁵⁴ Project's website: <https://scorecraft.games/>

⁵⁵ Christopher Fox, "Opening offer or contractual obligation? on the prescriptive function of notation in music today", *Tempo* 68, no. 269 (July 2014): 6–19, doi:10.1017/S0040298214000023.

⁵⁶ Pauline Oliveros, *Anthology of text scores*, (Morrisville, North Carolina: Lulu.com, 2013), 105.

⁵⁷ Saunders and Lely, *Word Events*, 424.

The prompts originated from personal experimentation with various found objects, mostly pipes and other hand held non-traditional instruments, as means to deepen musical engagement with them. In John Lely's analysis of text scores, he notes that imperative clauses often lack a specified agent⁵⁸ and indeed, thirteen of the fourteen prompts in this set assume the musician as the agent, but serving as a study aid they remain open to other interpretations as well. As their title suggests, and similar to an approach taken by Amnon Wolman,⁵⁹ these prompts may be realised on other instruments, including entirely imaginary ones, fostering internalised, pre-auralized or non-acoustic musical experiences.

Another important element of this score involves instructing the performers to conduct a recorded sound walk, a task that contributes to the work in various ways: It adds a layer of counterpoint, creating a duo and a dialogue between the musician's "past walking self" as an auditory score or a conductor of a kind, and their current role as performer.⁶⁰ This recorded layer also provides support and a stable anchor in this potentially stressful performance situation. As John Drever noted, during a recorded sound walk, a backdrop of ambient noise exists, from which distinct sound signals surface amidst various competing ones.⁶¹ These signals serve as a cueing mechanism, deployed in *Groundwork* and *7 Walks* as well, guiding performers to begin and end their musical actions in coordination with the recording's discernible sound objects. In the case of *The Imaginary Conservatory*, as these sounds were captured by the performers themselves they function as a known element to orient by.

By inviting the performers to supply an auditory score for their own performance, the traditional concept of authorship, typically associated with a single composer, undergoes a change. The idea of composer centred-ness is being weakened as it is shared more horizontally across this constellation - a composer setting the situation that is facilitated by the score and the instrument in ways. This preserves the agency and freedom of the performers, who, more than mere interpreters, are creating themselves the recorded tracks

⁵⁸ Ibid., 29.

⁵⁹ Ibid., 418.

⁶⁰ 'The Imaginary Conservatory - Session I-IV: Unmastered-class with Alufon-Virginal', C. Play section.

⁶¹ John Levack Drever, "Soundwalking: aural excursions into the everyday," In *The Ashgate Research Companion to Experimental Music*, 181-210, (Routledge, 2017), 187.

with which they play. Lastly, the inclusion of these distinctive and contextually grounded recorded sound walks establishes a direct connection between the work and the environment in which it is being made and performed. Each recorded auditory score captures a unique path through the city, connecting the gallery space with external auditory experiences and thereby contributing to the site-specific nature of the work. This correspondence with the environment aligns with the thematic discussions found in chapters two and three, similar to the considerations surrounding *Groundwork* and *7 Walks*.

In *72 Prompts*, the catalyst for the development of a textual score was the need to incorporate a non-sonic instrument, played by a non-musician. This score conveys instructions and ideas that encompass the score's activation in a broader way by addressing the rehearsals, the mediation of the work to the public and the performance itself. Drawing inspiration from Christian Wolff's Prose Collection,⁶² Karlheinz Stockhausen's *Plus Minus* (1965)⁶³ and John Zorn's *Cobra* (1984)⁶⁴, *72 Prompts* also positions the performers as co-creators with much agency and interpretative freedom. Deviating from the conventional practice of presenting a detailed, definitive score, it adopts instead a framework that explores the liminal space between composed and improvised music, tilting my role as a composer towards orchestrating the rehearsal and performance processes.

In realising the score, the musicians are required to reflect on their parts and actions, both individually and collectively, during rehearsals. Similar to the approach taken in *The Imaginary Conservatory*, *72 Prompts* blends glossary and music, asking the performers to construct the piece from various modules while exploring ensemble dynamics such as soloist-group relations. The score is divided into seven categories of prompts, each follows a different musical logic, marked with colours along the spectrum of light: Red for drones; Orange for 'inner motions' within performer's bodies; Yellow for musical textures; Green for followings different leads; Blue for accompanying electronically narrated texts; Indigo for spatial interactions with the performance space and Violet 'crowns' for interpreting poetic,

⁶² Stephen Chase and Philip Thomas, eds., *Changing the system: the music of Christian Wolff*, (Farnham: Ashgate, 2010), 194.

⁶³ Karlheinz Stockhausen, *Plus Minus Nr.[Op.] 14 ; 2 X 7 Seiten Für Ausarbeitungen*, (Wien: Universal-Edition, 1965).

⁶⁴ Oksana Nesterenko, ""Open Work" One Step Further: From John Cage to John Zorn," *Perspectives of New Music* 55, no. 2 (2017): 199-217, doi:10.1353/pnm.2017.0012.

more abstract lines of text. Each category offers a principle for the prompts, such as specific musical textures, from homophony, through hocket and heterophony, to polyphony in the yellow textures prompts, or reacting to projected light intensities in the indigo ones (Fig. 7-8). This use of multiple registers and various language forms establishes a relation between the technical prompts and the more abstract ones, sheds a different light on each other and hopefully exposes the predispositions of the interpreter when realising them. Using the metaphor of the visible spectrum allowed the light-artist to have an immediate material connection to the prompts, and promoted a non-hierarchical interpretation of the different colours. This blending of colours and instructional modes lends itself to a less linear and more modular shaping of the work. A plurality of such ‘word events’ that allow tapping into the performers’ individual and collective auralizations, inviting reactions to cues and flows that are not possible if codified using more singular methods.



The portfolio works employ scoring as a means of conveying ideas and instructions, encompassing gestural and temporal information through graphical and textual notations. These scores not only guide the musicians in performance but also address the situational and procedural aspects of its realisation. In this less conventional role, the score disrupts the smooth flow of common performance practice by placing greater importance and significance on the specificity of the rehearsal process. Departing from the traditional Western classical notation, these textual scores alienate habitual ways of working towards a musical performance by also offering different structuring possibilities, thereby impacting the practice of composing. Each work within the portfolio adopts a slightly different tactic and hybridises these methods according to its specific requirements, as it explores the various interactions between musicians and instruments in places.

The process of experimenting with ways of composing entails working with a notion of plurality. The known framework - in the case of this research, notated instrumental music - opens up to utilise affordances in the broader ecology of musical practices (experimenting with instrument making, with different scoring mechanisms and with various ways of

addressing specific places and sites through the work). Stengers' ecological metaphor⁶⁵ is helpful here as it captures both the co- and interdependencies between these elements, as well as the plurality of approaches, tools and methods deployed when composing and musicking in unfamiliar ways. In the words of Édouard Glissant, this mode can be viewed as 'archipelagic thinking' - since in an archipelago, reciprocal, less hierarchical exchanges are common, while spatial divisions between centre and periphery are less so.⁶⁶ Destabilised compositional processes hold, think and sound heterogenous pluralities and offer ways of conceiving, organising and instructing sounds through means which were lacking, for me, within the more traditional or established modes of composing. In the next chapter I will address the specific conceptual framework around the idea of defamiliarization of instrumental practices which serves as a base for the compositional methods discussed above. But as shown, and like between ecological niches or flows between islands in an archipelago, such defamiliarizations often stem from 'overflows' of musical into artistic ideas and are an ongoing process rather than teleological or deterministic.

⁶⁵ Stengers, *Ecology of Practices*, 183.

⁶⁶ Édouard Glissant and Hans Ulrich Obrist, *The Archipelago Conversations*, (Uk: isolarii, 2021), 21.

Chapter 1: Framework

This chapter will begin by outlining some of the motivations for seeking a change in my compositional approach, exploring the concept of defamiliarization as a central element in this pursuit. Drawing from Lydia Goehr's critique of the *Werktreue* concept,⁶⁷ which emphasises fidelity to a fixed musical text, I will discuss the limitations of traditional notions of authorship and musical interpretation that still largely dominate the discourse around Western classical music. I will then examine the innovative works of composers Johannes Kreidler and Jennifer Walshe, whose creative practices exemplify the destabilisation of the composer's role through the use of alienation techniques. Their work, alongside my own explorations, offer a reimagining of the relationships between musical instruments, performance spaces and the figure of the composer, thereby providing new possibilities and paths within contemporary composition practices.

Romantic Myths

In a fictional conversation, composer Leonard Bernstein puts in the mouth of his poet interlocutor the decisive statement that "Beethoven is the greatest composer who ever lived!"⁶⁸ but then undermines it in a 'Talmudical', polemic way, by grading the building blocks of his compositions - melody, harmony, rhythm, counterpoint, orchestration and form - as mere mediocre. Nevertheless, Bernstein's eventual conclusion is that Beethoven is the best due to his ingenious ability to make every note sound inevitable. This formal perfection leads him to speculate that it was more than divine inspiration, but heavenly dictation, that provided Beethoven with his masterpieces. It is therefore justified that "when you walk into a concert hall bearing the names of the greats inscribed around it on a frieze, there he sits, front and centre, the first, the largest, the most immediately visible, and usually gold plated."⁶⁹ Viewed this way, Beethoven serves as the litmus test for western composers' prestige. Following Bernstein, this 'Beethovenian Paradigm' of a composer follows the trope of the classical-romantic genius, who by his sheer musical vision composes works for eternity.

⁶⁷ Goehr, *The Imaginary Museum*, 185.

⁶⁸ Leonard Bernstein, *The joy of music*, (Hal Leonard Corporation, 2004) ,29.

⁶⁹ *Ibid.*, 37-8.

Within this paradigm, ideas like divine inspiration and a ‘chosen’ genius artist that taps into this divinity are central. But foremost, as Bernstein’s example shows, it is the concept of the work, and especially that of ‘masterpiece’ works and their temporal and historical significance which lies beyond the times when they were composed, that I, among others,⁷⁰ find worth reconsidering.

In her book ‘The imaginary museum of musical works’, Lydia Goehr offers a detailed historical analysis of the emergence of this paradigm and myth, to which Beethoven and his reception considerably contributed.⁷¹ Since the beginning of the 19th century and the establishment of romantic aesthetic ideology, the idea of *Werktreue*, trueness to the work, emerged and took hold over European classical music making. *Werktreue* can be defined as the fidelity of performance to the text or the score.⁷² For such fidelity to be judged, it requires accurate notation, rehearsals, and the composer as authority. As it got established as a normative concept, music making was viewed as a teleological process where musical material was being used to produce new, solidified, individually authored units of musical works.

The rigidity of the musical work and the myth of the genius have been critiqued and debunked,⁷³ but to a large extent these tropes are still at play nowadays.⁷⁴ We still speak of works of 20th and 21st century composers, even those who explicitly distanced themselves from such ideals, in these exact terms. Furthermore, the view of the musical world which the romantic aesthetic originally provided has continued, since the 1800's, to be a dominant one. As Goehr noted, this view is so entrenched in contemporary thought that its constitutive concepts are taken for granted, amounting to a kind of ‘conceptual imperialism’.⁷⁵

Abiding by this idea of prevailing conceptual imperialism, it is important to note that

⁷⁰ Michael Talbot ed, *The musical work: reality or invention?*, (Liverpool Univ. Press, 2000).

⁷¹ Goehr, *The Imaginary Museum*, 208.

⁷² Lydia Goehr, “Being True to the Work,” *The Journal of Aesthetics and Art Criticism* 47, no. 1 (1989): 55–67, 55 doi.org/10.2307/431993.

⁷³ Thomas Bauman, “Becoming Original: Haydn and the Cult of Genius,” *The Musical Quarterly* 87, no. 2 (2004): 333–57.

⁷⁴ Matthew Gelbart, *Musical Genre and Romantic Ideology: Belonging in the Age of Originality*, (Oxford Univ. Press, 2022), 25.

⁷⁵ Goehr, *Imaginary Museum*, 244-5.

my wish to change and revitalise my compositional practice is mostly tied with one of the outcomes of the Werktreue concept, “a transition in practice, away from seeing music as a means to seeing it as an end.”⁷⁶ Alongside other composers, the likes of Samson Young, Marianthi Papalaxendri-Alexandri, Hannes Seidl and Maayan Tsadka, whose practices favour experimentation unconstrained by form and resulting format, my approach strives to resist artistic terms and conditions I consider to be limiting. Thus, this PhD project stemmed from a feeling of fatigue towards ways of composing instrumental music which became ‘too familiar’. Put in general terms, more familiar modes of composing are concerned with producing works using established forms of western modern notation, orchestrated for existing instrumental forces to be played, and replayed, in any given concert hall. In defamiliarizing aspects of my practice, my intention is not to suggest that the methods of composing developed during this artistic research are fundamentally or paradigmatically unique. Instead, the collection of tactics and solutions I have developed, while attuned to the broader ecology of musical practices, leans towards personal, novel experimentation. Self discovery and personal satisfaction in the process of making were given more weight than attempting to produce tourable masterpieces.



In his analysis of the postmodern turn in what he calls ‘classical/serious/concert/art’ music, Jonathan Kramer builds on psychologist Kenneth Gergen’s notion of the ‘Saturated Self’: a contemporary, fragmented entity, bombarded with simultaneous stimuli and with a deficit in time and attention span, to list reasons as to why contemporary composers write music aligned with postmodern values.⁷⁷ After practising composing in the aforementioned mode for about a decade, I resonated with some of these notions and identified five main areas where I felt a change was needed:

(1) The first one concerns concepts of authorship and their relation to prestige. Kramer notes that “Some composers react against modernist styles and values, which have become oppressive to them” and as Goehr has shown, the idea of the individual genius author still is a shaping force. I wished to practise composing in a mode more akin to the one

⁷⁶ Ibid., 206.

⁷⁷ Jonathan D. Kramer, *Postmodern Music, Postmodern Listening*, (Bloomsbury Academic, 2016), 17.

described by Roland Barthes as a “neutral, composite, oblique space where our subject slips away, the negative where all identity is lost, starting with the very identity of the body writing.”⁷⁸ The familiar mode of composing is too saturated with the expressive ‘I’ of the author, and is centred around a strong idea of authorship. In fact, to some extent we may say that this mode of producing work is invested in *authorship beyond death*. Notated music that is intended to be performed long after the composer is dead. The insistence on highlighting one’s identity is also deeply tied to prestige and ego, tendencies that Susan McClary has already referred to as ‘terminal’ in her critique of the 1980’ avant-garde,⁷⁹ and yet are still at play in appearances of ‘composer-centeredness’.⁸⁰

(2) The second area is the mental and physical health costs. Plainly put, composing in the familiar mode can often be lonely. Producing precisely-notated chamber or ensemble scores requires spending countless hours at a desk in deep concentration. The balance between this solitary task and the communal part of rehearsing and realising a work is heavily tilted towards the former. While this mode of working suits many, and such composing periods are not too dissimilar from writing phases of authors, it requires a certain character and doesn’t suit everyone. The mental cost of spending most of my days alone in a room had been building up over the years I spent working this way. Having dealt with episodes of depression since a relatively young age, I began feeling this mode of working aggravates it. Furthermore, desk work entails physical consequences as well. Having been born with scoliosis and a challenging hyper-mobility of the joints, my lifelong attempts to better my posture were constantly being hindered by the need to sit down at a desk for hours on-end. Even the standing and floor-sitting desks I built could not bring sufficient comfort, nor could my physical movement practice balance these static postures. I could not mediate the detrimental effect this type of work had on my body-mind.

(3) The third area is the aforementioned favouring of results over process. From my experience, and as will be unpacked in the following discussions, I can say that when

⁷⁸ Roland Barthes, "The death of the author," in *Readings in the Theory of Religion*, pp. 141-145, (Routledge, 2016), 142.

⁷⁹ Susan McClary, "Terminal Prestige: The Case of Avant-Garde Music Composition," *Cultural Critique*, no. 12 (1989): 57, doi.org/10.2307/1354322.

⁸⁰ Talbot, *The musical work*, 168.

communicating with performing ensembles, *Werktreue* related dynamics are often the implicit base. The unspoken expectations of many commissioning bodies, at least in Germany, in regard to the delivered score, can be schematically summarised as follows: composer instructs performers what sounds they want to hear, when exactly and how to play them, notated in a way suitable for preparing a performance over a couple of rehearsals. Now, even as I do not depart from the concept of the musical work altogether, I do relate to it differently, mainly by foregrounding the process as much as on the result. This is why the projects within this PhD are referred to interchangeably as works and as pieces, highlighting their status as ossified working processes, efforts and intentions over time. In the spirit of experimental music, they are signposts of when the experiment had to end under the conditions in which I was working (sustaining myself through commissions with tacit expectations in regard to the format of the work).

(4) The fourth relates to shifting areas of interest: Like many other composers, I too have grown “disillusioned with the avant-garde’s search for novel sounds, compositional strategies, and formal procedures, and with its adversarial stance with regard to tradition.”⁸¹ This doesn’t mean I am not interested in experimenting with novel ways of musicking, but rather that the particular mode of exploration has exhausted itself and that seeking should happen with a pluralist recognition of pasts within the presence amid a multiplicity of approaches.⁸² The works in this portfolio do reflect concerns about the ways they sound, but as a guide, this project is more invested in seeking the freshness of the paths that led to their sounding the way they do. Similar end results may be arrived at in many different ways and my concern while working on these projects was mostly to practise the gesture of moving away from familiar modes of composing in an aligned manner.

(5) The fifth and last reason has to do with a feeling of closedness and relates to Kramer pointing out a desire to bridge the composer-audience gap, to participation in other modes and genres of musicking, such as improvised music or electronic pop production, and a fascination with other musical cultures.⁸³ I felt a concurrent wish to break away from a

⁸¹ Kramer, *Postmodern Music*, 20.

⁸² *Ibid.*

⁸³ *Ibid.*, 21.

feeling of a hermetic environment and to experience more openness, interdisciplinarity and direct engagement with world issues.

This preliminary background traces some of the reasons why, from the anglo-european contemporary ‘classical/serious/concert/art’ music perspective of my education, I got estranged from this cultural environment, habitat or ‘family’. In my saturated postmodern psyche, the idea that the practice of composition is known, its methods established and its forms are fixed raised an inner resistance. However, the deviation from these familiar modes of composing into unfamiliar ones is not intended or conceived as an institutional critique or even as a critique of the practice of composition per se, but is rather based on a set of personal, physical and mental conditions that have led me to destabilise and explore composing in various ways, which will be unpacked in the coming chapters. Thinking through the middle of the act, as mentioned before, and in line with Ingold’s nudge towards processes of ‘learning by doing’,⁸⁴ it is the ‘-ing’, of composing that is of interest to me, and hence this research does not make any claim for a renewal of the practice of composition beyond my own engagement with it.

Defamiliarized instrumental practices

In altering habitual relations between musical instruments and the places where they are situated and sounding, the works in this portfolio mark a shift in my mode of working, venturing into new forms and deploying methods and techniques that were novel to me. But even while veering from established modes of composing into more transdisciplinary territories, the readings of the works here are still rooted in a musical composition perspective. Fittingly, one of the key concepts in this thesis, that of defamiliarization, reflects the fact that these works or case-studies are of the most familiar kind - my own creations, as well as the challenge of gaining critical distance built into such a constellation.

Although it has forebears that stretch back as far as mediaeval times and Dante’s poetry, the idea of what is known today as defamiliarization has been introduced as an artistic

⁸⁴ Tim Ingold, *Making: Anthropology, archaeology, art and architecture*, (Routledge, 2013), 13.

device by the early 20th century Russian literary scholar Viktor Shklovsky.⁸⁵ He argued that art allows one to experience the artfulness of an object, where the object itself becomes less important. As an experiential process, the technique of art should involve rendering objects ‘unfamiliar’ by making forms complicated, hence prolonging the process of perception which is an aesthetic end on its own. In the case of literature, an art form that uses the seemingly mundane material of language, the poet or writer must work with it in less familiar, or in estranged ways, and by doing this establish the process of experiencing as an aesthetic end in and of itself.⁸⁶

The notion that the realisation and unfolding of an exposing or consciousness-raising mechanism is of more significance than the artwork’s object had soon spread out of Moscow.⁸⁷ As theatre scholar Ronnie Bai notes, there are strong reasons to assume that Bertold Brecht’s visit to Moscow during the 1930’s and his exposure there to Chinese traditional theatre played a part in the development of his alienation (German, ‘Verfremdung’) theory and techniques, but within the European sphere, he certainly was the most famous practitioner to deploy and popularise this method.⁸⁸ By using various techniques such as make-up that reveals the characters’ emotional states, changing clothes on stage, commenting on the action on stage or addressing the audience directly, thus breaking the invisible traditional ‘fourth wall’ of the stage, Brecht promoted through his plays and through his writings the idea of using alienating effects in order to get his audience to adopt a more mindful and critical approach, becoming more active spectators.⁸⁹ Alienation effects were “designed to free socially-conditioned phenomena from that stamp of familiarity which protects them against our grasp today”⁹⁰ and championed critical thinking by the bourgeois Berlin audience of between the two world wars: “The spectator was no longer in any way allowed to submit to an experience uncritically (and without practical consequences) by means of simple empathy with the characters in a play. The production took the

⁸⁵ Daniel P. Gunn, "Making art strange: a commentary on defamiliarization," *The Georgia Review* 38, no. 1 (1984): 25-33, 27.

⁸⁶ Roland Greene et al, *The Princeton Encyclopedia of Poetry and Poetics, 4th ed.*, (Princeton: Princeton Univ. Press, 2012), 343.

⁸⁷ Ronnie Bai, "Dances with Mei Lanfang: Brecht and the Alienation Effect," *Comparative Drama* 32, no. 3 (1998): 389-433, 390, doi.org/10.1353/cdr.1998.0040.

⁸⁸ *Ibid.*, 391.

⁸⁹ Bertolt Brecht, *Brecht on theatre*, (Bloomsbury Publishing, 2014), 136.

⁹⁰ *Ibid.*, 192.

subject-matter and the incidents shown and put them through a process of alienation: the alienation that is necessary to all understanding.”⁹¹

Brecht’s didactic stance, which separates the audience’s empathic responses from more reasoned ones and considerably favours the latter, has been criticised as being ineffective in raising social conscience. Theatre scholar Heidi Silcox argued that utilising alienation effects runs the risk of confusing the audience members and eventually alienating them not from a particular incident but from the entire production all together.⁹² For her, missing this point is a result of Brecht’s misunderstanding of the nature of empathic emotions. This misunderstanding leads to a failure by Brecht to “realise that empathy can more effectively achieve the didactic goal that he sets for greater numbers of spectators.”⁹³ Empathy is better equipped to promote a social agenda, as the messages carried through it will be digested by the audience without alienating them in the process.

Like many useful, broad concepts, defamiliarization risks being too generally applied on deviant or novel musical practices, leading some to argue that all modern and contemporary composing is marked by a search for defamiliarization.⁹⁴ In modern and contemporary music it can be argued that Scheneberg’s dodecaphonic system defamiliarized the major-minor tonal system, that Cage’s indeterminacy alienated the relation to certainty within musical works, that Grisey and the spectralists’ techniques estranged timbre and brought into listeners’ awareness psychoacoustic elements of musical texture, Lutoslawski destabilised temporal coordination within notation through the use of limited aleatory, and so on. But while there is a grain of truth to such claims, they do not fully hold, since, beyond their generalised nature, the original concept brought forth the idea that it is the perceptive process itself that becomes aestheticised and not the musical result, as inventive as it may be. Not every artistic manifestation that deviates from what was considered to be a normative mode creates alienation effects that draw attention to these conventional mechanisms. In my work as well, defamiliarization dynamics do not always address the listeners and at times

⁹¹ Ibid., 71.

⁹² Heidi M. Silcox, “What’s Wrong with Alienation?,” *Philosophy and Literature* 34, no. 1 (2010): 131–44, 142, doi.org/10.1353/phl.0.0076.

⁹³ Ibid., 131.

⁹⁴ Felipe De Almeida Ribeiro, “Being the Other: Defamiliarization Processes in Musical Composition,” *Revista Música Hodie* 23 (February 13, 2023), 29, doi.org/10.5216/mh.v23.73322.

intend to change something in the performers', or my own, perception. It is foremostly grounded in the intention of questioning and destabilising composing for myself, exposing the mechanisms and practices I utilise and estranging them in order to gain new insights. Even if the effects of such gestures may be subtle, I find these concepts still useful in looking and listening differently to elements in the creative processes itself.

These intentions have a philosophical aspect as well. Looking at Brecht again, he envisioned alienation as:

...turning the object of which one is to be made aware, to which one's attention is to be drawn, from something ordinary, familiar, immediately accessible, into something peculiar, striking, and unexpected . . . the mundane object must be made conspicuous and be examined. The a-effect involves these probing questions, or a shift of perspective. It is the looking at ordinary things anew.⁹⁵

A surprisingly similar idea can be found in Heidegger's famous hammer example from *Being and Time*, that may provide an understanding to how the musical works in this portfolio utilise these concepts. Heidegger argued that the more we put an object to use, the more this object reveals itself to us as what it is - a piece of equipment. When a hammer is being used as part of a skilful and smooth activity of hammering, the tool, or equipment is not perceived as an object in its own right. The more we manipulate, operate or play with a thing, the more primordial our relationship to that thing becomes.⁹⁶ And since tools-in-use are rendered "phenomenologically transparent",⁹⁷ we could think of both places and instruments initially as just serving their function of enabling smooth musicking without drawing attention to themselves. Heidegger called this mode *Griffbereit*, readiness-to-hand as this transparent state is precisely the readiness of an instrument to be picked and operated or played. However, when a tool is broken or disturbed in a way that prevents this smooth and skilled activity, it draws attention to itself, to its construction, artificiality and lack of self-explainability. It becomes, in Heidegger terms - un-readiness-to-hand and is now perceived as an obstacle or a problem to solve in order to resume one's activity. But, at least in the context of the peculiar

⁹⁵ Brecht, *Brecht on theatre*, 143–44.

⁹⁶ Martin Heidegger, "*Being and time. (J. Stambaugh. Trans.)*", (NY: State Univ. of New York Press, 1996), 65.

⁹⁷ Michael Wheeler, "Martin Heidegger", *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition), Edward N. Zalta (ed.), <https://plato.stanford.edu/archives/fall2020/entries/heidegger/>.

instruments and places presented here, staying at this less-operable state holds the potential to both generate new ways of non-smooth interactions while musicking, as well as new understandings of what these elements are in the first place, or present-at-hand in Heidegger's language.⁹⁸ The lessons to be drawn from exploring ambiguous or disturbed operating states are invaluable as, in Brecht words again, "When something seems 'the most obvious thing in the world' it means that any attempt to understand the world has been given up."⁹⁹



The forthcoming chapters will provide the framework for the various methods deployed in order to destabilise my instrumental composition practice. As mentioned, the breadth of the notions of alienation, defamiliarization, and estrangement enables tracing many different manifestations within contemporary composition. But since it begins with a conceptual gesture, to illustrate the intentional alienation of composition as a whole, we can examine two paradigmatic examples of composers whose distinctive practices demonstrate this approach.

In the German speaking context, composer Johannes Kreidler's 'new conceptualism'¹⁰⁰ is a prime demonstration of a project that invites audiences to question their expectations, confront their assumptions, and expand their understanding of contemporary music. His multimedia works span from concert music and performance to prints and publications, but always follow 'purist' conceptualist principals, aligned with Sol LeWitt's guideline of the artwork being but one possible manifestation of an idea, where the core of the work lies.¹⁰¹ Kreidler's work challenges conventional paradigms by incorporating media and algorithmic strategies which always follow a single idiom, estranging along the way more familiar musical working processes. Over nearly two decades now, he has explored the interplay between technology, sound, and cultural context in the shifting social landscape of the digital revolution. For example, in his composition and performance *Product Placements* (2008), Kreidler electronically juxtaposed 7,200 samples, compressing them into a thirty three

⁹⁸ Heidegger, *Being and time*, 66.

⁹⁹ Brecht, *Brecht on theatre*, 71.

¹⁰⁰ Max Erwin, "Here comes Newer Despair: An Aesthetic Primer for the New Conceptualism of Johannes Kreidler," *Tempo* 70, no. 278 (2016): 5-15.

¹⁰¹ Sol LeWitt, "Paragraphs on conceptual art." *Artforum* 5, no. 10 (1967): 79-83, 79.

seconds electronic work, which he then followed by a public performance of him handing their licensing documents to the German GEMA. *Product Placement* intended to initiate a discussion about the future of copyright laws and the relationship between creative usage and financial compensation in the emerging digital age. As a performance, it addressed the fact that “certain questions arise perforce in connection with sound: which are your own and which are foreign? What is identity today”.¹⁰²

Minusbolero (2015), is another notable example where Kreidler directly used an alienation effect as the driving mechanism for the whole work. In this orchestral piece, he simply crossed out all the main melodic lines in Ravel’s *Bolero*, reducing the musical texture to a pulsing background, haunted by the missing main line. Through his playful questioning of authority, Kreidler’s work challenges the listener to confront the alienating effects of data-driven music production and the commodification of cultural expression. My works included in this portfolio and discussed below join this questioning in a hopeful weakening of the authorial ‘I’, but do so rather by placing the focus on altered relationships between instruments and situated ensemble playing.

An even more poly-vocal approach can be found in the work of Jennifer Walshe. Not surprisingly, she does not identify herself as a ‘new conceptualist’ stating that the term is proprietary and German-centric, while she favours a more ‘open-source’ approach.¹⁰³ Aligned with a quest for novelty though, in her extensive practice Walshe has carved a space based on her definition of a ‘New discipline’, characterised by works where the physical, theatrical and visual elements hold the same weight as the musical ones.¹⁰⁴ Her rich body of work that carries out this approach resists genre categorisation and re-imagines what contemporary composing can be precisely by estranging aspects of it. One notable example of her approach is the project and collective called ‘*Grúpat*’ (2007-), in which she assumes twelve different fictional alter-egos, each with their own distinct artistic persona, and re-auralizes “the historical documents of the Irish musical avant-garde”.¹⁰⁵ By embodying these alter-egos,

¹⁰² Johannes Kreidler, “Johannes Kreidler GEMA-Aktion Product Placements Doku,” December 23, 2019. <https://www.youtube.com/watch?v=TRbsM2MXP20>.

¹⁰³ Jennifer Walshe, “Other Conceptualisms — MILKER CORPORATION,” 2015, <http://milker.org/conceptualisms>.

¹⁰⁴ Jennifer Walshe, “The New Discipline — MILKER CORPORATION,” 2016, <http://milker.org/the-new-discipline>.

¹⁰⁵ “Jennifer Walshe Spins a Fine Tale | Musicworks Magazine,” n.d., <https://www.musicworks.ca/featured-article/profile/jennifer-walshe-spins-fine-tale>.

composing and producing artwork through the different members of the collective, Walshe investigates a multiplicity of artistic voices within her and the complex relationship between authenticity, performance, and self-, or more-than-self, presentation. Again, similar to Kreidler's oeuvre and some of the discussed works in this dissertation, in her projects Walshe intentionally disrupts the notion of a singular composer identity and subverts the traditional idea of authorship of musical works.

Another noteworthy example of her original approach is the multimedia opera *Time, time, time* (2019), which she wrote in collaboration with philosopher Timothy Morton. This nonlinear opera blurs the lines between composition and improvisation, as well as between performer and author. Developed in collaboration with Áine O'Dwyer, Lee Patterson, M.C. Schmidt, Vilde & Inga and Streifenjunko, the music for the opera is mostly improvised and relies heavily on the sonic palette the performers-collaborators bring.¹⁰⁶ In addition, through the entire opera, Walshe incorporates alienation effects by utilising Morton as an auxiliary performer who simply sits on stage, crossed legged and closed eyed, and appears to be meditating. Such gestures portray him as a rather 'passive' participant and thus bring to the audience's attention the distinction between passive and active modes of performing. By doing so, Walshe disrupts the conventional notion of performer agency, raising questions about presence, stillness, and the relationship between the performer and the audience.



These conceptual approaches, embodied in these two composers' oeuvre, embrace multidisciplinary and encourage critical engagement with the role of the composer within the contemporary social, cultural and technological landscapes, and the nature of artistic expression. While both of them follow Roman Jakobson's principle of 'laying the device bare'¹⁰⁷ and are exposing the mechanisms of their work, Walshe's approach seems to be less puristic. For her, concepts are valuable only to the extent that they enable the generation of novel sonic materials, foster a deeper engagement with sound, and facilitate innovative

¹⁰⁶ Jennifer Walshe, "Work List — MILKER CORPORATION," n.d., <http://milker.org/jenniferwalsheworklist>.

¹⁰⁷ Lawrence Crawford, "Viktor Shklovskij: Differance in Defamiliarization," *Comparative Literature* 36, no. 3 (1984): 209, doi.org/10.2307/1770260.

approaches to sonic exploration. Whether the sonic material is concrete, realised, or auralized, the focus remains on the profound engagement with sound itself.¹⁰⁸ As outlined in the ‘compositional approach’ of the introduction chapter and further discussed in the following ones, my own projects take a similar strategy of hedging conceptual work and grounding it through controlled sonic explorations.

Throughout this research, my practice was specifically focused on defamiliarizing and altering the relationships with instrumental practices, using newly built musical instruments and relating to site specific elements using various forms of scoring strategies. My modus operandi is non-dogmatic, nor didactic and is more aligned with Silcox’s attitude in its encompassing of affect and its wish to address interpretive audiences in ways that are not antagonising. To date, attempts at applying the concept of defamiliarization to music composition have focused mainly on improvised music,¹⁰⁹ on the writing of older generations of composers,¹¹⁰ or on the treatment, particularly rhythmic, of individual works.¹¹¹ But this and the following explorations of musical and artistic strategies informing my work acknowledges the fact that composing is always a process of learning across a multiplicity of works, media and environments.¹¹² It stems from a need to discover the affordances and explore the specific ergodynamics of instruments and of places before composing with them.¹¹³ In this regard, the resulting works serve to testify to this process, an inscribed duration of learning as notated instructions for other human performers, which always take place somewhere specific. After laying the groundwork for understanding my journey towards redefining my compositional practice, the next two chapters will explore two cardinal elements of alterations - place and instrument.

¹⁰⁸ Walshe, *Other Conceptualisms*.

¹⁰⁹ David Prescott-Steed, "Improvising everyday life: The performance of practice led research," *Creative Industries Journal* 4, no. 1 (2011).

¹¹⁰ Ribeiro, *Being the Other*.

¹¹¹ Noah Gideon Meites, *‘Alienating the groove’: Defamiliarization as compositional resource in “Counting” (2012), for large ensemble and solo vocalists*, (Univ. of California, Santa Cruz, 2012).

¹¹² Ulla Pohjannoro, "Embodiment in composition: 4E theoretical considerations and empirical evidence from a case study," *Musicae Scientiae* 26, no. 2 (2022): 408-425, 412.

¹¹³ Magnusson, *Sonic Writing*, 157.

Chapter 2: Reframing Places

This chapter explores means of defamiliarizing spaces or places through the composing and realisation processes. Within the portfolio, *Groundwork Θ (Groundwork)*, *7 walks in & around Blitzdorf (7 Walks)*, *Sirena* and *The Imaginary Conservatory*, are four works that deal most directly with questions of place and spatiality and the following discussion is focused on them. They incorporate site specific elements and involve subverting certain sonic-physical or cultural aspects of the sites with which they correspond, hence contributing to a renewed understanding of these places. The overall goal of this project was to establish different connections to places through listening and musicking with them, to alter the way they may be perceived by engaging with them musically. In order to experience these places anew *Groundwork* incorporated field recordings from walks along the borders of the state of Israel; *7 Walks* included an architectonic intervention, sound sculptures and instruments installed in a gallery; *Sirena* brought sounds of air-raid sirens recorded on site at two Israeli towns of ancient origin into a German concert hall; *The Imaginary Conservatory* foregrounded the rehearsal as a public performance and the making of a temporary, fictional institution within a gallery space, exploring the site specificity of this semi-public space and its transformation through a durational performance. Following some context regarding site specificity in artistic and musical practices, the chapter will discuss the relationship of these four works to the places that engendered them and those of their realisation, unpacking some of the mechanisms used in order to defamiliarize them.

The aspiration to destabilise the notion of place within my compositional practice stemmed out of a wish to re-educate myself in regard to the disputed and suppressed histories of the nation-state in which I grew up. The Israeli borders, for example, encapsulate the unsurmountable complexity of personal, ethnic and national histories. Often drawn up at hasty cease-fire negotiations using thick-tipped wax pencils, these lines on the map did not account for the fact that in the real world they will scale up and occupy actual space, with actual people.¹¹⁴ Like many other fundamental questions, the question “Who owns the

¹¹⁴ “History of ‘the urban line’”, n.d, <https://catalog.archives.gov.il/chapter/the-urban-line-2/>.

thickness of the line?"¹¹⁵ was not asked then, and in fact is but a symptom of the disputed state and instability of all life in that region. Approaching the Israeli borders from within the state, as well as depopulated palestinian villages that lie within Israel but are unmarked on official maps, was a way for me to first and foremost alter my auditory, spatial and visual perspectives towards places I was educated not to listen to and not to see.



A number of visual and sonic artistic approaches also inspired me to work with places, namely site-specific, ecological art and acoustic ecologies approaches. Since the beginning of the 1970's the site-specific movement was marked by artists getting out of official gallery spaces, or 'white cubes',¹¹⁶ and realising work that emerged from a correspondence with the environment in which they operated.¹¹⁷ Art historian Miwon Kwon notes that visual artists at the time sought to inverse the prevalent modernist paradigm, which viewed the artwork as self-sufficient, autonomous, placeless and transformable.¹¹⁸ Site-specific works on the other hand are a marriage between the artwork and a particular environment, but one that also challenges and problematizes this work-site relationship.¹¹⁹ These relationships are revealed in large-scale and land art sculptural works such as Robert Smithson's *Spiral Jetty* (1970), a spiralling rock formation that sprawls over the great Salt Lake in the desert of Utah,¹²⁰ to more urban sites such as Agnes Denes' *Wheatfield - A Confrontation* (1982), which turned a lot in downtown Manhattan into a crop-yielding field of wheat for four months.¹²¹ A more recent site-oriented prominent example is Olafur Eliasson's *Weather Project* (2003) at the Tate Modern, which constructed an artificial sun like object in the museum's Turbine Hall, allowing visitors to watch a misty sunset inside the post-industrial building.¹²² Important for my own work, these examples feature site specific elements that are used in order to change

¹¹⁵ Meron Benvenishti, quoted in: Sandi Hilal, Alessandro Petti, Eyal Weizman, and Nicola Perugini, "The lawless line," *London Review of International Law* 1, no. 1 (2013): 201-209, 201.

¹¹⁶ Brian O'Doherty, *Inside the white cube: The ideology of the gallery space*, (Univ. of California Press, 1999).

¹¹⁷ For a thorough discussion of the connection between ecological thinking, land art and site specificity see: James Nisbet, *Ecologies, Environments, and Energy Systems in Art of the 1960s and 1970s*, (MIT Press, 2014).

¹¹⁸ Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge, Mass: MIT Press, 2002), 13.

¹¹⁹ Nick Kaye, *Site-specific art: performance, place and documentation*, (Routledge, 2013), 3.

¹²⁰ See artist's homepage: <https://holtsmithsonfoundation.org/spiral-jetty>.

¹²¹ See artist's homepage: <http://www.agnesdenesstudio.com/works7.html>.

¹²² See artist's homepage: <https://olafureliasson.net/archive/artwork/WEK101003/the-weather-project>.

how a place is being experienced, bringing the outside in as in *Weather Project* or exposing remote and hidden connections in the case of *Wheatfield*. Informed by these approaches, a work is initiated by considering the site it relates to, corresponding with it through walking and recording it. But since my work relates to sites by using instrumental and recorded sounds, these correspondences are more tangential and ephemeral than in the visual arts.

A connecting point to site-specific practices in music can be seen where artists move from referring merely to the surrounding architecture, to working with the social and power relations in their locality. Mierle Laderman Ukeles' performances of maintenance art during the 1970's serve as performative examples of site-based work while at the same time offer a critique that addresses the sites' social, economic and political processes.¹²³ Composer and choreographer Meredith Monk has been making since the late 1960's site-specific work that stems out of her extensive dance training and combines music, movement and visual elements into large scale performances in non-traditional locations.¹²⁴ Her theatrical cantata in three instalments *Juice* (1969), for instance, maps site through performance and uses this map for the generation of further performances.¹²⁵ The succession of materials between *Groundwork*, *7 Walks*, *Sirena* and *The Imaginary Conservatory*, which build upon each other and share materials and instruments, developing them further, draws inspiration from this approach of constructively reworking and recycling materials.

More architectonic, site-related musical works include La Monte Young and Marian Zazeela's *Dream House*, also premiered in 1969 and still running, a sound and light installation which intends to turn a mundane apartment into a place with sacred aura through long held sine tone clusters and careful placement of filtered light.¹²⁶ *Groundwork* bears resemblance to this piece with its emerging spatial drone but it utilises long held tones quite differently since these sounds are played by human performers, are much more fragile and are moving through space. Even though realised through much simpler means, the use of speakers to spatialise field recordings in my work does, to an extent, continue experiments in

¹²³ Jillian Steinhauer, "How Mierle Laderman Ukeles Turned Maintenance Work into Art", *Hyperallergic*, February 10, 2017,

<https://hyperallergic.com/355255/how-mierle-laderman-ukeles-turned-maintenance-work-into-art/>.

¹²⁴ Kaye, *Site-specific art*, 119

¹²⁵ See artist's homepage: <https://www.meredithmonk.org/repertory/juice-2/>

¹²⁶ See artist's homepage: <https://www.melafoundation.org>.

speakers diffusion, the likes of Karlheinz Stockhausen's spherical auditorium at the German Pavilion of the Osaka Expo in 1970¹²⁷ or Iannis Xenakis' large-scale electroacoustic works from that period.¹²⁸ Only that my work reduces electronic complexity, opting for simpler multichannel setups, manageable by me, and uses the speakers as fundamental layers that affect and inform live performers' actions. Another example from that time is *City-Links* (1967–81), the experimental sound installations by Maryanne Amacher, which tune into, listen to and record sounds across particular urban scales.¹²⁹ Both *Sirena* and *The Imaginary Conservatory's* use the recordings of city soundscapes in somewhat similar ways, transmitting in the performance hall recordings of events that are clearly recognised as taking place outside, and, in the case of *Sirena*, that are of a different, larger scale than the architecture where they are being listened to.

Reminiscent of these early pioneers, a more recent example exploring music and architecture on site is Xavier Veilhan's *Studio Venezia* which transformed the French Pavilion during the 2017 Venice biennale into a recording studio where musicians constantly rehearsed and recorded in front of the visitors.¹³⁰ This theme of a public rehearsal, which was explored in *The Imaginary Conservatory* also features in Ari Benjamin Meyers' *Kunsthalle for Music* (2018), a durational musical performance within a museum that lasted for the month of the exhibition.¹³¹ A more subversive take on musicking in, or in front of, an institution could be found in Trond Reinholdtsen's *Norwegian Opra* (2009-2013), a series of musical performances through which he established an alternative to the Norwegian National Opera house in his private apartment, right across the street from the official building.¹³² *The Imaginary Conservatory* builds on these cases but also differs from them as it operates on a more local scale by focusing on a single interaction of a small group of musicians with an idiosyncratic, new instrument.

¹²⁷ Sean Williams, "Osaka Expo '70: The promise and reality of a spherical sound stage," *Insonic*, 26- 28 Nov 2015, Karlsruhe, Germany.

¹²⁸ Maria Anna Harley, "Music of sound and light: Xenakis's polytopes," *Leonardo* 31, no. 1 (1998): 55-65.

¹²⁹ Amy Cimini, "Telematic Tape: Notes on Maryanne Amacher's City-Links (1967–1980)," *Twentieth-Century Music* 14, no. 1 (2017): 93–108, doi:10.1017/S1478572217000081.

¹³⁰ See artist's homepage:

<http://www.veilhan.com/#!/en/work/result?q=%7B%22keywords%22:null,%22filters%22:%7B%22year%22:%22017%22%7D,%22sort%22:%7B%22field%22:null,%22order%22:null%7D%7D&x=0&y=22>.

¹³¹ Steyn Bergs, "Institutional Transpositions: Two Music Exhibitions and the Politics of Attention," *all-over* 15, Spring Summer 2019, <http://allover-magazin.com/?p=3396>.

¹³² http://www.thenorwegianopra.no/old_index.html.

As can be seen from this survey, site-related practices may alter our relation to places, experientially as well as conceptually, and, within musical arts, hold the potential to erode borders between the apparatus of music making and the environment itself. Hence the last two practices that are of importance here are acoustic ecology and psychogeography. Introduced in the 1960's by Raymond Murray Schafer, acoustic ecology investigates how the acoustic environment, also known as the soundscape, influences the physical and behavioural attributes of organisms inhabiting it.¹³³ Practices developed by him and the World Soundscape Project working group, included exercises such as soundwalks and were intended to heighten the practitioners' and audience's awareness of environments and their sounds.¹³⁴ Psychogeography, was defined by philosopher and situationist artist Guy Debord as the examination of the regulations and distinct impacts of the geographical environment, whether consciously structured or not, on the emotions and behaviours of individuals.¹³⁵ Following internal literary voyages, such as that of Xavier de Maistre,¹³⁶ or urban ones like Walter Benjamin's renown account,¹³⁷ psychogeographical exploration also introduced a walking practice - that of 'dérive', or drifting, errantly through urban environments. As one of the stated objectives of this practice is the gradual reduction of urban border regions, potentially culminating in their total elimination,¹³⁸ the liminal explorations formulated in *Groundwork*, *7 walks* and *Sirena* share a similar aim, while also acknowledging such erosion is manifested in perception and experience rather than in material reality.

Notable composers working under the idiom of acoustic ecology include Hildegard Westerkamp, Luc Ferrari and Annea Lockwood, and the environmental relations of the portfolio works discussed below are informed by their approaches. But differing from contemporary practitioners that realise their work within a given environment, or using unaltered found natural materials - Maayan Tsadka's *Sonic Botany: Ra'ash Adama*

¹³³ R. Murray Schafer, *The Soundscape*, (VT: Rochester, Destiny Books, 1994), 271.

¹³⁴ Kendall Wrightson, "An introduction to acoustic ecology," *Soundscape: The journal of acoustic ecology* 1, no. 1 (2000): 10-13, 10.

¹³⁵ Guy Debord, *Introduction to a Critique of Urban Geography*, (Text Archive, 1955), <https://www.cddc.vt.edu/sionline/presitu/geography.html>.

¹³⁶ De Maistre, Xavier. *Voyage Around My Room: Selected Works of Xavier DeMaistre*. Vol. 791. New Directions Publishing, 1994), 3.

¹³⁷ Walter Benjamin, *One-Way Street and Other Writings*, (London: Penguin, 2009), 46-115.

¹³⁸ Guy Debord, *Theory of the Dérive*, (Text Archive, 1956), <https://www.cddc.vt.edu/sionline/si/theory.html>.

(*Earthnoise*) (2021)¹³⁹ and her sonic-botany eco-composition research respectively¹⁴⁰ - the portfolio projects were dealing with the transposition or deterritorialization of sounds and with the juxtaposition of different emotional and acoustic perspectives, as elaborated below. *Blitzdorf's* instrumentarium itself, discussed in Chapter Three, can be seen as stemming out of a psychogeographical investigation, but the instruments I deployed there were made of artificial materials and were utilised in ways that stressed the extractive and violent relationship to a place on a national scale, much larger than situationist *dérive*.

A last example that combines these different approaches while focusing on the technological and non-natural aspects of an environment is Christina Kubisch's *Electrical Walks* (2003-). In this collection of sound walks participants are listening through headphones to magnetic interference caused by the myriad of electrical machinery in urban environments.¹⁴¹ Electromagnetic sensors are used as musical instruments played by participants, and the incidental electromagnetic radiation which they pick up from the environment becomes musical, shedding a new light on both the apparatus and the environment. Though in a less direct and more metaphorical register, all four portfolio works which feature interactions with situated field recordings resonate with psychogeographical and acoustic-ecological approaches by listening to, and sometimes playing with, the environment, but do so in the enclosed performance space. By going out to environments, visiting places and non-places, and recording them as a starting point and as foundational layers for composition, a personal alienation of the process occurs by bringing attention to the mechanisms of composing that begins with going out and capturing contingent environments.

Elements of space and place

The differences in understanding between the terms *space* and *place* is an ongoing discussion within geography, anthropology and localities studies. Often place is seen as imbued with the lived, relational, dynamic and storied qualities, whilst space is a more conceived, abstract,

¹³⁹ ISSUE Project Room, "With Womens Work: Maayan Tsadka - Sonic Botany: RA'ASH ADAMA (Earthnoise)," n.d. <https://issueprojectroom.org/video/womens-work-maayan-tsadka-sonic-botany-raash-adama-earthnoise>.

¹⁴⁰ Tsadka, Maayan. "A filed guide to Sonic Botany: Thoughts about eco-composition", *Tempo* 75, no. 295 (2021): 31-44.

¹⁴¹ See artist's homepage: <https://electricalwalks.org>.

geometric and static entity.¹⁴² While some scholars view the connection between the two as causal, space as a “practised place”,¹⁴³ others see in this distinction a question of values. Tim Ingold offers a fierce critique of the notion of space, claiming it uses an ‘inverted’ logic that ignores life processes that always take place somewhere, offering instead, dead, general, capitalist and exchangeable ‘spaces’. Promoting the task of veering back towards practising travelling instead of transportation or thinking of emplacements instead of enclosures, he rejects the notion that place exists ‘in space’.¹⁴⁴ Lives are led not inside places, but through, across and around them, creating paths and trailing lines of movement along the way. “Places, then, are like knots, and the threads from which they are tied are lines of wayfaring.”¹⁴⁵ But experiencing places like this, in light of personal and collective histories and within contemporary socio-political context, involves resisting, or inverting-back the logic of generalised space by focusing on the situated, knotted and lived aspects of a particular place.

In a sense, the purposes of the portfolio works in regard to the places they correspond with are twofold. They try to follow Ingold or Auge by cherishing the relations - social, material and others - we have to certain places and insist on the making of place rather than space. But at the same time, on a different register, since these works are at times dealing with places and non-places overburdened with ideology to a degree of limiting the way they are perceived, it wishes to defamiliarize, unlearn and get to know them differently.¹⁴⁶ They were thus conceived as experimental situations through which the relation of those involved, me as a composer, the performers and the listeners, with certain places could be re-examined. Doing so pushes against what Stenger’s had called the normalising, homogenising and destructive forces of capitalism, rejecting its ‘freeing’ of grounds for nothing but itself,¹⁴⁷ transforming back acoustic spaces into contemplative places through the process of musicking and listening.

¹⁴² For a dialectical view of place See: Andrew Merrifield, 'Place and space: a Lefebvrian reconciliation', *Transaction of the Institute of British Geographers*, 1993, vol. 18, no. 4, pp. 516-31; and for global connections see: Doreen Massey, "Power-geometry and a progressive sense of place," in *Mapping the futures*, pp. 60-70. (Routledge, 2012).

¹⁴³ Michel de Certeau, *The Practice of Everyday Life*, (Berkeley: Univ. of California Press, 1988), 117.

¹⁴⁴ Tim Ingold, *Being alive: Essays on movement, knowledge and description*, (Routledge, 2021), 146.

¹⁴⁵ Ibid, 149.

¹⁴⁶ Erica McWilliam, "Unlearning Pedagogy," In *Shaping the Future*, pp. 75-88, (Netherlands: Brill, 2007), 76.

¹⁴⁷ Stengers, *Ecology of Practices*, 185.

In order to do that, each of these works destabilised one or more aspects of how the places involved in their making or realisation were experienced. Corresponding with different aspects of a place - acoustic-material or historical-cultural - and incorporating site-specific elements, affected the organising principles and the overall structure of these works. These alterations have different manifestations and can generally be clustered into three main artistic strategies: (1) Using loudspeakers and sound-emitting sculptures; (2) Sonically juxtaposing sounds from different places simultaneously, and (3) The use of ambulatory activity, namely walking. In the next section I will explore how these approaches unfold in my practice.

Loudspeakers and Sound-Sculptures

In all four portfolio works, a constituent element is field recordings conducted in specific places or along specific paths. These recordings were used as points of origin for composition, as well as layers to react to musically during performance. These sounds are transmitted into the performance space by loudspeakers or, in the case of *7 Walks*, by a sound-emitting sculpture, mounted with transducers. This method results in a contrast, an interference even, between the situated and often charged fixed-media sounds, and those of the acoustic, abstract instrumental sounds, offering a chance to re-examine the relation to the places involved. To serve this goal, listening to, and working with the recorded sounds was coupled with a consideration of how exactly these sounds are to be dispersed through the performing spaces.

The introduction of montaged field recordings, combining recordings from different sites into one auditory stream, from politically disputed places as auditory elements of the instrumental work's score, requires the performers to tune into the sounds of these places, to react to them and think about their meaning. The emotional chargedness of this process is clear in the case of an Israeli ensemble playing by border recordings in *Groundwork*. This work was initiated by a series of recorded sound-walks along the Israeli borders, that were then emitted into the hall of Tmuna theatre by five speakers - four at the corners of the stage in a quad setup with an additional central one, all visible. The position of the borders where

the recordings were taken, prescribed the direction from which they were to be projected on stage, corresponding with their compass direction (Fig. 1 - *Groundwork* map). This compass analogy opened up the possibility for the musicians to navigate and to react musically to the direction from which sounds are heard, and afforded a rectangular movement pattern. Additionally, these speakers were marking an encapsulating territory and imposed a border the performers were instructed not to cross, nor to musically react to events taking place on its other side. But being a mere imaginary line, unmarked on stage, and considering the complexity or even impossibility of their task at hand, the performers failed to do so, engaged with sounds from across the border, and by doing so, exposed the paradox of the border, or at least of the sonic demarcation line.

This liminal enquiry follows similar artistic engagements with notions of boundaries, division, and the complexities of geopolitical conflicts. Francois Alys' artwork '*The green line*' (2004), explores the historical 1967 ceasefire border between Israel and Palestine in Jerusalem through a video-documented performative walk along that line. Carrying a green bucket of paint and marking his path with a trail of pigment, Alys's intervention exposes the stark contrast between cartographic representations and the lived realities they impose.¹⁴⁸ In a parallel vein, Lawrence Abu Hamdan's '*Language Gulf in the Shouting Valley*' (2013) features recordings from the Golan Heights' 'shouting valley', where the Druze population defiantly communicates with family and friends across the Israeli-Syrian disputed border, intricately complicating the solid divide.¹⁴⁹ Similarly, in Samson Young's '*Liquid borders*' (2012-14), an inquiry into the sonic barriers separating Hong Kong and Mainland China, the sound-artist journeyed into the restricted zones along the border, conducted field recordings of vibrating fence wires and of the Shenzhen River and subsequently transcribed and edited them into electronic compositions.¹⁵⁰ These sonic and embodied representations of borders "reveal that aspect of the border that is always in motion, no longer an object but an experience".¹⁵¹ While a border divides a space and poses an impassable barrier for movement, it also serves a reminder of its continuity and exchange of information and energy, which

¹⁴⁸ Francis Alys, "The Green Line," April 19, 2022, <https://francisalys.com/the-green-line/>.

¹⁴⁹ Lawrence Abu Hamdan, "This Whole Time There Were No Landmines," n.d., <http://lawrenceabuhamdan.com/no-landmines>.

¹⁵⁰ Samson Young, "Liquid Borders," n.d., <https://www.thismusicisfalse.com/liquid-borders>.

¹⁵¹ Jon Solomon and Lu Pan, "Bordering Hong Kong: Towards a heterotopic 'elsewhere'," *Journal of Contemporary Chinese Art*8, no. 1 (2021): 3-12, 6.

constantly takes place across the entire environment. These exchanges render an environment in a sense indivisible, and thus, echoing Denes' *Wheatfield, Groundwork* challenges the notion of separateness of 'theatre' from 'city' from 'land' and renders them as a set of knotted and continuous places.

For *7 Walks* a different approach towards both the positioning of speakers and their materiality was taken. First, reacting to the idea that the performance takes place in Europe, a different continent than the one of the recordings governing it, the speakers were localised at a single spot, as if from a sonic vanishing point. All the fixed media sounds in *7 Walks* were emitted by *Rauch* (Fig. 11) - a sound sculpture made out of foam-boards and equipped with a multi-channel transducer setup. This geometric ghostly figure, alluding to an absent instrument's case, was emitting sound through all its surfaces, and due to the acoustic properties of the foam-boards, the sound was both filtered and had a very diffuse quality. A Max/MSP patch utilising a vector-base amplitude panning spatialized the recorded sounds,¹⁵² routing them to a multi-channel array of transducers fitted inside of *Rauch* in rotating paths. Admittedly, due to the nature of the foam-boards and the fact that the structure was hollow, the sounds' perceived movement was not very distinct, but the effect of them 'hovering' around the different parts of *Rauch's* body still helped convey a feeling of movement within them.

¹⁵² Nathan Wolek, "GitHub - Nwolek/Vbap: Legacy Objects for Vector Based Amplitude Panning in Max
Authored by Ville Pullki.," n.d., <https://github.com/nwolek/vbap>.



Fig. 11, *Rauch*, installation view, Archive Kabinett, Berlin, 30.10.2018.

Even while using similar materials to *Groundwork*, the pre-recorded media parts functioned differently here. Emitting a sparse, hour-long looped sound track which consisted, for the most part, of field recordings taken during field trips to deserted palestinian villages in Israel-Palestine, it functioned as a non-surrounding portal to an ‘elsewhere’, a non-specific, abstracted village depopulated due to war. Installed as an architectural intervention, a specially made rectangular stage displaying *Blitzdorf’s* instrumentarium, during the exhibition period it was activated by an ensemble only twice. In these hour-long performances, five performers, functioning as kinds of ghosts or visitors to this village, blended in different ways with the sound track through a series of scenes or ‘walks’. As each walk was based on a

single primary geographical source, it gave the performers acoustic, musical and semantic associations aiding them in blending with the texture (Fig. 3 - *7 Walks* score excerpt). These occasional 'visits' of the ensemble to the empty stage and the peculiar interactions between them, the instruments and the sound-sculpture, which served as a conductor and an auditory score, all foregrounded this gesture of coming into and out of a place. Combining these different elements - field recordings, sound sculptures, instruments and live musicians - together, changed how they were perceived: No more were the two remote locations, Israeli landscape and German gallery, completely separated, as the installation and performances musically incorporated together aspects of their complex history, memories and resonance, fusing them through sound.

Taking a different stance towards altering places, both *Sirena* and *The Imaginary Conservatory* used more common, PA-style loudspeakers in a stereo frontal setup to transform the performance place through the content of their sounds. A main element in *Sirena* was recordings of Israeli national memorial day's air-raid sirens, introduced in the 'Compositional approach section'. But unlike in *Groundwork*, here the recordings were electronically manipulated, making them more of an abstraction of the place they documented, carrying its musical aura.¹⁵³ Performed in a theatre hall, its full range stereo speaker system was used to amplify the two different sources: small, fragile, fluctuating instrumental sounds by the ensemble, and large, all pervasive, recorded, wailing sounds. By juxtaposing and blending these different sonorities and locations together, the acoustics of the performance hall was alienated, bringing forth the friction between the contrasting instrumental and spatial scales.

The Imaginary Conservatory synthesised the approaches of *Groundwork*, *7 Walks* and *Sirena*. In addition to its other mediatory functions, discussed in the 'Walking' section below and in 'Chapter Three Defamiliarizing Instruments', instructing the performers to conduct recorded sound-walks themselves and to use these recordings as a base layer and an auditory score for their performance, helped in questioning the gallery space's role in it. The inclusion of environmental sound, brought into the gallery by the performers, served to open it up and weaken its status as an idealised or hermetic white-cube. In addition, this rich combination of

¹⁵³ Ming Tsao, "What is Speculative Music Composition," *PARSE Journal* 7 (2017), 45-62, 47.

recorded and live sounds, captured and generated by the performers themselves, helped constitute this place as a temporary institution demonstrating less-hierarchical musical learning, an ‘imaginary’ conservatory.

All these works reflect a broader artistic exploration of space transformation through live and recorded sounds, building on the legacy of composers who utilised field recordings, like Luc Ferrari and Annea Lockwood. Ferrari’s approach in pieces like *‘Presque rien ou le lever du jour au bord de la mer’* (‘Almost nothing with the seashore at daybreak’, 1968) and Lockwood’s *‘A Sound Map of the Hudson River’* (1982) are notable for their use of field recordings to create aural collages of specific locations. But while in these works the field-recordings are sonic journeys in and of themselves, and are the prominent musical result, within my portfolio, such recordings serve a more initial function, providing a foundational layer, an auditory score that guides and is being accompanied by the live instrumental sounds. This approach, combining localised field recordings with acoustic instrumental performance, not only evokes the sense of different places but ideally creates juxtapositions, or blurs the lines between places of rehearsal and performance.

Juxtaposed Aural Architectures

The portfolio works’ combination of instrumental sounds from live musicians with recordings, blends sounds in the performance space. In *‘Spaces speak are you listening’*, Blesser and Salter introduce the concept of aural architectures as the “properties of a space that can be experienced by listening,”¹⁵⁴ suggesting that the concert hall functions as a ‘meta-instrument’ which acts as a secondary resonator to that of the instruments played within it.¹⁵⁵ Contemplating the aural architectures with which they engage, *Groundwork*, *7 Walks*, *Sirena* and *The Imaginary Conservatory* raise the question: where does the concert truly occur? While a customary answer might be the performance hall, these works’ settings

¹⁵⁴ Barry Blesser and Linda-Ruth Salter, *Spaces speak, are you listening?: experiencing aural architecture*, (MIT press, 2009), 5.

¹⁵⁵ *Ibid.*, 136.

in non-traditional, acoustically untreated spaces that are often open to external street sounds, blur this notion. Considering that any location always draws on connection beyond its boundaries,¹⁵⁶ these compositions corresponded with external sounds by instructing the musicians to use complex, unstable sound materials, and orient themselves based on fixed media tracks of environmental, noisy soundscapes. By the introduction of field recordings made directly outside of the hall in *Groundwork*, the music brings the street inside, incorporating incidental sounds into its texture. The habitual notion of place is thus defamiliarized by questioning the locus of the concert and by the attempts at answering this question, which expose the artificiality of places' divisions.

In *Sirena* the concert takes place in a theatre hall and the work resists its aural architecture by imposing a field recording of a very different, outside site. Its formulation as a concert piece allowed bridging between two distinct, remote 'aural perspectives'.¹⁵⁷ The acoustic sounds address the instrumental mechanics in a relatively detailed manner and ask for delicate and fragile playing techniques. As they are amplified, and thanks to the hall's favourable, properly treated, acoustics, the 'microphonic'¹⁵⁸ structures and detailed dynamism of these sounds are being accentuated. But while the instruments on stage present a microscope of subtle techniques, these sounds are superimposed by the much larger ones, spatially and spectrally, of the recorded sirens. Juxtaposed and at times masked by the recording, the instruments provide an aural perspective to the much larger scale of land sound.

The electronically manipulated recorded sirens still bear the aura of their vast physical scale and as they enter the hall they influence it. The score's usage of temporal cues based on listening to these sounds also reflect this exchange; as the speaker-emitted sounds interact with the acoustic properties of the hall's architecture they in turn inform the musicians' tempo, and the rate of change of their techniques, demonstrating the incorporation of spatial acoustics into musical language.¹⁵⁹ At times in accord with, and at other overpowering the instrumental ensemble, the sirens hope to induce the audience into a consensual, yet still

¹⁵⁶ Doreen Massey, "*Space, Place, and Gender*", (Minneapolis: Univ. of Minnesota Press, 1994), 129.

¹⁵⁷ Blesser and Salter, *Spaces Speak*, 130.

¹⁵⁸ Grisey, *Tempus ex Machina*, 259.

¹⁵⁹ Blesser and Salter, *Spaces speak*, 128.

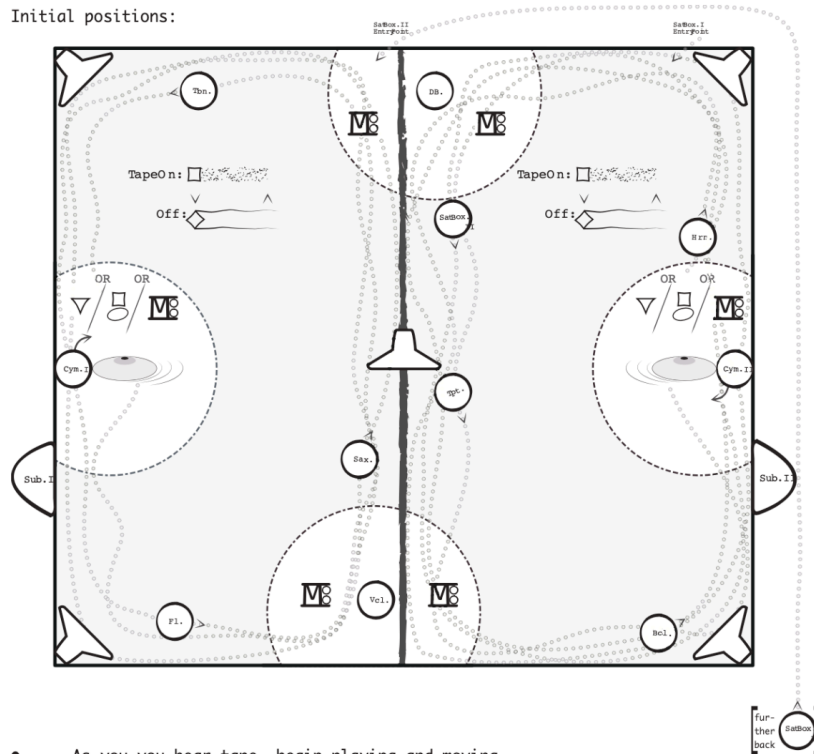
uneasy, musical experience that ties together the cultural ritual of the indoor musical concert with the political ritual of the non-consensual, 'open-air concert' captured on the recording. In that regard, *Sirena* is another attempt of alienating the performance place by bringing the outside in, by stretching aural lines between Germany, the place of performance in this instance, and Israel, the documented place. It thus challenges the conception of war as something that happened far away or long ago, in the case of Germany, by juxtaposing the hall's aural architecture sounds with the here-and-now sounds of Israeli wars.

Both *Groundwork* and *7 Walks* demand heightened spatial awareness from the performers through tying together playing techniques with sonic cues from the speakers, by instructing the performers to direct their listening to localised sound sources, and through their movement in space. In regard to the playing technique, the accurate contact point between the playing hand and the instrument, required to hold a string multiphonic as in *Groundwork* for example, is akin to a specific place in the sense that it encapsulates and is made of a particular constellation of relations and forces, physically and mentally, that, as geographer Doreen Massey notes, are woven together at that locus.¹⁶⁰ When tied together and attuned to each other in this way, the vibrating instruments within the ensemble, the meta-instrument that is the performance hall, the city it stands in, and the state's territory, are all shaping the meaning of the performance. In the case of *Groundwork*, this weaving is done through an unconventional score that constructs a kind of interdependent, mobile-like happening that incorporates into the shaping of the sonic material a spatial logic - instructing the musicians to play specific sounds based on where they are in the performing space rather than 'when' in the work's timeline (Fig. 12).

¹⁶⁰ Massey, *Space, Place, and Gender*, 155.

GENERAL WINDS & BRASS

Initial positions:



- As you you hear tape, begin playing and moving.

Materials (all are continuous and long):

- [textured square] When reacting to Tape / SatBox - Granular, fricative.
- ▽ / OR / OR / [triangle with circle] / [triangle with circle] In Cymbal Zone - Pedal / Sing+Play / Multiphonic / Split-tone from pool.
In String Zone - Multi reacting (See ossias).
- ◇ [triangle with caret] When in a free zone - Air sounds.

- Anywhere, except for in String's Zone, you may join others from your group interacting with Cymbal with sounds from 'Strong-pool'
- When you pass across a Satbox (as he/she walks in the external ring), you may interact shortly with Grain (□ [textured square]).
- Non equilibrium sound materials: The sounds you produce are unstable and are constantly on the threshold of breaking. It is absolutely desirable here to

Fig. 12, *Groundwork* θ , score excerpt.

Additional compositional strategies that are used within these works is the rejection of most perceptible harmonic changes, and the stark slowing down of harmonic rhythm. *Groundwork* features a drone consisting of a relatively fixed aggregate of tones by bowed cymbals, joined by strings, and continuous sonorities by the winds reacting to the speakers. This drone is minutely changed by the movement of the walking performers, strengthening and weakening the different components in the drone according to their position, an effect

explored by Iannis Xenakis in *Eonta* (1963) or more recently by Rebecca Saunders in her series of collages for ensemble *Chroma* (2003-21). In *7 Walks*, the musicians play slow, long held, mostly fricative sounds that blend with the fixed-media and weaken the listeners' temporal orientation. *Sirena* fuses the instrumental quartet with the siren's recordings for a thick and static aggregate in a 'wall of sound'¹⁶¹ manner. This term is more suitable than the 'sound masses' of renowned orchestral works by Ligeti, Xenakis or Lutoslawski, since the sonic textures in these chamber works comprises fewer elements and are thinner. But nonetheless, by sufficiently blending the instrumental with the recorded sounds the auditory spectrum is still saturated enough to make for a disorienting effect which opens up the possibility to reconsider the status of the listening place.¹⁶²

These various mechanisms help to establish a different sense of locality, or altered situatedness. Both *Groundwork* and *Sirena* alienate the notion of place by playing on the tension between the immersive, abstract drone and the listeners' knowledge in regard to its concrete, politicised origin. *7 Walks* questions the 'here' of the work by focusing on listening in Berlin to the aftermath of violence in Israel-Palestine, and *The Imaginary Conservatory* uses speakers to counterpoint a rehearsal in the gallery, further blending the outside and in, the public and private elements of this chamber durational performance. In a sense, all these works try to deal with and unpack my own indoctrination of normalised violence that lies at the core of my upbringing and education, and the banality of what is left of this violence. Carefully superimposing various sound sources subverts aural architectures, opening up a space to reframe intense places and histories. As such, its importance lies in helping reimagine the (core)relations between place, space and the sounding objects within them in light of historical memory.¹⁶³

¹⁶¹ For a recent discussion of Phil Spector's production technique see: Theo Cateforis Ed., *The Rock History Reader (3rd ed.)*, (Routledge, 2018), 45.

¹⁶² For a recent analysis of such sound masses from a music cognition perspective see: Jason Noble and Stephen McAdams, "Sound mass, auditory perception, and 'post-tone' music." *Journal of New Music Research* 49, no. 3 (2020): 231-251.

¹⁶³ Rosa Cordillera A. Castillo, "The Past, Present, and Future Entangled: Memory-Work as Decolonial Praxis," In *Decolonial Enactments in Community Psychology*, 253-271, (Springer, Cham, 2022).

Walking

The last key ingredient in this investigation and readjustment towards places is the practice of recorded walks, in a manner that follows Hildegard Westerkamp's imperative Hildegard Westerkamp's imperative to "go out and listen."¹⁶⁴ Fascinated by how different places may sonically come together, leak, fold, contaminate and collide, an initial step for most of these works was to conduct field recordings, mainly of sound-walks. In the case of *Groundwork* for instance, the entry point to the practice of listening to the land was to walk and record in the non-places¹⁶⁵ of the never-resolved Israeli state borders between its neighbour states and Palestine. Part of the desire was to go into the metaphorical 'thickness of the line' and to experience the border not as a limit that one should not approach, nor as a threshold that could be transgressed, but as a place in and of itself, through sound. Walking along a wire fence while carefully listening revealed how this physical border was completely inaudible in most places. Through my ears and through the microphones I could hear sounds of the weather, of birds and other animals, none of which were impacted by the border, coming from both of its sides equally. And as my "own physicality and actual embodiment in the *here and now* within the environment was put into the equation in a way that concert listening customarily denies",¹⁶⁶ I wanted to capture some of this experience. By experiencing the geography and the sense of place differently I managed to defamiliarise myself with these territories, and the works attempted to bring some of these renewed understandings back indoors, to be listened to in a performative, concert situation, where the performers themselves are in locomotion.

Supporting the sense of navigation, unlike in Samuel Becket's television play *Quad I+II* (1981) for example,¹⁶⁷ where the score clearly defines the performers' movement shape and trajectory, *Groundwork* outlines zones of action that are knowingly fuzzy, and that therefore will be blurred. This fuzziness is again both conceptual-political, as well as acoustic and musical. On the conceptual level the work relates to the border as a place with volume, a

¹⁶⁴ Hildegard Westerkamp, "Soundwalking", In: Angus Carlyle, ed., *Autumn leaves: sound and the environment in artistic practice*, (Paris: Double Entendre, 2007), 49.

¹⁶⁵ Augé, *Non-place*, 78.

¹⁶⁶ Drever, *Soundwalking*, 184.

¹⁶⁷ Samuel Beckett, *The complete dramatic works of Samuel Beckett*, (London: Faber & Faber, 2012), 450.

sonic environment that is constituted by sounds from both its sides, hence eroding the border's limiting function. This eroded division is then later manifested acoustically by the performers' inability to not react to sounds from outside 'their' half of the stage. Constantly moving along invisible borders on stage, they echo the gesture of capturing these recordings and with their added sounds, decisions and mistakes imbue it with richer musical meaning.

In *7 Walks*, realised in a relatively small gallery space in Berlin, a different approach was taken. The recorded walks emitted by the *Rauch* sound sculpture were mostly from Palestinian villages pre-dating the state of Israel and omitted from its official maps, and were taken explicitly in order to alienate this territory: To listen to what is invisible and unspoken in a place that I thought I knew, turning the ear to seemingly mundane sites and acknowledging the violence buried beneath their surface. In an ocularcentric world, a ruin can be easily normalised in the periphery of one's gaze, but the experience of listening to an empty village square, auralizing the missing layers of human existence can be uncanny and unsettling. The practice of walking and listening through these places was quite literally an ear opening, transformative personal experience, one that I wished to be able to transmit to an audience.

As the work combined other layers, such as border walks, the aforementioned recordings of memorial day sirens and even folk songs, walking was but one element within a broader mix. During the performance itself, one musician, playing the *Satbox* instrument, is constantly on the move, orbiting the stage while playing fricative high frequency sounds that are easily locatable and are well reflected by the concrete walls. Two other musicians are playing the *Alufon*, whose ergodynamics call for walking around the instrument in order to excite its different parts. During the sixth 'walk', the four ensemble members who played on stage until that point join the *Satbox* player in walking through the hall, leaving the stage empty for the last 'walk' performed by the sound sculpture alone. Being an imaginary village, deserted due to war, the seven walks in and around *Blitzdorf* (which in German roughly means *flash village*) use the actual performers' locomotion as counterpoint to the recorded and symbolic walks, and common to such polyphonic texture, the different parts inform and enrich each other.

The Imaginary Conservatory built upon the previous works' methodologies by tasking the performers themselves to record sound walks. As mentioned, used as a layer during the performance, these sound walks provided support for the highly novel performance situation, lessened my authorial dominance and better connected the work to the city environment where it was performed. The temporal counterpoint between the current learning task - figuring out the new *Alufon Virginal* - and the recorded memories of paths already taken is joined by a spatial one: Musicians, faced with the challenge of publicly performing their learning of a new instrument, found familiarity in auditory elements from previous experiences, bridging the unknown with the familiar and 'already-learned'. Like its predecessor, the *Alufon* from *Blitzdorf*, the *Alufon Virginal* afforded walking around it as part of its ergonomics. Walking around it with sounds of the performer's environments of choice on their recorded walks created a spatial juxtaposition of the gallery's aural architecture and the external urban soundscapes providing another sonic perspective on that new instrument at hand.

As in previous cases, the polyphony arising from the blend of different sound sources, acoustic and electronic, live and pre-recorded, charged the listening experience for performers and audience alike. Echoing the approach used in *7 Walks*, the musicians' recorded walks mirrored my own, and this gesture manifests at the concluding session where all three musicians simultaneously play the *Alufon-Virginal*, guided by a recorded walk I provided. Starting *The Imaginary Conservatory's* realisation and the instrument's learning process with the walking practice broadened the spatial and temporal scope of learning, suggesting that walking and listening outdoors can be as integral to the 'instrumental lesson' as rehearsing or performing with it.

This utilisation of recorded walks joins some of the other portfolio works in the blending of inside and outside, past and present sounds. The performance site is thus heard as a microcosm that is always embedded in an environment and is porous to its surroundings. In all of these works, creating a correspondence between the concrete, and at times politicised contents of the recorded walks and the abstract sonic happening on stage or within the hall, created tension and highlighted different aspects of these sound sources, establishing new listening perspectives. Composing with these elements helped me conceive ways of

incorporating external realities into the performance space and the work itself, thus defamiliarizing this aspect of the process to myself. In that sense, these experiments in destabilising aspects of locality can be listened to as an effort to remain engaged with the complexities of a place.¹⁶⁸ The practice of walking, especially recorded sound walks, emerged as a potent source material for unsettling elements of space and place, embodying the dynamism and intricacies of different environments.

Closure

In this chapter I discussed different approaches taken in order to defamiliarise myself with the habitual conception of already known places, serving the aim of reinvigorating my composing practice by re-examining and destabilising elements within it. The engagement with various sites through these works was educational and served the attempt of breaking away from the view of space as a general, exchangeable thing by revisiting places that I had a strong connection to. Hebrew, the language I mostly think through, makes a deeply poetic distinction between space and place. The word for place, *makom*, denotes the spatial range of divine existence,¹⁶⁹ while the word for space, *chalal*, denotes the unsacred and profane, and is also used to denote a soldier who died in action, borrowing the hole made by sword to mark the void left by their perish.¹⁷⁰ Working with charged places and integrating their sounds into performances in various halls unhabituated the way I related to both. The ‘sources’ sounds from outside sites, where the sacred and profane audibly intermingle, estranged the inside places of performance to my, and by proxy the performers’ and listeners’, ears. In exploring both the symbolic and material dimensions of space and place, these works bring the situated nature of musical experience to the awareness and make its perception more ‘difficult’.¹⁷¹

While acknowledging that the performance offers an aesthetic experience enclosed within a hall, these works establish a dialectic process between listening to the sounding

¹⁶⁸ Donna J. Haraway, *Staying with the trouble: Making kin in the Chthulucene*, (Duke Univ. Press, 2016), 12.

¹⁶⁹ Menahem Zevi Kaddari, *A Dictionary of Biblical Hebrew (Alef-Taw)*, (Bar-Ilan Univ. Press, 2007), 658.

¹⁷⁰ *Ibid.*, 306-7.

¹⁷¹ Daniel Gunn, “Making Art Strange: A Commentary on Defamiliarization,” *The Georgia Review* 38, no. 1 (1984), 28.

texture and to what Lachenmann explained as listening to “what music in a specific historical social situation can still be”,¹⁷² in this case, in regard to troubled places and times. To achieve this, the various elements, such as the use of loud-speakers and their placement, the use of sound sculptures and transducers or the locomotion of performers, were carefully considered and utilised in ways that contributed to these altered relations with the production, definition and performance of places. Thus, the situatedness of each ‘where’ and ‘when’, captured in the score of each work, was a unique mixture of the preconditions, the material and political reality of its creation, and its rendition as a musical performance. In using a unique instrumentarium, either existing and prepared, as in the case of *Groundwork* and *Sirena* or newly made, as in *7 Walks* and *The Imaginary Conservatory*, the performances each became one of a kind, and the coupling of idiosyncratic acoustic sonorities with fixed recordings from politically charged locations generated musical events that simultaneously were lead by, reacted to and subverted the realities that enabled them. As such, these works helped me understand how to capture and compose the complexity of playing, listening and moving bodies and places. Through using these elements, in addition to opening up the procedure of generating the score together with the ensemble, as in *Groundwork* or *The Imaginary Conservatory*, the figure of the all knowing composer was side-stepped, to some extent, in favour of a facilitator of a dynamic musical situation.

My role as a composer still included the conception of these works, curating, editing and mixing of the recordings, establishing their structures and writing their scores. Yet, incorporating elements beyond my control, such as the field recordings, the use of novel instruments and the movements of performers, led to a sense of diminished authorial dominance. Using field recordings as an impetus for a work sent me on a different thinking path than had I tried and pre-conceive a structure or a temporal unfolding of these works based on more internal cues. In *Groundwork* for instance, leaving the harmonic field open for the ensemble to fill, led to new and foreign, yet surprisingly cohesive and balanced sonic results, quite different from my prior harmonic and pitch organising choices. The resulting sonorities, consisting of unstable instrumental sounds that are entangled with recorded places across multiple scales, offers a glimpse into the potential of these un-habituated gestures. These experiments in reframing places thus afforded a renewal of my compositional practice,

¹⁷² Helmut Lachenmann, "On structuralism," *Contemporary Music Review* 12, no. 1 (1995): 93-102, 96.

allowing me to interact with musical materials within a concert setting in fresh, novel ways.

I work with and through sound as it is my prime modality of perceiving and interacting with the environment. Sound's inherent dynamism and activity across broad ranges enables the conception of vast spatio-temporal scales. It is suitable for communicating geographical magnitudes, as done in *Sirena*, and historical time frames, as in *7 Walks*, alike. Recording active soundscapes infuses my compositions with the contingent elements of specific times and places, leading to a destabilised practice that is more receptive to the unexpected world and its complexities. As these performances are all mitigated through instrumental sounds, the next chapter will cover my various approaches to altering and refreshing my relations with musical instruments, continuing the exploration of how these elements may reshape the practice altogether.

Chapter 3: Defamiliarizing Instruments

Altering the usage of instruments, by preparing, modifying, or creating entirely new ones, is another important strategy for rejuvenating instrumental practices. Within my compositional work, these approaches have opened new possibilities and affordances for musicking with instruments in novel ways, thereby challenging former paradigmatic methods. In this chapter, following some historical context of composers and musicians who engaged with new musical instruments, I will examine the use of instruments in *Top-Game*, *7 Walks*, *The Imaginary Conservatory* and *72 Prompts*. Weaving more contemporary examples, this discussion will focus on aspects of instruments' materiality, their modes and maps of mediation, their goals and the effects they have on both composing and performing.

My experiments in dealing with altered and novel instruments are informed by a long tradition of instrumental tinkering and invention. During the 20th century, expanding compositional techniques and technologies lead to significant musical innovations through the invention of new instruments.¹⁷³ Examples include Scriabin's and Mozer's 'light keyboard' - *tastiera per luce*,¹⁷⁴ Russolo's and Piatti's orchestra of noise instruments,¹⁷⁵ and Theremin's renowned *Theremin*.¹⁷⁶ With the advent of electronic technologies, experimentation with phonographs and magnetic tapes proliferated, exemplified by Pierre Schaeffer's composition of entire electronic pieces using recording technology,¹⁷⁷ or Cage's early use of the phonograph as a musical instrument.¹⁷⁸ This paved the way for the wider musical community to adopt tape manipulation as a creative resource. Daphne Oram's 'Oramics' machine combined the concept of the graphic score with direct electronic translation, blurring the traditional separation of notating ideas for sonic events and their faithful reproduction.¹⁷⁹ 72

¹⁷³ Laurence Libin, "Progress, Adaptation, and the Evolution of Musical Instruments," *Journal of the American Musical Instrument Society*, n.d., 28.

¹⁷⁴ Anna M. Gawboy and Justin Townsend, "Scriabin and the Possible," *Music Theory Online* 18, no. 2 (June 2012), doi.org/10.30535/mto.18.2.2.

¹⁷⁵ Luigi Russolo, *The art of noises*, (New York: Pendragon press, 1986), 75.

¹⁷⁶ Thomas Patteson, *Instruments for new music: sound, technology, and modernism*, (California: Univ. of California Press 2016), 67. Patteson's review goes much deeper and covers developments on the other side of the ocean, such as Henry Cowell's and Léon Theremin's *Rhythmicon*, and the new compositional possibilities opened up by such developments.

¹⁷⁷ Thom Holmes, *Electronic and Experimental Music: Technology, Music, and Culture*, (Routledge, 2012), 52.

¹⁷⁸ Christoph Cox, *Sonic Flux: Sound, Art, and Metaphysics*, (Chicago ; London: Univ. of Chicago Press, 2018), 53.

¹⁷⁹ *Ibid.*, 86.

Prompts in turn explored the potential of light instruments through an attempt to integrate live played overhead-projector together with an instrumental ensemble.

In the acoustic realm, American experimentalists such as Harry Partch developed a new tuning system and a wide variety of new musical instruments, embracing a holistic view of musical composition called ‘corporeality’.¹⁸⁰ Partch’s instruments offer an unconventional unity of form and function; being tuned in his 43-tone scale system, they take into consideration the ergonomic, theatrical and even serial affordances, which are folded into them.¹⁸¹ Such an approach is echoed in Alvin Lucier’s work in the 1960’s and 70’s, during which he developed a body of work that examined the nature of acoustic phenomena by constructing situations where the performer, the instrument and the acoustic space are highly interconnected.¹⁸² In his electro-acoustic piece *I am sitting in a room* (1969), Lucier explored the interdependence of performer, instrument, and acoustic space, as the room’s filtration of his own voice becomes the composition itself. This immersive interface encompasses the aural architecture with the listeners in it, extending the composer’s body in a sense.¹⁸³ Even though done in a less strict manner, both *The Imaginary Conservatory* and *Top-Game* are influenced by such attempts in drawing out of instrumental assemblages, rules, dynamics and behaviours, to inform the work as an integrated whole.

From a different perspective, these pieces are also informed by Helmut Lachenmann’s ‘music concrete instrumental’ and his successors, approaches that explore complex and non-pitched sounds by preparing and modifying instruments, coupled with precise notation for them.¹⁸⁴ Notable examples along this line include Michael Maierhof’s usage of prepared, often motorised instruments and oscillating systems,¹⁸⁵ Ash Fure’s tight integration of amplification in her instrumental chamber works that tap into the physicality of the

¹⁸⁰ Harry Partch, *Genesis of a music: an account of a creative work, its roots and its fulfillments*, (New York: Da Capo Press, 1979), 6.

¹⁸¹ Ben Johnston, “The Corporealism of Harry Partch,” *Perspectives of New Music* 13, no. 2 (1975): 85–97, doi.org/10.2307/832085.

¹⁸² Alvin Lucier, *Chambers: interviews with the composer by Douglas Simon*, (Middletown: Wesleyan U.P, 1980), 11.

¹⁸³ Voegelin, *Listening to noise and silence*, 127.

¹⁸⁴ David Ryan, Helmut Lachenmann, “Composer in Interview: Helmut Lachenmann”, *Tempo* 210 (1999): 20-25, 21.

¹⁸⁵ Hochschule für Musik und Theater Hamburg, “TENOR2021 Conference | Michael Maierhof - Multimedia Scores,” May 11, 2021, <https://www.youtube.com/watch?v=Isn6OT22c>.

performers in a visceral and fluid way,¹⁸⁶ and Wojtek Blecharz's theatrical exploration of novel ergodynamics on re-imagined acoustic instruments.¹⁸⁷ The favouring of intricate and fricative sounds in *7 Walks*, the blend of unconventional instrumental techniques with the musical spin tops of *Top-Game*, and the string preparation in *Groundwork*, exemplify the refined acoustic sensibilities developed through a close study of these composers' works.

Recent decades saw what could be described as an explosion of composers and sound artists working with new instruments and musical interfaces.¹⁸⁸ The influence of novel instruments on composed music spans from subtle register and timbral expansions, all the way to completely new musical syntaxes,¹⁸⁹ and my own work tries to harness this potency. Exploring the intrinsic connections between musical instruments' affordances and the way they are utilised, while carefully balancing these aspects with the way they sound is part of my attempts to reconsider and to re-invigorate my compositional practice. Organological alterations destabilise the dynamics of composing through its entire ecology but also afford possibilities for fresh experimental forms and nuanced musical creations.

Instrumental Forces

American composer Robert Erickson noted that what composers generally do is to compose their environment, corresponding with the available tools and technologies that are incorporated into the composition process.¹⁹⁰ This idea echoes that of affordance theory, which looks at the entwined relation between an organism and its environment, viewing the latter as holding a potential for action and affording, for example, the play-ability of an instrument. Introduced by psychologist James Gibson,¹⁹¹ it was further developed by design researcher Don Norman,¹⁹² and was recently fused with Bruno Latour's 'actor network

¹⁸⁶ Ashley Rose Fure, *Boundary Notions: A Sonic Art Portfolio*, Doctoral dissertation, Harvard Univ., 2013.

¹⁸⁷ Wojtek Blecharz, "K'an for Steel Drum and ca.130 Sticks.," February 12, 2014, <https://www.youtube.com/watch?v=uVz3YpQ4wvQ>.

¹⁸⁸ Magnusson, *Sonic writing*, 235.

¹⁸⁹ Thor Magnusson, "Musical organics: a heterarchical approach to digital organology." *Journal of New Music Research* 46, no. 3 (2017): 286-303, 287.

¹⁹⁰ Robert Erickson, "Composing Music", *Perspectives of New Music*, Summer, 1988, Vol. 26, No. 2 (1988): 86-95, doi.org/10.2307/833187.

¹⁹¹ Gibson, *Ecological visual perception*.

¹⁹² Norman, *Design of everyday things*.

theory'.¹⁹³ In order to side step what they viewed as a reduction of reality's complexity into idealised, clear subject-object binaries, Craig Blewett and Wayne Hugo proposed the term 'actant affordances'.¹⁹⁴ This concept better reflects the mutual influences, flows of information and energies between different actors in a given system, without prioritising an active agent who is manipulating a passive object or environment. The portfolio works of this current PhD all listen to and work with musical instruments aligned with such actant affordances, emphasising a more horizontal agency, where both performer and instrument, and by proxy composer and performer, hold similar importance and are regarded as equally active. Working under this idiom may include, for instance, exploring proprioception, physicality or movement patterns afforded by particular instruments, while also taking into account the psychology of interacting with it, as done in *The Imaginary Conservatory*.

These horizontalizing gestures also echo contemporary philosophical perspectives. Being closely attuned to the varied materials constituting musical instruments - aluminium, wooden guitar bodies and copper strings in *7 Walks' Alufon*, or neodymium magnets, epoxy, brass and copper coils in the case of *Top-Game's* spin tops - adheres to notions of material agency that resonates with new-materialist theories.¹⁹⁵ Jane Bennett's inquiry into the vitality of objects, which she frames as an ethical task to acknowledge and appreciate non-human life-forces, mirrors this approach.¹⁹⁶ Following these ideas, the preparation and creation of instruments in these works promotes a corresponding relationship with musical instruments, focusing on playing *with* them, rather than *on* them.¹⁹⁷

In order to unpack this statement, cases of instrumental usage within the works will be explored, aided by four analytical categories proposed by Emily Dolan and John Tresch for what they call 'ethics of instruments'.¹⁹⁸ The two argue that instruments, musical as well as

¹⁹³ Bruno Latour, *Reassembling the social: An introduction to actor-network-theory*, (Oxford Univ. Press, 2005).

¹⁹⁴ Craig Blewett and Wayne Hugo, "Actant affordances: a brief history of affordance theory and a Latourian extension for education technology research," *Critical Studies in Teaching and Learning* 4, no. 1 (2016): 55-76.

¹⁹⁵ Diana Coole and Samantha Frost, eds., *New Materialisms: Ontology, Agency, and Politics*, (NC: Duke Univ. Press, 2010)

¹⁹⁶ Jane Bennett, *Vibrant matter: A political ecology of things*, (Duke Univ. Press, 2010), 14.

¹⁹⁷ Thoreau's saying that "we do not ride on the railroad, it rides upon us" is in the background of this approach. Henry David Thoreau, *Walden; or, Life in the Woods* (1854), in *A Week on the Concord and Merrimack Rivers, Walden, The Maine Woods, Cape Cod* (New York, 1985), 396.

¹⁹⁸ John Tresch and Emily I. Dolan, "Toward a new organology: instruments of music and science." *Osiris* 28, no. 1 (2013): 278-298.

scientific, are deeply integrated with human activities and influence our understanding of notions of human conduct or freedom. As such, ethics hold significance for their epistemology, where knowledge appears not solely as a collection of ideas or practices, but as a mode of existence that includes ideals, ethical principles, and conceptions of the self.¹⁹⁹ Aligned with Bennett's call to open up towards non-human things, their outlined ethics of instruments build upon Foucault's notion of the ethical dimensions of the self.²⁰⁰ Translating these dimensions to discuss instruments, they come up with four categories, from small to large:

1. The instrument's material disposition, which includes the elements, materials and parts that constitute it. Particularly in this material assemblage a focus is given to the specific parts that define the instrument's distinct usage and whose alteration will change its nature.
2. The instrument's mode of mediation - its degree and form of agency. This disposition considers the instrument's action, for example, as independent or subordinate to something else, modifying and transformative or one that accentuates a continuation of state.
3. The map of mediations of which the instrument is a part. These include the sound, the forces and the people involved in musicking with the instrument, as well as the instrument's relation to its immediate environment.
4. The telos or ends of an instrument's activity - which deals with the nature of the activity in which the instrument is utilised, its social contexts, uses, and expressions of social, economic, and political relationships. On a broader scale, it encompasses the goals attributed to the instrument not in relation to itself, but its impact on users, players and listeners exposed to it and to its possible collective outcomes.²⁰¹

In the following sections these four dispositions will be applied to the portfolio works in order to examine the different instruments' novel affordances, the mediation of new instruments, their environmental relation and transformative goals.

¹⁹⁹ Ibid., 282

²⁰⁰ Michel Foucault, *The History of Sexuality, vol. 2, The Use of Pleasure*, trans. Robert Hurley (New York, 1990).

²⁰¹ Tresch and Dolan, *New organology*, 284.

Playing with Instruments

The material disposition of a musical instrument is cardinal to its sound, its ergonomics, playability and identity. Even if it bears the same name, a plastic Trombone is a very different instrument than its brass counterpart. Preparations, modifications and alterations to an instrument offer an opportunity of playing with and listening to it differently, while still maintaining its 'selfhood'. In improvised music, many examples for such practices can be heard in Berlin's *Echtzeitmusik* ('Real-time music') scene, where sets are often announcing traditional instruments but the reality on stage is anything but a normative usage of them.²⁰² In instrumental composition such methods are often deployed by post-Lachenmannian proponents such as Michael Maierhof's *Splitting* series (1999-) that often prepares instruments with small motors,²⁰³ or Raphael Cendo's *Rokh* (2012) that calls for extensive piano preparation. While adding to or subtracting parts from an instrument inevitably changes its ergonomics, another, subtler way of arriving at such alterations is by focusing on very specific playing techniques, or by starkly limiting an instrument's sonic palette. James Tenney's *Having Never Written a Note for Percussion* (1971)²⁰⁴ or Lucier's *Silver Streetcar for the Orchestra* (1988)²⁰⁵ for solo Triangle, are good examples of this. By continuously exciting a percussion instrument while gradually changing the contact point of a hit or its dynamic, both these works open up a vast range of timbral changes, to the degree of re-imagining the instruments themselves.

In a similar fashion, *Groundwork* asks the percussionists to use bows continuously on crash cymbals. Exciting cymbals exclusively through slow and precise bowing, conceptually transforms them into an idiosyncratic, experimental musical instrument. It doesn't sound like a common drum-set cymbal, nor does it abide with the ergonomics of one, yet it still is. This is an in-between situation as the cymbals are not 'prepared' with additional objects, but are made phenomenologically un-transparent through the unconventional use of bows as their

²⁰² Kleiner Berliner Konzert Kalender, "Echtzeitmusik," <https://www.echtzeitmusik.de/index.php?page=calendar>.

²⁰³ Michael Maierhof, "Works," 12.2023, <https://www.michaelmaierhof.de/works>.

²⁰⁴ James Tenney, *Having never written a note for percussion: for any percussion instrument (s)*, 1971, (Baltimore: Smith Publications, 1997).

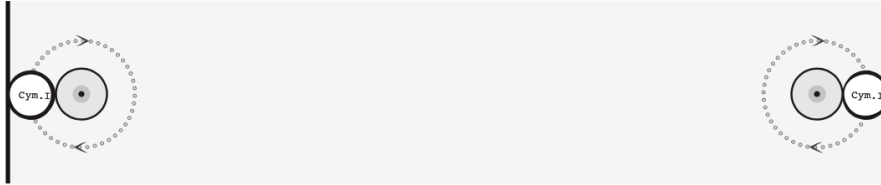
²⁰⁵ Alvin Lucier, *Silver streetcar for the orchestra : for amplified solo triangle*, (Kiel: Material Press, 2002).

sole exciters. This alteration by limitation also has consequences on the notation, as well as on the incorporation of such sonic materials into the composition. In the case of *Groundwork*, the notational object directly addressed this ‘unreadiness to hand’ and communicated mostly degrees of bow pressure, asking the musicians to follow the cymbals’ dynamics and to adjust their bowing according to their ‘give’ (Fig. 13). The composition as a whole is deeply affected by this, as the sonic spectra of the two cymbals provide the pitch structure for the whole work. The work’s harmonic field emerges from the specific and unique percussion instruments, and each ensemble that chooses to realise it is asked to render their own harmonic pool through a process of listening, analysing and transcribing bowed cymbals from their instrumentarium.

Sirena, which corresponded closely with the idea of air-raid siren as an instrument, took a different approach to its instruments’ material disposition. Binding the two brass members of the quartet, which are morphologically related to sirens, with the recorded sirens, are two percussionists. Their instrumentation generalises the working principle of fast circulatory movement within the air-raid siren and translates it to contemporary percussion’s ergonomics by spinning ball bearings on small resonating drum heads and within Tingsha-Bell cymbals. These metaphorical and mechanical connections helped establish a sonic palette where rotational velocity and degrees of resonance or damping are controlled and notated (Fig. 14). The amplified sound of a marble bouncing and spinning on a frame drum is one example of a sound that owes its conception to this material logic. Together with additional tangible and scaled associations, such as the resonance between the larger brass horns and the smaller brass cymbals, *Sirena*’s orchestration blends the different elements of the work sonically as well as conceptually, through its instrumental material disposition.

Both of these cases can be listened to as a move towards playing with, rather than on, the instruments. The lessened degree of control over conventional elements of instrumental sound, neither the pitch nor the rhythms are precisely controllable, tilts the agential balance towards the middle and asks the performer to follow the instrument’s own tendency and dynamic. The incorporation of these at times unexpected sounding results into the compositional logic and the work’s structure from their getgo, helps in integrating this shared agency while maintaining sonic cohesion.

- Initial position:



- As you hear the tape, begin playing and moving.
- Pressure levels throughout the piece:

Spkr. Drctn.	Cymbal .I	Cymbal .II	Bows *
			In / Ex
North	□ ↔ ■	□	1
East	■ ↔ ■	■ ↔ ■	2
South	□	□ ↔ ■	1
West	■ ↔ ■	■ ↔ ■	2
Center	■	■	Both Simult.

* Amount of full bow strokes
per inhalation / exhalation.

- Listen to which speakers are active and adjust your bow pressure accordingly.

Fig. 13, *Groundwork 0*, Percussion part, score excerpt.

1. Silently take position
 Slowly take 1 Marble & hold it frozen above Tamborim
 Drop Marble into Tamborim
 Take 2nd Marble, place hand above Trm. & wait for the silence to thicken
 Drop Marble into Trm.
 Decisively, pick Trm. & begin rotation

2. fast, steady
 Tpt. Split
 Siren
 Siren off
 Tbn. off
 Smoothly place Trm. on table
 Take Cymbals

*a Degrees of 'mutes' for marbles rotating in Tamborim (schematic drawings):

Fig. 14, *Sirena*, Percussion part, score excerpt.

Conductors and Inductors

Musical instruments are activated in various ways, often related to their organological or taxonomic categorization.²⁰⁶ Another method of altering the interaction with an instrument is by changing its mode of mediation or by varying the level or mode of its agency. This is Dolan and Tresch's second category, and can be seen as an expansion of the previous material one, but with wider ramifications. Consider Ellen Fullman's *Long-String* instrument for example, which consists of a set of horizontal metal strings that are excited by rubbing resin-covered fingers along them, creating longitudinal waves and emitting different overtones depending on their position.²⁰⁷ More than its material assemblage, the move from transverse vibration towards a longitudinal one have guided Fullman in the development of the instrument's set-up, tuning, composition and performance. Her instrument's novel material disposition affords a different mode of playing, but it is Fullman's listening and following its

²⁰⁶ Roderic C Knight, "The knight revision of Hornbostel-Sachs: a new look at musical instrument classification," *Oberlin College Conservatory of Music* (2015), 21.

²⁰⁷ Bart Hopkin and Ellen Fullman, 'Ellen Fullman's Long String Instrument', *Experimental Musical Instruments*, Vol. 1, no. 2, (Aug. 1985), 4.

peculiar ergodynamics that have led to its idiosyncratic form and function.

In my work *Top-Game*, questions of instrumental independence or subordination, of who is playing and who is being played, were central themes. This commissioned work for an ensemble provided an opportunity to integrate a new set of custom made electro-magnetic musical spin-tops, developed in collaboration with the Sono-Choreographic Collective, into a formal concert setting. *Top-Game* explores altered modes of instrumental mediation through combining established and novel instruments within the work. It is scored for an ensemble of twelve musicians, with nine playing their standard instruments and three operating the spin-tops, termed *inductors*. The nine musicians are divided into three trios, each of the musicians instructed to imitate, follow and react to the spin-top's action as it spins before them, playing in various combinations of three, six and nine players.

Two distinct kinds of spin-tops were used (Fig. 15): *Epoxy-tops* - small epoxy discs that sound a descending quasi sinuous tone, and *Cymbal-tops* - larger percussion cymbals equipped with magnets and mounted on a brass central pole, emitting a low bass rumble, as well as a rich shriek caused by the transmission of friction from the brass tip to the cymbal's body. The musical intention of this heterogeneous ensemble is all focused on the spin-tops' behaviour, with their mechanics and sounds guiding the ensemble's play. In this idiosyncratic setup, the spin-tops transitioned from being mere instruments to leading entities, shaping the ensemble's interaction and challenging notions of musical directorship typically embodied by a conductor.

It is a common practice to use a conductor to lead an ensemble of musicians. The word comes from the Latin *con* - together, with, and *ducere* - to lead. In the sense of leading and directing it has been in use since the 15th century, originally in a military context, and first appeared in relation to leading a musical performance only at the end of the 18th century.²⁰⁸ There are many good reasons to use a conductor and in many musical situations she is simply irreplaceable, but *Top-Game* explored a different way an ensemble can come together besides following a single person's baton. As the musical spin-tops work on the principle of

²⁰⁸ Origin and meaning of Conduct, *online dictionary of etymology*, <https://www.etymonline.com/word/conduct>, (Accessed 1.11.2023).

electromagnetic induction, pushing weak current through their coil pickups, this phenomena served as a model for the dynamic of the work. ‘Induction’ still contains the leading *ducere*, but the Latin prefix *in* - into, upon, changes its meaning to “leading by persuasion”.²⁰⁹ Substituting the one conductor who leads by command, are three inductors, persuading the musicians through the sound they emit to follow their spin-tops very closely to the best of their abilities. Similar to Fullman or Maierhof following their novel instruments, in *Top-Game* everyone collectively attends to the spin-tops’ particular ergodynamics and their semi expected behaviour. Characterised by a descending tone, wobble and imminent fall,they drive the music in both metaphorical and concrete, push and pull motions. It is a kind of a voluntary, subverted subordination to a highly independent musical instrument who induces one into a playful action.



Fig. 15. A family of musical spin-tops, Berlin, April 2019.

Being induced by the spin-tops, inanimate bodies that come to life for only a short while, may also lead to a different approach towards the instrumentalists’ own bodies. By following the spin-tops over time the players become ever more sensitised to the tops’ small

²⁰⁹ Origin and meaning of induct, *online dictionary of etymology*, <https://www.etymonline.com/word/induct>, (Accessed 1.11.2023).

undulations and wobbles, the subtle energies and vibrations as seen and heard, and the stance they take towards the instruments influences their own corporeal alignment. Such an induction offers an alternative mode of play, one that relates quite differently to ideas of virtuosity and vitality, favouring attention over achievement and attunement over accuracy. These ideals also relate to the fourth category of the purpose or goal of using instruments, and their alteration shows how changing instrumental mediation can lead to a change of its telos. Through the joint activity of players and instruments, the collective action in *Top-Game* opens up the musician's imagination to the possibilities of playing the 'dancing' tops for the sake of play and offers a different path for musicking with experimental new instruments as an integrated ensemble.

Instrument as environment

The third level in Dolan and Tresch's categorisation expands to the map of mediations of instruments and looks at their relation with the environment. In a radio interview with Golo Föllmer, Sudhu Tewari, an American composer and instrument maker, distinguished between two types of approaches to tuning new instruments: "There are people who care about tunings and people who don't. And I like to say, my favourite two tuning systems are: It was tuned this way when I found it, and: These sound nice together."²¹⁰ A third approach would be a fully calculated tuning system, the likes of equal or just temperaments. This distinction can be also viewed as different relations to the usage and connection instruments have with their environment. In the first, leaving an instrument in its found 'natural' tuning, the environment grants it with its sound. The second, tuning according to taste, serves the practitioner's inner auralizing desires, and in the third, an abstract, calculated, 'artificial' system provides the template for the instrument's tuning. The novel instruments utilised in the portfolio works are for the most part consciously left to their found tuning and expand this notion of 'natural tuning' to encompass the ergodynamics of the instrument. In the case of the spin-tops, beyond marginal pitch variations, afforded by movements of the hand held pick-ups, their descending tones are treated as a given and the instruments created for *7 Walks* follow a

²¹⁰ Golo Föllmer, "Pioniere des experimentellen Instrumentenbaus - Westcoast Sound," *Deutschlandfunk Kultur*, aired 1.10.2019, <https://www.deutschlandfunkkultur.de/pioniere-des-experimentellen-instrumentenbaus-westcoast-100.html>.

similar logic but encapsulate it in several different forms.

One of the methods deployed during the work on *Blitzdorf*, the artistic-research project that culminated in *7 Walks*, was the making of new instruments in order to musically embody and process insights from ‘suppressed’ geographies in Israel-Palestine. Together with some sound sculptures, this instrumentarium was made for a ghostly ensemble that re-territorialized sounds recorded during excursions to abandoned Palestinian villages within Israel. Working with these new musical instruments allowed for a necessary distance from both too-definite textual, historical narratives, as well as for a less marked sonic palette, untinted by strong cultural associations of a violin for example.²¹¹ But unlike prominent experimental music instrument makers, Bart Hopkin for example, who usually designs new instruments based on general acoustic principles and comfortable ergonomics,²¹² the development of the *Blitzdorf* instruments was led by a correspondence with this remote territory and an attempt to renew my understanding and relation to it through the process of engaging with its aural dimensions. When coming to making instruments, it involved drawing from the environment encountered and documented during the field excursions in order to design the form and function of these instruments.

Blitzdorf's novel instrumentarium attempted to embody this complex environmental relation. *Jerry*'s use of suspended military metal Jerrycans, originally designed in Germany pre-WWII,²¹³ metaphorically captures how technology of war and the struggle over rarified resources such as water, overlap. Informed by Vassilakis Takis' repurposed sound-sculptures,²¹⁴ *Jerry* connected a tampered-with drinking straw (cut to form a double-reed mouthpiece) to a Jerry Can, establishing an inverted relation to it: rather than depleting the resource by drinking the water, one blows into the hollow cavity, wildly resonating its metal body and the liquid it holds (Fig. 16). The *Sat-Box* instrument, utilised also as part of *Groundwork*, used another ready-made object, an adapted cardboard box that is strapped onto the player's torso. Played by bowing its flaps, it is able to produce a wide range of sounds, from soft noises to

²¹¹ Paul Théberge, "Musical Instruments as Assemblage," in: *Musical Instruments in the 21st Century: Identities, Configurations, Practices* (Springer, 2017): 62.

²¹² Bart Hopkin, *Musical instrument design: Practical information for instrument making*, (AZ: Tucson, See Sharp Press, 1996), 28.

²¹³ Daniel J. Simonsen, "Jerrycan: 70 Years Old and Still in Service," *Air Power History* 57, no. 3 (2010): 56-58, 56.

²¹⁴ Guy Brett Michael Wellen eds., *Takis*, (London: Tate, 2019), 111.

loud piercing shrieks. This act of repurposing a mundane transportation object, just a shipping box, elevates it to the status of a musical instrument and expands the map of instruments mediations to encompass found objects in a musical context.



Fig. 16, *Jerry*, installation view, Archive Kabinett, Berlin, 30.10.2018.

Spachtelim, is another example for an elevated found object. Named like the Hebrew plural form for the German Spachtel (spatula), it is made of a series of spatulas with tampered handles fitted on an aluminium cast rod (Fig. 17). The fitting affords several spatulas to be bowed with a single stroke, and thanks to its relatively long decay, intervals and chords emerge. Building upon other reversal processes of designing instruments, such as Tarek Atoui's modelling of physical instruments based on their audio recordings exclusively,²¹⁵ here

²¹⁵ Tarek Atoui, Kurimanzutto and Tate Modern, *Tarek Atoui: The Reverse Collection*, (Milano: Mousse Publishing, 2017), 5.

once again, the relationship between the exciting and the excited is altered as the player bows along the spatula's edge which remains fixed, unlike in its customary usage. The choice is left to the player of how to organise the different spatulas along the rod, in what order and angles, affecting the instrument's ergonomics - its possible aggregates and tone combinations. In the context of *7 Walks*, the *Spachtelim* instrument served to balance the texture as it blended the more pitched elements of the fixed-media with the metallic sounds of the larger metallophone.



Fig. 17, *Spachtelim*, installation view, Archive Kabinett, Berlin, 30.10.2018.

To date, the *Alufon* is the most complex manifestation of my attempts to translate a concrete and symbolic environment into an instrument (Fig. 18). Measuring three metres long, five aluminium beams stretch over two upside-down acoustic-guitars, forming a

horizontal hollow barrier-like structure. Two acoustic-guitars are mounted on a custom-weld iron base and share a single metal piano string that is tensed between them. Rendered unplayable as guitars, they act as resonating bodies, as a 'terrain' for the beams and as a memory of an imagined 'folk' instrument. As a monocord, the *Alufon* can be bowed, plucked, tapped or excited by an E-bow. Since the ratio between the string's length and its thickness is relatively high, different nodes are triggered depending on where one is exciting the string, allowing for various harmonics to appear at different playing positions. The string is roofed by the five aluminium beams: Three U-Elements and two C-elements (The letters denote the shape of the profile due to their resemblance). As the beams are mass-produced for use in drywall structures, their density is optimised for construction but is less consistent for a stable tuning. These small inconsistencies within the beam, and between the different ones result in unpredictable timbral changes and the possibility to produce widely different sonorities from the same volume of a resonating beam. Furthermore, as a unified foundation for a 'roof' left exposed, the beams are un-cut, left to their found tuning, and their tone is governed by the use of mallets and different playing techniques. Finally, a metallic coil is stretched within the central beam as a kind of scaled up augmentation of the string.



Fig. 18, *Alufon*, installation view, Berlin, July 2018.

Playing with the *Alufon* is a peculiar experience as the performer might know the sound they begin putting into action only to listen to how it jumps, distorts and escapes control a moment later. In all of its 'organs' (Guitar bodies, string, beams), contingent, even volatile elements prevent the player from making certain the connection between gesture and sounding result. But even while evading known learning patterns, it is not completely chaotic and maintains a fragile balance between potentially knowable and a situation one can never gain full command over. Keeping the *Alufon* grounded in this sense involved an arsenal of mallets and playing techniques that helped familiarise the player with the instrument. Even as one does not know how exactly the sound will morph and mutate, one can assume it will probably do so, and in a limited number of ways. Similar to the other instruments within the portfolio works, playing the *Alufon* involves a constant adapting through listening to a fluctuating sound, with only limited control achievable. Being too diverse of an assemblage,

too large and unruly to master,²¹⁶ it is another case of an instrument that cannot be played on, only walked with.

By mediating the various layers of resonance - acoustic, as well as socio-historical, metaphorical and symbolic, *Blitzdorf's* instruments both drew from the environment that informed their formation, and, when installed together in the gallery, constituted a different, remote and artificial environment that corresponded with that initial territory. This interplay between environments and instruments stretches their map of mediation as it adheres to the complexity and ambiguity of the political realities the work engaged with, by encapsulating and activating novel instruments. As discussed in chapter two as well, the engagement with this sonic environment is marked by an impossibility to define neither a border, nor a cohesive historical narrative, or a fixed contemporary identity that are not haunted by the place's past violence, characteristics that are deeply embodied within the instruments as well.

Instrument as teacher

The fourth category, the telos or objectives of an instrument's activity, encompasses its utilisation, social context, uses, and expressions of relationships, extending to the instrument's goals, its impact on users, players, listeners, and its potential collective outcomes. Contemporary goals for tampering with existing instruments or developing completely new ones are manifold and span from augmenting instruments in order to achieve something specific, like Peter Ablinger's 'phonorealistic' computer controlled player-piano that is able to evoke speech-like phonemes,²¹⁷ through experiments in creating a new instrument, captured by many NIME endeavours,²¹⁸ all the way to attempts at establishing a finished instrument such as the 'Halldorophone',²¹⁹ or even mass producing a new instrument in pursuit of a wider adoption, like in the recent piano-guitar hybrid 'Harpejji'.²²⁰ Even

²¹⁶ Anna Lowenhaupt Tsing, *The Mushroom at the End of the World*, (Princeton Univ. Press, 2015), 22.

²¹⁷ Peter Ablinger, "Speaking Piano," n.d., https://ablinger.mur.at/speaking_piano.html.

²¹⁸ The conference proceedings are full of wonderful documentations of highly idiosyncratic experimental instruments. For a representative example see: Jeff Snyder, Mike Mulshine, and Erramilli Rajeev, "The Feedback Trombone: Controlling Feedback in Brass Instruments," In *NIME'18*, (NIME: Virginia, USA, 2018) pp. 374-379.

²¹⁹ Halldór Úlfarsson, "Halldorophone.Info," n.d., <https://halldorophone.info/>.

²²⁰ Alex Daniel, "'If Stevie Wonder Wants to Play It, Pay Attention!': How a Bizarre New Instrument Found Unusual Success," *The Guardian*, August 16, 2023,

though I have developed several new experimental musical instruments as part of my work, none of them went past the late prototype stage. To that extent, these instruments' objectives were mainly to serve as guides and props in renewing, changing and defamiliarizing my musical thinking. Tracing the further evolution of the *Alufon* demonstrates an idea that runs across all portfolio instruments: their telos lies in the insights gained through their development processes, emphasising the value of learning by making and experimenting with them.

After concluding the *Blitzdorf* project and performing *7 Walks*, the large *Alufon* and the rest of the instruments were folded and went into storage, but artist Ido Gordon and I decided to continue our discussion and exchange by meeting regularly online. Feeling that the themes we touched upon through the work are still unresolved, we wished to further engage with these materials and agreed that the instruments themselves were the best encapsulation, as well as the best teachers, for the ideas and values of our collaboration. As the *Alufon* was a reaction to the complex narratives of the Israeli-Palestinian conflict, we thought that this instance of instrumental encapsulation could justify a more stand-alone existence. Relating to it as an instrument of a non-existing folk, we thought that in order to continue and work with it relieved from some of this symbolic weight it now carried for us, we will re-imagine the *Alufon*. Following the historical reference of the harpsichord's shrinkage to fit into homes and be played by young women - creating the *Virginal*,²²¹ we developed a lighter version of the instrument that still features its unique sound and ergonomics (Fig. 19). The *Alufon-Virginal* is smaller than its predecessor and measures only about one and a half metres in length on top of an oak base. The acoustic, steel-string guitars were replaced with classical ones and two of the aluminium beams, out of only three, were fitted inside the guitar's bodies. The monochord element also evolved and now consisted of two criss-crossed strings tensed between the two guitars, a constellation that afforded many more possibilities of playing with the strings.

<https://www.theguardian.com/music/2023/aug/16/if-stevie-wonder-wants-to-play-it-pay-attention-how-a-bizarre-new-instrument-found-unusual-success#:~:text=ABC%2FGetty%20Images-,%27If%20Stevie%20Wonder%20wants%20to%20play%20it%2C%20pay%20attention!,fans%20and%20millions%20in%20revenue.>

²²¹ Willie Apel, *The Harvard Dictionary of Music*, (Mass: Cambridge, Harvard Univ. Press, 2003), 916.



Fig. 19, *Alufon-Virginal*, installation view, Loushy Gallery, Tel-Aviv, 2.7.2021.

Working together in the studio, many of these changes emerged from following the material, sculptural and ergonomic logic of the different elements. In addition, as we knew we were making this iteration of the instrument specifically for the performance of *The Imaginary Conservatory*, which directly dealt with critiquing the idea of mastery and control, we allowed ourselves to completely be led by the instrument, to improvise and change things on the fly while keeping a ‘beginners mind’ through the process. This ‘virginity’ of ours, on top of the historical nod towards the original *Virginal*, later extends to both the interpreters of *The Imaginary Conservatory*, whose first encounter with the instrument happens during the performance, as well as to the instrument itself being new in the world.

Playing the *Alufon-Virginal* is done in the frame of a durational performance, the instrument being activated in a gallery as sessions of *The imaginary conservatory*. This subverted institution-turned-performance refreshes the cast mould of the instrumental lesson by making it open to the public to tune in, unguided by a master or an external teacher, and with the objective of learning the completely new instrument. *The Imaginary Conservatory*

designates the *Alufon-Virginal* a new telos of exploring what happens when a performance is based on engaging with an instrument that is unfamiliar, does not have performance or educational history, nor established practice. But most importantly, it presents this experiment as a public musical performance in its own right, making the claim for the relevance and aesthetic value of this traditionally hidden process, in line with the aforementioned examples by Veilhan, Meyers and Reinholdtsen, establishing the present learning experience as a listenable end rather than a means towards future mastery.

The Imaginary Conservatory's existence only for the performance's duration stresses its temporal nature and brings forth its connection to the present moment, in opposition to the tradition it tries to subvert. If in the normal conservatory a major concern is the maintenance of a tradition, this imaginary conservatory keeps to a shifting present, ever inventing fleeting practices that may or may not settle into becoming new traditions. The *Alufon-Virginal* opens up the possibility of establishing such new traditions: As opposed to the master already in possession of the knowledge they wish to transfer, the setting up of this performance as an improvised and egalitarian musicking situation keeps this framework unsettled, open and in flux. The instrument, in this case, is the schoolmaster.²²²

By utilising the *Alufon-Virginal* in this way, a musical performance emerges that allows the public to listen to a learning process and watch the performers learn through their ears and bodies. The performers play an equal part in this musical happening, together with the instrument, the pre-recorded media, the score and the performance space. This more horizontal spreading of power emerges from the instrument-as-the-teacher, who asks the involved musicians to learn with it rather than conduct a study of it, and to correspond with the instrument in a “dialogical engagement”.²²³ The instrument and the instrumentalists hence intermingle and reciprocally create each other through their play.

²²² Jacques Rancière, *The ignorant schoolmaster*, Vol. 1, (Stanford: Stanford univ. press, 1991), 2.

²²³ Tim Ingold, *Correspondences*, (John Wiley & Sons, 2020), 11.

Ethics of instruments

To conclude this exploration of defamiliarizing instruments in my compositional practice, *72 Prompts* may serve to demonstrate the four different categories. The integration of a non-musical, optical instrument, specifically an analogue overhead projector played by a visual artist, considerably altered the ensemble's material disposition. The wish to incorporate the different instrumental categories led to the creation of a text score in which musicians are encouraged to reflect and consider their individual and collective roles during rehearsals and performance. The score, outlined in the 'scoring strategies' section in chapter one, is divided into different categories, capturing varied musical logics and guiding principles, and its modular nature leaves the exact choice of prompts and their succession to the performers. The light spectrum metaphor used for the prompt categories establishes a direct material connection for the light-artist, affording an egalitarian interpretation by her with the rest of the ensemble. Drawing inspiration from John Zorn's *Cobra*²²⁴ and Brian Eno's *Oblique Strategies*,²²⁵ *72 Prompts* lies at the liminal space between composition and structured improvisation, but unlike Eno's open-ended card set, it is much more prescriptive, attempting to structure an audio-visual performance.

The map of mediation of this multi-modal, audio-visual ensemble also differs from more traditional concert situations. Positioned at the back of the hall and projecting onto the ensemble members and behind them, the light instrument fills the visual field and generates an immersive environment. It thus provides the musicians with both inspiration and - in prompts where they are to directly react to the light they perceive - with concrete information and orientation cues. The whole ensemble operates in this environment and the information flows in both directions - from the light artist to the musicians and from them to her. The intricate interactions and exchanges between the different sources establish these sound and light instruments as simultaneously both co-creators and residents of this shared audio-visual, temporal space.

²²⁴ John Brackett, "Some Notes on John Zorn's *Cobra*," *American Music* 28, no. 1 (1 April 2010): 44–75, doi.org/10.5406/americanmusic.28.1.0044.

²²⁵ Brian Eno and Peter Schmidt, "Oblique strategies," *Opal, (Limited edition, boxed set of cards)[rMAB]* (1975).

This different mediation further manifested in the realisation process beyond the performance. While the score instructs a process of learning, rehearsing and realising prompts, it also gives instructions about the warm-up part of the rehearsals, asking the musicians to engage in somatic exercises in order to sensitise themselves towards their moving bodies and prepare for the joint work with the rest of their colleagues. Furthermore, they are also asked to take turns leading rehearsals, akin to a band-leader, directing attention to specific prompts. These methods opened up the map of musical and personal connections, subverted conventional rehearsing methods and resulted in a very positive and encouraging working environment.

Finally, diverging from the norm of constrained rehearsal schedules common in professional contemporary music settings, we allocated an entire week for rehearsals in preparation for the ‘goal’ - the concert. This extended duration was essential for cultivating the ensemble’s sensibility and familiarity with the modular work, including its rules for public performance of selected prompts. It allowed the musicians to increasingly understand the semantic and visual cues required for the piece, to select and test different orderings of the prompts for their rendition. Framing the rehearsals as a developmental phase leading to a performance, rather than focusing on mastering an already fixed, final version to be interpreted, shifted the weight from the final performance to valuing and being more present in the creative process itself. Similar to *The Imaginary Conservatory*, this perspective allowed the ensemble to engage more profoundly with the work, experiencing the rehearsal as a purpose in itself.

This chapter examined different ways the process of composing was destabilised through unconventional and novel instrument usage. Whether it’s tampering or preparing existing instruments, developing and creating new ones, or by incorporating other non-traditional instruments into chamber and ensemble music making, these practices redefine the conceptual and material realities composing navigates through. In line with the ancient Platonic and Stoic view, where ethics is deeply intertwined with cosmology,²²⁶ my compositional re-orientation strives to better align with broader material, conceptual and social (dis)orders and flows. Defamiliarising the ways I relate to and interact with instruments

²²⁶ Tresch and Dolan, *New organology*, 281.

has led me to embrace reduced authorial command, become more open to contingency in sonic result, further engage with collaborative ways of co-creating and highlight the path itself rather than its destination. When all of these elements come together, new pathways of composing and realising works open up, rejuvenating the relationship with spaces as well. Aided by diverse scoring strategies, continuously following these self-positioning ethical lanes across different creative cycles revitalises and provides a fresh perspective on the ecology of these musical practices.

Conclusion

This practice based research project explored the different ways of composing opened up by destabilising the building blocks of the practice, focusing on defamiliarizing musical instruments, and ‘reframing’ places through site-specific elements. In order to begin tying together the various themes within this research, I shall go back and answer the research questions, beginning with the first question - in what ways could composed music defamiliarize a space or a place?

Notions of place and of space are destabilised within the different works through various means, producing different kinds of situatedness to their performances and highlighting the context in which they take place. Spatial cues and environmental sound in *Groundwork* bring to the awareness the locus of the performance. The stability of the hall’s aural architecture is strengthened by the work’s heavy use of drone texture, while simultaneously it is perforated by the inclusion of recorded border sound-walks as the auditory score driving the texture. This subversion is achieved in *7 Walks* through architectonic intervention in a gallery space, erecting a stage at its centre and using a localised sound sculpture as a ‘conductor’, emitting collaged field recordings from the troubled grounds of Israel-Palestine. By listening in a gallery in Berlin, my hometown, to musicians moving through space guided by these recordings from my country of origin, an aural perspective of an ‘elsewhere’ emerges in a way that contextualises and questions the ‘here’. *Sirena* bridged two distinct places as well - superimposing the aural perspective of land on that of the hall, fusing the national with the aesthetic for the making of a cryptic and charged musical performance.

In all these projects, the personally non habitual ways the work engages with sites - as sources to draw from or as performance places - have in turn informed, altered and enriched my process of composing. Basing compositions on field-recordings opened the rhythmic and time related consideration to the contingent nature of these documents. Instructing musicians to base their actions on ambiguous recorded sounds from speakers or sound sculptures and to interpret these sounds while walking, weakens my control, generates spatial aleatoric textures

and forces my ear to open up towards a wider range of possible interpretations of the written score. Taking into account the architecture, the precise acoustic reality of the performance site, along with its socio-political context, through the process of composing the formal and technical aspects are enmeshed with aspects of auralizing the sounds in these particular places. By considering the ways chosen sounds may be perceived or become charged by their specific contexts, the task of composing is introduced to a distinct kind of complexity that might otherwise be left unaccountable.

Concerning the second research question - that asked about the effects unique ergonomics of experimental musical instruments have on musical experience - the differences in musicking with such instruments were also made clear through the portfolio works. As shown, the conscious engagement with new experimental instruments is often a less hierarchical one, the instruments are being played with, affecting and being affected by the musician, rather than being played on. Whether these are bowed cymbals providing the harmonic palette for a piece, or the chaotic operation and induction of musical spin-tops, these changed instrumental agencies result in a unique experience of composing for and musicking with instruments. Even though not broken, these instruments draw attention to themselves, their un-readiness-to-hand requires musicians - performers and composers alike - to reconsider and reflect on their habitual modes of playing and musicking, asking them to adopt new postures and patterns of movement of body, ear and mind. Aligned with the Brechtian idea that alienation is necessary for all fundamental understandings,²²⁷ utilised this way, the instruments help reveal the musicians' operating mechanisms through the process of gradually grasping and learning them. They themselves thus become teachers, or at least teaching-props, aiding the relearning of playing and composing and of 'composing for playing', redistributing the balance between these two activities. As teaching props, the *Blitzdorf* instrumentarium facilitated a personal relearning of my birthplace's territory. Emerging out of poetically thinking about that complex environments *Jerry*, *Spachtelim* and *Alufon* embody some of that difficult heritage in their form and ergonomics. A more internal environment was examined through the evolution of the *Alufon* into the *Alufon-Virginal*, reflecting the relation between the novelty of the instrument, its lack of performance practice and *The Imaginary Conservatory's* setting. The instrument as a teacher

²²⁷ Brecht, *Brecht on theatre*, 71.

here gives an un-mastered class to the musicians who publicly perform their first encounter with it.

Exploring fresh ways of relating to these instruments and their new ergonomics adopts this stance of un-mastery towards the practices of playing and composing for them. This rejection of total command invited a rethinking of the paths often taken in order to compose and realise musical works, altered and destabilised some of the practice's building blocks, and subjected the instruments used and the places where they resonate, to processes of defamiliarization. Focusing on altering and changing these aspects of the practice in turn diverges composing into an ecology of musical practices - towards thinking about it through and from its position within a broader creative environment. The specific musical ecology examined in this dissertation included the practices of listening, walking, recording, reading, editing, designing, building, composing, mixing, scoring, instructing and playing, among other endeavours. Stenger's ecological metaphor afforded a spatio-temporal exploration of the myriad connections, feedbacks and feed-forwards between its different elements and niches. Listening to places informed the design or usage of instruments and shaped a composition, while also along the process generated ideas and mechanisms later used in successive projects. Covering the particular ecology of musical practices that spans across my own composed work, this subjective account assisted in closing the knowledge gap by helping others better understand and learn about the specificity of the artistic practice,²²⁸ as well as to think about the practice of composing from a wider perspective.

Defamiliarization 'restores the art object',²²⁹ or the processual act of composing here, refreshes its perception and offers unbeaten paths to tread it. By trying to answer the third question - what happens when some of the building blocks of compositional practice are rethought, altered or destabilised - different forms of musicking and collaborative approaches were developed and my role as the sole author became more nuanced. These joint creative endeavours are less lonely, positively contributing to my mental health, and the incorporation of physical aspects into the practice, walking, conducting field recordings, developing and

²²⁸ Kathleen Coessens, Darla Crispin and Anne Douglas, *The artistic turn: a manifesto*, (Ghent: Leuven Univ. Press, 2009), 23.

²²⁹ Daniel P. Gunn, "Making art strange: a commentary on defamiliarization," *The Georgia Review* 38, no. 1 (1984): 25-33, 31.

making new instruments, playing them or guiding through somatic warm-ups, better my physical health. Explicitly addressing these aspects within my scores serves as an alienating gesture, reminding that composing is not devoid of the healing body nor the troubled world. Practised this way, composing becomes a more pluralised form of musicking, not done in solitude on a deserted island, but together in an archipelago, in ways that emphasise the coastlines - the musical means, as much as the horizon - the outcome of the musical work. As in Glissant's conception of an archipelago, interdependence and difference coexist, leading to reciprocal and less homogenised poetics of organising my musical world.²³⁰ By highlighting the creative endeavours as multiple ends on their own, all of these aspects have significantly impacted my growth and development in the realm of contemporary music and sound making, deepening my engagement with the field.

These archipelagic engagements, framed as research-led-practice,²³¹ could potentially contribute to dissipating the debate concerning composition as research.²³² The portfolio presented here is not just a result of research, but an integral part of it, producing non-discursive knowledge, in the form of musical works, as well as discursive, manifested in this written commentary. And while the latter interprets and elevates the former into a mode of artistic-research dissemination, it also acknowledges that a lot of what makes music meaningful resists such attempts at discursive capture, as Croft suggests.²³³ But contrary to his view, which can be read as marginalising the purely artistic contribution, my position is that both the works and the commentary add something to the world they are presented to,²³⁴ with each element strengthening and reinforcing the other. Echoing Ian Pace's observation that this debate is based on too narrow and exclusive definitions of both 'research' and of 'knowledge',²³⁵ this PhD project demonstrates that by pluralising, rethinking and expanding

²³⁰ Glissant and Obrist, *Archipelago Conversations*, 23.

²³¹ James Bulley and Özden Şahin, *Practice Research - Report 1: What is practice research? and Report 2: How can practice research be shared?*, (London: PRAG-UK, 2021), 5, doi.org/10.23636/1347.

²³² John Croft, "Composition is not research," *Tempo* 69, no. 272 (April 2015): 6–11, 6 doi.org/10.1017/S0040298214000989; and: Camden Reeves, "Composition, Research and Pseudo-Science: a Response to John Croft:", *Tempo* 70, no. 275 (2016): 50-59; or: David Pocknee, "Composition Is not a Jaffa Cake, Research Is not a Biscuit: A Riposte to John Croft," (2015), https://davidpocknee.ricercata.org/writing/010_john-croft/croft-essay_airline_version_03.pdf

²³³ John Croft, "Composing, researching and ways of talking," *Tempo* 70, no. 275 (January 2016): 71–77, 77 doi.org/10.1017/S0040298215000649.

²³⁴ Croft, "Composition is not research", 8

²³⁵ Ian Pace, "Composition and performance can be, and often have been, research." *Tempo* 70, no. 275 (2016): 60-70, 64.

the scope of instrumental composition to encompass various musical and artistic practices, the research that is entailed with engaging with this expanded practice diffuses the question. This diffusion is rather subtle and could be further explicated or expanded upon in a potential future research.



Finally, as Ingold observed, art is orientated “as much towards human futures as towards human pasts”,²³⁶ and destabilised, revitalised ways of composing continue as multifaceted journeys through diverse projects. Following the portfolio works’ threads, my coming projects are inherently collaborative, interdisciplinary and feature strong storytelling components. I will briefly mention three such undertakings: My long term collaboration with the Sono-Choreographic Collective finally bears fruits. After investigating over the last three years strategies of sonifying and per-sonifying long term permafrost data from the arctic, we have finally premiered our project ‘*Common Grounds*’ in October 2023 in Leipzig and in Malmö. This project is an artistic-scientific inquiry, delving into data sonification methods, profound and long-term collaboration between climate research and sonic arts, and effective science communication using creative means.

²³⁶ Tim Ingold, "Art and anthropology for a sustainable world," *Journal of the Royal Anthropological Institute* 25, no. 4 (2019): 659-675, 660.



Fig. 20, *20 Springs*, installation view, Malmö Konsthall, 20.10.2023.

In its first phase we developed an installation titled ‘*20 Springs*’, an artificial sonic environment that plays through a detailed dataset of twenty years of hourly weather measurements, recorded at N 78° in the Svalbard archipelago, Norway (Fig. 20). The data is rendered audible through various novel sonification methods, forming a polyphonic ‘choir’ that compresses these twenty years into a single hour loop. Continuing my engagement with questions of site and ecology, this installation brings a model of a research station into the gallery space, advocating that the environment is ‘in here’ as much as ‘out there.’²³⁷ The second outcome, *Instrumentalities*, is a participatory concert-lecture that further unpacks the artistic-scientific research behind *Common Grounds*. In it, gathered around a table we listen to the whole sixty minutes rendering of the data, accompany and mitigate this hour with semantic ideas and somatic techniques that connect the planetary scale with individual and collective sensory scales of participants (Fig. 21). Looking ahead, plans for *Common Grounds* include producing a video work, a record and an artistic-scientific publication.

²³⁷ As a direct manifestation of this claim, in addition to the dataset sonification ‘*20 Springs*’ also includes a sensor sonifying in real time the amount of CO₂ levels within the room. For more info see: Sono-Choreographic Collective, “*Common Grounds*,” 2023, <http://commongrounds.nodegree.de/doku.php?id=start>.

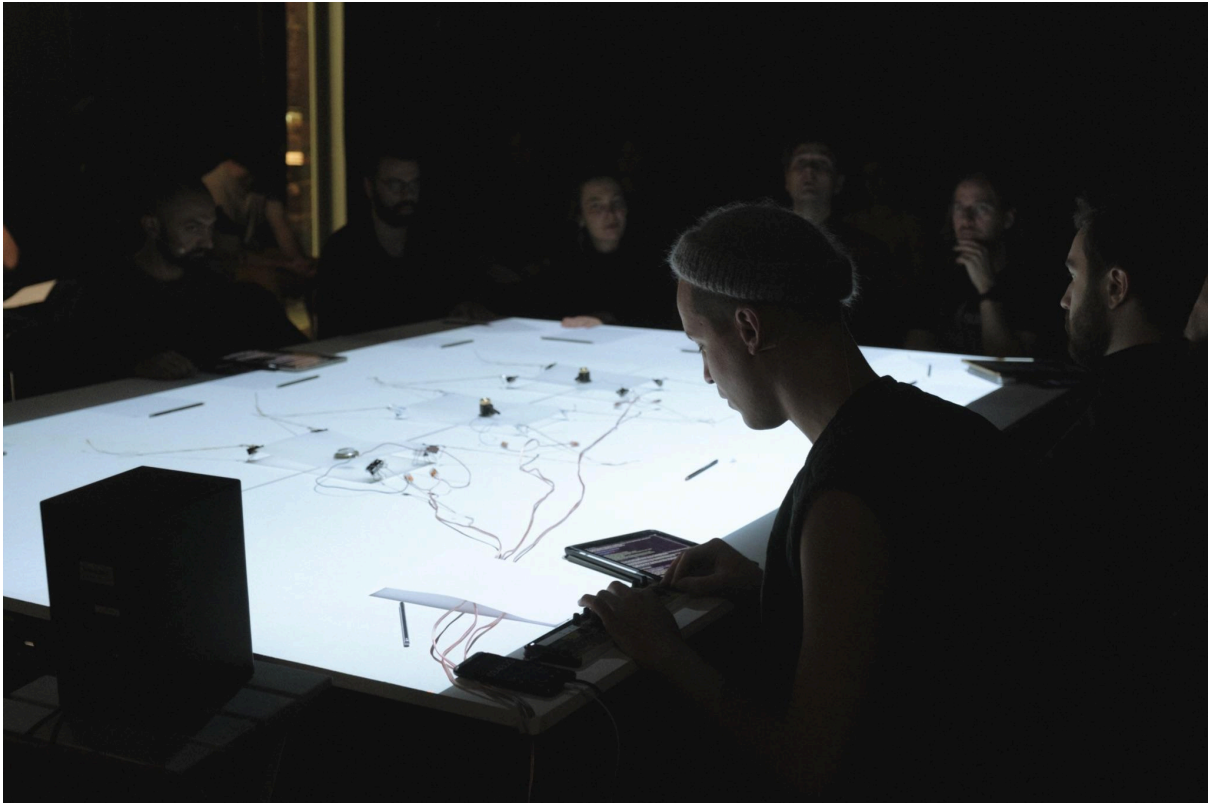


Fig. 21, *Instrumentalities*, performance still, Galerie für zeitgenössische Kunst Leipzig, 13.10.2023.

Second, in collaboration with Welsh poet Deryn Rees-Jones, we developed a three-part vocal cycle for the ECLAT festival in Stuttgart, titled '*Bears nudging at pleasures in the dark*'. This triptych combines music, prose and poetry in exploring the intersections of animalistic experiences and human fragility. Premiered by the 'Neue Vokalsolisten' ensemble in February 2024 at the Stuttgart Theaterhaus, this project encapsulates our joint effort in articulating a nuanced artistic response to global poly-crises by shaping narrative, sonic and participatory elements into concert and sound-installation formats.

Lastly, the long-term collaboration and friendship with artist Ido Gordon, with whom I have worked on *Blitzdorf*, *The Imaginary Conservatory* and other projects, continues as well. For almost four years now we have been developing ideas, musical and visual outcomes that explore the liminal spaces of life-after-death and of the shadowy, traumatic resonances of death within life. Titled *Sadness*, (Fig. 22) this intricate project is now taking shape as a collective, experimental conceptual album and an acousmatic musical, with a planned release in spring 2024.



Fig. 22, *Sadness*, digital drawing, June 2020.

While in the process of completing this PhD , I find myself at a point where two of these aforementioned artistic-projects are set for public debut within a quite narrow time frame. This coincidental convergence highlights both the temporal complexities of my research-driven, expansive musical practice and the challenges involved in living as a freelance composer. Needing to support myself through commissions and paid work, with no steady income, my ability to control the pace or rhythm of musical production is reduced. Nevertheless, through this journey of reimagining and critically reflecting on components of the practice, I can see new methods and possibilities emerging. For example, the hybrid format explored in some of the portfolio works, combining a composed musical layer with an installation and a concert, could potentially find a home in performance or art ecosystems as well. The different defamiliarization processes have not only transformed my relation to composing but also revealed fresh new euphonous trajectories for what it could mean, how it could unfold and how it may sound to be a composer in the 21st century.

Federico Campagna once noted that “every reader who makes it to the last chapter of

a book deserves a happy ending”²³⁸ and even though this is not a book it is an appropriate sentiment for this conclusion. These final thoughts outlined some of the discoveries, plans and challenges encountered through the entire research and writing process. The happy end for me personally is the realisation that all the projects I was involved with composing and realising through these years were nourished by and resonated with the reading, introspection and self positioning I underwent. And within the works, as the saying goes, there are no wrong notes and I hope that no wrong resolutions as well.²³⁹

This is but the end of the textual-discursive component of this PhD research but at its core lies the portfolio itself, as it encapsulates, enacts and breathes all the ideas touched upon, in its own unique fusion. The works themselves narrate my attempts at estranging vibrations as sounds, crafted or occurred, in both breadth and detail, with an open heart and mind, in ways that words alone cannot capture. Together, the semantic and the sensorial elements of this dissertation, spirally summarise my attempts during this period to alienate, alter and broaden processes of composing. To listen to the task of composing as something unknown, expansive, open, ever evolving and to fill up this practice to the extent of spilling over towards different, curious fields of experience, expression and artistic freedom.

²³⁸ Federico Campagna, *Technic and magic: The reconstruction of reality*, (Bloomsbury Publishing, 2018), 222.

²³⁹ Marcello Ruta, "Improvisation and Orientation," In *The Routledge Handbook of Philosophy and Improvisation in the Arts*, pp. 85-99. (Routledge, 2021), 86.

Appendix A - Outline of Additional Works

Permabears

For Saxophone, Cello and fixed media (2021) 7'30"

In this work, a Cello and Saxophone duo accompany a prose-poetry text, narrated by an artificially generated voice that reflects on listening, the instruments and its own embodiment. Its title is a play on words fusing permanence with a 'bear' view on a market, questioning the advantages of a solely pessimistic perspective or belief. Similar to techniques in *The Imaginary Conservatory* and *72 Prompts*, this score guides its realisation by arranging-sound materials, providing a technical setup, a dramaturgical frame, and by offering a possible structure. In addition, instructions for warm up exercises are included, designed to direct the musicians' towards a more sensitised mode of playing, embodied and mutual attentiveness. The result is a unusual trio performance, where an acoustic duo on stage is playing together with and according to a ghostly, artificial narrator / deity. In a sense, the artificiality of the concert situation, the score and the music all reflect each other for the making of an alienated musical commentary on the performance environment.

Commissioned by ensemble Mosaik, premiered on August 22nd 2021, at Acker Stadt Palace, Berlin.

Lessons From the Spine: Ivsha

For flute and fixed media (2020-21) 4'30

At the core of *Lessons From the Spine: Ivsha* lies a defamiliarization of the side-flute or traverso, reimagining the instrument, conventionally rich in melody and figuration, as a reduced pipe capable of producing only whistle tones. Commissioned by flautist Roy Amotz for his solo album "To Invoke the Clouds," which juxtaposes arrangements of J.S. Bach's cello suites with 20th century compositions, this piece was designated a connective four-minute slot, nestled between Bach's Sarabande and his Prelude from the second Cello

suite. Responding to the challenge of integrating a new composition into an album that features both elaborate baroque music, played on a traverso, and virtuosic modern repertoire, I was looking for ways to contrast these expressive modes by searching for a sonic territory not yet occupied. Guided by the vaguely defined intention of estranging the Flute by relating to it differently, the work was developed through a series of joint exploratory sessions in my studio, scoring, arranging and composing it over many months. This process eventually led *Lessons From the Spine: Ivsha* to be an electroacoustic collage, combining the restrained acoustic playing technique of whistle tones, with a broad set of newly designed, synthesised sounds and layered flutes recordings, establishing a tightly knit digital-analog texture which provided a necessary contrast to the rest of the album.

Playing with our hearts

For any amount of players and papers (2019) unspecified duration

This work was commissioned by ensemble MusikFabrik for their ‘Spielbar’ educational program, to be realised and played by school children. As such, it was conceived as a musical practice for school children, regardless of their musical background, who are playing on crumbled pieces of paper. The group is divided into pairs and each person is tasked with finding the heartbeat of their partner and sonifying it by tapping the pulse they feel on the paper. The use of different paper types and sizes adds variety to the ensemble and the result is a spatialized, delicate texture of subtle rustling pulses. By tapping into the individual, autonomous bodily rhythm as a source propelling a collaborative musical instrument, this practice reveals to the participants that music is inherent within them—and that when adding multiple simple ingredients together, a rich and complex musical result can emerge.

Appendix B - Clarification of Scores

The scores of the portfolio works utilise traditional, graphic and textual forms of notation in combining ‘descriptive and prescriptive’ notation styles.²⁴⁰ Moreover, since some of them address less conventional aspects of their realisation and explore different performance practices, as texts they become an element in a broader practice of musical and performance making. Nevertheless, these documents do capture an essence of the work, and this appendix provides some clarifications regarding the scores’ relation to their activation, in case they are not comprehensible and exhaustive in their own terms. For each work the chosen notational style is addressed, outlining how the score was used as part of the work and points to the relevant audio and visual components included within the portfolio.

Groundwork ①

Groundwork’s score combines traditional notation with novel graphical symbols designed by me, together with an extensive legenda that instructs the making of the performance. Being a commissioned work for a conducted ensemble, the score was sent to the musicians prior to the rehearsal phase in order for them to have a global understanding of the music. Importantly, since I knew the work will be conducted by Ilan Volkov, who is a proficient experimental musician and improviser, this work explores an experimental method for devising its entire pitch content by directing the ensemble to transcribe the tones of bowed cymbals and find playing techniques on their own instruments to blend with them. Furthermore, in the glossary and within the parts themselves the score comments on the musicians’ movement, reaction to the fixed-media part and preparation of some of their instruments. This approach required the musicians to navigate through the entire document and not just their own part, and was chosen in order for them to have a broader perspective on this entire spatial constellation.

Within the portfolio the score appears in two versions - with empty staves and with the specific tone-pool transcribed from the Israeli Contemporary Players ensemble’s cymbals. In

²⁴⁰ Fox, *Opening offer*, 17.

Addition, a stereo mixdown of the fixed media part is included.

7 Walks in & around Blitzdorf

7 Walks' score consists of three elements: a written score, an auditory score emitted through the *Rauch* sound-sculpture and video tutorials. The written component combines both prosaic and technical text, schematics, conventional western notation and novel graphic symbols. Scored for newly made instruments, played on stage for the first time, I was not in a position to notate playing instructions in great detail and instead wished to allow the musicians to contribute to the forming ideas of what playing with these instruments could be. This consideration, combined with the structure of the fixed-media part, shaped the score's open-ended character, granting the performers a considerable amount of freedom.

Each section-walk is notated on a single page combining text and schematics. It opens with a textual description of the recording site, followed by a timeline that divides the walk into smaller parts marked by salient events in the recording, providing structural anchors. Playing instructions are given as text with additional necessary information, such as the use of mallets or individual techniques, notated at the score's end or in the video tutorials. Each walk's page includes general dynamics, a percentage of silence and the auditory cue that signals the transition to the next walk.

In terms of rhythm and timing, similar to *Groundwork*, the guiding principle is to begin and end sounds with a cue, a distinct sound object, from the recording. The score's reduced notation, coupled with *Rauch's* auditory score allowed the ensemble to focus on the subtleties of playing the instruments, merge with the recorded sounds and hold the intention of animating this fictional village. As a site specific performance involving movement around the space while playing, the musicians' trajectories were generally outlined in order for the exact paths to be figured out during rehearsals.

The portfolio includes the score of the work, together with a stereo-mixdown of the fixed-media part.

Sirena & Top-Game

Both scores are rather traditional and consist of a glossary, individual notated parts, and a video tutorial for the percussion and Spin-Top playing techniques. Their written notation combines traditional western notation and novel graphic symbols. Inspired by Christian Wolff's auditory cue system, both often utilise a symbol instructing musicians to play when they hear a specific sound by a fellow performer or by the soundtrack, and, in *Sirena*, also an 'action fermata' that lasts the time it takes to comfortably complete the notated action.

In addition to the scores, the portfolio includes *Sirena*'s fixed-media part and video tutorial and *Top-Game*'s appendix - video tutorial and demos.

The Imaginary Conservatory

Since this work was created for a specific ensemble, and communicated to them through online video-chats, it was formulated as a text score commenting on its realisation. Inspired by experimental text scores such as Pauline Oliveros' *Old sound new sound borrowed sound blue*²⁴¹ or La Monte Young's *Composition 1960* series of conceptual, poetical instructions,²⁴² *The Imaginary Conservatory*'s score was conceived as a facilitator of a mode of musicking, rather than as an organiser of specific sounds or techniques.

Formatted for an iPad screen, it consists of three parts: (A) a short description of the work, (B) a set of fourteen poetic instructions, and (C) the course of action to be taken for the performance itself. The first and third parts are written in an instructional register as in a standard glossary. The central part, titled '14 Prompts for studying imaginary or real instruments' is designed to appear autonomous and is written in a more poetic register, serving as aid to assist the learners in the process of publicly getting acquainted with a new instrument through short exercises.

²⁴¹ Pauline Oliveros, *Anthology of text scores*, (Morrisville, North Carolina: Lulu.com, 2013), 105.

²⁴² Saunders and Lely, *Word Events*, 424.

In addition, the score instructs the performers to conduct a recorded sound walk. This is done for four main reasons: To offer a layer of counterpoint, making for a duo between the musician's "past walking self" and their current performing task.²⁴³ Second, this recorded layer provides support and an anchor in a potentially stressful situation. Third, by asking the musicians to supply the backing track for their own performance the idea of the composer's single authorship is being weakened and is shared more horizontally across this triad - the composer setting the situation that is facilitated by the score and the instrument but that gives a great amount of freedom to the performers, who, more than mere interpreters, become co-creators of the auditory score with which they play. Lastly, with these unique and situated documented sound walks, the work relates directly to the environment in which it is being made and performed. The recorded soundscapes, each capturing a different line of movement through the city, all sound within the gallery space, bringing the outside in and contributing to the site specificity of the work.

Used as a document to communicate with the ensemble and facilitate the performance, the portfolio includes the score, along with photos from the performance and the auditory score provided by me for the concluding tutti set.

72 Prompts

72 Prompts' score consists of a preface followed by, as the name suggests, seventy two prompts, or modules of verbal instructions arranged according to the spectrum of light, divided into six colour groups. In order to integrate a non-musical light instrument into the ensemble, a text score was chosen to allow for the participation of non-musicians, or anyone who does not read staff notation, in its realisation process.

Envisioned as a 'comprovisation', which Sandeep Bhagwati defines as "musical creation predicated on an aesthetically relevant interlocking of context-independent and contingent performance elements",²⁴⁴ *72 Prompts* combines fixed prompts and a changing

²⁴³ 'The Imaginary Conservatory - Session I-IV: Unmastered-class with Alufon-Virginal', C. Play section.

²⁴⁴ Paulo de Assis, William Brooks, Kathleen Coessens, and Virginia Anderson, *Sound & score: essays on sound*,

modular structure of an hour-long collage out of the different colour categories. Here, an even greater amount of freedom is granted to the musicians, who are asked to both fill the prompts with their own musical ideas as well as construct the macro form. Unlike in *'Permabears'*, a study for the current work, where improvisational elements were organising on a local, momentary level, following a text narrated through speakers, as a composition, *72 Prompts'* score operates on a more macro-structural level, organising the improvised dynamics in blocks of different kinds.

As a result of this strategy, the division between the 'preface' and the 'music' sections of the score is again blurred, as the score comments on the manner of conducting rehearsals, suggests warm up exercise and provides some conditions and possibilities for prompt chaining. For this commission a prolonged rehearsal phase was negotiated and I knew I would spend a considerable amount of time with the ensemble, which allowed the text to leave room for further clarifications in person.

In addition to a video documentation of the work's premiere, the portfolio includes *72 Prompts* fixed-media parts with synthesised narration of the 'Blue Texts' prompts.

LFTS: Ivsha

The score for *Lessons From the Spine: Ivsha* reflects the process of creating the piece in dialogue with Flautist Roy Amotz, who commissioned it for his album. Since the work was required to function both as a fixed media recording and as a live electro-acoustic performance, it consists of a recording and a performance score.

The recording score's function was to direct the recording of materials that was done by Amotz in a studio, in part without my presence. In addition to the specific notational objects, open duration whistle tones along with percussive non-pitched elements, the score ritualises the recording session by explicitly asking to record for twenty minutes in one take, to adhere to the stillness of the posture and to auralize the sounds prior to their external

score and notation, (Leuven: Leuven univ. Press, 2013), 167.

playing. After the premiere, this part of the score may be regarded as a curious peek into the working process as only the performing score is required for playing the piece. This part of the score is relatively traditional, utilising chronometric time to govern the actions' pacing and schematic graphics to highlight the aleatoric aspects of the whistle tone technique.

In addition to a recording of the work, the portfolio also includes the fixed-media without the main Flute's part.

Permabears

Permabears was conceived as an experiment in generating a score. It consists of a main poetic text, spoken by a synthetic, alienated voice that functions as the structural backbone of the piece. In order for the instrumental duo to accompany this narrated text, the score provides textural building blocks outlining dynamics between the two musicians, preliminary exercises, warm-up instructions and optional 'Parcours', or lines of actions to prepare its realisation. As a commission with an agreed upon deliverable of a score, the notation style took into account my presence with the duo throughout the rehearsal period.

Along with the score, the portfolio includes the fixed-media part of the text's narration.

Playing With Our Hearts

Probably the most self explanatory score within the portfolio, this text score is to be realised by children or non-musicians in the context of a music-educational project, therefore taking the form of a text to serve as a base upon an educator, or the one leading the session, can direct its performance.

In addition to the score, the portfolio includes performance photos.

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