ACTA UNIVERSITATIS GOTHOBURGENSIS
GOTHENBURG STUDIES IN CONSERVATION 56

# Leaving dry land

## *Water, heritage and imaginary agency*

Moniek Driesse

UNIVERSITY OF GOTHENBURG

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**Moniek Driesse**

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**Leaving dry land**: Water, heritage, and imaginary agency

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Abstract

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This doctoral dissertation explores the interplay between water, heritage and the agency of the imagination. Instead of seeking how to map subjects or heritage, the research focuses on the ways in which mapping and the cartographic gaze have produced subjects in specific categories. It seeks to create moments of orientation and reorientation to experience the effects, affects and possibilities to imagine ways beyond these fixed geocodes and the taken for granted. As such, this dissertation contributes to broader discussions regarding critical design practices alongside critical heritage studies, while channelling design's ability to shape the world and to explore potential approaches that foster collective imagination and planetary care.

Two iterations of a fluid methodology were conducted in Mexico City and Gothenburg, foregrounding precarious issues in heritagisation processes and exploring aquatic agency. The methodology provides a tool for bridging different epistemologies, disciplines and perspectives, fostering transdisciplinary collaboration and knowledge permeation. By engaging with water as a subject and employing imaginative techniques, the research aims to actively (re)imagine the past, present and future of urban environments, enabling diverse infrastructures, ecologies and cosmologies to emerge. Heritage is reconceptualised as a navigational system that traces diverse relations in the world. In this sense, the research challenges modern heritage paradigms by acknowledging the ephemerality of water.

**Keywords:** water, critical heritage, design research, cartographic reason, affective methodology, imaginary agency, Mexico City, Gothenburg

# CONTENTS

**PART III**

**DISCUSSION AND CONCLUDING REMARKS**





# PREFACE

In the last conversation I had with my grandfather from my mother's side of the family, one week before he passed in May 2017 at the age of 83 years old, I mentioned a research project I was envisioning about human–water relationships and climate catastrophe. His mind had been cloudy for several years already, but in a moment of clarity, he started talking about the time when he had just fallen in love with my grandmother and, despite the weather forecast, visited her house in Nieuwe-Tonge. That day, a huge storm struck the island of Goeree-Overflakkee and large parts of the Netherlands, Belgium, England and Scotland. Fortunately, he managed to cycle home to Middelharnis, where his own family had been worried about him. It was on a Saturday evening, 31 January 1953, the date now known as the *Watersnoodramp* (North Sea Flood). Both my grandparents were evacuated on separate boats that took them to a safe place in Rotterdam. With a sparkle in his eyes, my grandfather continued to talk about their re-encounter and the relief he felt when seeing my grandmother safe and sound.

At my grandmother's house in the village of Nieuwe-Tonge, they had been waiting in agony for my great-grandfather, who worked for the fire brigade and the *Polder*, to arrive back home. When the storm struck, he was tasked to go out and repair dykes in Battenoord. Several years before my great-grandfather's passing in December 2013 at the age of 100 years old, in a long conversation we had in the Summer of 2003—while he was teaching me to turn wood on his self-built turning table—he recounted that, when the water broke through the dykes, he saw how many drowned without a chance and how others miraculously survived. The next morning, in dread, he returned to his village, convinced that he had lost everyone and everything. My grandmother, who passed in June 2023 at the age of 86 years old, told me that the only time she saw her father crying was when they were reunited as a family in her grandmother's house, built on a dyke strong enough to withhold the strong water currents.

With a lump in my throat, I reread my great-grandfather's memories and those of others in the paper clippings that my uncle gave me of an article my second cousin wrote for a 1 February "Extra Edition" of the newspaper Eilanden Nieuws in remembrance of the North Sea Flooding (Kabos 1993). In his story, he reiterates the powerlessness he felt during the night of the catastrophe, paralysed by the lack of agency and equipment to help anyone. They could only wait for the tide to recede. Five generations are tied together in these stories that are part of my personal biography—or maybe even more because, now that my great-grandfather and grandparents are no longer with us to tell these stories, I intend to tell them to my, now still very young, children. In that way, these stories, as they have the potential to travel generations ahead, can become part of shared histories.

Current transitions of watery appearances—melting glaciers, rising sea levels and acidity changes—will continue to drench, perhaps even more intensively, our personal biographies and shared histories. One week after the flooding, my great-grandfather was one of the first ones to return to his village to start rebuilding what had been lost. This research is tethered to deep aspirations for being one of those who repair and care. As such, this dissertation was perceived as an atlas of troubles and connections—of the instability we counted on for stability and the networks across generations, landscapes and lifeworlds on which human survival, in times of climate crisis, depends.

When I embarked on my PhD journey, I did not realise that writing a dissertation can easily become a very private and isolated event. Many of the ideas sprouted in my mind when starting the day with a shower, settled while taking a break with a cup of tea and matured while walking the shores of lakes, rivers and seas. My foremost gratitude is extended toward water and how it afforded meaningful encounters with other people and other-than-human friends that disrupted the solitude. These others allowed for creating moments to touch edges, taste porosity and feel entanglements. Although all have been essential for letting this dissertation come into being, I would specifically like to name some of them on these pages.

First, my gratitude is extended to my supervisors Ingrid Martins Holmberg and Henric Benesch—you have allowed me to roam freely and find pathways through this research while offering guidance when facing barriers along the way. The many connections and opportunities in this research that were revealed in our conversations have been of great importance to me. Thank you to Katarina Saltzman, who stepped in as my supervisor during the last part of my PhD—your thorough readings and many relevant comments helped me gain confidence and anchor my research in different fields of study and practice. In her role as examiner, Ingegärd Eliasson made sure that I kept a sharp eye on my workload and well-being, which deserves great recognition. As an external adviser, Peter Krieger has been present for consultations on topics that we already started discussing when writing my master's thesis and which I, hopefully, will continue to explore more. I would also like to thank Christine Hansen and Martin Gren for their critical reading and helpful suggestions during the midterm and final seminars. I appreciate and admire the great attention and care that Art Collart directed toward designing this monograph—I hope to make more beautiful books together. Maidie van den Bos must be praised for her fearless drive toward the north, as well as her sensory and tasteful contributions to this research. At the Department of Conservation, special acknowledgement goes to those with whom I shared my office, lunch breaks and the occasional PhD struggles: Sigrún Þorgrímsdóttir, Maria Nyström, Rebecca Staats and Maitri Dore.

This dissertation relied on many others who, along the way, have uttered words that echoed into my world and inspired, challenged and transformed my thinking. In a list too short to avoid troubling omissions, I would still like to name a few specifically, to account for long and insightful conversations: Paola Sánchez and Héctor Juárez at Primal Studio in Mexico City; Iva Čukić and Predrag Momčilović at the Ministry of Space in Belgrade; Laurajane Smith when she visited University of Gothenburg's Department of Conservation; Ylva Berglund at the Gothenburg City Museum; Jens Fahlström and the marine creatures at the Gothenburg Maritime Museum and Aquarium; flow feeler Thomas Laurien at HDK; and Hanneke Brier at the Willem de Kooning Academy. Special acknowledgement goes to Gunnar Olsson, the space cadet who, although having reached the rank of admiralty, seems unstoppable in his ruminating explorations of space. Meeting Gunnar in his home in Uppsala was a big impulse for writing this dissertation—many of the thoughts present in its words, as well as in the spaces in between, were born from our conversation. I have truly attempted to treat all your words with sufficient care.

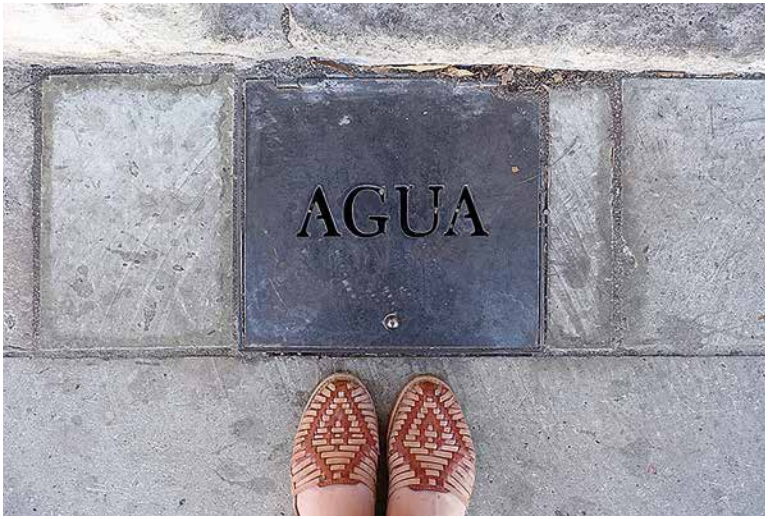
The "CHEurope: Critical Heritage Studies and the Future of Europe Innovative Training Network" provided

insightful gatherings with a cohort of supervisors, students and speakers. It was through the CHEurope project that I was seconded at Gothenburg City Museum's Urban Development Unit, where I would like to thank Carina Sjöholm and Dennis Axelsson for their hospitality. From the CHEurope experience, I have been gifted with new friends, William Illsley and Janna oud Ammerveld—you have been intellectual and fun company in these years of turmoil.

I also wish to thank those who I consider family. Long-time friends who make sure that, despite the distance, it feels like coming back home whenever I am in the Netherlands: Esther, Mayo, Ilse, Channa, Claudia, Dirk, Angela, Sander, Mieke, Anne, Art and Marjon. Our extended Gothenburg family, who brought joy and lots of food sharing into our life in Sweden: Diego, Samantha, Adriana, Maja, Gabo, Rebecca, Phil, Jens, Tineska, William and Maud. My chosen family in Mexico: Jaell, Isaac, Juan Pablo, Isaac, Maria-Jose, Rodrigo, Ángel and Mauricio. Dear late Fernando, who inspired me to be in awe of the world and to aspire to be part of multiple lifeworlds—*un mundo donde quepan muchos mundos*. My parents, Danja and Wimco, who transmitted generational histories that keep on troubling, encouraging and motivating me, you have sustained me with unconditional love and support in my crazy journeys, full of surprising turns. My brother, Menno, for his thoughtful input, when I let myself go during worldly discussions at the family dinner table, and Stephanie for being ever-supportive for what I produce—whether it be performances, books, or children. Thank you all for believing in me.

Finally, and perhaps, most importantly, while many ideas and relationships were born in the years of gestating this dissertation, I gave birth to two children, Ravi and Lua—my sun and moon—who pulled me back into daily life when floating away in clouds of thoughts. Together with Sjamme and the family cat Mus, they made sure there were play, laughter and distractions from work. Besides being a loving father and partner in life, Sjamme has been a patient reader of this work, commented on it insightfully, tolerated my struggles and frustrations and celebrated breakthroughs. While embarking on this PhD has been a slow yet wild ride, I am looking forward to all sorts of new adventures with the three of you.

Gothenburg, June 2023






# PART I

**We have left dry land**
**and the relative safety**
**of our positions.**
**This is a change of speed**
**somewhere we can**
**re-manage our weight**
**in the world**
**re-balancing ourselves.**
**A place to move together**
**a break from role, time and**
**gravity**
**—a new tidal time—**
**the equal necessity**
**of all moments.**

(Amy Sharrocks,
"Invitation to Drift", 2018)

# POINTS OF DEPARTURE

## INTRODUCTION: UNSTABLE CARTOGRAPHIES, CURATING WITH WATER

The present dissertation centres around the role of water in urban heritage. However, its main concerns go beyond water, beyond urban environments and even beyond heritage. Urban waters, through a framing with a point of departure in critical heritage studies, complemented with perspectives and theoretical insights from design research, critical geography and ecofeminism, will, in the current dissertation, become a window into human imaginaries. In his novel *The Great Derangement*, Amitav Gosh warns us to 'make no mistake: the climate crisis is also a crisis of culture, and thus of imagination' (2016: 9). What this quote foreshadows in terms of the present dissertation is its aspiration to contribute to wider discussions on critical design practices in conjunction with critical heritage studies by directing design's worldmaking capabilities towards possible approaches that enhance collective imagination and regimes of care. Bearing this in mind, the present dissertation explores how authorised heritage discourses and more-than-human relationships are challenged by aquatic agency and includes historical perspectives in different time frames and scales. In other words, the present thesis is an invitation to leave dry land and reconsider land-based perceptions of stability and fixation.

Building on notions of cartographic reason by Gunnar Olsson (2007) and moments of orientation as conceptualised by Sara Ahmed (2006), an iterative research approach containing collaborative design methods will be employed to think and engage with the multidimensional expressions of water in two contexts. In Mexico City—where I lived and deeply connected for eight years, between 2009 and 2017, studying my master's degree in architecture and working on self-initiated design research projects—stories of water narrate how particular European imaginaries and landscape modification practices, which were deployed to ensure colonial dominance and that still persist in current urban planning paradigms. At the same time, these narratives reveal how water functions as a mnemonic device. In an iterative process, a fluid methodology for thinking and engaging with water came into being. In Gothenburg—where I settled between 2017 and 2023 and gestated this PhD dissertation, as well as two children—a second iteration of this fluid methodology reveals disassociations between narratives of the here and now and those of larger scale and longer duration. These limitations to human imaginaries compel to engage with water, the city and its more-than-human pasts, presents and futures, reflectively and bodily to inspire a wider imaginary agency.

**Finding pathways in traces of past design journeys**

The development of my practice as a design researcher has been essential in finding the pathways and focus for the present dissertation. Therefore, in what follows, four previous projects will be introduced to set out some of the experiences and findings that led me to the initial considerations of this PhD research: *Subjective Atlas*


Figure 1. Impressions of the *Subjective Atlas of Mexico* (2011), which I cocurated, designed and edited with Analía Solomonoff and Annelys de Vet. With over fifty contributors who share samples of attachments and beliefs, it shows beauty and commitment to what they want the world to see from Mexico.

*of Mexico* (Driesse, Solomonoff, and de Vet 2011) and *Subjective Atlas of Colombia* (Tobón, Driesse, and de Vet 2015); 'Kleinpolderpleinpark' (2016); *This Morning, I Caught You in a Drop on My Finger* (Driesse 2019); my 2019 artist-in-residency at the Belgrade-based Institute for Urban Politics.

Following a concept of Dutch designer Annelys de Vet, the subjective atlas book series offers the possibility of decoding daily realities from a participant's point of view. In Mexico, the publication charts a counter-narrative to contrast simplistic representations of a violent narco-state (Figure 1), while, in Colombia, the subjective atlas grasps notions of an identity that is at a pivoting point between the desire for socio-political engagement and poetic escape (Figure 2). The subjective atlases can be perceived as representations of collective memory, or a recording of subjective imaginary, that trace what is erased and what comes to replace it, touching the fabric of society in different ways. Because the publications offer the possibility of creating visual connections in a map of imaginary relations that can change with each reading of the book, they can become tools for conversation to challenge social, political, cultural and economic ideas and prejudices. However, in a more one-dimensional reading, the atlases are more phenomenological and simply tell and show diverse imaginaries that, somehow, call for empathy through finding resemblances, but not necessarily by exploring differences. It is in the notion of diverse and changing imaginaries that ripple from the subjective maps that the present dissertation finds its first important entrance point. In a turn toward existing situations of tension, this research seeks for opportunities to do justice to the complex representational dialectic relations within existing situated conditions.


Figure 2. Impressions of the *Subjective Atlas of Colombia* (2015), which I cocurated, designed and edited with Hugo Herrera Tobón and Annelys de Vet. It contains contributions from more than sixty artists, designers and other keen observers who traced what it means for them to live in Colombia.

The second entrance point for this dissertation is found at the four-story highway intersection at the Kleinpolderplein—or 'Little Marsh Square'—in Rotterdam, where I created a conversation piece and was involved in a transdisciplinary research group. The 14 May 1940 bombing of the city centre of Rotterdam created a *tabula rasa* for postwar city planners and engineers put in charge of rebuilding the city. Planned from the early 1950s and finished in 1973, the construction of the highway intersection was a crowning achievement of the reconstruction. However, nowadays, the flyovers have become a symbol of how modern urban planning dissected the city, creating withered spaces, social boundaries between neighbourhoods and unhealthy urban environments (Driesse and van de Voort 2020). The highway intersection's impending decommissioning underscores the failure of the modernist and technocratic vision to conquer the city's empty spaces through the imposition of cars: the planners who designed the intersection in the mid-twentieth century could not have foreseen the enormous volume of traffic that would be produced by the city, rendering the intersection incapable of supporting the traffic weight by the year 2025. Furthermore, the air pollution generated by the intersection is no longer tolerable in the urban environment or global atmosphere.

A reaction to the limitations of imaginaries embedded in technocratic solutions emerged when artist collective Observatorium was commissioned to create an art project under the flyover; they proposed the idea of transforming the intersection into a highway landscape park (Observatorium 2011, 2012). The collective partnered with a growing group of allies, me being one of them, from different knowledge fields to achieve their goal. Opening an imaginary of the transformation of the intersection

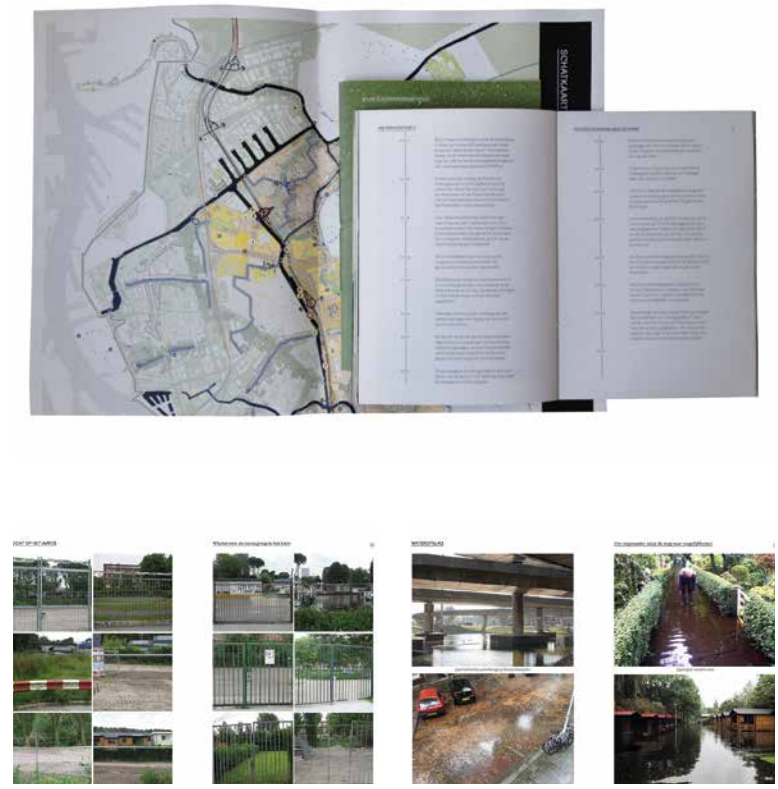


Figure 3. Field guide and treasure map of an imagined 'Kleinpolderpleinpark' (2016), created as conversation pieces for dialogues with regional authorities on past, present and future transitions of river and highway landscapes in Rotterdam, allowing for more-than-human life to flourish.

into a park, through various creative interventions, became an opportunity to create a new space for remembrance, resistance and reflection, not by erasing the existing concrete constructions but instead adding new meanings (Figure 3). For example, during a one-day festival, participants experienced what it can be like when cars are no longer the dominant occupants of the highway, exploring unexpected rich biodiversity along the shoulders of the highway, thriving in the cracks and spaces in between (Lengkeek, Driesse, Reutelingsperger et al. 2017). The underlying landscape—the marsh—became the incarnation of a dynamic landscape system, in opposition to the oppressive modernist planning regimes that try to conquer nature. Thus, an altered infrastructure for imagination emerged, one that does not only allow for reaching towards the past before the bombing of the city, but also ahead in time in which cities give room to people, plants and animals to thrive for years into the future—a second important reference point for this dissertation.

The beacon that directed this path towards the waters of Mexico City—which became a site of learning and doing to push forward the theoretical and methodological development in the present thesis—was a 2016 collaboration between the Public Space Authority of Mexico City (*Autoridad del Espacio Público*, AEP) and Dutch urban design office De Urbanisten. Their collaboration resulted in the report 'Towards a Water Sensitive Mexico City: Public Space as a Rain Management Strategy' (Urbanisten 2016). The report offers valuable insights for creating an approach to the design of public spaces, in which water plays a more dynamic role. The report takes into consideration the city's history and a deep understanding of hydrological conditions as a synergy of geological, topographical, climate and social



conditions. As the title of the report indicates, it proposes 'water sensitivity' (Brown, Keath, and Wong 2008) as a possible solution for the challenges the city is facing regarding its relations to water. Brown's suggestions for reinforcing water-sensitive behaviours intend to go beyond technical measures, adopting a holistic approach. However, the concept of 'water management' suggests a hierarchical act of supervision that is goal driven—to recover a 'water balance'—and, therefore, in essence, that mainly reproduces a system of domination. Still, the design approach from the Urbanisten, aimed at creating temporary vessels for water to be held in public space to slowly flow away in underground reservoirs inspired me to initiate a design project researching the relations between water, liquid imaginaries and city dwellers.

A one-year inquiry into waters in Mexico City resulted in curating and self-publishing the book *This Morning, I Caught You in a Drop on My Finger* (Driesse 2019, see also Figure 4), in which visual materials map and visualise the forces at stake in the water challenges faced in Mexico City and serve as an input for a socio-spatial analysis exploring themes such as borders, infrastructure, cultural heritage, resources and urban landscape. Curating this book became a relational practice in and through iterative movements, which is a third important starting point for the current dissertation. Through iterative movements, the present dissertation adopts mapping as an optic to relate to modes of knowledge production in various anthropocentric meaning-making practices and create understandings of how aquatic agency spills its agency into cartographic narratives.

As a final mention of work that has informed the present dissertation, in November 2019, I was an artist-in-residence at the Institute for Urban Politics in Belgrade, which was


Figure 4. Impressions of *This Morning, I Caught You in a Drop on My Finger* (2019), which I curated, edited and self-published as a series of visual essays, maps, love letters and reflections related to imaginaries of the past, present and future that govern human relationships with water, specifically focusing on Mexico City.

set up as an exchange programme for sharing experiences, insights and inspirations. Formerly known as the Ministry of Space, founded in 2010, they catalysed the movement *Ne Da(vi)mo Beograd*—an untranslatable pun that urges the collective 'we' not to give away (*Damo*) or drown (*Davimo*) Belgrade—in response to the decision-making process regarding the Belgrade Waterfront development project. The development project was announced in 2012, and the Dubai-based development firm Eagle Hills Company became the investor in 2014, planning to develop luxury condos, office spaces and a 220-metre-high skyscraper on a two square kilometre site of abandoned railway tracks along the Sava River. However, the decision-making process surrounding the project has been controversial, including questionable foreign financing from Dubai, permissions bypassing the General Urban Plan, commercialisation of public space, an architectural contest that excluded Serbian designers and the violent removal of families from their demolished homes. When the development project was up for approval, many citizens paraded in front of Parliament with a giant paper-mâché duck—'duck' being the Belgrade slang term for a cover-up or fraud and, in this case, a neat allusion to the project's location on one of the city's most precarious flood zones.

According to my conversations and interviews with members of the Ministry of Space, the large-scale construction works and faulty water supply systems do not only trigger mass wasting, but also disturb ecosystems because of drainage and pollution. Furthermore, the location on the flood plain of the river implies that technocratic battles are being played out to keep water away from the building site. However, the water inevitably will find its way back to where it belongs, as illustrated in the Belgrade Cooperative Building, where the project


Figure 5. Ludic intervention by 'Don't Let Belgrade Drown', interrupting the glossy images, 3D and digital models for promotion and sales of the Belgrade Waterfront project, in which a static shiny blue surface represents the Sava River. Picture from Facebook account *Neo Davimo Beograd*.

is sold and promoted (Figure 5). The basement is soaked, as water seeps through the walls. The many social and environmental debates, articulated here, convert the river into a vessel for agency, capable of facilitating activism and, ultimately, of creating a critical mass to confront regimes of exploitation. The common practices of the 'Don't Let Belgrade Drown' protest movement, in which activism and art play essential roles, show some ways to change conversations on inhabiting the city, which, as a fourth starting point, provokes reflections on what it means to be and stay human in relations of care across differences.

The four entrance points are perceived as opportunities for reorientation on preserving 'a planet [that is] friendly to the continuous existence of complex life' (Chakrabarty 2019: 20). In what follows, the aims and questions that guide the present research will be introduced, and the format and structure of this dissertation will be clarified. Subsequently, in '(Re)Positioning across Fields and Literature', risks, speculations and understandings of the world—both inherited and shaped—that followed from the above considerations will be discerned by placing this research on the junction of diverse fields of research and knowledge production.

# REOCCURRING AIMS AND QUESTIONS IN AN ITERATIVE RESEARCH PROCESS

Approaches based on design research invite new possibilities and actions to emerge along the way, here by framing the topic and problem but leaving potential openings for finding new questions and ideas while doing research in an iterative process. As such, these approaches disrupt more conventional academic practices that use the research design as a structure to answer research questions. In the present research, tools and methods that have been part of my practice as a design researcher are assembled in a scaffolding that allows for an iterative research approach aiming to expand understandings of water and heritage by adjusting the questions and methods according to findings along the way. Drawing on the development of concepts—heritage, cartographic reason, orientation and imaginary agency—briefly described below in the final paragraphs of '(Re)Positioning across Fields and Literature' and further expanded in 'Finding Ways between Theory and Practice', the current research seeks to probe and set in motion a transdisciplinary methodology to reconcile apparent opposite epistemologies of large-scale and long-term narratives with everyday subjective meaning-making processes. Two overarching questions guide the research process:

How does aquatic agency challenge authorised heritage discourses and ideas about relations between humans and the more-than-human world, including historical perspectives in different time frames and scales? What role can collaborative design approaches play in foregrounding these issues in processes of heritagisation?

To gain insights and responses to these questions, iterations of thinking and engaging with the multidimensional and multifaceted expressions of water in Mexico City serve as a foundation for developing a theoretical framework and probing—discovering, testing—a fluid methodology that is also employed to think and engage with water and heritage in Gothenburg. This iterative process moves back and forth between doing and learning in continuous reflections with water, which causes this thesis to become an opportunity to employ theory as meaning-making, learning from watery places, rather than from abstractions. In drawing theory back into everyday life—as an operation of cartographic reason—the objective of the present research is to inspire mending practices of *curating the city* as a collaborative effort in relation with others, in reflective and bodily engagement with the city and its more-than-human pasts, presents and futures. As such, it aspires to contribute to broader discussions regarding critical design practices alongside critical heritage studies while channelling design's ability to shape the world to explore potential approaches that foster collective imagination and planetary care.

# FORMAT AND STRUCTURE OF THIS DISSERTATION

The mappings that emerged from the iterative research process are structured in the three parts that constitute the present dissertation. The current section is part I. Besides presenting the starting points and reoccurring research aims and questions, further above, this part will proceed with a positioning through encounters with previous research and unfold the theoretical apparatus into a fluid methodology that ultimately leads to the methods employed in this research. In part II, the two contexts in which the fluid methodology is probed will unfold in a comparable pattern. First, their particular context is presented through an analysis of a series of urban maps and the lines that articulate—in gestures, connections, shadings and contours—the division of land from water. This is followed by a sequence of reflective essays emerging from journeys—perceived as embodied spatial practices—following waters through Mexico City and Gothenburg, which are translated into performance lectures. Part III is reserved for a discussion of the findings and research contributions.

To achieve the level of abstraction that the theoretical framework—regarding water in relation to heritage, cartographic reason, orientation and imaginary agency—demands, while also incorporating the design research approach that allows for applying the different iterations of knowledge production that have contributed to this research, the style of writing meanders between abstractions and everyday language. In movements back and forth between meaning-making and the analysis of meaning, between creation and reflection, the editorial structure drifts between everyday practices and words from philosophers and other critical thinkers, which fits the approach this research is aiming for. In the iterations that have served as empirical points of data collections, the main theoretical framework starts to interact with water. This leads to various related theories to enter my considerations and causes modes of temporal thinking to become fluid, as does the separation between knowledge systems. Through the theoretical framework, the narrative introduces liquidness, which, over the course of the research, comes to queer binaries embedded in solid ontologies of urban cartographies. This way of researching and becoming with the world, the present thesis argues, pushes theoretical and methodological development forward because the duplication of narratives, styles and the combinations of writing and imagery, which can help articulate multiple positions and voices, shaping understandings from different perspectives, including my own.

The series of reflective essays presented in part II can be perceived as a practice of reflecting-while-writing, in which theory is brought back into lifeworlds by tracing connections with and in material expressions. The genre of an essay is employed because of its explorative nature—following its origin in the French infinite *essayer* (to try, to attempt). This emphasises the fluid methodology as a proposal to be tested, that is open for adaptation, change and serendipity to happen along the way. In this sense, writing happens in a searching manner, much akin to the act of designing. The goal is to see how, in this writing practice, the connections between the experience of the sites described and material and bodily expressions

during the performance lectures generated new ideas and responses. The result is that the writing of the reflective essays, as a method, becomes a trident. In first instance, on the epistemological level, the essays exemplify Gunnar Olsson's definition of cartographic reasoning and the transforming lines of power created through the agency of the imaginary. As such, the essays represent my projection plane while also showing a cartographic act of curating 'as a way of thinking in terms of interconnections: linking objects, images, processes, people, locations, history and discourses in physical space like an active catalyst generating twists, turns and tensions' (Lind and von Bismarck 2010: 63). Curator Anne-Sophie Springer suggests how this relational practice can be perceived as a mode of knowledge production in a comparison of the curator as a cartographer. This leads to the second function of the essays, which is on the analytical level, in which writing functions as a cartographic act resembling 'an attitude towards the world that partakes in making the world' (Springer 2013: 251). Third, on the practical level, the essays function as a means to work with a variety of empirical material.

In the framework of the iterative approach that characterises the present research, the cocreative process of designing this book has been part of the strategy to curate and expose the gathered and created visual materials and written texts in such a manner that they complement each other and strengthen the arguments of the present thesis. In the exercise of putting words, images, references and pages together, the visuals in the present dissertation play different roles. Each section starts with a motto: Part I is introduced with Amy Sharrocks' words, as an invitation to think with water and how it moves through the world with its own (hydro)logics (Sharrocks 2018); Part II starts with bell hook's words related to being intentional with language to imagine and manifest different realities; Part III initiates with a poem by Italo Calvino, who turns the popular Mexican saying of 'someone who listens to the rain'—referring to not listening, not paying attention and being lost in thought—to a sensual level and an expression of daily love, constantly present. I consider this poem as a subtle turn to let the taken for granted come to the fore in quotidian relationships. In the introduction, images function as a mental map of visual references to previous design projects I have been working on. In 'Situations of Learning and Doing', the images are a glimpse behind-the-scenes and account of unfolding interactions, in various places, at various times. In 'The Drained Basin of Mexico' as well as 'Downstream from the River into the Sea', two series of four maps for each context, stretching over a 400-year timespan, become ontological catalysts to reflect on the epistemological lines that divide land and water. Although not marked as a numbered figure, the manuscript of the performance lecture 'Imagining the In-between of Land and Water', in its deviating layout design and handling of reference notations, functions as an image or, rather, an inlay of one of the outcomes of this research. Pictures from the journeys following water in Mexico City and Gothenburg have become the opening images and sites of reflection—and deflection—for the essays in the corresponding chapters for both cities.

The tradition of many storytellers that seek to narrate the world with all its entanglements and complexities—from great explorers (von Humboldt 1877) to nature writers (Marsh 2003; R. Macfarlane 2019), from writers of children's books (Lagerlöf 2019) to stories in between fiction, history, science and biography (Powers 2018; Ghosh 2021; Magnason 2021)—have served as an inspiration to produce Part II of the present dissertation as pieces of writing that reflect

different moments of orientation that turn toward hidden, forgotten or ignored points on the maps that stories can envision. These storytellers encourage to look at and live in the world attentively, while, in the light of this research, they also address the consequences, responsibilities and pleasures of narrating the living and dying world. At the same time, travel stories and field guides in pocket-size books have been the guiding format to give a size to this monograph, considering the current research a journey in sensing and making sense of the world attentively—that is, to be, think and feel with others that inhabit the same planet.



# (RE)POSITIONING ACROSS FIELDS AND LITERATURE

To pursue the present research, in September 2017, I set foot on new grounds, namely those of the field of critical heritage studies, as an early-stage researcher in the Curating the City work cluster of the Critical Heritage Europe research school. At the same time, I initiated my work as a PhD student at the Department of Conservation at the University of Gothenburg. This implied that, although trained and experienced as a designer and researcher in visual communication and architecture, I began to navigate two new fields of research—critical heritage studies and conservation—while being inspired and informed by feminist spatial practices and critical geography. I consider this navigation as a space of inquiry in which the challenges, troubles and opportunities occur in encounters with new research fields and literature in a transdisciplinary research approach. In this sense, several moments of this research trajectory are chosen to, in the following, serve as a wayfinding guide to highlight how these encounters affected the positioning, concerns and conceptualisations of this research.

**Design ahead of time?**

As the point of departure of this research is my experience as a design researcher; it is here appropriate to place that practice in its specific field of knowledge production. Throughout the different projects I initiated or collaborated on, I found myself working within and between multiple

disciplinary fields, forming bridges between actors and ideas. Being in that position, I moved away from perceiving design as a methodological solution in a creative version of management consulting or secret weapon for problem-solving. In hindsight, this attitude aligns with the argument that Tony Fry and Adam Nocek push forward when they argue that framing design as an universal fix will only intensify interrelated planetary crises in which design actually has been implicated (Fry and Nocek 2020). Thus, my practice rather emerged from a conception that follows the thinking of design anthropologist Fernando Martín Juez:

> Cada colcha de retal, cada composición, es única. Aunque cada manta sea tejida con retazos idénticos, cada una es otra y posee su propia personalidad [...] [S]omos la reunión de diferentes retazos de realidad, imaginación y memoria: el tejido que resulta de nuestras creencias. Esas creencias [...] proveen los materiales que permiten al imaginario construir los diseños bellos, las hipótesis sensatas, los pensamientos incluyentes... y también, lubricar los mecanismos de manipulación y control (Juez 2012: 5).
>
> [Each patchwork quilt, each composition, is unique. Although each blanket is woven with identical pieces, each one is different and has its own personality [...] [W]e are a collection of different pieces of reality, imagination and memory: the fabric that results from our beliefs. These beliefs [...] provide the materials that allow the imaginary to build beautiful designs, sensible hypotheses, inclusive thoughts... and also to lubricate mechanisms of manipulation and control] (Juez 2012: 5, my translation).



Based on this thinking, my previous design work can be seen as a practice of giving processes, situations or materials added meaning, direction and connection. In this overall design research practice, there is a responsibility to inspire multilayered storytelling that considers various perspectives, specifically the ones that tend to be hidden, forgotten or ignored. Working mainly in urban environments and cultivating what Anna Tsing calls 'the arts of noticing' (Tsing 2015), over the years, I gradually started to direct my attention at the more-than-human city and cultivate new commitments toward others—humans, other-than-humans, waters. In this sense, my approach in seeking to capture human experiences of the places they inhabit expanded toward drawing relations with others that, paraphrasing Anna Tsing, gather in the assemblages out of which diverse urban lifeworlds emerge (Tsing 2015: 22) while questioning and dissolving anthropocentrism in urban planning and design.

In this expanding motion, the scale of engagement started to increase as well, from the urban to the planetary. The notion of planetary urbanisation (see, e.g., Brenner and Schmid 2017) leads to an understanding that many places, humans and other-than-humans on locations that are not defined as *urban*, are integral parts of the assemblages that sustain and enable urban life. However, the human faculty of imagination is bound by limitations that make these planetary relations and the effects and affects of contemporary urban planning paradigms difficult to grasp. To this extent, many designers have inspired imaginaries and sparked debates about possible alternative urban futures through prototypes, storytelling, and exhibitions (for reflections on these kind of design practices, see, e.g., Coulton, Lindley, Sturdee et al. 2017; Haldrup 2017). In diverse 'critical design' practices (a term first used by

Dunne 2008) designers have followed the footsteps of radical designers in Italy and avant-garde British architects of the late 1960s and 1970s that have employed design as a tool to pose questions, challenge the status quo and think about future consequences of present choices. Critical design has grown as a speculative and conceptual practice that, among others, involves long-term thinking and suggests that change is inevitable.

Critiques on critical design have been posed because of—among others—its tendency to be darkly satirical and dystopian, that it is produced from a position of many privileges and that it does not attend to the deeply problematic systemic discrepancies that rule contemporary society (for a contextualisation of common criticisms, see Ward 2019; Malpass 2015). Although these critiques align with dilemmas in my design practice, instead of elaborating on these, I rather emphasise that I am inspired by those practices because of the reorientation of skills from a goal-driven and practical focus toward design work that has a symbolic, cultural and discursive function situated in everyday life. Nevertheless, the main trouble, in most cases, is that the future is regarded as the fixed focal point, and it seems to me that the linear thinking from the present toward the future has created a blind spot toward other possible temporalities (see, e.g., Bjork and Buhre 2021; Buhre and Bjork 2021 on oppressing temporal regimes) and other understandings of time at different times and locations (see, e.g., May and Thrift 2003, for their thinking on 'timespaces'). Thus, a futurist approach might place research subjects within a worldview with too easily separable dimensions of time—the past has passed, the present is in focus, and the future is central—while, in reality, there are many other ways of framing time and temporalities. Time can be perceived as thick (Neimanis and Walker 2014), nonlinear and chaotic (De Landa 1997; Ilya and Stengers 1984), queer (Halberstam 2005; Freeman 2010), multispecies and ethical (Rose 2012). This suggests a need for radical ruptures with anthropocentric models of linear time of development and decay—think here of Reinhart Koselleck's three categories of time (Koselleck 2004: 2-3)—while at the same time, it demands an approach able to attend to power relations that cut through histories.

Although critical heritage studies have been framed as a future-making discipline, and some even argue that '"heritage" has very little to do with the past' (Harrison 2015; see also Harrison, DeSilvey, Holtorf et al. 2020), entering this field offered an opening to involve different perceptions of the past in my thinking and acting, while also attending to conflicts revolving around who/what is recognised and/or excluded in meaning-making processes. In initial encounters with the field of heritage studies, through the gatherings of the Critical Heritage Europe research school, a question began to take shape: Does the critical heritage scholar study heritage critically, study critical heritage or both? Whether the intrinsic motivation was to be found in critical research approaches towards heritage or in the research on heritage that is 'critical' in and of itself seemed unclear. At the same time, the specific geographic location added to the name of the research school, Europe, created a cautiousness in me of the epistemological standpoints of the research school, which became an opportunity for reorientation on Europe as a location and category, as well as my privileged position in a systemically unequal society.

**Coming to terms with critical heritage**

In practice, conservation is commonly associated with cultural heritage. The traditional task of heritage

professionals consists of preserving and curating remnants from the past in the present for future audiences, suggesting that things or sites can be rescued from any deterioration by means of management. In this sense, they are turned into frozen facts and fixed points of departure from which intangible imaginaries can evolve and vice versa. In her book *The Uses of Heritage*, Laurajane Smith charts the connections between relations of power and discourses of heritage. Coining the term 'authorised heritage discourse' (AHD), she draws attention to the system that canonises certain elements passed down from the past to the present, often in material form, prescribing these with an exalted meaning for the community—large or small—that it claims to represent. Smith particularly criticises AHD for its imposition of power over identity within nationalist frameworks, where underprivileged or minority identities are repressed: 'While the AHD may work to exclude the historical, cultural and social experiences of a range of groups, it also works to constrain and limit their critique' (Smith 2006: 30). By questioning the power relations that heritage has often been invoked to sustain, a more 'critical' approach toward influences of the past in the present and caring for the future has been explored in the subfield of critical heritage studies (Harrison 2012: 18). Contributions in critical heritage studies can be found in pointing out the role of heritage in what Tony Bennett (2006) determines as the production of difference and explorations of the social, political, ecological and material implications and opportunities of heritage work. This can be exemplified by the treatment of disparities between colonised and colonising populations in museums, which, in, for example, Bennet's (2017) work, leads to a scientific rationale for oppressive forms of social governance on differentiated populations.



Tim Winter offers more clarifications on 'criticality' in this emerging subfield—he argues for studying heritage as an enabling force for working with different scales and temporalities and studying heritage as a problem of translation between epistemologies (Winter 2013). Possible approaches to this translation between epistemologies can be found in different explorations of the role of heritage conservation in its worldmaking capacities, pluriversal approaches to heritage ontologies and heritage as a resource for distinctive futures (see, e.g., Harvey and Perry 2015; Harrison, DeSilvey, Holtorf et al. 2020; Breithoff 2020). In this sense, 'critical heritage' becomes a concept through which this thesis contributes to transdisciplinary approaches toward heritage, with designerly acts and attention.

Transdisciplinary approaches have been explored in the field, mainly by connecting the material-semiotic methodology of 'actor-network theory' (Latour 2007) to ideas of heritage as processes and assemblages, drawing on Manuel Delanda's articulations of Gilles Deleuze and Felix Guattari's 'assemblage theory' (DeLanda 2016). Although helpful in drawing out emerging connections between local actors and global processes, it seems that adopting a flat ontology leads to narratives of unanimity that erase diversity and frictions (see, e.g., González-Ruibal and Hall 2015). Thus, although these approaches are inspiring for the present research, the proximity with nonrepresentational and object-oriented theories—that combine social theory, geographical research and embodied experiences—in the volume *Heritage Ecologies* (Bangstad and Pétursdóttir 2021) come closer to the issues that the present PhD research aspires. Turning toward other-than-human actors in the making and unmaking of the city and its histories becomes an important notion to be attuned to in my development

of approaches that enhance collective imagination and planetary care.

The expansions of not only questioning 'how' to conserve things toward 'why' and 'to what ends' to conserve them comes with the notion of 'heritage as a regime of care' that connotes curating and healing (Harrison 2015: 35), which marks an insightful overlap with the field of conservation—a field running parallel to critical heritage studies. This becomes clear in tracing back the origins of the University of Gothenburg's Department of Conservation through its Swedish denomination *kulturvård*, which translates into 'culture care'. The urgent need to redefine ways of giving meaning to, managing and *taking care* of the environment was already put into words in 1974 by the National Heritage Board's chief antiquarian Sverker Janson who coined the term *kulturvård* (Janson 1974). He not only underscored the need to go beyond studying heritage as a management issue, but also added the urgency to create different conditions for a collective future—or, rather, in plural, collective futures. Scholars have entered the field from different disciplinary backgrounds—in the built environment, gardens and landscapes, crafts and object conservation, to name a few—and there has been an emphasis on researching cultural matters from a great variety of viewpoints.

The unifying perspective of 'culture care'—or maybe even 'care for culture'—offers opportunities to enter broader discussions on the ambivalent significances—and ontologies—of care. From a management perspective, caring could mean maintaining the exact right levels of humidity in the museum for the artefacts to remain in a specific state. However, the discussion on care can go beyond pragmatic management paradigms—instead moving towards keeping traditional crafts alive to maintain the aesthetic qualities of a historical garden can become, as, for example, Joakim Seiler shows, a meaningful conservation practice that combines learning from the past with contemporary concerns for biodiversity (Seiler 2020). Recent discussions that can be tied to issues of care beyond the walls of the museum question the acceptability for public institutions to accept sponsorships from, for example, big oil and gas companies that include gagging clauses in their agreements (Garrard 2021). Rather than expanding on these important discussions, in the present research, care becomes a perspective on curating and healing a 'broken world' (Mulgan 2011), finding the pieces that need to be held and continuing to build on what is available. The argument here is not to push out any existing narratives but rather work with them and through them so as to not erase previous efforts and find other potentials. This allows for focusing on what has been pushed aside, out of the frame of the map or what has not been given full potential and is retained within a fixed frame.

Building on a feminist materialist tradition, Maria Puig de la Bellacasa's work on more-than-human ontologies and ecological practices of care reveals a three-folded dynamic between practice/actions, affect/effect and agency/power in our everyday doings in acts of grounded knowledge (Puig de la Bellacasa 2017). In this three-folded dynamic, engagements with complex local realities are inescapably connected to challenges of interdependence and interconnectedness with(-in) planetary dynamics and conditions. This emphasises the need to attend to the problems of translation between epistemologies that have become part of my research concerns through critical heritage studies.

**Breaking grounds for heritage imaginaries in the Anthropocene**

In light of the previous considerations on epistemological standpoints, reorientations on Europe as a location and category are not only pointing inwards, within the borders of the political entity denominated Europe, but also outwards, regarding the place of Europe in the world. Thinking beyond that inward view, the redeployment of particular European imaginaries and landscape modification practices in, for example, colonial contexts, reveal the possible consequences of what Lorraine Code—from a feminist perspective—defines as epistemological homogeneity. An unawareness of the 'politics of epistemic location' (Code 2006) can be illustrated with a conversation on the geological character of cities between geoscientist Simon Price and architect Etienne Turpin, in which the latter utters various important questions:

> What kind of Holocene fantasy was in the mind of the Dutch when they moved into a pestilential, mosquito-filled mangrove swamp and decided to show their manly engineering brilliance by turning it into a capital city? I mean it's completely absurd. [...] We have to remember that these colonial path dependencies are really about the control of nature. People from Europe look at Indonesia today and say: 'Wow, this is totally fucked. There's been a city there for over three hundred years, but they still can't get it together to stop the flooding'. Instead of such admonishing neocolonial judgments [...] we should ask why the flood plain was destroyed and who profited from it? (Turpin and Price 2014).



Because the final phase of an empirical journey of following waters through Mexico City coincided with the initial stages of the present PhD research, it became apparent that these same kinds of impositions of modern Holocene thought onto the precolonial urban space, changed the relation to Mexico City's hydrosphere in dramatic ways. The devastating consequences of this urban planning paradigm became even more apparent when the tectonic plates shook the earth under my feet on 19 September 2017, causing destruction but at the same time awakening mnemonic layers of the aquatic landscape of Mexico City, when tracing the contours of the vanished lake in its damages (see 'The Drained Basin of Mexico' in this dissertation).

From a critical heritage perspective, the moment of the earthquake and its aftermath not only reemphasises an urgent call for responses to environmental and social challenges and injustices embedded in uneven power distributions, but also for the definition of cultural heritage: the systemic increase of carbon dioxide in the atmosphere and water pollution—among many other examples of human imprints—conserve the earth system in a Holocene-like condition. Considerations related to these systemic inequalities have been broadly set out in the field of environmental humanities (see, e.g., Cuomo 2011; Crist 2013; Emmett and Lekan 2016). As humans, we are stuck with the problem of living on a 'damaged planet' (Tsing, Gan, and Bubandt 2017). Geological powers finding their way into everyday life has become an increasing part of everyday reality, while human-induced damages increase for the many who live in flooded or dry cities and others who suffer from destruction and extinction.

The shift in understanding human relations to the earth system, beyond their environmental affect, has

become a driving force in a broadly built-up consensus on the overwhelming impact of humans on geological and climatic planetary processes in a post-Holocene epoch: the era that Eugene Stoermer, in the 1980s, coined with the term 'Anthropocene', which was popularised later by Paul Crutzen (2000). Because of its overly anthropocentric denomination, the term is hardly uncontroversial. Many other names have been proposed, all suggesting a different key protagonist—the Capitalocene (Moore 2016), the Plantationocene (Haraway 2015; Tsing 2016), the Chthulucene (Haraway 2016)—and resulting in what Elisabeth A. Povinelli, in her exploration of the geontological power deriving from categorisations of life and nonlife, describes as 'a different set of ethical, political, and conceptual problems and antagonisms rather than any one of these things exiting the contemporary dilemma of geontopower' (Povinelli 2017: 3). It becomes clear that no denomination will provide a clear-cut solution. What does become obvious, though, is the scale of the environmental crisis. The survival of the human species seems to be bound to the heritagisation of the planet as a common earth system that is affected by many different relations. A few sentences of a poem written by Juan Villoro in the aftermath of the September 2017 earthquake can illustrate these thoughts:

> El que vio la luna y soñó cosas raras,
> pero no supo interpretarlas.
> El que oyó maullar a su gato media hora antes
> y sólo lo entendió con la primera sacudida,
> cuando el agua salía del excusado
> (Re-published in Villoro 2018: 404).
>
> [The one who saw the moon and dreamed
> strange things,
> but could not interpret them.
> The one who heard meow his cat half an hour before
> and only understood it with the first shaking,
> when water would flow out of the toilet]
> (Re-published in Villoro 2018: 404, my translation).

These sentences synthesise some of the profound visible and invisible relations in and with the earth world—the believed effect of the moon on our being, the vastness of dream space, the human limitations of interpretation, the cat's awareness of movement that sensed the forthcoming earthquake before other inhabitants of the city and the relational action from the spilling of water in an everyday space when the ground shakes. In the ruins of urbanisation processes, other-than-humans and water draw attention beyond the power effects of heritage as a set of practices (Smith 2006), beyond the complex historical, social and political contexts heritage is bound to (Meskell 2015), and, as such, beyond emphasising its fundamental impacts on the making, unmaking and remaking of built environments and on global societies. Rather than thinking to what ends traces of humanity should be conserved for future generations, in the present research, water becomes a material support to develop oversight of ways in which heritage is implicated in current 'critical' issues. As such, water is acknowledged as a common that is part of the earth system to reorient heritage imaginaries and relations of care in the Anthropocene. In an urban setting, water can simultaneously be considered an 'urban common', 'urban heritage' and 'common heritage', uniting the three points of a conceptual triangle proposed by Sybille Frank (2013).

To imagine a way out of the modern Holocene urban planning paradigm, the present thesis argues for paying attention to other-than-humans in a change of perspective,

following water through its long-term narratives, its cyclic moving through the world and relations with others. Here, studies of the diplomatic properties of heritage become relevant. Tim Winter has defined 'heritage diplomacy' as 'a set of processes whereby cultural and natural pasts shared between and across nations become subject to exchanges, collaborations and forms of cooperative governance' (2015: 1007) Although this research is not focused on forms of governance, it does respond to a 'crisis of imagination' (Ghosh 2016) that calls for new processes of meaning-making and participation to change conversations on and understandings of the heterogeneous chains of planetary connections between human and other-than-human actors, specifically the ones drawn to and by water.

**Lines of practice and research connecting water and heritage**

'We have breached the planetary boundaries for water for the first time in human history. We've altered the global water cycle'. This is what Tharman Shanmugaratnam, Co-Chair of the Global Commission on the Economics of Water and Minister from Singapore, told the audience during a science briefing in preparation for the 2023 UN Water Conference—the first water-focused international conference organised by this body since 1977 (United Nations 2023). The informal briefing was held to offer scientific decision support for member states to contribute to the UN 2023 Water Conference in March 2024, the pandemic preparedness negotiations and preparations for the SDG Summit in September 2023. In the briefing, water was discussed in terms of a global crisis that will endanger all the Sustainable Development Goals. The consensus among speakers was that water should be recognised as a global public good. As such, water was acknowledged as a cross-cutting element that connects human well-being and ecosystem health—or, in other words, an element that should be at the centre of political agendas.

In practice, according to the briefing, this can happen through science-based validation mechanisms, technological tools for monitoring and management of water systems and policies related to the pricing of water. The international focus on tools and technology to support a framework that underpins good water governance and climate resilience aims to address the human right to water and sanitation, dysfunctions throughout the water cycle and cross-sectional participation and collaboration. Notwithstanding that these are important issues to be addressed in international policy negotiations, what is noticeable is that, although the human impact on the water cycle is acknowledged in the briefing, water seems to be part of the conversations as specific points that identify the source where water can be exploited for human consumption in its liquid form, as lines depicting its direction and cuttings through land, tracing an infrastructure to get from one point to another and as amorphous shapes where it is contained in bigger surfaces.

From an urban design perspective, a rich illustration of this thinking can be found in the encyclopaedic publication *Ganges Water Machine: Designing New India's Ancient River* by Anthony Acciaviati (2015). This project employs immersive methods to document the hidden complexities of the Ganges River basin. In a multilayered mapping of different scales, the book exhibits the enterprise of converting the Ganges River basin into a highly engineered hydrological surface and laboratory for a culture of water management. It leaves one to wonder how conversations would change if water was to be perceived differently

and imagined and understood *in* or *as* its dynamic cycle, especially in designing human habitation and processes of meaning-making—in a world with others. In his work *The Invention of Rivers*, Dilip Da Cunha (2019a) provides starting points to question reinscribing forms of partition in natural systems and the human desire to separate and contain waters.

That water does not conform to separating, containing and calibrating lines became grievously palpable when, in 2022, record monsoon rains and unprecedented flash floods covered an estimated one-third of Pakistan under water. Although humanitarian relief took precedence, the International Council on Monuments and Sites (ICOMOS) issued a response stating the importance of technical support coordination for cultural heritage damage assessments and recovery. The expertise that has been called for comes from a tradition of underwater archaeologists, conservators and disaster management. Traditionally, underwater archaeologists and conservators focus on heritage that remains underwater or has been removed from an underwater environment—submerged sites, wreck-sites, wreckages, their archaeological content and the in-situ context. In the case of the flash floods in Pakistan—and with the increased possibility of flooding because of rapid climate change—the field of knowledge and practice expands.

In the early 1990s, ICOMOS founded the International Committee on Underwater Cultural Heritage (ICUCH). Functioning as an advisory board for ICOMOS, the committee developed a charter to guide the management and protection of underwater cultural resources, known as the 'International Charter on the Protection and Management of Underwater Cultural Heritage' (ICOMOS 1998) This same document was adopted by UNESCO in their 'International Convention for the Protection of Underwater Cultural Heritage' (UNESCO 2001). As such, it has become a standard guide to the ethics and practices of underwater cultural heritage protection worldwide. A reflection of the work of various members of the committee can be found in the introduction of the special issue *Underwater Cultural Heritage at Risk* (ICOMOS 2006); the studies presented in the special issue are concerned with the practices and ethics of preserving and excavating underwater heritage and its role in identity formation and promotion of recreation and tourism.

In the book, the sea is pictured as a mysterious entity that has given rise to 'ignorance and mistrust' by 'men throughout history' and has only recently 'become accessible or conquerable, several decades after the conquest of space' (ICOMOS 2006: vii). At the same time, the sea is acknowledged as 'a communication and transport route for thousands of years, allowing mankind and its multiple civilisations to develop' (ICOMOS 2006: vii) that left its traces on ocean floors, beds of rivers and lakes. The added value of archaeological practices and preservation of underwater heritage is perceived in the knowledge of the diversity of human culture through the ages, which, subsequently, can contribute to understandings of contemporary life and, possibly, anticipate future challenges. At the same time, significant threads are noticed in construction work that alters shorelines, flows of currents, sediments and pollutants, as well as the exploitation of living and nonliving resources for commercial trade purposes. Therefore, the members of the ICUCH participate in international dialogues, like the United Nations Conference on the Ocean, to advocate for the potential of heritage to protect biodiversity and ensure the sustainable use of the oceans, seas and marine resources (Labadi, Giliberto, Rosetti et al. 2021: 95).

In addition to the ICUCH, an International Scientific Committee on Water and Heritage (ISCWater) was approved by the ICOMOS Board in 2021. In the call for interest to their members, they state that 'water has been a decisive factor in human life and the development of society. Water [...] is a vital concern for everyone. Water heritage is everywhere' (ICOMOS 2021). ISCWater aims to promote conservation of water heritage and address water-related challenges of the present and future. Previous to this decision, as a follow-up of the first Heritage and Water conference in Amsterdam, the book *Water & Heritage: Material, Conceptual and Spiritual Connections* (Willems and Van Schaik 2015) was published. It shows different perspectives on the development of human society related to various forms of water management and cultural meanings and values associated with water—as a source of life, a symbol of purity and renewal and a site of spiritual significance, for example. The studies in the book acknowledge traditional knowledge systems as resources for the future. At the same time, the book reveals that dilemmas occur when heritage practitioners focused on preservation are faced with the fluctuating nature of water. This becomes even more apparent when imagining heritage practices and policies in relation to the expected impacts of rapid climate change on flooding, drought, fluctuating groundwater levels, raising sea levels and increased pollution.

More considerations on the connections between water and heritage can be found in the ICOMOS edited volume *Adaptive Strategies for Water Heritage* (Hein 2020). The different chapters describe how water has been managed, regulated and allocated, along with the ways in which these processes shape the distribution and use of water resources—for example, the impacts of large-scale water projects, such as dams and canals on local communities and the environment or how these projects are shaped by political and economic interests. The studies presented in the book coincide with how water has been considered in urban studies and how waterways—aqueducts, canals and other water-related infrastructure—have, for example, been used to shape urban and rural landscapes (Gandy 2003). Additionally, the book discusses drink water management, water use in agriculture, water management for land reclamation and defence, river and coastal planning and port cities and waterfront regeneration. It argues that—from a policy perspective—preservation, transformation and adaptive reuse of historic water-related, human-built, structures can help develop sustainable futures for cities, landscapes and bodies of water. The ISCWater mission statement reflects the studies gathered in both publications: it aims to promote water-related cultural heritage in all its material, conceptual, political and spiritual aspects to inform climate change mitigation and adaptation.

From a critical heritage perspective, the connection between water and heritage can be expanded toward 'all of those things that we inherit without necessarily wishing to inherit them' (Bryant 2021: 68), such as toxic waste, plastic islands floating in the ocean and oil spills. Beyond the visible effects and affects, the invisible traces of anthropogenic waste residing in waters are even more problematic and haunting because they do not only contaminate water bodies but also invade other bodies (Harrison 2021). On the other hand, unexpected underwater ecosystems can emerge when a variety of species of fish, mussels and crabs converge around in-situ steel foundations from disused oil rigs (Breithoff 2021). This kind of visible human and more-than-human entanglements happening around

what perseveres as an inescapable heritage marks the legacy of the human impact on the earth system in the Anthropocene. As such, there is a reorientation of humans as—borrowing the concepts that Gayatri Spivak invokes in her deconstruction of capitalist globalisation—'planetary creatures' rather than 'global entities' (Spivak 2003: 72-73) that emerges from these entanglements, pointing towards considerations regarding the implications of living with and taking care of these traces, residues and materials that form legacies that are, inevitably, part of future assemblages. This becomes an opportunity for designerly approaches in critical heritage studies: to engage with waters beyond AHD and imagine different relations of care to address the pressing issues related to environmental and social injustices.

**Geography as a form of imagination**

A visit to the archive of the Uppsala University Library to observe the 'Santa Cruz Map' (Figure 13) and an invitation to visit Swedish geographer and philosopher Gunnar Olsson guided this research further along its slippery slopes. Dated back to 1550, the Santa Cruz Map is dedicated to Spanish King Carlos V. How and when it came to be displayed in the basement of the library in Uppsala remains a discussion on which I will expand more elsewhere in this thesis (see 'The Drained Basin of Mexico') but what is important here is that, apart from providing a static spatial overview, the map is the start of a layered narrative of entangled storylines on the meeting of indigenous knowledge systems and the colonising practices that erased those.

Over time, the Spanish colonial project aimed at hardening and sharpening the lines on the urban map to fix the moving line of 'land becoming water and then land again' (Candiani 2014: 24-25). Relations with water have been disrupted, restricted, privatised, piped and chlorinated. In many places, waters occupy the backdrop of urban life and are taken for granted. However, in current times of climate crisis, the moving lines between land and water have—to paraphrase Tim Ingold's imaginary of worlds of life entangled through lines (2015)—come to *life* again in the imaginaries of the possible effects of rising sea levels. In the Intergovernmental Panel on Climate Change (IPCC) 2021 report, different scenarios of human emissions affecting major climate change components over several decades, from the past into the future, are visualised in maps and infographics. One dotted red line stands out: 'sea level rise greater than 15 m cannot be ruled out with high emissions' (IPCC 2021: 22). The line represents a low-likelihood storyline that exceeds all expectations, but its high impact is not unimaginable for the editors of the IPCC report. Following Jenna Tiitsman's proposition, who, in her engagements with Gayatri Spivak's thoughts, states that 'the way we live in the world is bound to what we imagine the world to be' (Tiitsman 2010: 150), it becomes clear that when imagination is limited, it leaves little room to go beyond the taken for granted. The graphic with the dotted line, rather than a device for truth, is a tool for pointing out a current situation and to remember that, despite the gloomy scenarios, the storyline does not have a fixed ending yet.

In April 2018, I was invited to geographer Gunnar Olsson's house in Uppsala, Sweden, together with Sjamme van de Voort and Ingrid Martins Holmberg, after a generous recommendation by Martin Gren—the latter also being the person who introduced me to Olsson's work (Gren 2016). That afternoon, while enjoying *fika* (Swedish coffee and cake break), Olsson commented on the capacity of making and unmaking connected life worlds embedded in

imagination, paraphrasing Immanuel Kant: 'Imagination is the human faculty to make the absent present and the present absent' (Olsson 2018). His definition of a map is a combination of picture and story—of the geometrical lines, points and plane and the naming of these. As such, geography can be perceived as 'a form of imagination' (Olsson 2007: 109) The implications of perceiving the faculty of imagination as a spatial act pushed the present research forward because it suggested that, in the drawing of storylines, plural views on the past and the future can be inscribed.

The earlier introduced publication *This Morning, I Caught You in a Drop on My Finger* (Driesse 2019) probes these ideas by revealing transcendental stories of water in a curated gathering of ideas, impressions and actors. The book became a catalyst to create insights on water as a mnemonic agent, and as a 'matter of concern' (Latour 2004)—that is, diametrically opposed to a taken for granted—because it drew out connected storylines flowing in between different times and places on the Mexico City map and beyond. These storylines do not necessarily erase differences or hierarchies, nor are they prescribing solutions. Instead, they name the lines, sticking with them as they change direction and draw possible relations of care, hence mending the map.

Here, design, in encounters with notions of critical heritage studies, takes directions into the spaces in between toward a practice of moving with a shared matter of concern—namely, water—as it faces diverse antagonistic forces. In her 2008 dissertation, Monica Sand engages with artistic research methods in spaces in between to activate them and give them identity. In her work, Sand builds her notion the spaces in between on the work of Marc Augé (1995), in which so-called 'nonplaces' connect the dispersed organisation of modern urban life (Sand 2008). The present dissertation will, however, disengage from the anthropocentric notion that we, humans, are responsible for the activation of identity in these places, which is done by engaging with an actor that bridges and activates them of its own accord, namely water.

Aiming to develop more ethical and sustainable ways of living, critical heritage scholars have sought to engage in complex and often daunting realities, by applying Donna Haraway's idiom of 'staying with the trouble' (2016). Still, theory is often perceived to be abstract and pulled away from everyday life. Therefore, with the intention to 'bring theory back to life' (Ahmed 2017), this research is informed by various feminist spatial theories and practices (for a comprehensive overview of the many versions of feminism, see Roberts and Aiken 2023), as well as several other disciplines that gather in a specific field hued by water, such as the blue humanities (see, e.g., Chen, MacLeod, and Neimanis 2013). These references invoke, as Elke Krasny describes in her work on 'scales of concern' in feminist spatial practices, 'multidimensional and multifaceted expressions of thinking and acting, with an aim to build spatial justice and enable better caring in a world defined by ideologies of injustice and regimes of inequity' (2022: 185). In the next chapter, 'Finding ways between theory and practice', these influences will become more evident.

**Marking the ending and beginning of this conceptual journey**

Several key concepts that lay the foundations of the present research emerged from all these early explorations in between different places and disciplines. *Heritage* is employed as a contemporary meaning-making practice

of entangled becoming that serves to identify the vehicles or vectors on which imagination relies to draw lines on a map of time and space and to detect possible openings for regimes of care. *Cartographic reason*, then, is the premise that enables and conditions humans to think about the abstract world of invisible human and more-than-human relations, in much the same way as they can understand physical places by using maps and mapping—and the other way around. Metaphors serve to rouse dormant memories and trace metonymic articulations in time and space that emerge from different power relations while also drawing new relational lines. Closely related to cartographic reason, *orientation* addresses the human apprehension of its known world, even though this concept serves to focus on the very moment of the reasoning that happens as a situated, embodied and directed action. In this sense, the concept of *reorientation* addresses possible shifting epistemologies, and both orientation and reorientation are moments in which the human cognizance of its array of possible actions—or, in other words, its agency—happens in relation with others.

The concept of *imaginary agency*—part of the title of the present dissertation—has a cheeky double meaning because it simultaneously asserts the premise that all agency is imaginary, while also expressing my hypothesis that, by the very act of imagining, agency happens as narrative lines connecting past, present and future appear. The last concept mainly functions as a heuristic device to enable understandings of human orientations in time and space. The objective is not necessarily to define the exact functioning of imaginaries, but it is rather proposed as an aid to analyse practices that make people turn toward places, concepts, humans and other-than-humans that play into their faculty to make the absent-present and the present-absent.

The meeting between these concepts—arising from an abstract, theoretical world and iterations in two different contexts, Mexico City and Gothenburg, in which they were probed—happens in carefully curated interventions in a series of reflective and embodied mapping exercises that allow for engaging with the more-than-human city and its planetary entanglements. The following chapter, 'Finding ways between theory and practice', will expand on how drifts between theory and practice were channelled into a methodological framework that allowed for these two iterations to be unfolded and channelled into the chapters further below.

# FINDING WAYS BETWEEN THEORY AND PRACTICE

## WATER AND HERITAGE CAUGHT IN CARTOGRAPHIC REASON

John Pickles starts his inquiry into mapping and representational epistemologies and logics with an anecdote: he attended a presentation by Gunnar Olsson, who asked his audience 'What is geography if it is not the drawing and interpreting of a line?' (Pickles 2004: 3). That the drawing of a line, as a geographical and spatial act, can also imply the design of a new object is perfectly illustrated in Dilip Da Cunha's explorations of lines that define how humans know water and the historical roots of misunderstandings of rivers, rains, evaporations, inundations and other conditions of wetness. From an architecture and planning perspective, in *The Invention of Rivers*, Da Cunha (2019a) shows that, although wetness is everywhere in various degrees, normative lines that divide water and land appear in visualisations that bring them into being on either side of a line. Da Cunha determines that, in the moment these lines are drawn, water is caught in a specific moment of its hydrological cycle when it is not precipitating, evaporating or condensing. It is in this moment of apparent clarity that the surface of the planet is accentuated and water as a flowing entity is separated from land.

The maps that result from drawing these lines in that exact moment become the blueprint for planning cities, for example, while other moments become ephemeral, and the water cycle functioning within the earth system

is taken for granted. Although the lines mentioned here are a precondition for design, to believe that the divisions these lines draw are true requires an act of imagination to take place. The normative thinking that is embedded in these visualisations that guide human interventions and disruptions in the water cycle has produced violent confrontations with water, such as flooding, landslides and rising sea levels, Da Cunha argues. In response to these events, facing these threats, the sharp line dividing land and water comes into focus even more with proposals for dams, pumps, walls and other engineered solutions. These technocratic responses attempt to universalise water, naturalise it and make it disappear into a backdrop. Da Cunha concludes that the river is a remarkable product of design because it not only articulates the earth's surface, but by choosing only one moment of the hydrological cycle, it also becomes a model for colonisation that turns human 'reality into ephemerality and their ephemerality into reality' (Da Cunha 2019b). The realisation of how this ephemerality is fixed in lines can reveal possible answers to questions related to how particular European imaginaries and landscape modification practices in colonial contexts became embedded in authorised heritage discourses (see 'Lines of practice and research connecting water and heritage' in the present dissertation). At the same time, the notion of ephemerality offers a way out of fixed discourses, suggesting that there are other possible moments for anchoring alternative collective imaginaries.

With a paradigmatical shift toward rain, Da Cunha taps into a sensibility and imagination that holds witness and inhabits wetness, beyond thinking in points and lines. In this emerging imaginary, water is not flowing in a line or in a river, but it is rather held in 'soils, aquifers, glaciers, living things, snow fields, agricultural fields, tanks, terraces, wells, cisterns, even the air—all for a multiplicity of durations that range from minutes and days to centuries and aeons' (Da Cunha 2019b). At the same time, while water is being held, it is holding others: nutrients, microbes, microplastics or even the physical testament of the transatlantic slave trade in the 'sodium of human blood (…) [with] a residence time (…) of 260 million years' (Hildyard 2022). This 'hold and to be held thinking' shimmers into being the constant connection and negotiation between the geosphere, hydrosphere and atmosphere. In that sense, rain, clouds, the earth's surface and also humans can become allies to reimagine water and heritage in relations of reciprocal care.

The double mechanism of division and creation that happens in the geographical making and geocoding of the river through the drawing of lines described by Da Cunha follows the epistemology of modernity, in which maps make truth claims about the positioning of things in the world—simultaneously guided by and enshrining power relations. Profound epistemological shifts and changes have brought into question the 'Cartesian dualisms and scientistic naturalisms' embedded in maps, which John Pickles describes as a 'crisis of representation' (2004: 28). To challenge ontological fixation in cartography and its embedded social cartographies, new approaches to mapping have emerged, for example, from concepts like 'wayfinding' (Lynch 1960) or 'cognitive mapping' (Jameson 1984). In these traditions, spatial phenomena are interpreted as subjective dialectical images, which often leads to the conclusion that the representation of space can never be as complete as the moving ensemble of the whole—in other words, the map is a metaphor.

Although a cartographic imagination of respacing social and political life begins to flourish in these efforts, Gunnar Olsson calls for further explorations of 'the invisible lines

of the taken-for-granted' (Olsson 1994: 115). In his thinking, metaphors—referring to figures of speech, drawings, statues or any signification that includes representation and interpretation—become maps (Olsson 2014). With this epistemological reversal, the spatial aspect of human experience becomes the centre of attention in analysing how metaphors as maps communicate—and thereby constitute—real-world relations.

> As every rhetorician knows, the easiest way to be believed is to tell a story. And as every cartographer knows, all stories are in essence travel stories, infinite chains of metonymies in which one wor(l)d slides into another, a postmodern narrative with multidimensional meanings (Olsson, 2007: 67).

In this quote, a second semiotic phenomenon that plays a central role in Olsson's approach to maps is introduced. Whereas the term metaphor refers to a signification structured as 'this is that', metonymy refers to the representation that happens between a sign and meaning closely aligned. The sign Gothenburg metaphorically refers to a place in the real world—the city of Gothenburg—but its metonymic signification goes beyond this meaning in the present and starts a semiotic process into associated signs in the present, elsewhere or in the past and future. The trick of converting something into something else—and believing it as a possible truth—is the essence and goal of cartographic imagination. From this point, proceeding to the definition of a map that Olsson provided in the conversation we had when visiting him in his home in Uppsala, it becomes clear how human imagination can be perceived as a form of geography.



> To have a map, a traditional map, only three things you need. A set of points, lines between the points and the projection scheme. Now, naming the points is not so difficult. Each one you give a name. So that is easy. When it comes to the lines, the relations between them, that is, of course, much more difficult, because that relation does not have a physical counterpart. So, these lines are steeped in power (Olsson 2018; see also Olsson 2020: 50).

When imagination settles for a particular moment in space and time, maps become static spatial overviews that exclude temporalities and qualitative changes. Cartographic reason, in this case, separates before it unites, marginalises before it absorbs, simplifies before it complicates and leaves little room to imagine beyond the taken for granted (for an analysis of how this is employed in propaganda maps or suggestive cartography, see Pickles 2004: 37-47). In this critique of cartographic reason, a double bind appears: cartographic reason in itself depends on imagination.

The capacity of making and unmaking the world embedded in imagination, for which cartographic reason is a premise, becomes particularly clear in Gunnar Olsson's interpretation of Immanuel Kant. Imagination, here, becomes the faculty to make the absent-present and the present-absent, involving all the senses (Olsson 2007: 120). It is through the five senses of the body—sight, hearing, touch, smell and taste—and the sixth sense of culture that metaphoric images move beyond a thing with a meaning-in-itself and rather emanate metonymic stories of meaning that can grasp long-term chains of effect and affects through the imaginary relations constituted by real-world relations (Olsson 2007: 80). It is by applying this line of thought to the idea of thinking across time that heritage

comes into the picture. Taking a concept such as Reinhart Koselleck's historical time, which can be understood as the 'differentiating [of] past and future, or (in anthropological terms) experience and expectation' (Koselleck 2004: 2-3), and framing this as a projection plane, instances of heritage become dots on a map—that is, the coordinates that guide us through a map consisting of our perceptions of history. As such, maps can have multiple meanings. A line on a piece of paper could metaphorically be interpreted as a street in synchronic space. Simultaneously, the map could acquire a metonymic meaning because the outline of a former lake initiates a semiosis of meaning in diachronic space, leading thoughts back to the days when a lake was present and a future where it is completely absent, leaving the city without any sources of water.

These notions of cartographic imagination offer opportunities for the present research to explore how embodied engagements with water can expand the metaphoric image of water divided from land into a metonymic story of water. Although Da Cunha suggests getting rid of the points and lines that divide water and land, the present research takes on the challenge of wrestling this double bind by first taking the critique of cartographic reason seriously and, then, by seeking to create other frameworks as anchors for imagination that make use of the points and lines. As Olsson suggested in our conversation, when the 'lines steeped in power' are no longer taken for granted, the trouble begins because 'when I baptize the lines, the lines begin to shake, and they want to change form' (2018). Before elaborating more on using the points as moments of orientation and restorying the narrative lines steeped in power in a methodology that emanates from these thoughts, in what follows, I first ponder on the aquatic agency elevated by this reimagining.



# REIMAGINING THE SHIMMERING AGENCY OF WATER

On various occasions between 2009 and 2015, London-based artist Amy Sharrocks invited people to join her for a drift in a boat floating on different water bodies to notice how the movement of water gives different directions to our acting and thinking. When reading her 'Invitation to Drift' (Sharrocks 2018), it becomes clear that leaving 'dry land' and stepping off the relatively safe position of solid grounds entails an act of rebalancing 'our weight in the world', a 'break from role, time and gravity'. This creates an opening image for exploring 'the equal necessity of all moments' of the hydrological cycle when reimagining aquatic agency throughout the present research.

The image of the boat drifting on the flows or currents of water, which are formed by cosmic and planetary forces—the sun and gravitational pull of the Earth powering the hydrological cycle, and lunar gravitation causing tidal stretches, for example—forms a starting point to give direction to notions of agency embedded in water. The water rocks the boat and moves it in particular directions that the people in the boat have to physically respond to maintain balance. This interplay of action and reaction between human bodies, water bodies and other material objects has been explored extensively by archaeologist Matt Edgeworth, who emphasises the agency that water holds in its flowing energy, especially in rivers (Edgeworth 2011, 2014). The struggle unfolding from humans trying to interpose, intervene or modify the flowing energy of water

with all sorts of designs and projects can lead to unexpected water responses that requires more human interventions, hence leading to further water responses; this then causes more and more violent confrontations. These struggles between the human and other-than-human, as imposed by modernity, are undone in ecofeminist writings of scholars such as Astrida Neimanis:

> No agent—no person, no biological entity, no material artefact—controls the world, but all of these things enter into various relationships with one another: weather and landforms worlding hurricanes; boats and tides, weapons and disease, states and racist ideologies worlding colonization. In such intricate patterns of material relation, agency is dispersed through the material world. […] In this sense, there is no a priori 'cut' between human and non-human, between culture and nature. Instead, there are variations within a broader more-than-human field (2014: 36).

Following the ideas of Neimanis, structures of control do not prevent water from finding alternative flows and ways in resistance to human agency. Water expands notions of material or human agency or even the fluid relationships between humans and nonhuman materiality of water. As a matter-in-transformation that shapeshifts its ways into everyday experiences in multiple ways and timescales, it challenges human projections, polarised positions and established categories and undermines what is taken for granted.

To go beyond the commonly held perception of water as a material or economic resource or even as a source of life, it seems useful to understand how it is 'socially and politically and ritually constituted, while acknowledging at the same time that water has an existence outside of the human domain too' (Edgeworth 2014: 157; see also Strang 2014). As it has become clear by now that only caring about human survival leads to neglect or ruination of others, it makes sense to seek beyond narrow 'human regimes' (Tsing 2015). Responses to environmental and social injustices and practices devastating the earth system can be found in ecofeminism and posthumanism. One specific variant of ecofeminism focuses on the relations between and analogy of women and repression through patriarchist systems of power, control and dominance, with the ways the environment is repressed and exploited (Plumwood 1986; Barad 2007; Alaimo 2010). The prominent thinking beyond binaries and opposites in a nondualistic approach is extended more in posthumanism, in which studies of relations, not only between humans, but also with other-than-humans—animals, plants, microbes and bodies of water—include diverse epistemological standpoints that decentralise human excellence (Haraway 2016; Puig de la Bellacasa 2017; Braidotti 2021). In these fields, questions of what it means to be human in the world, in relation to others, are central, which is why there are similarities to be found with the current research.

However, in various ecofeminist and posthuman approaches, nondualistic and entangled thinking leads to a complete dissolving of boundaries, which can create a risk of not accounting for affects and not acknowledging others in their diversity and limits (for considerations on the limits of relational and flat ontologies, see Panse 2022). Still, socio-cultural constructs of difference, inscribed in power relations and imagined and believed by humans have proven to create unjust societies and to be devastating for the earth system. Therefore, the methodological approach in the present research allows for water to

become a protagonist and agent, warranting a spatial inquiry that acknowledges the diversity of ways of life and modes of thoughts that exist in the worlds, each with its own ontological and epistemic grounding. This approach very much aligns with Arturo Escobar's definition of 'pluriversal politics', which revolves around the idea of creating more inclusive and equitable spaces for dialogue and negotiation, engaging in mutual learning and understanding, and, as such, moving beyond the limitations of Western modernity (Escobar 2020). Engagements with water become an invitation to acknowledge other bodies as diverse and with their own agency because the relations that water traces in its 'worldmaking "flows" [...] are not just interconnections but also the recurving of channels and the remapping of the possibilities of geography' (Tsing 2000: 327). Navigating these possibilities of geography not only implies paying attention to the projection plane and what is pushed to the frame of the map—or even further outwards—but also keeps a promise of possible new vocabularies of place and design to emerge, in which water as a subject and methodology shows ways of being in the world.



# WATERY POINTS OF ORIENTATION—STREAMING, TURNING, BECOMING

Many watery stories connected to life in Mexico City project a teleological narrative of chaos and decay—there was a lake, the ground above her subterranean basins dried out, leaving the city without any sources of clean water while the brittle ground trembled under the weight of the megalopolis. These narratives seem to dramatically decrease the range of possible actions in a narrowing imaginary in which it becomes unfathomable to reassemble and re-member perceptions of the past and expectations of the future outside preordained narrative lines. A suggestion towards a possible escape from the teleological narrative of an apocalypse brought about by repeating environmental crises appears in David Harvey's thoughts, who, from a critical geography perspective, emphasises the need for a narrative that enables us to 'construe ourselves as active agents caught within the "web of life" [a]s a much more useful metaphor than the linear thinking that has us heading off a cliff or crashing into a brick wall' (Harvey 1998: 20). The methodological framework for the present research takes up on these notions with its intention to metaphorically spin a web of life in space and metonymically create a web of life in time by seeking to turn towards bodily senses and queering preordained narrative lines regarding water in urban environments.

Here, water could arguably have been any other matter—Anna Tsing (2015) chooses to follow the matsutake

mushroom, while Amitav Ghosh (2021) turns toward nutmeg. Both focus on moments or smaller things to subsequently expand on systemic issues. However, in the present dissertation, water, in its continuing and multiform relationships with other entities, places and times, becomes the attractor that creates moments to orientate—or re-orientate—the multiple forces that give shape to the transforming lines between the dots on the map. Furthermore, my attention to water comes from its role in 'sacrificial and shadow places' (Plumwood 2008) whereby it helps me—using Donna Haraway's words again—stay with the trouble (Haraway 2016). To attend to watery dots on city maps that allow for moments of orientation that explore metonymic relations, this methodological framework relies on Olsson's notion of cartographic reason as an *a priori* for cartographic imagination. As the dots project narrative lines aimed in different directions, traced with diverse intentions, navigating through multiple dimensions of time and space, they function as iterations of signification that produce narratives, and as such, they are the vantage points from which orientations happen.

In her quest to follow the concept of orientation through different spaces and temporalities, feminist scholar Sara Ahmed states that 'orientations shape not only how we inhabit space, but how we apprehend this world of shared inhabitancy, as well as "who" or "what" we direct our energy and attention toward' (Ahmed 2006: 3). In other words, orientations matter, both in the sense that something can matter as an important subject of consideration and matter in shaping relations as a material substance that occupies space and catches the attention (Ahmed 2010). Narrative directionalities are conditioned by orientations that can create, reinforce, challenge or disrupt articulations. As such, moments of orientation—or rather reorientation—



can be considered as a space of inquiry that becomes 'a question of "turning", of directions taken, which not only allow things to appear, but also enable us to find our way through the world by situating ourselves in relation to such things' (Ahmed 2006: 6). It is in Ahmed's conceptualisation of moments of orientation that the present research finds its methodological entrance point to work with the relational lines of power between the dots on the map and the taken for granted inscribed in the projection plane.

Orientation is the first step of meaning-making—and it is through that meaning that the relational lines of power can be navigated. According to Gunnar Olsson, these lines do not have a physical counterpart that can be studied because, for him, power is 'a game of ontological transformation (…) in which visible things are turned to invisible relations' (Olsson 2002: 260). Hence, in the present research, moments of orientation become the looking glass through which we can glimpse what is not visible and create understandings of what is hidden in the taken for granted. However, this immediately causes trouble because 'when I baptise the lines, the lines begin to shake and they want to change form' (Olsson 2018). Through its meetings with divergent ways of life and while it flows in multiple rhythms, scales and time trajectories, water forces us to constantly switch perceptions and conceptualisations. This means that Ahmed's moments of orientation give shape to an inquiry seeking to consciously direct attention towards water and navigate the relational while constantly changing the narrative lines that water traces.

The shimmering agency of water creates—what human geographer Marcus Doel in his considerations on the possibilities of cartography as a relational practice—'a beautiful milieu for (…) engendering remarkable events for those prepared to launch themselves into the flux. Learning

to let go, to become alert to difference and differentiation' (1999: 7). Shimmering, thus, describes the constantly changing interactions of water with diverse forms of life, allowing for moments of reorientation to queer relational lines steeped in power. In this train of thought, the methodological approach of the current research seeks to specifically create attention for places, things, humans and other-than-humans that were pushed out of focus, away from the map or that may be forgotten, lost, hidden or completely transformed in an attempt to make water 'straight'. Remember that Da Cunha determined how the normative thinking reflected in the drawing of lines and design of, for example, cities, resulted in attempts to universalise water in a specific composition. In this sense, the methodology proposed here promotes not getting lost in technocratic fantasies of progress but rather turning toward what has been undone, lost or displaced. Relying on Sara Ahmed's work on queer phenomenology, this turning becomes a moment that does not render out the effects of human actions but rather taps into an imaginary where relationships with water become reciprocal, retaining a connection between power, embodiment and speculation. Moments of orientation on watery dots on the map, then, not only allow for developing an understanding of the aesthetic values of water, but also an understanding of the modes of worldmaking that it engages in as a socio-political subject.



# FROM METHODOLOGY TO METHODS: A FLUID APPROACH TO DISCIPLINARY EPISTEMES

'Draw a map to get lost'. 'Imagine the clouds dripping. Dig a hole in the garden to put them in'. 'Drill two holes into a canvas. Hang it where you can see the sky' (Ono 2001 [1964]). In her book *Grapefruit*, Yoko Ono did not write poems but rather instructions for art and life that serve as incentives to actions that acquire meaning while doing them. Taking note of this performative work, in the present research, the methods for gathering data and analysis seek to allow for cartographic imagination to happen in situated experiences. Rooted in design research, this methodological quest draws on a tradition for research creation, as proposed by, for example, Anna Tsing (2015), Natalie Loveless (2019) and Sara E. Truman (2021), in which more-than-human, more-than-textual and multisensual methods are combined.

In a revision of my one-year empirical journey into relationships with waters in Mexico City, I started to recognise the methodological potential of what Celia Lury—in her explorations of 'live' methods that contribute to the enactment of social worlds—has defined as a 'composition' that could attend to the (trans)forming that goes on in 'the doing of many together' (Lury 2020: 6). These methods involve various actions in response to problems that occur in a city that is not a fixed container space but

instead becomes topologically. In that sense, the collection of methods employed in the present dissertation seeks to create a metonymic ripple effect in drifting through various entangled scales of urban spatiality and temporality—to recognise the long-term and large-scale affects and effects of water that spill into everyday urban lifeworlds. Therefore, the methodological framework embraces the water cycle to work with and be in transformation, which can be recognised in the stages of research that have taken their names from watery metaphors: permeation, drips and drops, a natural spring erupts, flows, floods, mist and evaporation and distillation. Initially, these designations were merely labels in a research diary (Driesse 2019: 17-31), but as the project progressed, they evolved into a *modus operandi* in a series of seven moments of orientation and reorientation.

Although the present research follows the structure of the methodological framework, insights and claims are anchored in the world that inspires them, and as situations change or while transitioning from one moment to another, arguments can evolve as well. Here, each of the seven moments is an invitation to leave dry land, casting aside perceptions of stability and fixedness and drifting through disciplines and across boundaries—but never aimlessly. Thus, in the end, it does not matter whether the following seven moments through which the fluid methodology takes shape are understood metaphorically or propositionally; rather, the methodology proposes to explore a state of fluid thinking and acting, in which perspectives on the past and horizons of expectations for the future can be reconfigured.

1. Permeation. To immerse into a fluid methodology, be attentive for water to permeate an incentive moment in which a convergence of—personal, financial, institutional and societal, to name a few—circumstances facilitate an occasion for action to spring.

2. Drips and drops. Allow for information to leak through by listening to local experts sharing their stories from the perspective of their respective fields of study, backgrounds and daily practices.

3. A natural spring erupts. Curate gatherings between diverse human communities of thought and practice to provide a platform for exploring and teasing out commonalities that, despite potential differences in perspective and approach, call for attention and care.

At a general level, it can be said that the first three instances involve site-specific joint reflections that create the space for exploring new research questions, possibilities, insights and challenges related to specific geographical locations of watery points of orientation. Building on this foundation, the next three phases of the research process aim to develop a deeper, embodied understanding of the fluid articulations in time and space between these watery points on the map.

4. Flows. Follow the visible and invisible lines that water traces between dots on the map. Consciously pay attention to water—to how it moves, how it appears, what it does, what it is threatened by and how it organises itself and other bodies.

5. Floods. Transpose narratives and experiences from one local context to another and present to a broad audience. Involve all the senses.

6. Mist and evaporation. Create a narrative apparatus that queers conventional subject–object divisions and linear time perspectives.

7. Distillation. Let water become your mapping ally and connect the different modes of knowledge production from previous moments of orientation.

The methodological framework drawn from the design research project in Mexico City has been transferred to engage with waters in Gothenburg. To illustrate how these moments of orientation took shape in practice, in the next subchapter, 'Situations of learning and doing: moments of orientation with others', the roles I occupied in the iterative research process are set out to highlight how different levels of engagement and collaboration affected my thoughts and actions and, ultimately, the methods that provided the empirical material. This also shows that, although this methodological framework could be carried out by anyone, the outcome will be personal—as the designer and researcher in the present dissertation, I made cuts and connections that others might place differently. Rather than perceiving this as a shortfall, this is considered an opportunity to stress attentive and sensuous engagement with transformation and instability, as an exercise of imagination emerging from cartographic reason. In the final chapters, the seven steps of this approach will be mirrored to unfold what they afforded in each iteration of the methodological framework.



# SITUATIONS OF LEARNING AND DOING: MOMENTS OF ORIENTATION WITH OTHERS

Here, I further elaborate on the composition of methods that constitutes the methodology of moments of orientation, in which agencies are played out and lines of power are queered. Diverse dynamics between situatedness and actions that spin imaginations that relate to different realities in time and space come to the fore while focusing on expressions of water in Mexico City and Gothenburg. Because each iteration required its own contextualisation of my role and approach, the methods and collaborations emerge from slightly differing dynamics, even though they follow the same seven modus operandi. Some collaborators are part of a previously established professional network of creative practitioners in Mexico City and Rotterdam—the nearest city to the village where I was born and where I lived and worked before moving to Mexico. Other collaborators are newly added members of this network, mainly expanding toward Gothenburg. Unexpected participants, such as those who were in the audience of various performances, or the ones who revealed themselves through materials gathered on the journeys following water, also became important for the various research iterations. Therefore, what follows, apart from being a record of the methods and different roles that I, as a designer and researcher, have occupied, is also an

acknowledgement of the agency of different collaborators—human and other-than-human—in the current research.

**The Basin of Mexico: Design researching everyday relations with water**

As already introduced in the initial parts of this present dissertation, the 2016 De Urbanisten report on rainwater management strategies for Mexico City (Urbanisten 2016) caught my attention because I had dwelled there for several years. When reading the report, reflections on designing with water permeated my thinking. As an independent designer, I embarked on a mission to chart relations between water and the residents of Mexico City—to go beyond water as a problem of management.

In early 2017, various inhabitants who can be considered local experts were asked to mark specific geographical locations on the urban map that exemplified watery points of orientation in Mexico City and its surroundings. These experts, each from a different field of knowledge production—such as urban planning, philosophy, law, arts, economy and activism—were brought into conversation during three movie nights, showing films in which water was a protagonist—these could be documentaries, like *H2Omx* (Hagerman and Cohen 2014), but also more popular movies such as *Mad Max: Fury Road* (Miller 2015)—allowing me to assess the narratives that floated around these locations from the positions of different paradigms and define common denominators (Figure 6). All conversations—in Spanish and one reading of a poem in Ñähñu by Thubini Mästo̲ho̲ (published in Driesse 2019: 60-61)—were recorded. The names and backgrounds of invitees, as well as the full programme of the movie nights, can be found in the project diary in the publication

Figure 6. Impressions from the three movie nights, organised in May 2017, on the rooftop terrace of Primal Studio in Mexico City, as part of their F.I.L.M. screening programme and transdisciplinary work on rainwater harvesting.

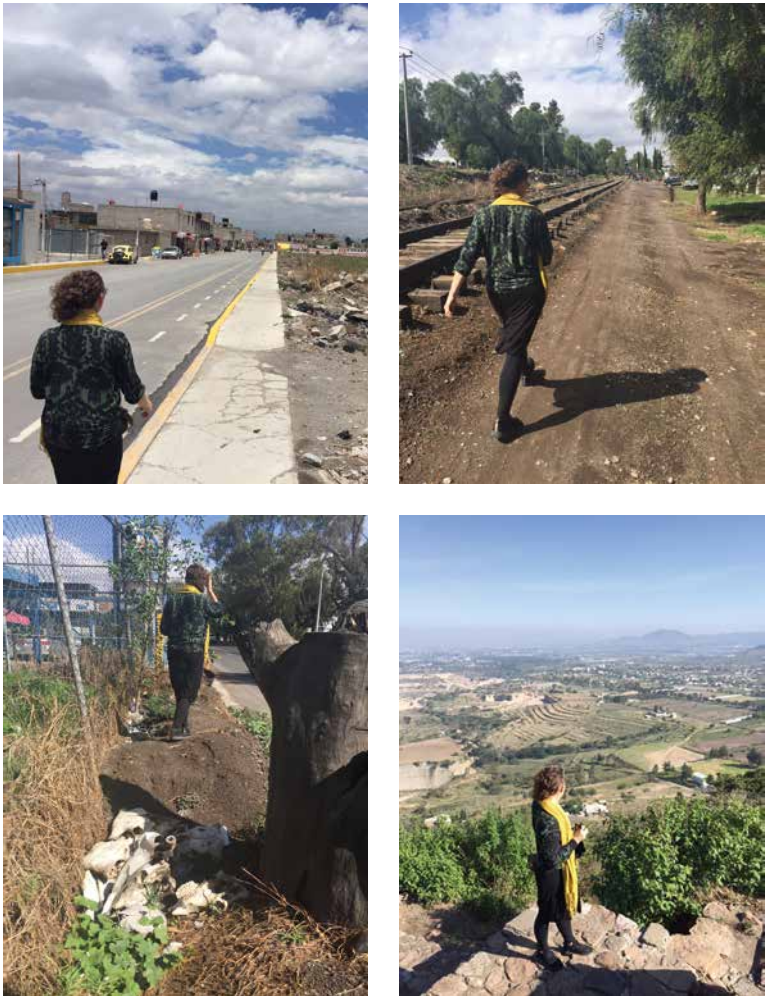


Figure 7. Impressions of our three-day walking journey, 13–15 June 2017, following the trails of water through Mexico City. Pictures by Sjamme van de Voort.

resulting from the design research process (Driesse 2019: 17-31). From introductions to water and its meanderings in the city, the meetings became dialogues focused on three general themes: the human right to water, the multiplicity of water worlds and water economies and hierarchies.

Connecting the dots on the city map that were defined in the previous stages of this research, I walked a line to experience articulating narrative threads and to explore what kinds of other stories and places would emerge from this meandering action (Figure 7). In June 2017, I embarked on a three-day walk with the company of Sjamme van de Voort—who joined me, on this occasion, because of his merits as a memory studies scholar and who later became my husband. With little more than one change of clothes, our water bottles, smartphones and camera, we set out on foot, documenting every expression of water that caught our attention. Using our phones, we took notes and tracked our journey using a geotracking application that plotted our movements on a map. Additionally, we used an altimeter to measure our descent into the Valley of Mexico City.

In the summer of 2017, a cocreation process initiated when the gathered stories, pictures and geotracking data were shared in conversations with collaborators from diverse disciplines. The aim was to cocreate opportunities for water to transfer from being the subject of the conversation to being an active agent in it. Back in Rotterdam, this resulted in a series of festival performances and an installation that transformed water from nearby canals into potable water, mixed with syrups from plants and fruits that were collected in Mexico City (Figure 8–10). In response to the performances in Rotterdam, writer-in-residence at the Duizel in het Park festival, Corinne Heyrman, penned a letter addressed to 'Water'. The first Dutch Special Envoy for International Water Affairs—who

Figure 8. Impressions of the three-day *De Bouw* (The Construction) festival, August 2017, Rotterdam, visited by a varied audience, from children to elderly people, from ducks to seagulls. Wading through a canal, I held a public reading of the eco-fiction 'Journey to Atlan', written by Mauricio Martínez in response to my account of our journey following water. At the same festival, Sander Huijzer based his construction of a life raft on a scene from the eco-fiction written by Mauricio Martínez.

is responsible for advocating water awareness around the world with the aim of initiating collaborative and transformative interventions—together with an adviser for EU Integrated Maritime Policy, a journalist and urban researcher and various artists were invited to respond to the letter on 'Water's' behalf. The letter and the full responses can be found in *This Morning, I Caught You in a Drop on My Finger* (Driesse 2019: 114-147). In the current dissertation, these enactments of the journey following water serve as points of departure for the reflective essays in the chapter 'Leaving dry land in Mexico'.

In the last phase, I mapped the journey through watery worlds, documenting articulations in pictures and text, finding focus on fluidity, in the role of the 'curator as cartographer' that Anne-Sophie Springer (2013) describes as a relational practice and mode of knowledge production. During the earlier mentioned visit to the archive of the University Library in Uppsala, the *Santa Cruz Map* clearly showed the present-day, dried-up rivers tracing the line we had walked throughout the city. These acquired new meaning as relational narrative lines, as being steeped in power and that started to tremble and seek new directions. In the publication *This Morning, I Caught You in a Drop on My Finger*, distilled in collaboration with designer Art Collart, various contributions to the project came together in what might be called a cartography of adjacent epistemes. In other words, subjective maps of water imaginaries came together to be discussed with colleagues from academic disciplines adjacent to mine. The publication can be perceived as a notebook made in collaboration with others that consists of documentation of site and archival visits, performances and responses, ideas and reflections from collaborators. The materials exhibited in the book became catalysts for analysis throughout the present dissertation.

Figure 9. In August 2017, at the three-day festival *Duizel in het Park* (Dizzy in the Park) in Rotterdam, the life raft constructed by Sander Huijzer became the staging ground of a water gathering performance 'De waterdragers' (The water carriers), cocreated and realised with Ilse Evers.

Figure 10. At the festival *Duizel in het Park*, water, gathered by the participants of our performance, was filtered and mixed with two syrups that Maidie van den Bos distilled from plants harvested along our walking paths through Mexico City. Again, the audience varied, from children to elderly people, from earthworms to rose-ringed parakeets.



**Aesthetic encounters with glaciers in Jotunheimen to flood barriers in the North Sea**

Here, the full cycle of the fluid methodology starts over again in a different context. In spring 2019, I set up my work desk in the Urban Development Unit on the premises of the City Museum of Gothenburg. The placement was conceived in the framework of the CHEurope Research School. Over the course of its development, the museum changed from an exhibition of wealth from a mercantile empire through the twentieth-century perception of the museum as a place of knowledge production based on a modernist way of thinking in progress to now becoming a place where city developers seek counsel. Over the past few years, the City Museum of Gothenburg has faced demands for structural change, which caused a recent merger with the Maritime Museum. Demands for enhancement of the social agency resulted in assigning a joint responsibility for urban sustainability to different authorities, institutions and also the residents of the city in the municipal programme for cultural planning. Further demands for giving shape to external museum responsibilities led to setting up the Urban Development Unit and the ideation of cultural hubs throughout the city.

What caught my attention in these demands was how they shook the grounds of the museum because their role as a public space required heritage professionals to mobilise the activisms of a diverse range of actors. For me, embedded in these demands, there was a call for an intrinsic change in giving shape to encounters with urban space and its inhabitants, as well as engagement with different ways of knowing, to curate and mediate these encounters. In the first instance, I converted the placement at the City Museum of Gothenburg's Urban Development Unit into an opportunity for studying the working

dynamics in a Swedish heritage institution. This guided me towards insights into the frameworks of institutionalised processes embedded in the heritage practitioner's work of spatially differentiating sites or objects, how ideas related to historical values are being cultivated and what the actual outcomes are, here as sustained by the narrative structures behind those dynamics. I conducted fifteen semistructured interviews in English to explore the different imaginaries that guide the work at the Urban Development Unit and the institutions through which these imaginaries are constituted into the urban space. For example, they make use of the official listing of protected buildings managed by *Riksantikvarieämbetet* (The Swedish National Heritage Board) and add buildings to this listing where they see fit; they expand archives to bolster knowledge production of urban history; and through meetings with city politicians, they give advice for decisions on development projects. Though, it must be added, that most interviewees were of the impression that, in the end, in issues regarding development projects, the voice of investors was heard more by politicians. My secondment at the Urban Development Unit was a way into understanding how their thinking is not only a guide for looking at the city, but also guides ways of claiming what is important, what to value or what to dispose of, which revealed some of the ethics and urban politics that rule heritage practice in this specific setting.

The insights from these interviews came to inform the next stages of the iteration of the fluid methodology in Gothenburg, as well as the analysis of the empirical material gathered later on. In a subsequent stage of research, I explored several locations in the city while also expanding orientations toward the Maritime Museum and Aquarium. Although the fusion with the City Museum seems to be more administrative than palpable for the public, conversations start to change when including the collections of the Maritime Museum in the imaginaries of the city's history, as well as the other way around. This became even more palpable when the Gothenburg International Biennial of Contemporary Art (GIBCA), in its 2019 edition, marked the start of a conversation that would develop into the 2021 edition, when the 400-year jubilee of the city of Gothenburg was planned. The artworks presented in the biennial and its public programme became an opportunity to engage with possible correspondences between the mechanistic worldview of modernity that emerged in response to the uncertainty that characterised Europe when Gothenburg was founded in the 1620s, organising life according to categories of separation and distance and current precarious times.

For the 2021 edition of the biennial, themed 'The Ghost Ship and the Sea Change' and perceived as a continuation of the 2019 edition, I set up an artist-in-residency for culinary artist Maidie van den Bos (Forêt Atelier) to be involved in this PhD project and present the first insights of a joint journey following water as part of the 2021 GIBCA Extended programme, aimed at showing and bringing together the local and regional art scene in Västra Götaland. Maidie van den Bos was previously engaged in this research project when she distilled syrups from flora gathered along the ways of following water in Mexico City. In this collaboration, I sought to deepen explorations of involving the senses in the performance lecture. Whereas I was making the cuts and connections in the narrative lines and the metonymic relations in time and space when following the Göta Älv—the river that crosses Gothenburg and flows into the sea of Kattegat—Maidie's attention focused on the on-site materials that could be distilled into conversation pieces, hence speaking to all the senses.

The journey started without me when Maidie drove her van, converted into a mobile laboratory, to Jotunheimen in Norway. In a leap of time and space, I then joined at the shore of Vänern Lake and its outflow into the Göta Älv. Together, for three days, we travelled along the water, camping in the former limestone quarry on Kinnekulle. We stopped at many places along the river that caught our attention on the map while driving or that were marked previously in the interviews with different experts and inhabitants of Gothenburg. What we found along our way was presented in the first version of the performance lecture 'Imagining the In-between of Land and Water' in the City Museum of Gothenburg. This occasion became an opportunity to gather institutional personnel with an arts biennial interested audience and academic invitees. For the occasion of the performance lecture, a table was set as a map that initially drew the route from Jotunheimen in Norway to Lake Vänern along the Göta Älv into the sea of Kattegat in Sweden.

During the event, the audience was invited to see, smell, taste, hear and touch distillations of terroirs of water that were gathered along a five-thousand-kilometre journey, traversing all types of Scandinavian landscapes, following water from glacier to snow, lake to rain, river to sea. In an intimate setting of around eighteen participants in each of two sessions, the audience was invited to join me on an imaginary journey narrated through stories of water. Sjamme van de Voort—who already joined me on the journey following waters in Mexico City—cowrote the text for this narration. In between scenes, Maidie van den Bos presented and served the audience wild brews, herbaria and perfumes that brought these stories alive to all the senses.

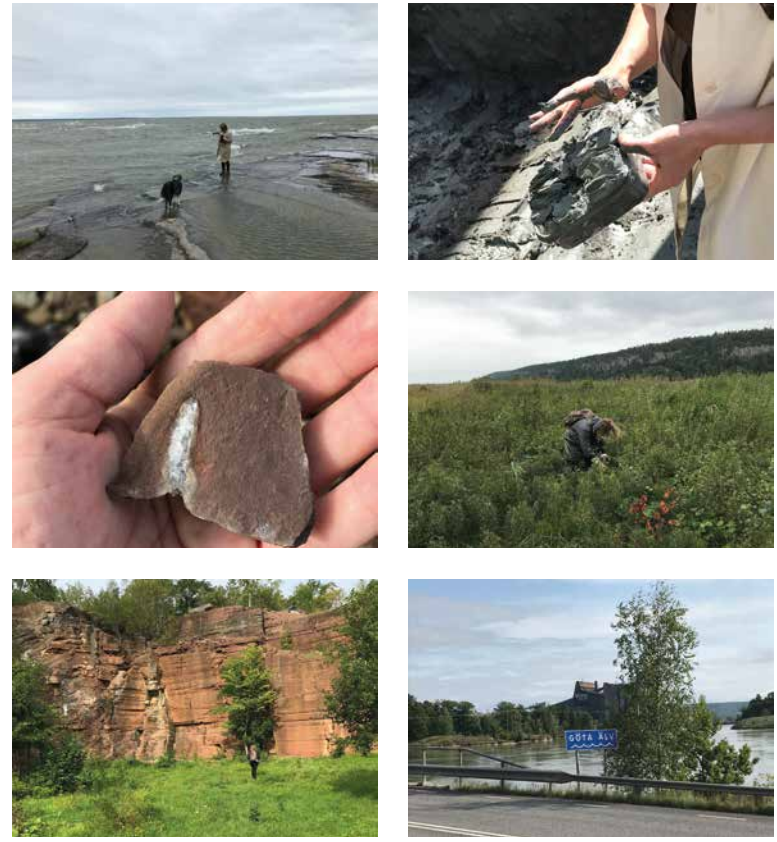



Figure 11. Impressions of the three-day journey, following the Göta Älv, together with Maidie van den Bos, September 2021.

Figure 12. Impressions of the performance lecture 'Imagining the In-between of Land and Water' at the Waterschool, Rotterdam, May 2022. I performed together with Maidie van den Bos and Sjamme van de Voort for three groups of sixty audience members in total, including creative practitioners, policymakers, scholars from various fields, friends and neighbours from Studio Makkink & Bey.

A second version of the performance lecture came into existence during the 2022 International Architecture Biennial Rotterdam Waterweek. Based on our shared interest and fascination for the entangled relationships between bodies of water, we collaborated with the Waterschool, a self-initiated design research of Studio Makkink & Bey that investigates the possibilities of founding a school revolving around water as an essential material, subject, holistic, social, economic and political phenomenon. The itinerary was extended to the North Sea and the Dutch Delta area in Zeeland. It is this version of the performance lecture that is presented as a manuscript in the subchapter 'Re-membering waters in Gothenburg' and that led to writing the reflective essays related to this iteration of the methodology. At the end of this performance lecture, the audience was invited to share a toast to water—their responses served as direct input and feedback regarding their experience of the enactments of our journey.

The methodological itinerary through Gothenburg followed the same basic structure as the one in Mexico City. In the final stages of empirical work in Gothenburg, the different perspectives that each step allowed to explore were gathered in the poster cahier 'As we float', cocreated with Art Collart (Driesse and Collart 2021). The posters were initially designed as part of the online exhibition 'Yesterday Is Here. Exploring Heritage Futures Across Europe and Beyond' (www.yesterdayishere.eu) but then evolved into a publication that could serve as a conversation piece. The seven pamphlets in the cahier, each one representing a stage of the fluid methodology, can be read as a book, can be taken out to hang on a wall and, first and foremost, can be engaged with as exercises of expanding our imagination by creating attention for the meaningful stories that water carries and recrafting stories

with others. As Art Collart has also designed the layout for the present dissertation, you are now holding a book that is of the same nature as previous published iterations within various phases of the methodology; simultaneously, in and of itself, it is the outcome and result of a research project while also an incentive to enter into conversation.



**What we cannot imagine cannot come into being**

(bell hooks,
*All about love*, 2001)

# LEAVING DRY LAND IN MEXICO CITY

## THE DRAINED BASIN OF MEXICO

Mexico City is built on a basin of lakes and rivers. These water bodies, although now mostly vanished, have a ubiquitous influence in the daily lives of the inhabitants, not only in a vocabulary of place in mythology and street names, but also in a range of challenges. Its supply system for domestic use consists of pipes measuring hundreds of kilometres beyond the metropolitan area, leaving traces of scarcity and pollution along the way. Furthermore, because of extensive extraction, the ground above its subterranean basins has dried out, leaving porous soil exposed to earthquakes and destruction. Water is no longer freely available to citizens: it is bottled and sold to the highest bidder. Still, although waterways have been engineered in dams, channels and drainage systems, water tends to flow back in floods, disobeying these systems. In what follows, a series of three mappings and the mode of cartographic reason from which they emerge will situate the first iteration of the fluid methodology in Mexico City. An additional map depicts and relates the journey that I undertook with Sjamme van de Voort, immersing ourselves in aesthetic encounters with water along our way.

The *Santa Cruz Map* (Figure 13), which is dedicated to Spanish King Carlos V and dates to 1550, is one of the earliest known maps of Mexico City. The map has mystical qualities because of several factors. It is unclear how the map ended up in Sweden. One theory is that it was taken as war booty by Swedish soldiers during the thirty-year war when they sacked Prague—which was part of Carlos V's Habsburg empire. In another theory, it was acquired

Figure 13. The *Santa Cruz Map* is a unique map of Mexico City as the capital of New Spain. Also known as the *Uppsala Map*, it currently resides in the map collection of the Uppsala University Carolina Rediviva Library, Sweden. (Available in the public domain at http://www.alvin-portal.org/alvin/view.jsf?pid=alvin-record%3A85478&dswid=8531)

in Spain by Johan Gabriel Sparwenfeld in 1689, who was on a mission to find historical documents for the Swedish crown. The authorship of the map adds to the mystery. Initially, it was believed that the Royal Spanish cosmographer, Alfonso de Santa Cruz, created the map, but later investigations revealed that Santa Cruz could not have been in Central America at the time. Furthermore, the symbolisms on the map suggest that it was rather made by someone of indigenous origins with Spanish education (Medina 2007). The final answer to these questions is, for the present research, not critical because it is the image in itself that is worth looking at to understand some of the relations with water at the time of mapping.

At the centre of the map, Tenochtitlan is depicted, a large *altepetl* that is built in the middle of Lake Texcoco and surrounded by its various tributary rivers. The word *altepetl* is a combination of the Nahuatl words *atl* (water) and *tepetl* (mountain) and is usually translated into English as a 'city-state'. It was the capital of the Mexica empire in the fifteenth century until its capture by the Spanish in 1521. One of the fascinating features of this map is its ability to illustrate the spatial relations of the city and its surroundings while also portraying people engaging in various activities that demonstrate the significance of these places—the map depicts people travelling in boats, fishing, catching seabirds and transporting goods, revealing the diverse uses of the waterways. Although flooding, water scarcity and saline build-ups were reoccurring challenges, a rich illustration of the precolonial relationship with fluid elements—the seasons and hydrological cycle—can be found in Vera Candiani's extensive work on the colonial project that caused the environmental transformation of Mexico City, *Dreaming of Dry land*:



> For the villages located all along the shores of the lakes [...] the seasonal inundation of land was equivalent to life itself. The hydraulic and soil management practices they had developed over centuries depended on land becoming water and then land again [...] At the same time, the fact that all lordly towns in the basin ultimately depended on the food produced in these villages and settlements acted as a limit on their capacity to develop too much of an enmity toward floods. This tension foreshadowed that of capital and watery hinterland under Spanish rule (Candiani 2014: 24-25).

However, with the arrival of the Spanish colonists, the lines between land and water were redrawn in the process of creating land for new agricultural production, as is illustrated in this statement by Spanish conquistador, Hérnan Cortés:

> I resolved to take means for our security, and to enable us to press the enemy more closely, namely, that as we gained the streets of the city, we should destroy all the houses on both sides; so that we should not advance a step, without leaving all level with the ground, and converting what was water into firm land, notwithstanding the delay that might ensue (Cortés 1522: 308-310).

The draining of the basin was not immediately introduced after the conquest of Tenochtitlan because colonial rulers unintentionally safeguarded the water system in place by granting land rights only to Spanish settlers, while the indigenous population retained rights to irrigation and waterways (Candiani 2014: 15-16). However, after the Spanish colonial rule was firmly established in the Mexican

colonies, Viceroy Luis de Velasco the Younger ordered the lake's drainage in October 1607 because he believed that this was 'how things are done in Genoa, Venice, and other cities in Italy and the states of Flanders for the conservation, provisioning and order of the republic' (Candiani 2014: 49-50). This imposition of early modern modes of thought onto the precolonial urban space resulted in a drastic change in the relationship with the hydrosphere. Here, the story of water in Mexico City relates to the redeployment of particular European imaginaries and landscape modification practices in colonial contexts that became ingrained in authorised heritage discourses. Over time, these practices created urban planning paradigms, in which bifurcation between nature and culture was central (Krieger 2007; 2015: 409) and exploitation of both was the result (Shiva 2016; Escobar 2018). Willingly or not, European geographers, such as Alexander von Humboldt, opened the way for perceiving landscapes as resources for the modern project of progress and expansion, which will become clear when taking a closer look at his mappings and writing of the Americas in general and, specifically, a map of the Valley of Mexico City and its surrounding mountains (Figure 14).

Celebrated for his innovations in data visualisation and extensive use of storytelling, Prussian explorer and cartographer Alexander von Humboldt—although working in a time when universities divided into disciplines did not yet exist—is best known for his orientations of science toward what can now be perceived as a transdisciplinary approach. He complimented the extensive measurements of gravity, magnetism, temperature and altitude that informed his mappings with extensive descriptions of different kinds—stories, logbooks, paintings and memoirs—that speak to the imagination in a multitude of ways. In his writing on a geoaesthetic approach to landscape, Peter Krieger refers to von Humboldt's ascensions of countless hills and mountains to obtain panoramic views and the mappings of mountains that emerge from these explorations as an approach that not only allowed for exposing 'the beauty of geological and botanical richness, but also revealed environmental problems caused by human intervention' (Krieger 2023). Indeed, he has been called the founding father of research on climate change (Wulf 2015), revealing human-induced environmental problems.

When, in April 1803, Alexander von Humboldt arrived in the Valley of Mexico, he noticed the particularity of how the waterways played a vital role in the city's infrastructure:

> The lake of Tezcuco is in general only from three to five metres in depth, and in some places even less than one. Hence the commerce of the inhabitants of the small town of Tezcuco suffers much in the very dry months of January and February; for the want of water prevents them from going in canoes to the capital. The lake of Jochimilco is free from this inconvenience; for from Chalco, Mesquic, and Tlahuac, the navigation is never once interrupted, and Mexico receives daily, by the canal of Iztapalapan, roots, fruits, and flowers in abundance (von Humboldt 1822: 27, translated from the original in French by John Black).

Von Humboldt observed that the lake of Texcoco was experiencing a reduction in water levels, which resulted in the decline of commerce during 'the dry months'. That is, at this time already, the city faced challenges of water scarcity, as well as flooding. On the side note of his map of the Valley of Mexico and its surrounding mountains, he describes the

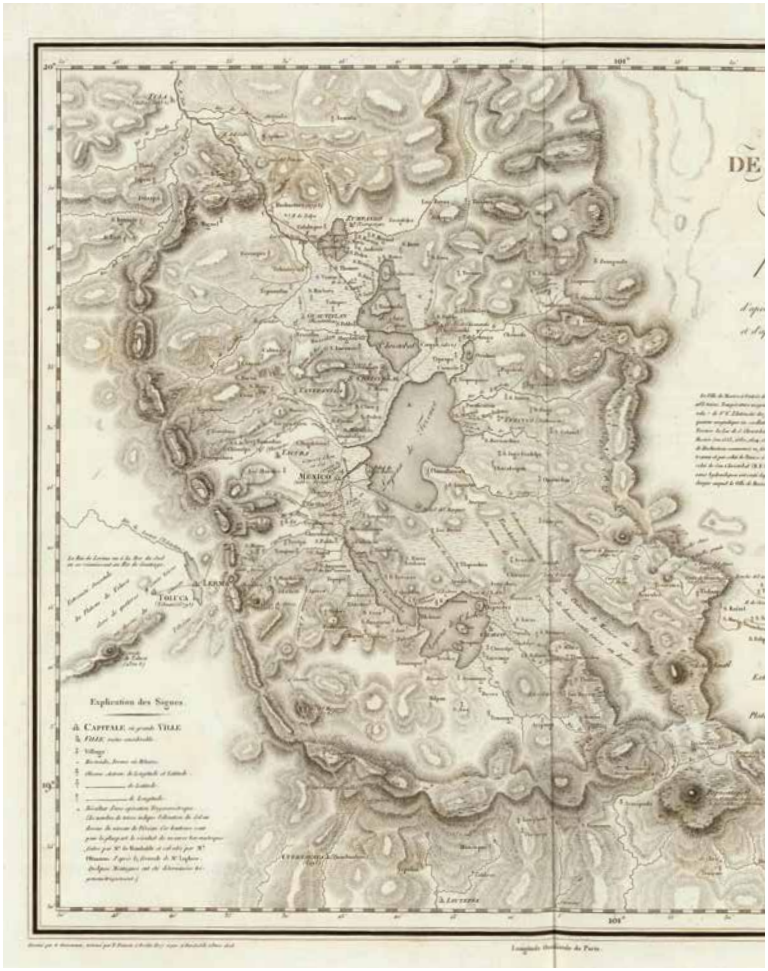




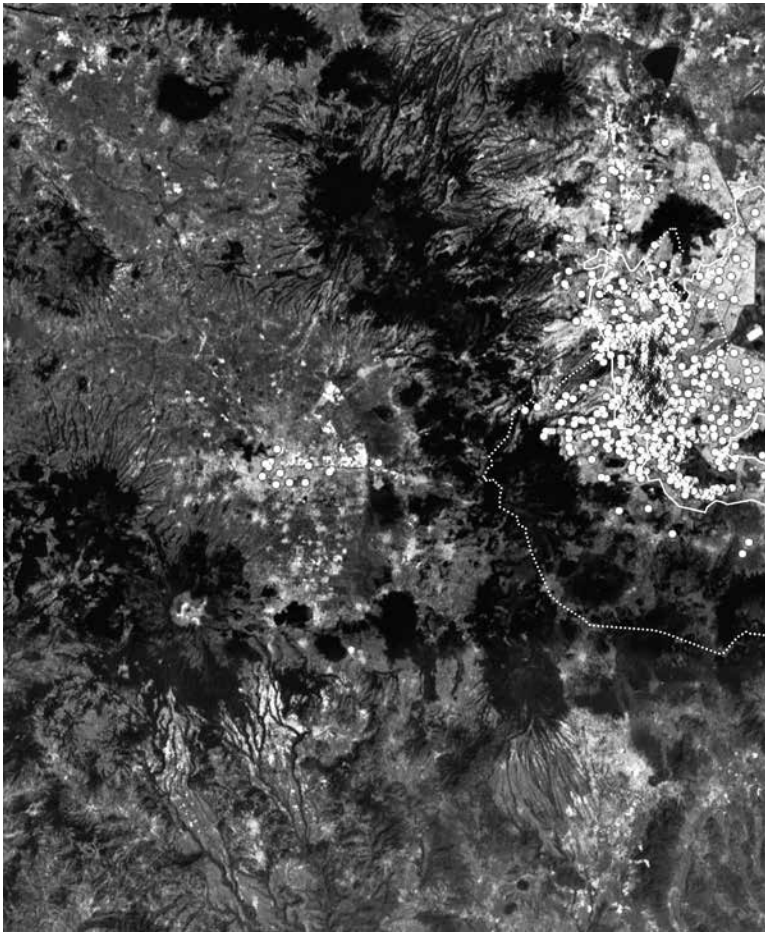
Figure 14. Alexander von Humboldt, *Carte de la Valle de Mexico et des montaignes voisines* (Map of the Valley of Mexico and its surrounding mountains), 1808. Part of the David Rumsey Historical Map Collection. (Creative commons, available online at https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~1870~170008:Carte-De-La-Vallee-De-Mexico-Et-Des)

present waterways, the threat of flooding and the project of the drainage of the lake. The larger water bodies on the map are depicted with offset contours, suggesting increasing and decreasing water levels and creating a pattern of motion beyond smooth water surfaces. Additionally, in his *Political Essay on the Kingdom of New Spain* (von Humboldt 1822), he dedicates many passages to the drainage of the lake and the social and geological implications of such a project, emphasising his concerns by referring to interviews with the indigenous population.

The side note on the map mentions that old Aztec names were added to modern names, which is why there is a mix of languages present in the denominations on the map, as if it was a palimpsest of the new overwriting the old, without completely erasing it. This suggests a heterogeneity of space that opposes the idea of a monolithic colonial structure. Related to this notion, Mary-Louise Pratt (1992) determines several issues that occur from the cartographic impulse and gaze in the nineteenth century in an extensive interrogation of the geographical and cartographical imagination of Alexander von Humboldt. She determines how geographical writing and mapping were crucial in framing a particular identity for the Americas, both in terms of Europe's experience of the 'new world' and in terms of Spanish America's self-understanding. That is how von Humboldt is recognised as a cultural translator of Spanish America for Europe, but also as a channeller of local knowledges at the heart of hegemony.

At the same time, Pratt determines how European geographers, such as von Humboldt, mapped their new world by erasing local peoples and their histories and inscribing maps and geographies of primal nature in their place. This cartographic gaze, tainted by European modernity, opened the way for perceiving these landscapes as resources for the modern project of expansion. Pratt argues that von Humboldt's work of filling the northern European map of Spanish America was an explicit attempt to challenge the taxonomic sciences of nature of the followers of Linnaeus, here through the reinvention of its landscapes as primal nature, as seen from an omniscient perspective. According to Pratt's analysis, von Humboldt's work projects 'a dramatic, extraordinary nature, a spectacle capable of overwhelming human knowledge and understanding [...] a nature in motion, powered by forces, many of which are invisible to the human eye; a nature that dwarfs humans, commands their being, arouses their passions, defines their powers of perception' (Pratt 1992: 120; as quoted by Pickles 2004: 119). In the process of abstraction, traces of local culture and life in the landscape are erased in the sublime rendering of an overwhelming nature.

John Pickles notices that this introduced European readers to a new type of discourse then used to remap South America and reframe bourgeois subjectivity by providing an alternative to its experience, science and sentiment (Pickles 2004: 120) in what Pratt determines as being 'a new kind of planetary consciousness' (Pratt 1992: 119-120). In that sense, in the European imagination, the ideology of the Americas was geocodified as primal nature. Ironically, in this geocodification, Alexander von Humboldt relied on local knowledges but hardly went beyond the beaten paths of the Spanish colonial infrastructures. This emphasises that, despite the extensive efforts to create a heterogenous worldview, his mappings were rendered in service of European capital or as potential resources for industry—a representation of wild nature in need of civilising powers, while pushing the existing local networks of economy and community to the margins. Thus, although inspiring in their approach of combining scientific methods and aesthetic



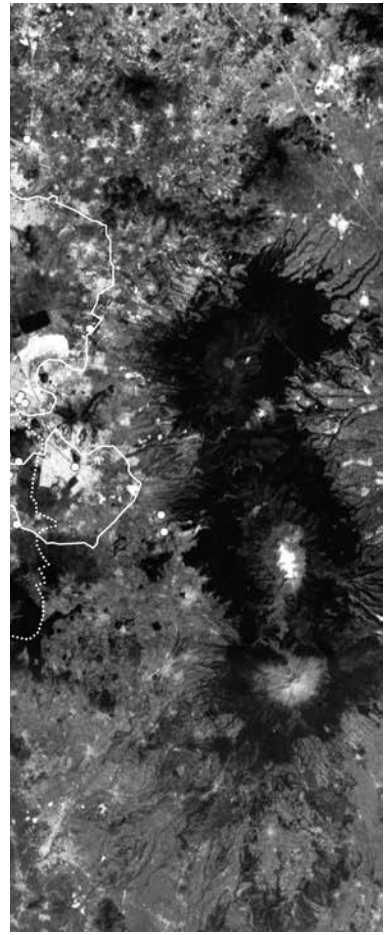


Figure 15. Overlay of the borders of Mexico City, the hard-rock zone limit on the outside of the vanished Texcoco Lake bed zone and the crowdsourced map of the destructions after the September 2017 earthquake, composed by Verificados19s. Designed by Moniek Driesse.

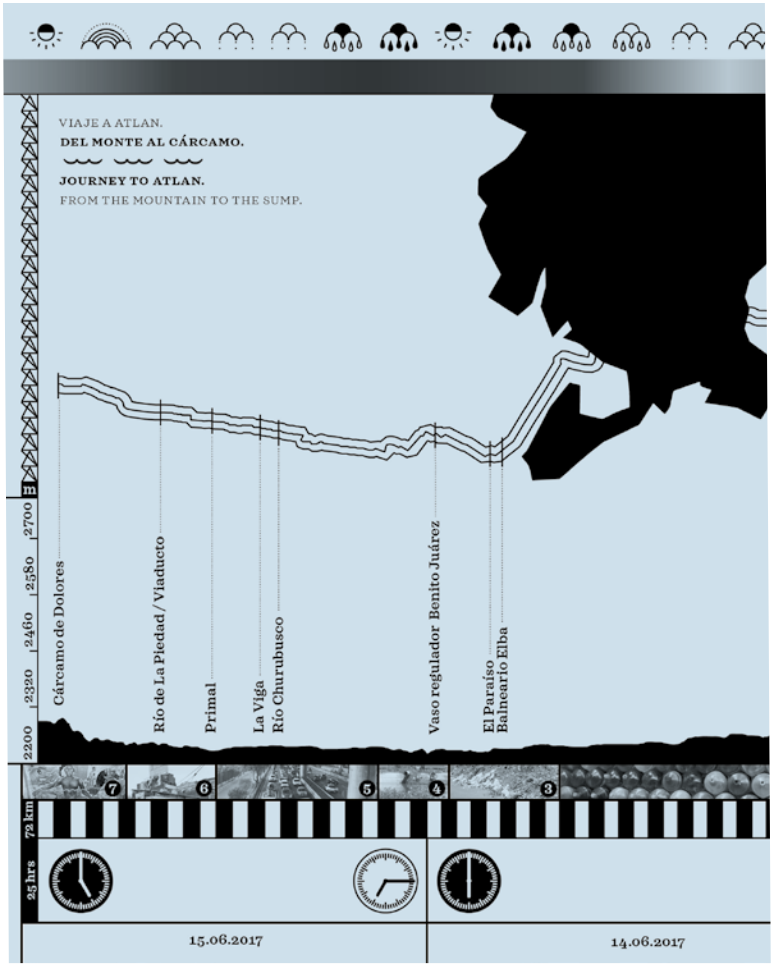
experiences, in the time of their making, von Humboldt's mappings became the sediments to mobilise technologies of rational planning.

Skipping 213 years ahead in time from 1804 to a third map from 2017, the hydrosphere of Mexico City has a direct relation to the shivers of the earth, showing the ongoing effects of these technologies of rational planning. In 2016, Víctor Cruz-Atienza and a team of geophysicists conducted a study that created a simulation model of the ground movement during earthquakes in the areas where the Texcoco Lake had previously existed (Cruz-Atienza, Tago, Sanabria-Gomez et al. 2016). When a severe earthquake struck Mexico on 19 September 2017, causing extensive damage to large areas of Mexico City, the simulation was put to the test, and sadly, its predictions came true. Following the devastating effects of the earthquake and with a lack of proper governmental response, the crowdsourced mapping project Verificado19s began visualising damaged buildings and shelters to set up community-driven aid where necessary (Pogrebinschi 2021). The locations of destructions after the earthquake as dots on a map started to predominantly follow the contours of the vanished lake. The overlay of the Verificado19s map and that of the hard-rock zone limit on the outside of the Texcoco Lake bed zone deducted from the geophysical study (Figure 15) shows that water scarcity in Mexico City is not only a symptom of social inequality but rather a systemic issue that, by design, occurs from a mode of cartographic reason that produces this inequality. The tracing of debris in the streets reveals a story of neglected building regulations, unequal distribution of resources and water extraction politics that produce a 'ghost image' (Tsing, Gan, and Bubandt 2017) of the drained lake basin, where the poorest buildings are relegated to the most brittle terrain.



Comparing the Santa Cruz Map and von Humboldt's mapping to the map produced by the collaborative effort of Verificado19s, it is difficult not to associate the metaphorical significance of these maps with a gloomy future: there used to be water, it disappeared, and now, the porous ground below the megalopolis shakes beneath its weight. However, succumbing to the teleological narrative of an impending apocalypse, this leaves little room for creativity and imagination.

To create a deeper understanding of the relation between the three previous maps in a confrontation of the panoramic views of Mexico City and current everyday realities, the *Journey to Atlan* map (Figure 16) depicts a three-day walk that began in Santa Catarina del Monte, located in the mountains east of the city, to the Cárcamo de Dolores, a waterworks located on the western side of the megalopolis. Whereas Santa Catarina del Monte, like other villages on Mount Tlaloc, still relies on its well, which is vehemently protected against interference from multinational corporations and pollution (Madrigal Calle, Alberti Manzanares, and Martínez Corona 2015), the Cárcamo de Dolores relies on the Cutzamala System, which provides approximately 30% of Mexico City's water. Although the murals at the Cárcamo de Dolores, painted by Diego Rivera, celebrate the engineering works, the Cutzamala System enforces a regime of scarcity and relegates water to the realm of the irregular (see 'Drought: The vanished lake' in this dissertation). The deficiencies of the system are, on the one hand, technical—such as dredging issues as well as the lack of sufficient pressure. Because pressure is low, water does not reach the precarious eastern parts of the city. On the other hand, the effects of the deficiencies are socio-cultural, as is the case with the pollution and the inability to provide communities along the pipeline with 'sufficient,



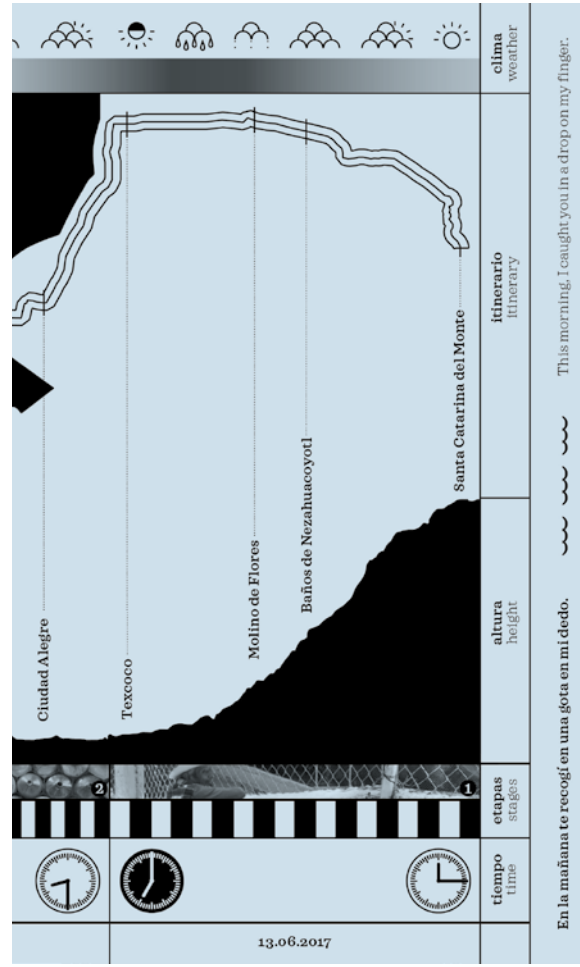




Figure 16. Map of *Journey to Atlan*, depicting a three-day journey, with indications of the changing weather, the itinerary, heights, different stages, hours and dates of walking. Designed by Moniek Driesse.

safe, acceptable, accessible and affordable water' (United Nations General Assembly 2010; Heller 2017).

To subvert the 240-kilometre-long engineered Cutzamala System, the walking journey took its point of departure from the opposite side of the city. From this subversion, an inverted map in its mirror image emerged, letting water show its different ways in a seventy-three-kilometre cross-section of the city, stretching between Santa Catarina del Monte on Mount Tlaloc and the waterworks of the Cárcamo de Dolores. The map combines diagrams of the weather, the itinerary, altitude, seven stages, distance and time we walked each day. The following reflective essays will expand on how the mnemonic dynamics embedded in water—through processes of landscape and urban formation from visible and invisible geographical, physical and symbolic lines—became more apparent in this mapping and the cocreations that emerged from the meandering action of following waters through Mexico City.



# ALL IS NOW: FLUCTUATING ARTICULATIONS IN TIME AND SPACE

The map *Journey to Atlan* (Figure 16) contains several layers and elements that will be unfolded in eight reflective essays; these reflections take their point of departure in three enactments that emerged from sharing the experience of following water through Mexico City with several creative practitioners and, ultimately, a broader festival audience (see 'The Basin of Mexico: design researching everyday relations with water' in this dissertation). The first six essays depart from the scenes that appear in the eco-fiction 'Journey to Atlan' written by Mauricio Martínez as a response to my personal account of the walking journey (the story is published in Driesse 2019: 92-105). I read this story for a festival audience in Rotterdam, wearing waders and standing in the middle of a canal with a flag on my side (Figure 8). The next essay, then, takes its point of departure in the performance 'The Water Carriers' (Figures 9–10). The letter to water that I received in response to this performance and the correspondence in relation to that letter become the input for the last essay. The essays describe what happened during our walk and the performances, make a link to theoretical approaches and refer to the eco-fiction and responses from different audiences.

*Atlan* is a fictional name—derived from Nahuatl, for a place of (*tlan*) water (*atl*)—and an imaginary reconstruction rather than a contemporary description. The eco-fiction

contains components that are strongly related to different water worlds that we encountered in Mexico City but could, in the end, take place anywhere or nowhere. As will become clear in the essays, this amalgamation of timespaces emphasises how ideas and thoughts circulate in and with water, which, on the one hand, allows for recognising and acknowledging the present affects and effects of what is not necessarily here and now and, on the other hand, reveals some of the commitments and responsibilities that are in need to be taken care of in present times. These notions of fluctuating articulations in time and space take inspiration from Olsson's statement:

> The map of semiosis ties memory and mimesis together through activities which are essentially spatial. The function of place-bound metaphors is consequently to awaken the store of collective memories from their metonymic slumber, because to learn something new is to reconnect to something old (Olsson 2007: 109).

In just a few lines, five concepts are introduced: semiosis, memory, mimesis, metaphor and metonymy—the last two being most pertinent for this chapter. The metaphor here is understood as a sign that represents something else, in this case, a narrative in the present that represents the past or future. As metonymy refers to the representation that happens between a sign and a meaning that is closely aligned, the interpretation by Olsson of spatial phenomena as signs means that they have metaphorical and metonymic meanings. This leads to proposing that a map can have multiple meanings. It is important to reiterate here that Olsson perceives maps as semiotic systems that emerge from cartographic reason, geo-codifying the world by drawing lines of power between points on a projection plane. Remember here how the goal of cartographic imagination, as constituted by real-world situations, is to convert something into something else by taking on significance.

This blending of the material world and world of semiotics that diffuses the boundaries between subject and its surrounding world lays the foundations for nonrepresentational theories that take up the notion of 'worlding' as a useful lens through which human and more-than-human entanglements can be considered. Kathleen Stewart, for example, proposes a definition of worlding in which other-than-human agency takes shape in encounters with the material world in the affects that occur from expressions that in forms and rhythms develop a sense of legibility (Stewart 2014). This is how, in the embodied experience of the repeated action of taking step after step—following the trails of water, in which the affects and effects of its presence and absence could be felt and seen—aquatic agency came into being and interrelated water worlds emerged. This worlding, then, became an opportunity to cease habitual temporalities and modes of being.

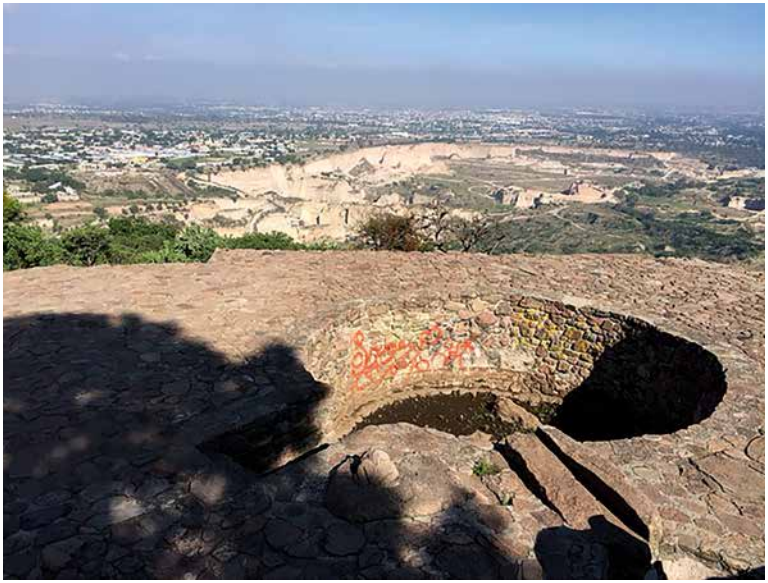


Figure 17. View toward the west from the Baths of Nezahualcoyotl, June 2017. Picture by Sjamme van de Voort.

Figure 18. Don Anastasio, Santa Catarina del Monte, June 2017.

**Birth: The mountain**

On the foothills of Mount Tlaloc, west of Mexico City, impressive hydraulic works were constructed between 1453 and 1466, with sophisticated engineering to move large volumes of water to the Baths of Nezahualcoyotl—named after the pre-Colombian ruler who ordered them to be built. The aquatic infrastructure provided the populations around the hill with drinking water while it was also used to maintain botanical gardens and fill the pools for the nobles of Texcoco. From here, precolonial rulers oversaw the flourishing lake valley (Instituto Nacional de Antropología e Historia). On our way to Santa Catarina del Monte, the starting point we had planned for our walking journey following water, we passed by the site, which was declared as heritage in 2002 (Fox 2002). The current panoramic view (Figure 17) oversees the quarries from which sandy ingredients are extracted for a forced marriage with water to become cement for the never-ending expansion of the homogenous concrete mass that seals the urban soil and inhibits its permeability.

In its prologue, the eco-fiction 'Journey to Atlan' sets the scene for the protagonist to go on a journey to find a place of water on the edge of a water mountain. It refers to the ascendance of a mountain to obtain a panoramic view from which to imagine 'the immense body of water where a prophecy detonated a metropolis', where there is now 'the stain of a city and the quarries that are excavated to continue going upwards' (Martínez, in Driesse 2019: 93). Living in Mexico City, the mountains function as a backdrop for daily life. In a change of perspective, ascending the mountain, it becomes clear how in the creative act of building the city, the foothills are marked with enormous gaps. The view indicates that urban design produces and destroys at the same time. In this sense, the process and story of design are caught in a transformation paradox—in the urge to transform the world, things will unequivocally change, for better or worse.

Between the now ruins of the baths and botanical gardens, plaques relate that Nezahualcoyotl, besides overseeing the building of the site that was dedicated to the cleansing of the body, was also a poet. He wrote the following:

> ¿A caso de veras se vive con raíz en la tierra?
> No para siempre en la tierra: sólo un poco aquí.
> Aunque sea de jade se quiebra,
> aunque sea de oro se rompe,
> aunque sea de plumaje de quetzal se desgarra.
> No para siempre en la tierra: sólo un poco aquí
> (León-Portilla 1972: 108).
>
> [Maybe we truly live with roots in the earth?
> Nothing is forever on earth: only a little here.
> Even if it is of jade, it cracks.
> Even if it is of gold, it breaks.
> Even if it is plumage of the Quetzal, it tears.
> Not forever on earth: only a little here]
> (León-Portilla 1972: 108, my translation).

The poem reiterates the temporality of the form of things. Then, the prologue of 'Journey to Atlan' ends with a notion of colonisers that destroyed the Baths of Nezahualcoyotl 'perhaps out of fear of being enchanted by water or by poetry, or both' (Martínez, in Driesse 2019: 95). The question remains what would happen if urban growth and development are perceived beyond unduly interfering and transforming or even beyond the idea that humans can rule over a place over the planet. A possible hint toward such a relation with the surroundings, we found in Santa Catarina

del Monte. A mineral spring provides the town with fresh water. It immediately became clear that water changes its value depending on who is looking at it.

For some, like Don Anastasio (Figure 18), it is a sacred communal liquid that exists in a relationship of guardianship and care. A character representing him appears in the first scene of 'Journey to Atlan' as a guardian of a natural spring who explains the importance of a party the community holds to celebrate the water. With certain restraint, he guides the protagonist to the spring, which could be the birthplace of Atlan. The image of water seeping out of the crack of a vertical twenty-metre-tall rock is described, along with how the community took it upon them to safeguard the spring from intruders—'rescued by people with neither time nor name, from behind an enormous fence, as if it was one of the most priced goods of this world, of its people' (Martínez, in Driesse 2019: 95).

The celebration of water in Santa Catarina del Monte is known as *La Apantla*, with roots in pre-Hispanic times, in which the cleaning of communal water infrastructure is framed as part of a ritualistic practice (for an extended reflection on this practice, see Madrigal Calle, Alberti Manzanares, and Martínez Corona 2015). The image of water as life and water as nourishment comes to mind. This image, however, is contrasted with the realisation that the mineral spring is also fiercely protected from those that only value it as a raw material that brings in revenue. Taking us back to the initial movie nights as expert meetings, from a previous phase of this research, this contrasting image of the tall rock obtains resemblance with the Citadel in the movie *Mad Max: Fury Road* (Miller 2015), which is governed by Immortal Joe. This dialogue describes the promises and tensions that the Citadel holds:

> The Vuvalini: 'What's there to find at the Citadel?'
> Max Rockatansky: 'Green'.
> Toast: 'And water. There's a ridiculous amount of clear water. And a lot of crops'.
> The Dag: 'It's got everything you need, as long as you're not afraid of heights'.
> Keeper of the Seeds: 'Where does the water come from?'
> Toast: '[re: Immortal Joe] He pumps it up from deep within the earth. He calls it 'Aqua Cola' and claims it all for himself'.
> The Dag: 'And because he owns it, he owns all of us'.
> Keeper of the Seeds: 'I don't like him already'
> (Miller 2015).

Mineral waters are part of a major bottling industry, tending to the thirst of many citizens. Paradoxically, in their relationship of extraction, these businesses take advantage of serious contamination problems and an absolute scarcity caused by limits on the amount of freshwater that can be captured, stored and distributed with infrastructures built over the last century, while they also contribute to these same catastrophes. A good characterisation of these practices can be found in the work of political ecologist Raúl Pacheco-Vega, who describes the industry in Mexico as the 'commodification of a human right' and concludes that 'bottled water is an effect and a cause for water insecurity' (Raúl Pacheco-Vega 2019a; see also Raúl Pacheco-Vega 2015; Raúl Pacheco-Vega 2019b). Data from the WHO and UNICEF Joint Monitoring Programme for Water Sanitation and Hygiene suggests that 73% of the Mexican population relied on bottled water in 2017 (Greene 2018; Wilder, Martínez Austria, Hernandez Romero et al. 2020).

From the vantage point of the rock itself and the water flowing from it, a different story emerges. In coining the concept of 'deep time' (1982, based on preliminary thoughts on the matter by James Hutton, 1788), John McPhee determines how cliffsides, stream beds or mountain ranges can become texts of some sort that express deep time in the earth's mineral surface, shaped with excruciating slowness. In *Landmarks*, Robert MacFarlane states that 'granite has no grammar, but it does have a syntax. It can be read in lines of lines, and every part of the rock tells the same story' (2015: 26). As a long-lived silent observer of its surroundings, the large rock from which the mineral spring erupts is engaged in an intimate dance with the hydrosphere. Water dissolves a motley variation of ions, that, when the temperature and the pressure are right, will precipitate salt, forming a mineral vein. In this sense, water becomes a support beam of memory in its very presence: it is a reservoir of a life-supporting liquid, meaning that the idea of having power over it equals power over life in that place. The difference between the rulers of Texcoco, the Spanish colonial forces and, ultimately, the bottling industry lies, here, in the connection to the place. Whereas Nezahuacoyotl built his power on having a presence upon the mountain of Tlaloc—the deity who provided humans with rain and corn—and the ritual practice of the inhabitants of Santa Catarina del Monte contain notions of care for the mountain water, the industry is place-less, and, therefore, can afford to be care-less.

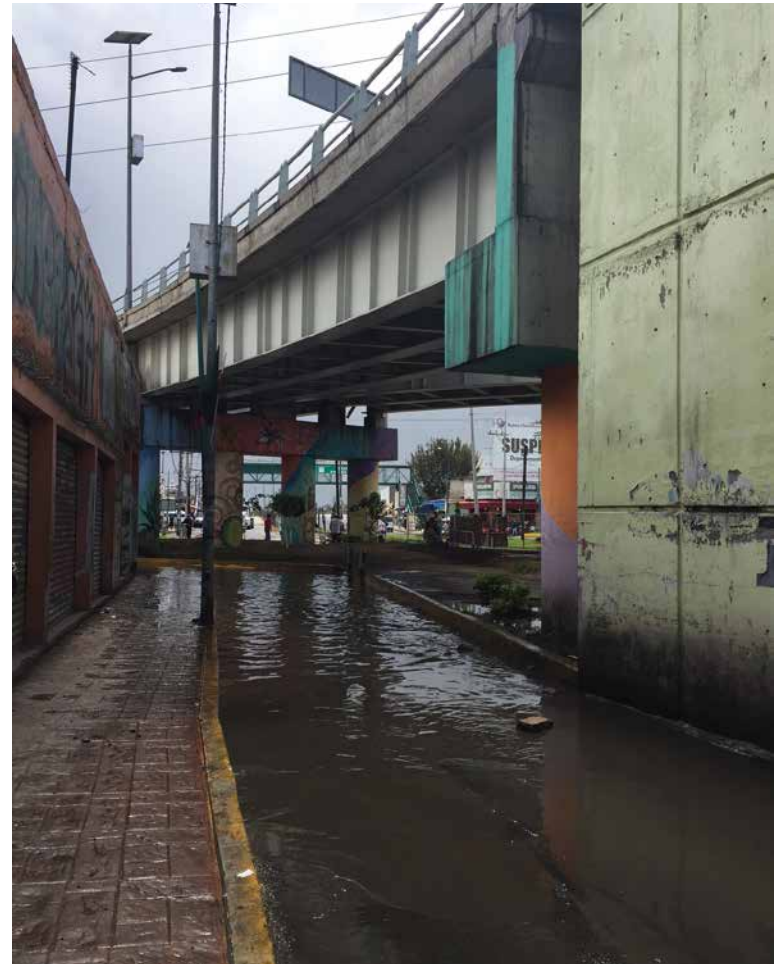


Figure 19. Bordo de Xochiaca, as seen toward the northeast from beneath the overpass at Avenida Carmelo Pérez. Mexico City, June 2017.

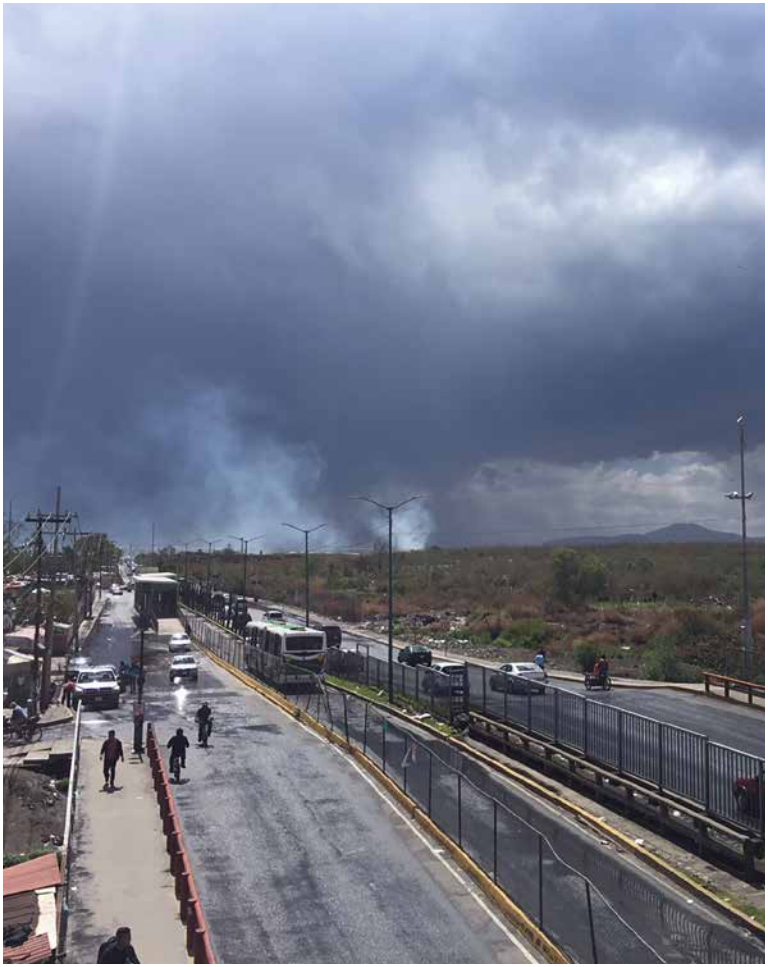


Figure 20. Bordo de Xochiaca, as seen toward the northeast from the pedestrian bridge at its crossing with Avenida de los Torres. Mexico City, June 2017. Picture by Sjamme van de Voort.



**Drought: The vanished lake**

Walking downhill towards the city, the first water trucks enter the scene. 'The Journey to Atlan' continues to see what is left of the lake. While walking down the mountain, the protagonist sees 'streets of petrol and stone, old and new houses, concrete made of water and sand …' (Martínez, in Driesse 2019: 95). Metaphorically, this scene symbolises how cars replaced the water in the city that was once a lake. It tells how culverted rivers made space for urban planners to build broad avenues and highways. In that sense, the water trucks—or *pipas*—intrinsically tell a complex and costly story of urban growth and social development in Mexico City.

In his book *Carbon Democracy: Political Power in the Age of Oil*, Timothy Mitchell (2011) provides perspectives on how the nonhuman world of fossil fuels shapes human society and vice versa. He argues that fossil fuel technologies, such as cars and aeroplanes, have created new forms of agency by establishing systems of dependence that have profound influences on social and political relations. For Mitchell, cars and aeroplanes are not simply passive objects that are used by humans to move from one place to another, but they are active agents that bring into the world the social and economic relations needed for massive infrastructure investments, creating labour and contributing to new patterns of urbanisation. In the context of Mexico City, Peter Krieger describes the process of remodelling the surfaces and subsoils as a result of a long one-dimensional engineering and urban planning process fuelled by the obsession to suppress the life force and anarchy of water (Krieger 2007: 21-23). It was during a phase of accelerated urban modernisation in the 1950s that several waterways were culverted.

In a continuation of the project of colonisation and the process of supposed progress and development, the nonhuman relational agency of fossil fuel technologies contributes to environmental degradation and to 'slow violence', as Rob Nixon (2011) determines it, of pollution and climate change over time and across space. As such, a double bind appears here, which is well described by David Farrier in *Footprints: In Search of Future Fossils* in the chapter 'The Insatiable Road'—on the one hand, roads and highways have their importance in the ways they have shaped societies and cities, but on the other hand, by planning and constructing them, ecosystems are fragmented, habitats destroyed and waterways disturbed (Farrier 2020). The moment of planning and constructing roads and highways, on a, in principle, relatively small scale, exemplifies the relationships of—in Val Plumwood's words—'domination metaphorised as place' (Plumwood 2008: 141) in the sacrifices occurring along the way.

By the side of asphalt streets that were once rivers, along the shores of the dried lake of Texcoco, during our walk, we find empty bottles, the plastic cylindrical fossils of a flawed relationship with the urban surroundings and beyond. The eco-fiction narrates that '[t]he more water was sold, the more of bottles, hundreds of thousands, were processed. One problem created another' (Martínez, in Driesse 2019: 97). These traces of plastic pollution will be present for a very distant future, potentially enduring through deep time. These future 'ghosts'—as they are described in *Arts of Living on a Damaged Planet* (2017: G1-G10)—the traces that persist over time can also serve as a reminder of the ways human actions have transformed the planet and how the past continues to shape the present. When water falls from the sky as rain and Mexico City's drains are covered by floating plastic bottles, these persisting objects become catalysts in reviving the history of what half a millennium ago was still the lake town of Tenochtitlan. Long gone waterways reappear in a collage of time in a forced superimposition over the asphalt of today as roads flood (Figure 19). Through the history of drainage over the centuries, from the basin to the current megalopolitan desert, water is no longer able to steady the ground above the subterranean basins, leaving porous soil that exposes cracks. Memories of the city and landscape that water carries in a meandering flow have now become those of danger in floods, earthquakes and drought.

Walking from informal to formal settlements, streams of black water, reeking of gloom and decay, mark a burning landfill reminiscent of science fiction scenarios of the postapocalypse (Figure 20). Here, water is an apparently silent receptacle for harmful substances passed into the sewer system. As such, it becomes a medium and messenger, a bearer of good and bad news, both planned and unplanned communications: in the rain with toxic runoff; in flooded neighbourhoods; in circulations within our bodies; and in those circulating between and with other aquatic bodies that humans drink or pee in, which, in turn, interact with other existences. That these circulations move beyond the city is vividly illustrated by a farmer from the Mezquital Valley, about sixty kilometres north of Mexico City, who appears in the *H2Omx* documentary and, translated from Spanish, states that: 'From the city, they send us poop and we return it in food' (Hagerman and Cohen 2014). Although this farmer is very aware of his place in the relationship with the city, most urbanites seem to have little to no reference to where the water that runs from their taps—if it does—is coming from or where the water flows when they flush their toilets. Although the Cutzamala water system has its infamous flaws and appears in the

daily news quite often (Martínez, Kralisch, Escolero et al. 2015: 529), it has more of a mystical presence in the city than it is a system in place that has its well-known effects and affects on places outside of the city.

The dissociation in cartographic reasoning happening in the decision-making, design and construction of the city, with its far-reaching consequences, reveals how ecological problems, inequality, injustice and biodiversity loss—among others—are interrelated problems. Tim Mulgan even goes so far in stating that this 'broken world' requires a new ethical framework (Mulgan 2011), while, on a more practical level, Steven Jackson introduces the idea of 'broken world thinking' (Jackson 2014: 221). Here, Jackson turns toward those who live on the margins, who are most affected by the broken world and to whom most acts of repair and maintenance are relegated. This creates a worldview with awe and respect for the labour that continuously enables social, environmental and economic systems to function, for better or worse. He combines this with a worldview that appreciates the overwhelmingly complex world that has enabled human flourishing over the past millennia while, at the same time, recognising that choices made today can have potential impacts over time and space. In this paradox, he switches perspectives, from the abstract to the tangible and back, taking the constant requirement for repair as a starting point to problematise idealised models and mappings that help humans navigate the complexity of the world.

In a later publication, Jackson revisits his repair-based approach as a possible way to engage with the material and temporal organisation of the world around us, committing to a pragmatic sort of hope (Jackson 2019). In the context of the present dissertation, repair does not necessarily mean to fix or salvage everything, but rather to acknowledge what is already here and mend the dissociative lines between dots on the map that enable and sustain each other, with the aim of maintaining and taking care of the long-term trajectories related to the here and now. The hope of the stories that emerged during this part of the research process lies in the continuous return of water to its waterways as it tries to repair a broken system. The despair lies in the human inability to imagine themselves beyond the modern planning paradigms and authorised heritage discourses that fail to include aquatic agency in their thinking.

Figure 21. Elba water park. Mexico City, June 2017.

Figure 22. *El Paraíso* (The Paradise). Mexico City, June 2017.

**Paradox: Paradise and the dry waterpark**

Some remains of what should have been an urban Garden of Eden are to be found at the Elba water park at the foot of the Peñón Viejo Hill in the east of Mexico City. The hill had a spring that enabled the construction of an oasis in the city. However, at the time of our visit, several of the pools dried up because of water shortage (Figure 21). Already in precolonial times, this hill was a place to rest on the border of Mexico City, but nowadays, *El Paraíso* (The Paradise) neighbourhood, on that same hill, is less celestial than its name suggests. The large rock formation elevating steeply over its surroundings is marked by landslides, illegally dumped waste and a growing community that settled on these unstable grounds (Figure 22). In 'Journey to Atlan', this place is described as 'a display of the worst deprivation of people'. In combination with the view of the water park in which the little amount of water left is full of chemicals to keep it crystal clear, the narrator states, 'I could not have found a place more sad nor surreal' (Martínez, in Driesse 2019: 99).

An urban myth recounts that Salvador Dali said that there was no way he would return to Mexico because he could not stand being in a country more surreal than his painting. It has its precedent in a declaration of André Breton stating that Mexico was 'the most surreal country in the world'. The image of the surreal, in which everything is feasible, takes on different meanings in the neighbourhood named Paradise, that, in many ways, turns out to be a *fata morgana* in a desert city. The Mexican story of the global twentieth-century trend of rapid urbanisation, in which the world's urban population moved from 15% in 1900 to 55.29% in 2000 (Kundu and Pandey 2020: 13-49), is one of many dramatic historical developments and broken dreams. Some need to be mentioned here to give context to the waters surrounding the Peñón Viejo hill. During the 1920s, in Mexico City, a national tenant strike led to the formation of tenant rights at the heart of national movements and can be seen as the first nationally organised effort for a struggle for better living conditions in cities (Durand 1989; Behrens 2000; Bautista 2015). In the late 1940s, land was promised, taken away, fought for and won by family members of the 201st Fighter Squadron of the Mexican Air Force, which is part of the Mexican Expeditionary Air Force that aided the Allied war effort during World War II. These events have led to Mexican land occupation movements to be called *paracaistas*, paratroopers (Cohen 1979). In the 1970s and early 1980s, the Mexican state privatised large parts of the public sector, leaving the critical urban infrastructure and development in state hands during the initial phases of the development of the area surrounding the Peñón Viejo—only until these were also privatised from 1982 onwards. This meant that scarcity and huge inequality already reigned before the disastrous earthquake of 1985. Those that lost houses built precarious ones. The large companies that built houses did so under loose regulation at best as deregulation became the norm under the 1992 amendment of the Agrarian and Housing law, while the 1994 signing of the North American Free Trade Agreement cut the purchasing power of workers by 78%. The precarity of the neighbourhoods is additionally increased by the large consumption of water by real estate developers, who, since 1940, increasingly have contributed to the drainage of the valley's above-ground water reservoirs and underground aquifers (Flores 2018).

When Gunnar Olsson shared his perspectives on maps and mapping in his home in Uppsala, he suggested that laws are a codification of societal relations (Olsson 2018). If his statement holds, then the laws concerning water in Mexico

inevitably mirror a perception of its significance. However, when looking closer at the existing legal framework, the challenges associated with water in Mexico City do not stem from a lack of legislation but rather from a multitude of interpretations. In 2010, the UN recognised the right to water as a human right. Supply should be sufficient, meaning at least 50–100 litres per person per day. It should be safe for human consumption, as defined by the WHO. The water should be acceptable in colour, smell and taste, appropriate to cultural norms and sensitive to gender, life cycle and privacy requirements. Accessibility within one kilometre or thirty-minute distance from home is also a requirement. Then, water should be affordable, suggesting that its purchase should not exceed 3% of a household's income (United Nations General Assembly 2010). In the 2012 reform of the constitution, the Mexican government codified into law the human right to water access, provision and drainage of water for personal and domestic consumption in a sufficient, healthy, acceptable and affordable manner (Mexico 2012). Besides acknowledging the human right to water, biodiversity and the socio-cultural rights of the indigenous population in relation to their ancestral land is recognised in Mexican law through signing the Indigenous and Tribal Peoples Convention in Geneva (ILO 1989). These legal criteria tend to contradict each other on different levels and are, therefore, far from met.

Bringing in water from outside the city often violates the rights of indigenous communities, for example. Different legislations impact the protection of waterways to preserve cultural identities and ancestral traditions of food production. While groundwater deposits are emptied, there is no replenishment because the ground is sealed with asphalt and concrete. Paradoxically, this causes flooding when it rains, while rainwater is drained through the same system as so-called black waters. Water supply is mainly directed towards commercial, industrial and touristic areas of the city, which eliminates sufficiency and accessibility to other areas. This leads to a realisation that, when those in positions of power determine the feasibility of what is possible, confusion and contradictions prevail in a largely technical, problem-solving approach to realising concrete targets. In this regard, Marit Hammond (2021), in her analysis of tendencies in the scholarly field of environmental politics, marks a need to recognise radical imagination as a cognitive shift that makes it possible to move beyond the illusion and distraction of promised progress through technical solutions that obscure ethical, social and political issues.

In Mexico City, legal protection clashing with commercial interest in water supply—of suppliers of bottled water, as well as companies that receive government contracts to provide public services—gave rise to several protest movements, such as the civil rights organisation *Agua Para Todos* (www.aguaparatodos.org.mx). They formulated proposals that can be included in a general legal code that binds the rights, responsibilities and accountability of people, state and water together, seeking to reconcile human rights with environmental rights. In the first instance, in this exercise, imagination takes on the meaning of 'organised field of social practices, a form of work' as Arjun Appadurai describes it in *Modernity at Large* (1996: 31). In the proposed legal code by Agua Para Todos—which finds itself at the intersection of politics and environmental thinking—social practice as work of care and regeneration is not only constituted to humans. These politics of ecological imagination beyond anthropocentrism can be supported by Jane Bennet's interrogation of the potentialities of assigning political agency to other-than-

humans. She argues that interactions between humans are not dissimilar to interactions between other-than-humans or human interactions with other-than-humans (J. Bennett 2010). As such, political action occurs regardless of human input. Still, a question remains: Who is allowed to let their imagination flow?

The communities living on and around the Peñón Viejo hill face the constant possibility of landslides or floods. Although to some degree, this impedes them to imagine beyond living their day-by-day life, a radical imagination is happening in future visions of the hill as a lush area, full of allotment gardens that provide the community with food while restoring the biodiversity (Alaya 2016). In this project, collective aspirations are gathered in a landscape of possible images in which an 'imagined community' (Anderson 2006) gains agency by unleashing a radical imagination that works, lives and thinks with the land, water and other-than-humans that inhabit that same landscape. The urban Garden of Eden gains feasibility and might not be as surreal as it appears to be. As the next essay will show, collective memory and a future vision are connected here.

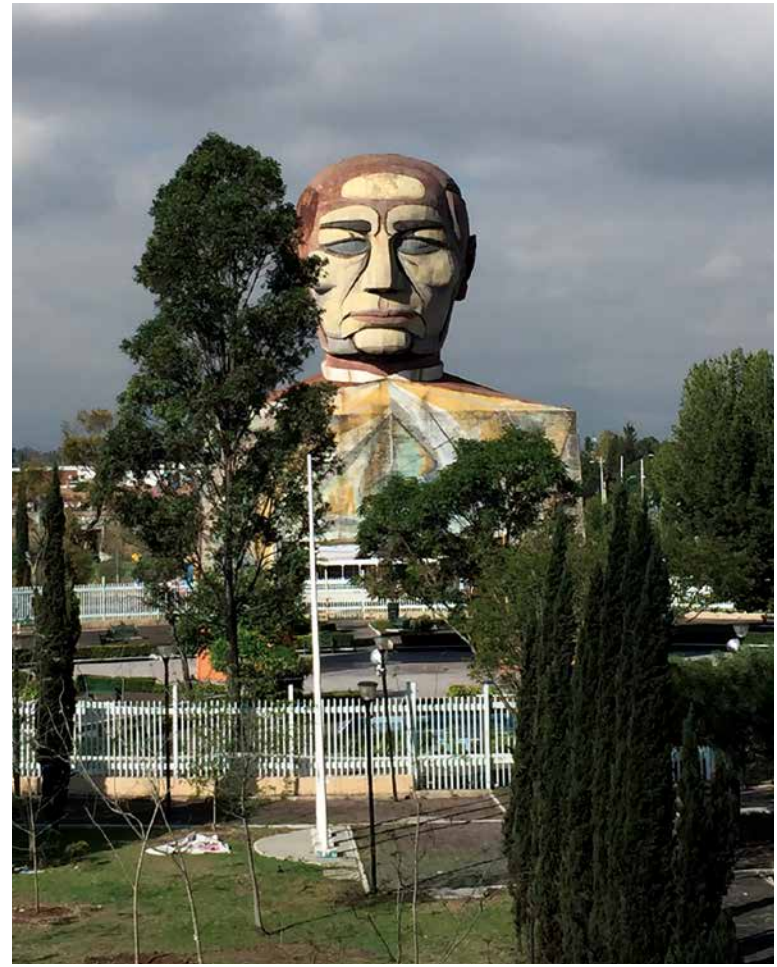


Figure 23. Museo Cabeza de Juárez. Mexico City, June 2017. Picture by Sjamme van de Voort.

**Siege: The fenced reservoirs**

According to the chronicles of Bernal Díaz del Castillo, the soldiers of Hernán Cortés passed the village of Iztapalapa and the terrains around the Peñón Viejo Hill in October 1520 and noticed the diversity of trees and scents, platforms full of roses and flowers, many fruit trees and a freshwater pond. Even more, they observed that canoes could enter this orchard from the lagoon without jumping ashore, and birds of many diversities entered the pond (Díaz del Castillo 1983 [1632]: 337-338). Almost a century after these observations were written down, in 1607, Viceroy Velasco approved Enrico Martínez's proposal to drain Lake Mexico to safeguard the city from floods, known as the *Desagüe* (Drain) project. Martínez's recommendation included building a large tunnel instead of an open trench because, otherwise, the tepetate—the sediment found in Mexican volcanic regions—would be preserved and fortified by humidity and be broken up by sun and air. Although tepatate at the surface crumbles when exposed to air, the hard tepatate under the soil could withstand time and water and for parts of the construction of the tunnel, which meant that no fortification was needed (Candiani 2014: 50-53). On the one hand, the project disrupted the hydrologic systems in place, but on the other hand, it still heavily relied on appropriating indigenous material structures, labour and techniques. The *Desagüe*-assisted colonising of the Valley of Mexico did, in the end, not succeed in separating the land from water.

Nowadays, at the foot of the Peñón Viejo Hill, crusty grounds float in the quagmire surrounding a reservoir that is part of a network of basins regulating the flow of water in the city. The green space within the fences that mark a terrain under federal jurisdiction rather than municipal control—suggesting that safeguarding the city from flooding is, still, a matter of national security—show lingering memories of the landscape: an emerging ecosystem finds its place in this unexpectedly biodiverse site where illegal waste is dumped. A community of unisexual castor oil plants (*Ricinus communis*) are the pioneers that settled on these precarious grounds. Although their pollen, sap and raw beans are allergenic and toxic for humans, they attract many other species around the water reservoir, like various butterflies and moths.

The reservoir at the Peñón Viejo Hill is located next to an immense bust, known as *Cabeza de Juárez* (Figure 23). The statue was built as a monument for Benito Juárez—a politician and lawyer who served as President of Mexico from 1858 to 1872—and houses a museum with a chronology of his life. In 1972, artist David Alfaro Siquieros was contracted by the Ministry of Communication and Transportation to develop an artwork for their terrains in the east of the city where the construction of popular neighbourhoods was authorised. The artist proposed building a statue of Benito Juárez to mark the beginning of an art boulevard that would link several of the ministries' terrains (Ramírez Bautista 2020). As the first indigenous head of state in the postcolonial Americas, Benito Juárez became a national hero because of his role in the secularisation of Mexico and his anti-imperialist vision.

Prior to his presidency, Mexico underwent a historical development characterised by the transplantation of European and Anglo-Saxon ideas and institutions that aimed to dismantle corporate systems of property held by the Church and indigenous communities. However, these efforts faced resistance and were not fully realised until the mid-1850s. As Minister of Finance, Benito Juárez achieved the abolition of clerical immunities in 1855, marking a significant shift in power dynamics and paving the way for

the introduction of the Reform law known as *Ley Lerdo* in 1856, which mandated the sale of urban and rural real estate owned by the Church. These laws then, were incorporated in the 1857 constitution, extending political citizenship rights beyond the elite (Castro 2005: 153). Still, during most of Juárez's presidency, up to 1870, the federal government was unable to impose their rulings in rural populations where allocation of the usage of land and water was decided by local users gathered in town councils—the colonial practice that, unintentionally, safeguarded the water systems in place in favour of the commons, continued. Even *Ley Lerdo* could not change this until President Porfirio Díaz secured military resources to carry out the liberal reforms and continued with further legislations to partition and privatise lands, which resulted in a law making water a federal matter in 1888 (Candiani 2014: 318). These legislations became tangible manifestations of efforts to undermine communal authority in the regulations of land and water and the determination to control ecological values, here under the argument of desiccation as a matter of public health in a growing 'modern' city consuming more water and in need of more sewage. Writer Carlos Monsivais categorised the statue of the head of Benito Juárez as terribly guillotined, per excellence (Monsivais 2006). Eyes fixed on the horizon, with its back turned toward the water reservoir, the colossal head separated from a body—which originally should have had a neck and shoulders with pluvial downspouts—acclaims a patriotic sense and celebration of the construction of modern Mexico.

At this point of the story of 'Journey to Atlan', it starts to rain a lot. 'Garbage mixed into the streams ran towards the drains, but the water did not go anywhere by now. Little by little, the streets disappeared, drowned under a mixture of rainwater and garbage with nowhere to go' (Martínez, in Driesse 2019: 99-101). When the system is overloaded with clear rainwater flowing toward the reservoir, disappearing into the sewer system, it mixes with so-called black waters and flows back into the streets in toxic effluents. This shows that, while building bigger modern hydraulic systems and infrastructures, water is increasingly treated as a homogenous and uniform liquid.

Figure 24. Peripheral ring road Anillo Periférico, as seen towards the north from the pedestrian bridge at its intersection with Avenida Constituyentes. Mexico City, June 2017.



Figure 25. Crosstown freeway Viaducto Miguel Alemán, as seen towards the east from the Calle Chilpancingo overpass. Mexico City, June 2017.

**Overflow: The buried river**

Walking further toward the centre of the city, water is captured in a fully plumbed landscape in an ongoing effort to control the division of land and water. The project of creating underground rivers to make room for highways that allowed cars to invade the city can be perceived as an extension of Da Cunha's notions of the river as a design project (Da Cunha 2019b). Waterways were culverted to create the infrastructure serving to connect citizens to the outside world and each other (Figures 24–25). The urban paradigm of development embedded in the project of redirecting waters under the ground perpetuates what Val Plumwood refers to as a 'logic of colonisation' (2002) that involves marginalising, standardising and exploiting a perceived 'nature' considered distant. In 'Journey to Atlan', the narrator sums up the discourses that ratify culverting waterways: 'It would be unhealthy to leave it in the open, as it brought the black waters out of the city, because it would leave space for the cars and thousands of other reasons' (Martínez, in Driesse 2019: 101). These reasons show how various forms of social control are historically intertwined with the logic of colonisation.

When culverting rivers, the reliefs in the landscape are erased that give shape to ways in which water can flow. This equals the erasure of homes for many—humans, plants and animals—that interact with each other in the ecosystems gathered around these waterways. As such, it inscribes large-scale environmental destruction by human activities, which can be described as 'ecocide'—a term coined by botanist Arthur Galston as a neologism in the 1970s, with its roots in *oikos*, home, and *cadere*, to kill. Although the term originally referred to the deliberate destruction of ecosystems caused by the use of chemical agents during the Vietnam War, the term emphasises a loss of biodiversity and its far-reaching consequences for all life forms (Zierler 2011). Looking at previous research I conducted in Mexico City, an example of ecocide appears in testimonies from elderly people living in the Magdalena Mixiuhca neighbourhood. Their childhood stories contain memories of a rapidly changing urban landscape imprinted in all the senses: the smell of apricot trees, the feeling of soft earth under their feet and the sight of the bright red colour of poppies, all of which were long gone (Driesse 2013: 95). Now, when walking through the highway landscape that cuts through the neighbourhoods of Mexico City, the sound of car horns fills the air, the temperature rises and exhaust fumes leave a bitter taste in the mouth.

Owain Jones, Kate Rigby and Linda Williams turn to the idea of 'toxic dwelling' to explain the entrapment in trajectories of so-called developments that are major direct and indirect drivers for ecocide (Jones, Rigby, and Williams 2020). They argue that the human propensity to dwell—as a condition of human life and being in the world 'as an embodied experience of rich relational exchanges within known spaces and times' (Jones, Rigby, and Williams 2020: 396)—is affected by imaginaries of disassociation. In their considerations, these imaginaries literally create environments that are socially, psychologically and biologically toxic (Jones, Rigby, and Williams 2020: 400). This impediment to dwelling, in the case of culverting waterways, extends to a multispecies community for which not only the ways of communication are cut off, but also their possibilities for reproduction.

An opportunity to counter the logic of colonisation in the historical geography of Mexico City and to remember the buried rivers arises when winds in the sky gather clouds, releasing rain. These clouds become allies to show how water functions as a deposit of memory and

space of dissolution, here with an opportunity to see the traces that building the city leave on the planet, not only in terms of what is visible, but also what is forgotten, washed away or completely transformed. The floods that cover the highways are not flooding, but in a play with gravity, water finds its way back to where it used to be (see Figure 19). Reanimated by the rain, the city transforms into the lake that the traveller in 'Journey to Atlan' was looking for (Martínez, in Driesse 2019: 101). While hiding on a rooftop, the protagonist starts to build a life raft from empty bottles and debris in a creative response to the aversive circumstances.

Figure 26. Cárcamo de Dolores. Mexico City, June 2017.

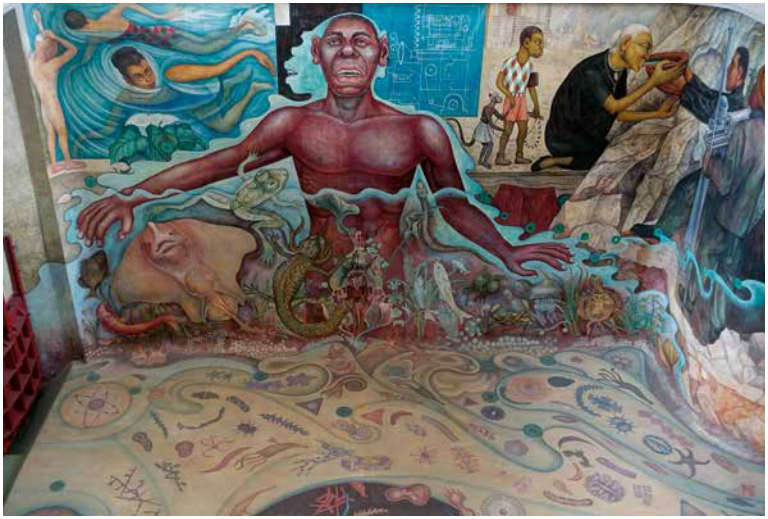


Figure 27. *El agua, origen de la vida* (The water, origin of life) mural by Diego Rivera. Mexico City, June 2017.

**Gateway: The waterworks**

Drifting on the self-made life raft, the story in 'Journey to Atlan' arrives at higher grounds, where waterworks mark the border of the former lake (Martínez, in Driesse 2019: 103). This point of the narration equals the end point of our three-day, seventy-two-kilometre walking journey. At the Cárcamo de Dolores (Pumping station of Dolores), Tlaloc, the god of heavenly waters, is watching the skies and the engineering works, both in admiration and fear (Figure 26). Diego Rivera was invited to add an aesthetic value to the functional building at the Cárcamo de Dolores, which was built at the end of a series of civil works—dams, pumps, tunnels—to direct water along a route from the Lerma River to Mexico City. Its construction started in 1943 and was inaugurated in 1951. A closer look at the statue of Tlaloc shows that it not only gazes toward the sky with its mouth ajar, but a second face turns towards the interior of the Cárcamo. As such, one face is directed at the entrance of water, falling from the sky, and the other at the exit, under the ground. Some other elements draw attention: the hands of the statue hold corn seeds and a corn cob; water gushes from the sole of its foot; mountainous reliefs stand in its way, while hands and an eagle create a route through these mountains, and water seeps under the mountains. This alludes to the civil works that lead water on a course to the city. While the sky is shimmering on the surface of the water surrounding the sculpture in a vertical mirror image, a question arises: Are we gods, or are we humans?

The narrator of 'Journey to Atlan' notices the 'sacred and metaphoric character' that the place holds. Water flows through the engineered ways, which are adorned with 'colourful murals representing the importance of water for life on this planet' (Martínez, in Driesse 2019: 103). The mural inside the building, called *El agua, origen*

*de la vida* (the water, origin of life), pays tribute to the enormous work involved in building the civil works (Rivera 1951). From the centre of the image, on the ground, mineral elements give way to elementary forms of life, that multiply as they approach the walls. There, aquatic flora and fauna, fish, crustaceans, reptiles and amphibians emerge, with a special presence of axolotls. Two human beings appear (Figure 27). Around them, urban scenes are shown, including different uses of water for hygiene and agriculture, swimming and drinking a few drops in the middle of an arid landscape. Above the tunnel that leads to water tanks, monumental hands, resembling the hands of Tlaloc, are shaped in a bowl and pour water into the basin.

Despite using materials that would resist the passage of water so that the mural could be partially submerged, it deteriorated and detached, which, in 1992, led to the decision to take measures for its preservation and drain the reservoir. In this assemblage of heritage and water, human and more-than-human agencies meet in different time frames and chronologies. Organic matter diluted in the water, bringing in traces of deep time, accumulated on the mural's surface in a thick silt layer causing the walls to crack because of the changing temperature. Strong currents impacted the walls as well. Both issues could probably have been avoided if the hydraulic works were constructed as they were designed, but some important details were ignored (Rivera 1952). The symbolic relations with the historical geography of Mexico City are aplenty, not only in the carelessness of the construction of the building, but also in the fear of deterioration and the efforts to protect the mural from its encounters with water. Even the rich cosmology that the mural presents can be perceived as a depiction of what has been sacrificed while building the city. In that sense, its deterioration and detachment illustrate Þóra Pétursdóttir's claim that heritage thrives in movement and passing, from 'generation to generation […] inhabited and abandoned by constantly new ideas, entities and organisms and is continuously affected by processes of becoming and erasure' (Bangstad and Pétursdóttir 2021: 393). The mirror image becomes an in between space that combines and divides constantly changing reflections.

In a less integrated part of the mural, the image shows how plans for the project are reviewed and the masterminds and construction materials appear. The mural also remembers the workers who died during its construction. The long-term perspective of the connections of water in its elemental entanglements with the sky and earth—with wind and soil—and as a life-giving element in a rich diversity of bodies of plants and animals fails to address the tensions, losses and traumas particular human and other-than-human communities face in the creation of the infrastructure that has turned the city into a home for many. In a ninety-degree turn of the vertical mirror image connecting the sky to the earth, two different maps meet at the Cárcamo de Dolores—one of the Cutzamala system, reaching several hundreds of kilometres out of the city, and the other one of our walking journey crossing the city (see Figure 16). Turning to another spatial, temporal and material scale, in this case, is a kaleidoscopic move toward addressing structures of injustice and oppression. This transition from a planetary scale to local everyday reality offers an opportunity to recognise damages and loss on a more comprehensible scale and understand the ethical implications of the choices made in the project of creating human homes in the city. In what follows, this opportunity is explored more extensively in an effort to create a palpable and embodied experience out of the imaginaries that emerged from the walking journey following water through Mexico City.

Figure 28. 'The water carriers' at the festival *Duizel in het Park*. Rotterdam, August 2017. Picture by Sjamme van de Voort.



Figure 29. 'The water carriers' at the festival *Duizel in het Park*. Rotterdam, August 2017. Picture by Sjamme van de Voort.

**Vessels: The water carriers**

The last scene of 'Journey to Atlan' refers to the act of closely listening to water and paying attention to how it moves in cycles. Paraphrasing the poem 'El agua multiforme' by Amado Nervo, written from the perspective of water, the scene alludes to water having many forms and always taking the shape of the vessels that contain it. The theme of the poem deals with the unknowability of water as it affirms that sciences, in vain, try to analyse it as a fixed entity. Many shapes and states of water are listed: a restless torrent; calm water; round, in a spherical vessel; cylindrical in full amphoras; ice, current, mist, vapour gilded by the light of day. In the poetics of Nervo, being like water, then, is a state of adaptiveness to nest oneself while being in constant transformation—be a slope, not a rock. Playing with light, mist becomes golden, a cloud is gilded by the evening, the sun makes the spring tremble, a lagoon becomes amber at the edges, the moon silvers the ocean, the foam of a torrent shimmers, and in a waterfall, a rainbow will blossom (Martínez, in Driesse 2019: 103-105).

The image of the self-made life raft and the poem became the starting points for a performance at the festival *Duizel in het Park* in Rotterdam. The audience sat on the periphery of a life raft—made out of residual wood, rope and water jugs—facing a water gathering installation in the centre, with their arms bound in a device that could be held as a receiving vessel (see Figure 9). Although this might allude to the popular saying, 'We are all in the same boat'—which counterposes, even contradicts, previous statements in this research related to inequalities and differences—this staging was instead perceived as a setting that served as a space to discuss collective efforts to keep humans, other-than-humans and the waters they float and rely on safe. During the performance, water was pumped from a nearby open canal to fill a watering can that was emptied in the installation. Seeping through various ducts, it ended up in the embrace of the audience members.

The distribution was unpredictable and straggling, which immediately led to different dynamics of both competition and collaboration. Walking with their precious gatherings in their arms (Figure 28–29), slowly, carefully, so as to not spill it, on the ground or themselves, every member of the audience had to pour their catch into a shared water jug. The water that made it there was filtered and mixed with two syrups distilled from plants found along our way through Mexico City—one named 'Fire'—consisting of rattle chilli (*Capsicum annum*), Mexican honeysuckle (*Justicia spicigera*), stevia (derived from the leaves of the *Stevia rebaudiana*), pasilla chilli (another species of the *Capsicum annum*), chipotle chilli (smoke-dried *Capsicum annum*), brown sugar loaf and hibiscus flower (*Hibiscus sabdariff*)—and another called 'Water'—consisting of pink peppercorns (dried berries from the *Schinus molle*), agave syrup, nopal water (from the *Opuntia*), rainwater and pickled nopal. Here, the conversations revolved around the aesthetics of the water in the canal, the possible toxicity, its taste and ways of collecting and storing rainwater at home.

These dialogues traced a connection with the considerations that gave shape to Drinkable Rivers projects (see, e.g., the work by Li An Phoa and the project Seed The Change | *He Kākano Hāpa*). Concerns related to pollution and contamination of freshwater resources—which are essential for human life and the life of ecosystems and biodiversity—have culminated in initiatives that set in motion an imaginary of restoring and protecting the world's rivers to make them clean in the sense that humans can directly drink from them. This emerging imaginary takes shape as a counterproposal to conventional approaches

in which the design of rivers and water management rely on centralised treatment and distribution systems that, as seen in Mexico City, can be socially and environmentally damaging.

Imagination beyond the existing management paradigms can be anchored in the hydrological cycle and multispecies encounters. Looking at the initiative of the Drinking Rivers movement, this can result in imaginaries in which citizens collectively monitor the health of rivers, discussions happen about the impacts of their behaviour on the ecosystems that they are part of, and collective actions like clean-ups are encouraged. In the performance, for a moment, the audience was in intimate contact with water and took care of it. Still, in its meandering movements and shapeshifting, it cannot be held and will not be captured or contained in any way. The balancing act of carrying water emphasised that it is crucial to understand that what humans do to water, they do to themselves, as bodies of water, and vice versa.



**Letters: *Ojos de agua***

So far, the present dissertation has made it clear that the modernist paradigm of human conquest of nature is based on the disassociation from and alienation of the other as unworthy of conversation. The radical move into the world of imagination turns into a possibility to have conversations with water. However, how should we think about things when it is already difficult to imagine what worlds other people's minds contain? Mauricio Martínez's eco-fiction broke with established norms to imagine a future where water can be held in vessels that allow its constant transformations and fluctuations, and its unknowability is recognised as an opportunity to change human relations with water beyond the urge to control it, or in Astrida Neimanis' words, 'instrumentalizing aquatic life in the pursuit of human fantasies' (2017: 146). Then, as a response to the performance in the park, Corinne Heyrman penned her words addressed to water, which opened new ways for exchange:

> Dear Water,
> This morning, I caught you in a drop on my finger. This very same morning, I flushed you, drank you, and showered myself in you, in that order. But it was the moment that I caught you on my finger, that I became conscious of you. We became conscious together. It was drizzling, but I did not mind. It freshened my morning head.
>
> I am standing there, with you on my hand and I am thinking about a poem of Wislawa Szymborska in which she acknowledges the content of a drop like you. You are the Caspian Sea, as you are the Pacific Ocean, as the cloud passing over Paris on May seventh at three

o'clock in the morning in the year seventeen sixty-four. There are not enough mouths to name you. This is why, at the top of this letter, I name you 'Water', but you are much more than that. You are the place where people, such as myself, drank their first beer. You are attractive, and we are drawn towards you. People find peace looking at you. Your lulling up and down, the swaying of your waves against the litany of the city, soothes us and tells us that everything comes and goes.

You have extinguished fires in houses, but have also washed houses away. Entire cities, forests. You have baptized people, you have killed people. You have shared baths with great kings, but have also been recycled seven times in the tin bath of a family rich in offspring. You are rain. Hard and cold, making us scratch our heads along with the insurer. Abruptly, you have ruined long awaited festivities. As the saying goes 'you rained on the parade'. You have become heritage, a human right, and a commercial product. On top of it all, you are the sweat on the forehead of people anxious about your condition. Over the extreme conditions you assume: on one hand your heavy showers in storms, on the other your long absences and the droughts that follow.

You are not as transparent as you seem in the form of a drop on my finger. You are murky and complex. You have your own little will. You return to the places you once have been, you are strong and unfathomable (Heyrman, in Driesse 2019: 121-123).

The letter continues to narrate micro-scenarios from the perspective of water, as if the writer tries to imagine how water witnesses everything that happens in the city. The piece ends by asking for a consultancy on how to cooperate in times of adversity. This latter request led me to the decision to send out the letter to various representatives of practices related to water. In asking for a response, the aim was to generate a change of perspective because, in bell hook's words, 'What we cannot imagine cannot come into being' (2001: 14) Although there is a trap of anthropomorphism involved in responding to the letter from the perspective of water, the exercise of finding the words that express an expanding imaginary give shape to new relations and realities that can be manifested—in Gunnar Olsson's words, this can be perceived as 'a game of ontological transformations, words turning into flesh, solids melting into air' (Thomas, Abrahamsson, Mann et al. 2011: 576).

The first response on water's behalf is written down by Henk Ovink, who was appointed by the Cabinet of the Netherlands as the first Special Envoy for International Water Affairs in 2015 and is responsible for advocating water awareness around the world. The letter is cowritten with Lodewijk Abspoel, who works on the integrated marine and maritime policy for the North Sea and in EU waters at the Dutch Ministry of Infrastructure and Water Management. Their letter is directed to Corinne, who is imagined as a city (Ovink and Abspoel, in Driesse 2019: 125). It starts with a description of a self-portrait of water in different states, also the ones that are hardly noticeable or visible for the human eye. Different appearances of water and the ways in which the hydrological cycle has been studied by humans culminate in existential questions that mark an identity crisis in which it becomes clear that water's existence is tied up in many relations that influence or limit its movements—'unlike sailors, for me,

it's hard to adjust the sails, and I cannot direct the wind (directly…)' (Ovink and Abspoel, in Driesse 2019: 127). These entanglements expand, increasing up to the scale and time frames of the universe and the formation of the planet Earth, while zooming in on each particle that contains watery elements that found their way into all beings that inhabit the same planet, humans included. Then, the letter narrates how the water–human relation over the past two centuries has caused confusion and unvoluntary moves.

With the statement that water is involved in all life forms, the letter ends with urging the city to stay in close connection and to try to understand each other better, especially if it is aspiring to move closer to the ocean—the latter a humorous use of sarcasm in referring to the rising levels of the sea (Ovink and Abspoel, in Driesse 2019: 129). Astrida Neimanis considers 'oceanic feeling' as a return to the watery gestation that all living beings require. 'The geological echoes in our bones are literally the debris of worlds past', she states to emphasise that human embodiment is dispersed in time and space but is always connected to water (Neimanis 2017: 148). This realisation, then, leads to an aspiration—a pause in between inspiration and expiration, as well as a desire to achieve something great—of oceanic feeling as a moment of interconnection of attentiveness to the matters that call upon humans to respond as a way of taking care of echoes in the past and potential futures.

Journalist and urban researcher Feike de Jong, who walked the perimeter of Mexico City to document its fringes, was the second respondent to the letter to water. His words express the realisation that water has been dragged into the grind culture of commercial interests: 'One moment I was performing in front of a few apes by a stream, the next small villages and before you know it: towns, cities, metropolis, and megacities. It seems almost like success came over night. Suddenly, I found myself part of a system with shifting fashions and purposes, sometimes flat-out contradictory' (de Jong, in Driesse 2019: 131). The letter ponders about water's legacy—'How do I want to be remembered? As a sodden puddle? As a drip from a faucet? As a damp stain on a wall? Will I even be remembered at all?' (de Jong, in Driesse 2019: 133). In a ludic description of water's retirement, water draws out its places of refuge, far away from where humans have settled that try to manage and engineer it. It becomes very clear, however, that, in the city, there are no other liquids that can replace water. This letter emphasises how water has been relegated to the realm of the taken for granted. When considering its legacy, now interpreted from a human perspective, it becomes clear that the demands and claims on adapting water to fulfil human needs—earlier in this dissertation described as Holocene fantasies—have created an image of water sitting on top of the earth's surface and a disassociation with water as part of a dynamic earth system that is not a backdrop of the city but, rather, a premise to bring it to life.

The account that Andre Dekker—founding partner of artist collective Observatorium, working and publishing on public art—wrote in response to the letter starts with a reflection on consumerism as a driving force in harvesting seabed sand to create new land. The areas around Rotterdam, where the estuary of the Maas River used to be, have been converted into new ports and 'thousands of trucks depart on a daily basis filled with stuff for the hinterlands', and the sea is 'a free port for speculation' as ships lay idle waiting for the prices of their cargo to go up (Dekker, in Driesse 2019: 137). A 'Parliament of Things' was arranged in this landscape made for transportation, which took place at the *Zandwacht* sculpture (Observatorium

2015) that crowns the beaches and dunes. The set-up of this event follows a concept of Partizan Publik (www.theparliamentofthings.org) that aims to explore the emancipation of animals, plants and things, and, as such, becomes a speculative inquiry into the relationships humans have with the landscapes in which they reside. The Zandwacht appears as 'an abstraction of the chest of a sperm whale or the skeleton of a dune'. The build-up of sand inside the sculpture in 'a cathedral-like space' can be perceived as 'a space- and timetable for dune formation, a prefiguration'—most probably, the sculpture will disappear under the sand at some point in time (Dekker, in Driesse 2019: 139). The conversation that took place at this site expanded to a scale in which the role of human beings is less significant than their ego imagines it to be: 'The spokesperson for Water declares that it does not matter how humans accommodate their actions to nature: "The protective status of nature is meaningless for a sea because water is the living Element, the Essence, not a Thing. It belongs to the universe and converges on earth … The only reason to protect and clean the sea is self-preservation of humankind"' (Dekker, in Driesse 2019: 139).

The ideas behind the Parliament of Things put forward the theory of Bruno Latour (1993) in *We Have Never Been Modern*, criticising the distinction between nature and society in 'a separation between scientific power charged with representing things and the political power charged with representing subjects' (Latour 1993: 29). These arbitrary dichotomies, in reality, are often blurry, and it is in this sense that Latour states that modern dualisms have never existed. Who, then, is allowed to write constitutions when humans and more-than-humans alike live and die in the relations that constitute political acts beyond formal institutions? Here, Latour introduces the trickster as the composer of 'not only our own collectives but also the others, illegitimately called premodern' (Latour 1993: 47) that seeks refuge in the spaces in-between. Latour argues that there is a need to grant rights to other-than-humans, that, to some degree, in Mexico City, already started to take shape in an effort to reconcile human rights and environmental rights.

In the context of the present dissertation, Latour's thoughts can be applied to modern heritage imaginaries that are stuck in drawing the lines between land and water to conserve traces of the past for future generations. In Andre Dekker's account of the Parliament of Things, the notion of 'self-preservation of human-kind' (Dekker, in Driesse 2019: 139) can be perceived as a starting point for an essential shift of paradigm in heritage imaginaries in which the reference plane changes from preserving heritage *of* humanity, to a heritage *for* the survival of the human species. In this sense, the conversations with and about water in Mexico City and beyond motivate a change of reference plane to the heritagisation of the hydrological cycle as part of a planetary common.

A last response to the letter to water comes from art historian and art theorist Eva Pavlič Seifert, who, together with geographer and artist Aljaž Celarc, forms the initiative Plateauresidue, creating immersive art works that address the perception of landscape ecology and climate change. Her words suggest a change of relation to water that redefines human needs beyond necessity. Emotions of anger and fear are materialised in this writing, expressed in 'melting glaciers [that] seem like grenades', 'a hailstorm [that] looks like skeletons from the sky', but it ends as a love letter that refers to water as the element of all beginnings and endings (Pavlič Seifert, in Driesse 2019: 145). Love, here, goes beyond emotions and takes shape in a mutual practice

of becoming with each other. From a feminist perspective, Donna Haraway speaks to this when she states that to 'be in love means to be worldly' (Haraway 2008: 97). Haraway's rendition of love for planetary others is expressed in companionship that roots in respecting otherness, which echoes with Val Plumwood's premises for planetary relationships that rely on 'the kinds of perceptual, epistemic and emotional sensitivities which are best founded on respect, care and love' (Plumwood 2002: 142). For Gayatri Chakravorty Spivak, the invocation of love, as a practice of being patiently attentive, is essential to mobilise discourses of justice for all planetary subjects (Spivak 1999: 382-383). As such, these notions of planetary love acknowledge differences and otherness, while aspiring to nurture just relations.

The walk following water through Mexico City, the eco-fiction, the performances and the correspondence with water, in one way or another, amplified the—in Gunnar Olsson's words—'alienating connections between material things and social relations, the former open to the five senses of the body, the latter hidden in the sixth sense of culture' (Thomas, Abrahamsson, Mann et al. 2011: 566). In a wrestle with what is taken for granted and 'a search for the already-but-not-yet' (Thomas, Abrahamsson, Mann et al. 2011: 566), extensions of imagination are suspended in between facts and fictions, in between affects and memories, drawing on all the senses to tell different stories that move across time and space. While drifting through different temporal and spatial scales, linear movements of progress are disrupted and distillations of anticipated pasts and remembered futures emerge.



# THE IMAGINARY AGENCY: WHEN WATER BECOMES A MNEMONIC ALLY

The first iteration of the fluid methodology in the explorations of waters in Mexico City served to inquire about and from aspects of water as a mnemonic device. In a re-evaluation of the concepts of history and memory, Aleida Assmann argues the following:

> While until fairly recently people were convinced that the past was closed and fixed and the future was open to change, we are now experiencing that the past is constantly changing and the future proves to be heavily determined by the past. The past appears to be no longer written in granite but rather in water; new constructions of it are periodically arising and changing the course of politics and history (2008b: 57).

Although, most probably, Assmann is talking here about water in a figurative sense, when taken seriously and to its furthest conclusion, the exploration of water as a carrier of memory goes beyond the realm of abstraction and becomes a perspective on change and instability. Embedded in this thinking, there is a shift of perception from a past that does not change—written in granite—and that is beyond the control of the living to an acceptance that the past is malleable—written in water—and that horizons of expectation change with its fluctuations. In this same

train of thought, Assmann argues that history does not come after politics but instead becomes its fuel. As a choice for something from the past that is used to construct the present—and possibly the future—heritage arranges the past in hierarchies. For these different ways of navigating the past—through memory, history and heritage—imagination is at play, and as it functions in hierarchies, it inherently contains notions of agency.

With those realisations in mind, looking at expressions of water in Mexico City through a lens of heritage becomes an approach to fluidly imagine urban realities in the past, present and future. And the other way around, in understanding processes of heritagisation through water, the focus moves away from fixed cartographies of the past to performative mappings that can be perceived as a cultural, social and political activity. In this act of becoming, when evaporated mists coalesce into drops of rain, and being distilled into new knowledge, water draws constantly changing maps. When walking through Mexico City, the worldmaking capacities of water came to the fore in how it moves, appears and disappears. The journey charted long-term narratives of water scarcity and a lack of water security embedded in the porous ground trembling under the weight of the megalopolis. Water enacts its agency, moving or even erasing, lines of power by tracing metonymic relations in time and space. This is how the movement of water—and its cyclical transformations—became the point of departure for tracing relational narratives.

This became even more prominent when the empirical material of our straight-lined journey, as a cross-section of Mexico City, was shared with creative practitioners. The acts of cocreation, which resulted in immersive performances and other exchanges, included various metonymic interpretations that opened room for a wide range of possibilities for reimagining the social and cultural relations carried by water. In this sense, the methodological framework allowed for explorations of various forms of knowledge production by searching for confrontations with material relations in the urban environment that vector aquatic imaginaries flowing through time and space. Thus, the point was never to completely understand what water had to say but instead to see what happens with us, humans, when we try—that is, when we start to pay attention to water in ways that involve all the senses. Instead of thinking 'How can I walk here?' new lines were drawn by questioning 'Who and what are moving here and where, and how do they meet?' Working with these narratives and meaning-making, water can become an ally and a subject of collective memories. As such, the 'flow' and 'flood' stages of the methodology here reiterate the earlier mentioned statement by Astrida Neimanis (2014: 36) that agency is dispersed through material relations.

During the festival performances, visions of the past and future were activated through narrations from an absent place—not there in the present—that were recognised as possible similarities with Rotterdam. What is interesting to notice here is the search for similarities. Whether the other place was fictional or real does, in the end, not matter, but it seems that empathy and solidarity were born from looking for sameness rather than diversity. The problem occurring from this thinking in equality is the possible ignorance of the power some have over others that do not have the same abilities or access. As a response to the festival performance in Rotterdam, Corinne Heyrman wrote a letter to water in which she embarked on an exercise of writing down what she would like to share with water. When that letter was sent to various official representatives and artists, they needed to reposition themselves and rearrange their storylines.

As such, it is the 'Mist and Evaporation' stage that, in this situation, can be perceived as a moment of reorientation, in which a change of perspective becomes an opportunity to rethink relations with others, in this case, with and through water.

Arjun Appadurai describes imagination as an amalgamation of individualised and socialised perceptions of what is possible beyond current structures of, for example, oppression or exploitation (Appadurai 1996). In the walking, the performance and the letter writing, imagination filled the in between spaces of thought existing in the relations between the present-absent and the absent-present. This becomes an opportunity to challenge taken-for-granted epistemologies. In that sense, imagination as it is involved in navigating the past through memory, history and heritage—as fuel for politics—can indeed become a catalyst for action. Appadurai takes this thinking some steps further when he states that 'the future is ours to design, if we are attuned to the right risks, the right speculations, and the right understanding of the material world we both inherit and shape' (Appadurai 2013: 3). Here, it becomes clear how agency is imaginary, while, at the same time, imaginary can obtain agency.

In Mexico City, the devastating affects and effects of the imaginaries driving the modern planning paradigm of oppression and exploitation are, if one pays attention, seemingly easy to recognise. The next iteration of the fluid methodology takes place in Gothenburg, within the context of what is determined as a social-democratic modernist welfare state. There, although the waters are present in the imaginaries of the city, more disturbing storylines are hidden under the surface, while tropes of progress and development prevail that retain more challenging narratives in the realm of the taken for granted.



# RE-MEMBERING WATERS IN GOTHENBURG AND BEYOND

# DOWNSTREAM FROM THE RIVER INTO THE SEA

In June 2023, Gothenburg celebrated its 400th anniversary—two years later than planned because of the COVID19-pandemic. In the Jubilee Park, which was constructed for the occasion at the bank of the Göta Älv, visitors could marvel at the ship Götheborg of Sweden, a replica of the Swedish East India Company owned *Götheborg I*, launched in 1738, and sunk in the harbour of the city in 1745. Before the commercial aspects of the empire formed the city and its relation to waters, glacial waters carved the river and its archipelago into the bedrock, unwittingly providing the people who settled there with a natural fortification that would later be studied by military and naval cartographers. To introduce the second iteration of the fluid methodology, in what follows, a series of three mappings and the mode of cartographic reason these convey will situate this chapter in Gothenburg. Additionally, the journey following the Göta Älv with Maidie van den Bos is depicted in the cartographic table setting that served as a guide for the performance lecture 'Imagining the In-between of Land and Water'.

The maps and description of the 'Northern Lands' by bishop Olaus Magnus in the first half of the sixteenth century served to communicate knowledge to be used by Catholic forces to regain control of those places lost to the reformation. In both his writing and his maps, Olaus is fascinated by monsters and waters, defining the former as 'a creature thought astonishing and exotic'. At the edge of land and water is where human terrestrial bodies are differentiated from oceanic existences. According to Lindsay J. Starkey, 'He also claimed that water, much like his own map and text, would bring forth certain sea monsters and present them to human view, thereby dispelling ignorance of them' (Starkey 2017: 35-36). The sea monsters he depicts, discusses and categorises have different properties and potentials: there are the ones that are threatening human property and lives, but also creatures that appear monstrous while they protect people. Other monsters act as signs of hidden or future events, which could be utilised by adventurous people when exploring the ocean. Olaus Magnus also describes and depicts a specific category of monster that, although potentially combining the characteristics of all other monsters, could become a commodity or be a source for long-distance trade, such as whales (Starkey 2017: 49).

Much as the various types of sea monsters posed different dangers or opportunities for people, the perception of water that the *Carta marina* (Figure 30) depicts associates water with threats and the idea of water as a life force and generator of products that could be commodified. The mapping suggests that sixteenth-century Europeans were simultaneously frightened and fascinated by the possibility of connecting to the unknown, searching for watery pathways to interact with other peoples and places. Although the descriptions and depictions of Olaus suggest the impossibility of fully knowing everything about the ocean—or the world—the sense of wonder and attraction to monsters and water creates a motivation to push the frontiers and explore the unknown.

Notably, the town that preceded Gothenburg before its construction as a fortress city—Nya Lödöse—is depicted on this map at the mouth of the Göta Älv, with two castles marking its strategic value. Here, the fear of sea monsters

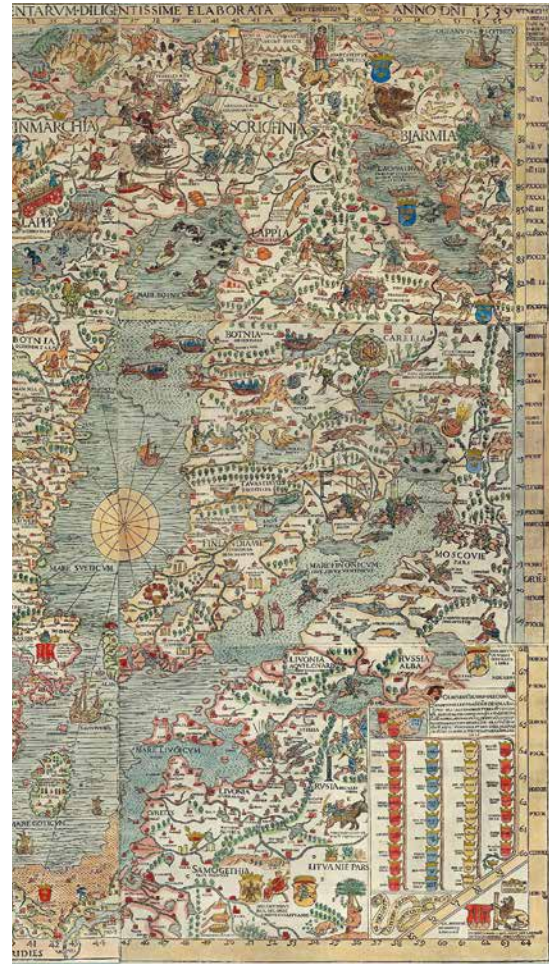



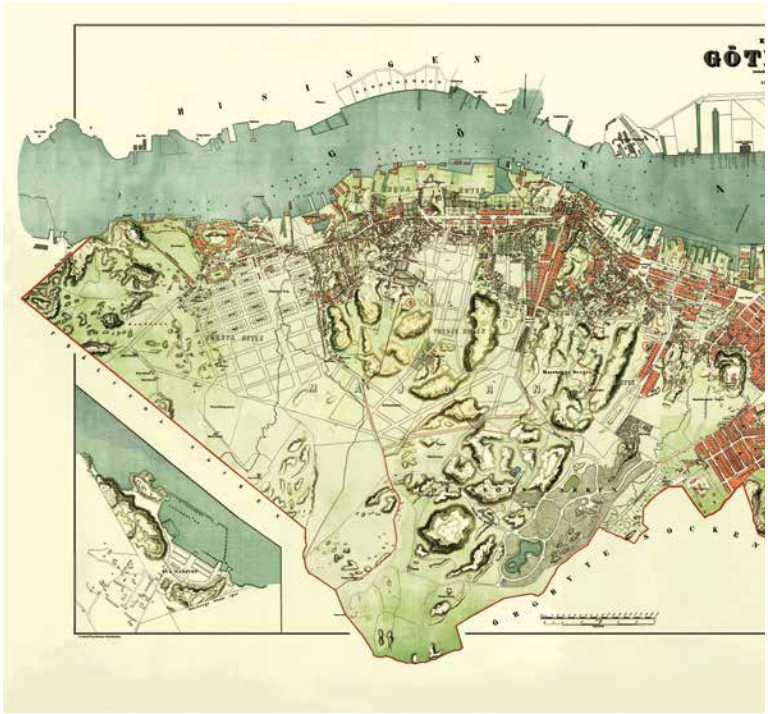

Figure 30. Olaus Magnus, *Carta marina et descriptio septemtrionalem terrarum ac mirabilium* (Maritime map and description of the northern lands and wonders), 1539. It currently resides in the map collection of the Uppsala University Carolina Rediviva Library, Sweden. (Available in the public domain at https://en.wikipedia.org/wiki/Carta_marina#/media/File:Carta_Marina.jpeg)

has been replaced by the threat of foreign forces that might invade the city over water. Because of conflict—both military and financial—the town was rebuilt several times to then settle as Gothenburg in a narrower location in the inlet to better fend off foreign attacks. The ambition for Gothenburg was to function as a defence mechanism for the west coast of Sweden and to be a trading town, asserting Sweden as a player in the geopolitical games of early modern Europe (Scander 1981: 91-114).

During the first decades of the seventeenth century, Denmark was the military adversary in these games, while the Netherlands became an ally in terms of mercantile connections. Dutchmen with expertise in town planning to serve both the machinery of war and trade were favoured to give Gothenburg its initial design. The city was built with a Dutch layout, crossing channels and a chequered system of streets resembling those of Jakarta (Batavia) or Manhattan (New Amsterdam) that was built in the same era. Even today, one can see the similarities between Gothenburg and, for example, Naarden in the Netherlands, when viewed from above (Scander 1981; Ahlberg 2014). The 1607 Viceroy Luis de Velasco's approval of the drainage of the Lake of Mexico was, according to Vera Candiani, not perceived as 'separate "colonial" activity distinct from those of Europe' (Candiani 2014: 50) and, thus, an extension of these same practices of shaping the ways in which water was allowed to flow into the city or not.

The *Sammandrags Charta* (Summary map) from 1790 shows the stretching of the Göta Älv as an outflow from Vänern Lake reaching 'the great sea' (Figure 31), with Gothenburg located at the very lower right corner of the map, at the end of the river. The fortification protected the connection inwards and outwards, on which goods would flow. On the map, a construction in the river appears at Lilla


Figure 31. Sammandrags Charta (Summary map), 1790, currently residing in the map collection of the Uppsala University Carolina Rediviva Library, Sweden. (Available in the public domain at https://www.alvin-portal.org/alvin/imageViewer.jsf?dsId=ATTACHMENT-0001&pid=alvin-record%3A372309&dswid=8180)



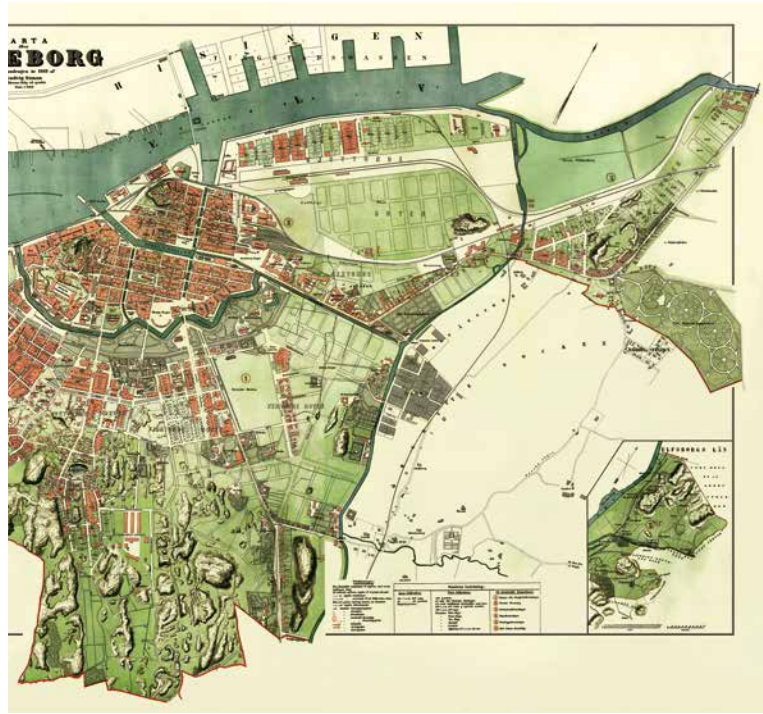




Figure 32. Map of Gothenburg drawn by Ludvig Simon, published N. P. Pehrssons, 1888. Currently residing in the National Archive in Täby. (Available in the public domain at https://upload.wikimedia.org/wikipedia/commons/8/8c/Simon%27s1888Gothenburgmap.jpg)

Edet. This canal lock was built as early as 1607, and other constructions followed to make the river easily and safely navigable. Business could sail all the way from the Kattegatt to the falls in Trollhättan. No monsters were obstructing empire at this point, with the water becoming a smooth blue surface.

The 1888 map made by Ludvig Simon similarly shows water as a smooth blue surface, and instead of monsters, considerable space is made for the docking moats. Interestingly, the port only had nine fixed, hand-operated cranes by the early 1880s, whereas four steam-driven cranes were in place in 1892—as port cities such as Dover, Hamburg, Bremen and Rotterdam had been using for decades. After the turn of the century, four additional cranes were put to work, these running on electricity. With the rapid technological modernisation of the port within just a few decades, Gothenburg came to compete with other large ports in Europe. On this map, drawn in the middle of this industrial dream, Olaus Magnus' wonderous monsters are no longer seen in the conquered waters, and imagination is directed at the spaces for industry, where machinery moving mass cargo are diligently doing their jobs (Hamark 2014). What is remarkably absent from the map are the areas of Hisingen, north of the river—or rather, north of what the map sketches as open territory for industrial development.

As the industrial area, which maps imagined into being, declined during the late twentieth century, the city remained carved in two—not only by the river, but also by the space that this dream left behind (Thörn and Holgersson 2016). Current developments of this space, with the name River City Gothenburg (known as *Älvstaden* in Sweden) and the Jubilee Park as its most *grande finale* to date, are still filling this gap (Brorström 2011; Metzger and Lindblad 2020).



In these undertakings, efforts are made to democratise the urban planning process, but these remain very much based on human-centred imaginaries (Soneryd and Lindh 2019) and hardly take into account the relationships, with others that shimmer through the apparently smooth surface of the water.

Gothenburg is no Mexico City. The histories of the two places are unquestionably quite different. However, the affects and effects of the imaginaries driving the modern planning paradigm governing waters as a nature to be cultured are, in many ways, comparable. Although my work in Gothenburg followed the same structured methodological framework as my research in Mexico City, directions and focus points will naturally diverge. This is because of the nature of this approach as one that engages with place-specific modes of knowledge production to reorient itself in a series of iterative interventions. To explore the imaginary agency of water in this gap and beyond, I set out to activate long storylines, wander along excerpts of them and wonder with monsters to engage with other-than-humanity imaginaries. This resulted in a mapping, a table setting (Figure 33) around which the audience of the performance lecture 'Imagining the In-between of Land and Water' gathered to see, hear, smell, taste, feel and imagine the waters flowing through Gothenburg and beyond.

Figure 33. Impressions of the cartographic table setting for the performance lecture 'Imagining the In-between of Land and Water', 2022.

# TO SENSE AND MAKE SENSE OF THE IN-BETWEEN

In what follows, I present a series of analytical reflections on the different scenes of the performance lecture 'Imagining the In-between of Land and Water'. First, the manuscript of the performance lecture is presented, which is the outcome of working with the insights gained from the performances related to the walking journey through Mexico City, which here evolved toward a performance lecture involving all the senses. The manuscript includes a text narrated by me, talking in first person, descriptions of the visuals and gestures that were carried out by culinary artist Maidie van den Bos. A line traced from Jotunheimen to Lake Vänern, then following the Göta Älv along the route charted in the *Sammandrags Charta*, into the Sea of Kattegat toward the North Sea and the Dutch Delta area defines the dots on the map that form the places of orientation for these reflections. Before presenting the manuscript and essays drawn from the performance lecture, it seems pertinent to discuss the initial considerations regarding the in between as a metonymic space for imagination to flow through time and space.

As the participants entered the room where the meanderings performed and presented in 'Imagining the In-between of Land and Water' took place, the phrase 'We must learn to be at home in the quivering tension of the in-between' (Neimanis 2012: 108) was projected on a screen. This assertion served as a provocation to not only practise to associate ourselves as human beings with and in the world that surrounds us, but also to come to accept how all senses play a part in its comprehension. It was an invitation to meet the world and sense how the world meets us by exploring the spaces between ourselves and others and all kinds of relations that we, as humans, are a part of.

The performance lecture intended to create moments to re-member: to reconnect with other entities, places and times that are not 'here' and 'now' but do support, enable and even guide our urban lives. Water, in this case, is perceived as a conduit and material of connection that permeates, and perhaps even dissolves, the ontological border of the skin and idea of the world only existing outside of our human bodies. Shapeshifting its ways into different lifeworlds in time and space, it becomes an ally in temporarily re-membering what is included and excluded. The mechanism behind the suppressing of knowledge that makes dissociation part of subjective imaginaries can be described as 'not-in-my-backyard-ism', or NIMBYism. As such, these moments to re-member created in the performance lecture can be seen as exercises of imagination for 'place-based critique' that 'resolve[s] problems of NIMBYism in place and situate place in terms of an ecological consciousness', as called for by Val Plumwood (2008: 139). This ecological consciousness emerges from an ethics and politics of place in which the excluded matter becomes visible.

In the acts of ingestion, inhalation and digestion of perfumes and wild brews, the audience came in direct contact with many other companion species (Haraway 2003) that inhabit the watersheds from which they draw water. However, the audience also came in contact with the meaning-making practices that gave shape to the landscapes from which the ingredients were collected and where these were able to flourish while others were

excluded. Water retains what is rather forgotten and is haunted by 'ghosts' (Tsing, Gan, and Bubandt 2017) of meaning and matter that have permeated into water bodies, our own and others'.

All moments of both a distant and more immediate past have the same waters as their witness. Therefore, as a starting point for creating moments to re-member, water is considered as 'a planetary archive of meaning and matter' (Neimanis 2012: 98). In the work on cultural memory by Aleida Assmann, archives are places where dichotomies of active and passive remembering and forgetting generate a grey area. Knowledge is stored and kept but can be neglected and forgotten if not actively sought for (A. Assmann 2008a). So when considering water as an archive, the engagement with it requires an active exercise of imagination that necessarily connects both the human experience of the world as a matter of metaphorical production of meaning in space, as well as the material traces and expressions of what comes to matter.

This exercise of imagination is what Gunnar Olsson addresses in his ruminations in the bar between signifier (S) and signified (s):

> While our immediate contact with the S goes through the five senses of the body—sight, hearing, touch, smell, and taste—the s belongs to the sixth sense of culture. [...] The Signifier is consequently not a thing-in-itself but a metaphoric image of a thing, the signified not a meaning-in-itself but a metonymic story of a meaning (2007: 80).

It is through the engagement of the performance with a metaphorical representation of water that our imagination transforms the metaphoric image of water into a metonymic story of water. However, when 'skins become thinner' (Neimanis 2012: 108) and the apparently impermeable membranes that sustain the dichotomies of mind–body, inside–outside and us–them come to dissolve, there is a risk of a flooding of our imagination that creates a numbing of the senses rather than a feeling of connectedness. Above, the notion of in-betweenness has been discussed because the present thesis approached matter and thought, the S and the s surrounding the gaps. In the context of Olsson's Bar-in-Between, it is, however, useful to be able to name this place. Rather than building on the 'nonplace' as a product of the mechanisms of supermodernity, as described by Augé (1995) or the work of Sand (2008) that focusses on artistic methods through which humans can activate these, the present dissertation focuses on water as an actor that navigates these places that, from its perspective, are by no means nonplaces.

To approach the notion of these spaces in this context, the Nahuatl concept of *nepantla* comes to mind, which, in an article, written in collaboration with Isaac Landeros, we defined as a term that 'conceptualises the state of "in-between-ness." It can refer to the act of resistance in which a part of something (e.g. culture) that cannot synthesise into a new situation is left behind, but other parts become part of the new situation' (Driesse and Landeros 2016: 166). From here on, the space in-between becomes a cradle for agential relations, filling an emptiness that cannot directly be sensed, with our imagination. As water flows through and across the spaces in between things, concepts and places, it might be able to accompany us, sustain and carry our imagination both to sense and make sense of the world. The in-between, then, becomes a space for possible transitions, of 'quivering tensions' (Neimanis 2012: 108), where gradual shifts in ways of being at home in the world with others can happen.

The performance lecture becomes a place of *nepantla*, where a series of engagements with water allow for imaginations to flow across time and space. The following scenes generate instances in which all senses are activated by carefully curated watery encounters and imagination is required to fill the grey area. This creates space to make room for a new sense of the world and its multiple enacted agential relations.



# MANUSCRIPT:

# IMAGINING THE IN-BETWEEN OF LAND AND WATER

**introduction**

*The audience waits outside the room where the actual performance will take place. We welcome them, introduce ourselves briefly, ask for consent to take pictures and record audio.*

*Entering the scene, everyone takes a glass of water, standing around a watery mirror, and, thereafter, finds a seat. The narrator stands on a platform with a screen in front of her. On the screen there is a quote by Astrida Neimanis:*

> 'We must learn to be at home in the quivering tension of the in-between. No other home is available. In-between nature and culture, in-between biology and philosophy, in-between the human and everything we ram ourselves up against, everything we desperately shield ourselves from, everything we throw ourselves from, everything we throw ourselves into, wrecked and recklessly, watching, amazed, as our skins become thinner.'[1]

MONIEK:

I will be presenting a visual essay here, written together with memory studies scholar Sjamme van de Voort, in which we put thoughts, dilemmas, questions, associations into words and images in a seeking and meandering way. Maidie will be accompanying all this with a sensory experience, activated by subtle gestures of care, so that we can embody—ingest, inhale, digest—the stories we found.

Our hope is that you join us and listen, sense, feel stories of water that might challenge us to stop seeing ourselves as the protagonist for a brief little moment. Maybe then, when we stop trying to manage, fix, salvage everything... when we, instead, take a moment for stillness, for grief, for sitting with the troubles... maybe then, we can let go of our own narrative of progress and explore water from the perspective of water. We ask you to roll up your sleeves and be prepared to physically immerse yourselves in this cartographic table setting through the objects we will offer you. You are, of course, free to accept or refuse your engagement at any point.

The space we are in now might just seem to be a leftover building of the times that this place was a harbour, but we would like you to think of it as a space in-between, a space in-between nature and culture, in-between the human and the precious others that shape the world we live in. Perhaps the appropriate metaphor is that of the watery mirror, in which Narcissus gazed so profoundly. Madly in love with his mirror image, Narcissus gazed and gazed until it consumed him. In the mirror that we want this room to be, we want you to avoid the mistake Narcissus made and see beyond yourself, beyond your humanity, beyond your world, as we together travel beyond the here and now in an act of radical empathy in a world of others.

Last year, Maidie and I first placed this mirror in the Museum of Gothenburg. An institution telling land-based stories while so much of the city's history is soaked in water. We presented our work as part of the Gothenburg

1 Neimanis, Astrida. "Hydrofeminism: Or, on becoming a body of water", *Undutiful daughters: Mobilizing future concepts, bodies and subjectivities in feminist thought and practice*, edited by Henriette Gunkel, Chrysanthi Nigianni and Fanny Söderback. Palgrave Macmillan, 2012.

Biennial of Contemporary Art, with the overarching theme: 'The Ghost Ship and the Sea Change', which told a story of the historical layers of the city, asking how intersection between the historical and the fictive, it explored artistic practices as methods of critical historiography and change.[2] It was about time running through space. It asked of us that we let frozen memories melt and let them follow fluid itineraries. Fluid, as the water that asks us to be conscious about the traces we leave on the planet, not only in terms of what is visible but also in terms of what is forgotten, washed away, or completely transformed. Water makes us remember. It carries the long memories of glacial displacements of stones that formed rivers, of the ships that carried the iron from Sweden that became chains for enslaved peoples, of the social divisions between so-called dirty and clean neighbourhoods.[3]

As these memories overwhelm us who do not speak the language of water, we are confronted by changes that are more complex than most of us typically can deal with. They surpass the metaphors we use to navigate our reality, the metaphors we live by.[4] Luckily, we can rely on our imagination; the human faculty to make the absent-present, as we build new narratives of care for futures to come. That is, only if we manage to imagine past previous assumptions. So: which insights can be drawn out of water's long journey across time and space? And: what happens when we, like water, allow our imagination to flow across time and space?

SCENE 1

**Stone and water, fungi and algae**

*On the screen appears a close-up image of a rock with blooming lichen.*

MONIEK:

The first waters that formed the places we humans inhabit have taken different shapes long before we can think of Gothenburg, of Rotterdam, or any other city, as a city. Remnants of these waters remain, removed and retreated far north. Old northern religions spoke of how the heat from Muspelheim, the realm of fire, met the cold from Jotunheim, the realm of ice, to form the giant that was to become the earth we live on.[5] It is this story that Norwegian poet Aasmund Olavsson Vinje thought of when, in 1862, he gave the name to a glacial mountain area in the middle of Norway.[6] Although far removed from our story, it does convey the magnitude of it—but the distance between our present selves and distant times where now flat bedrock was once as magnificent as the Andes Mountains forms a barrier in our imagination... an imaginary that indeed does cross this barrier, that lives in this long realm of stone and water, is the imaginary of lichen.

2 For the GIBCA 2021 curatorial statement see: https://www.gibca.se/en/gibca/archive/gibca-2021/framework/

3 See, for examples of memory studies of urban landscapes, Ma, John. "City as Memory", *The Oxford Handbook of Hellenic Studies*, edited by Graziosi, B., P. Vasunia and G. Boys-Stones, 248-259. Oxford: Oxford University Press, 2009; Benjamin, Walter and Asja Lacis. "Naples", *Reflections: Essays, Aphorisms, Autobiographical Writings*, 163-173. Edited by Peter Demetz. New York: Schocken Books, 1978.

4 Lakoff, George & Johnsen, Mark. *Metaphors we live by.* London: The university of Chicago press, 2003.

5 Hansen, Erik S. "Dark Nights And Long Days: Myths Of The North", *The Bridge*: Vol.1: No. 1, Article 15, 1978.

6 Myrvoll, Klaus Johan. "Bokmeldingar", *Namn og Nemne* 23 – 2006, p.121. Bergen: Norsk Namnelag.

This blossoming moss, this symbiotic organism, as tiny twin cities [7] of algae and fungi, this science fiction story of survival and flourishing, this blurring of the division of what it means to be an individual in singularity, a marriage not of convenience but millions of years of thriving. Colourful explorers of each crevasse of the stone that is their home, they wait in drought for that one drop that unwraps their potential.

MAIDIE:
Each member of the audience receives a petri dish with lichen and and perfume of Jotunheimen, a distillate of reindeer moss (*Cladina rangiferina*), fern (*Polypodiopsida*), sedum (*Crassulaceae*), real goldenrod (*Solidago virgaurea*), juniper (*Juniperus communis*), bearberry (*Arctostaphylos uva-ursi*).

SCENE 2

**The work of water and wind**

*On the screen appears a moving image of water splashing against a flat rock in little waves.*

MONIEK:
To take us back to our story, we went to what geologists call the peneplain of Nordkroken, on the south shore of the great Vänern Lake.

Here, I find myself standing on a rock with Maidie, looking at the waters that drain the lake through the River Göta to Gothenburg and into the sea of Kattegat. This lake was formed at the end of the last glaciation, as an outflow channel from the Baltic Ice Lake to the Atlantic Ocean and nowadays it has the largest drainage basin in Scandinavia. [8]

**Finding myrtle gale**

*On the screen appears an image of Maidie standing in a patch of myrtle gale bushes.*

As we take in this heritage, admire the builders of the long structures that made the city of Gothenburg possible, we notice Myrtle Gale or *Wilde Gagel* in Dutch. Unable to grow at high altitudes, the flattening of the mountainous *fjäll* bedrock conditioned this place for its growth. Its taste reigned drinking habits, before hops came to dominate beer brewing practices, influenced by Danish and German merchants in the time when the Kalmar Union united the Nordic countries. [9]

MAIDIE:
Serves a wildly fermented myrtle gale (*Myrica gale*) beer, based on an 800-year-old recipe.

**From the lake into the river**

*On the screen appears a moving image of the Göta River serenely flowing out of Vänern Lake.*

MONIEK:
This is the heritage of our use of water—but if we look beyond ourselves, beyond the image of Narcissus that we see in this mirror—we see the heritage of water herself. The

7 This is a playful reference to Dickens, Charles. *A Tale of Two Cities. A Story of the French Revolution.*

8 For more information on Nordkroken as part of Platåbergens Geopark, see www.platabergensgeopark.se

9 Verberg, Susan. "From Herbal to Hopped beer. The displacement of regional herbal beer traditions by commercial export brewing in Medieval Europe", 2020.

River Göta, streaming from this vast lake, was no brilliant military invention, no new trading technology dedicated to the import of hops or the expansion of trade routes, but is the trace of the water that, over the course of hundreds of millions of years, unfathomable time, sculpted the bedrock to form a route that suited her.

SCENE 3

**Layers of time below the surface**

*On the screen appears a subtly moving image recorded from inside a limestone cave. The light from the entrance of the cave reflects an image of trees slightly moving in the wind on the watery surface inside the cave.*

MONIEK:

Along this route, we found our way. We sailed the rivers and dared the sea. We dwelled in the safety of suitable shores. Here, water fed hunger and quenched thirst. As our dwellings grew permanent, we discovered the commodities that she had stored from her long journey through space in time. We found the layers of limestone that timeless waters had arranged in layers below the surface. Digging for these treasures, we were mining the long times, making ourselves masters of place.

MAIDIE:

Shows a collection of limestones on the table.

SCENE 4

**Guarding waters**

*On the screen appears a subtly moving image of the bifurcation of the Göte Älv, shot from the perspective of the Fortress of Bohus.*



MONIEK:

As ships became sturdy, soundly sailing rivers and seas, we began excavating these deep layers of watery memories in exchange for merchandise.[10] We set up systems of connection to other peoples and guarded our borders when they came too close. Floating from the lake towards the sea, we find a fork in the river. As entrance towards the city, we guarded it with military technology of our own as we built the Fortress of Bohus. We dug up black oak, curated for hundreds of years in swampy bogs, and used it for ships and church doors as strong as iron shields.[11]

**Out of the water, onto the bank**

*On the screen appears an image of a Rowan tree with bright orange berries.*

MONIEK:

On our journey, we are followed by the Rowan tree. The fox couldn't reach its berries and told us that they were sour.[12] The parents and grandparents around pre-Christian fireplaces told their children that Thor had saved himself from a swelling river by grabbing its branches and pulling himself up onto the river bank.[13] When the harvest would fail, due to the rainstorms that the god of thunder brings down, Rowan became feed for cattle and staved off hunger during cold winters.

10 Hallén, Per. "Gateway of Gothenburg", *The Urban Logistic Network. Cities, Transport and Distribution in Europe from the Middle Ages to Modern Times.* Edited by Giovanni Favero, Michael-W. Serruys, Miki Sugiura. Cham: Palgrave Macmillan, 2019. P. 23-49.

11 Cederlund, Carl Olof. "The Regal Ships and Divine Kingdom", *Current Swedish Archaeology*, Vol 2, 1994, 47-85.

12 Reference to the Greek Aesop fable "The Fox and the Grapes" which in Nordic countries became rowan berries.

13 Müller, Ludvig Christian. *Danmarks Sagnhistorie.* Kopenhagen, 1851.

MAIDIE:
Serves out petri dishes with Rowan (*Sorbus aucuparia*) and apple jelly with black oak (*Quercus*) ashes on top.

SCENE 5

**Travelling backwards in order to imagine forwards**

*On the screen appears a slightly old image of a swamp with trunks of cut-down trees in it (Ekobank Gärdsmossen, Ulla Mogren).*

MONIEK:
Having passed the border, we arrive in Gamlestaden, the settlement that came before the now 400 years old order to fortify the map by building Gothenburg. Not far removed from the construction of new modern housing, we meet the custodian of what lies between water and land, standing in her swamp. As you do now, she mirrors herself in the murky waters but looks beyond herself. Twenty-four years ago, she sunk trunks of oak into the bog, committing herself to a project of 300 years—the time it will take for the waters to transform the oak to the black oak that shielded churches and strengthened ships.[14] Slowly and messy but always in process, water does her transformative relational thinking over generations.

*On the screen appears a close-up image of bright yellow Goldenrod flowers.*

14 To read more about Ekobank Gårdsmossen see p.51 of the GIBCA 2019 "Part of the Labyrinth" guide: https://www.gibca.se/wordpress/wp-content/uploads/2020/11/GIBCA19-GUIDEDigitalSVELo-resSidor.pdf



MAIDIE:
Serves a lemonade made out of resistant and water-loving plants that we found around the swamp. Goldenrod (*Solidago virgaurea*) cleanses our inner waterways, kidneys and bladder. Yarrow (*Achillea millefolium*) is antiseptic and disinfecting, meadowsweet (*Filipendula ulmaria*) and willow bark (*Salix*) contain salicylic acid, which is a natural aspirin.

MONIEK:
The lemonade you are drinking was curated from the swamp. Curated, not made, as it chooses its own process of fermentation. Curated, as it seeks for the care and cure that emerges from these ecologies. Our custodian helped us imagine ourselves in a strange place, in the now, travelling backwards in order to imagine forwards. Swamps are both watery land and earthy water. This duality, as well as the ephemeral nature of the water itself, makes me question and realise that water is queer.

SCENE 6

**Watery memories floating as ephemeral heritage**

*On the screen appears a close-up image of a slightly withered relief on a lamp post depicting a ship with enslaved peoples. In the background there is an out-of-focus brightly coloured wall with pictures.*

15 For more on empire and identity, see Binnie, Jon. "Queer theory, neoliberalism and urban governance." *Queer theory: Law, culture, empire.* Routledge, 2010. 39-54; Anderson, Benedict. "Official Nationalism and Imperialism." *Imagined Communities.* London: Verso, 2006. P. 83-111.

MONIEK:

As I find comfort in this murkiness and fluctuation, I close my eyes, open them again, and suddenly, I am engulfed by an empire of defined identities. [15] We have drifted down the river, times have changed. We now find ourselves within the city walls of Gothenburg, standing by Franska Tomten, the French plot. Given to France as a freeport for commerce, in exchange for the Caribbean island of Saint Barthélemy, we are now engaged in the transatlantic slave trade. [16] As we fortified the city to fend off other peoples from our privileged access to the riches of what we now called 'our' waters, we saw futures in this mirror that promised us the riches of theirs. Like Narcissus, the city lost itself in the promise of this mirror image of a plentiful future as it struck the ultimate bargain: selling itself to be able to sell others. Remember: These others made the cinnamon, cardamon for those Swedish rolls that we now get along with our flatpack furniture.

MAIDIE:

Serves pieces of cinnamon bun as a *fika* and reference to the spices that came from colonies.

MONIEK:

I blink again. The French are gone and the island sold back. Office buildings, a casino and a museum have occupied the space. There is no trace of the suffering of the victims of enslavement, which is now buried under the blatant continuation of practices of colonial aspirations, plotting power. [17] Watery memories float here as ephemeral heritage.

16 Archival documents related to the Swedish colonial rule of Saint Barthélemy 1784-1878 and engagements in slave trading, obtained from Riskarkivet / National Archives of Sweden, were exhibited at the Konsthallen, Göteborg, during GIBCA 2019.



SCENE 7

**The thin line in-between land and water**

*On the screen appears an image of the upper part of a bronze sculpture of a woman with feathers in her hair. She holds a little model of a ship in her left hand, while her right hand rests on her forehead.*

MONIEK:

We are intrigued now. Water tells us stories that we can't pinpoint in space, but somewhere, there must be a trace to track this story. As we arrive at Järntorget, the Iron Square, we see people rushing. Sitting down on the edge of the fountain, we notice the faces of five bronze women. Each of them assigned facial features from a corner of the world, each of them on the periphery, with the conquered water at the centre. The name reveals the remains of the colonial practices hidden at Franska Tomten. From Järntorget, Swedish iron was sent across the waters, into the world, not only to chain the enslaved but to form the basis of the economy of slavery itself, as people were bought with ore, carefully measured out on the scale that weighed down this place for so long. [18]

17 Fur, Günlog. "Colonialism and Swedish History: Unthinkable Connections?", *Scandinavian Colonialism and the Rise of Modernity. Small Time Agents in a Global Arena*. Edited by Magdalena Naum, Jonas M. Nordin. New York: Springer, 2013. p. 17-36.

18 Chris Evans, Göran Rydén, "'Voyage Iron': An Atlantic Slave Trade Currency, its European Origins, and West African Impact", *Past & Present*, Volume 239, Issue 1, 2018, 41–70.

*On the screen appears an image of a shimmering grey clay excavation with a thin red thread stretched in front of one of the sides of the excavation, which marks a water line.*

MONIEK:
At the quay, archaeologists are digging past layers of clay and into the past. By putting old maps into present space, they find forgotten waterways and the ships that sailed these lines of iron power. The river, the cartographer that connects past, present, and future times, now draws lines of power, through present space as the export of exploitation exits the harbour on ghost ships of steel.

MAIDIE:
The audience is invited to dig their hands into the glacial clay we harvested at the line in-between land and water. They wash their hands.

SCENE 8
**Full of hope we swim**
*On the screen appears an image of the serene watery surface of the Göta Älv with people swimming in the foreground. At the quay in the background there is a ship, cranes and the silhouette of some high-rise buildings.*

MONIEK:
Touched by the lack of self-reflection in this mirror, we cross the river. Under her, a hundred metres of glacial clay carries her many stories. Above her, ghost ships of iron, sugar, spice and petrol that want to be forgotten.

On the opposite bank, we were promised a party, as Gothenburg celebrates its birthday. The Centenary Park, *Jubileumsparken*, promised us to connect social layers of the city, to bring shores together and connect us to water through the harbour, the sauna and the river bath.[19] Finally, it seems like we here found a place where the city thinks with water. Relieved, we put on our bathing suits and dive headfirst into the bath at *Frihamnen*. Full of hope we swim, fill ourselves with water, float fearlessly. Fearless, hopeful, only until we turn around towards the shore. From the perspective of water, with watery eyes, we see festive initiatives dissolve into the development of waterfront property, colonising the bank as soon as it appears attractive, mirroring across the river our vision of the future as one of growth, worth and value.

MAIDIE:
Serves a Sloe (*Prunus spinosa*) berry to each member of the audience. Sloe berry has a special value as the thorny branches create a perfect breeding space for songbirds—you can hear them in the park.

MONIEK:
We close our eyes, drift away. Even sweet water leaves a bitter taste now.

SCENE 9
**A hidden forest to hide in**
*On the screen appears a moving image that starts with a of a fence with a 'stop' and 'forbidden to photograph, draw or describe the protected object' sign. Through the holes in the*

19 For the official website related to the anniversary project, see https://goteborg2023.com/en/jubileumsprojekt/jubileumsparken-frihamnen/

*fence the silhouettes of the buildings and pipes of an oil refinery are visible. The camera slowly makes a 180 degrees turn and moves forward, following a path into a forest. Arriving at an open spot, the camera moves upwards, showing the crowns of the trees.*

MONIEK:
With this bitter taste in our mouth, we drift past the city, under the Älvsborg Bridge, where we crawl ashore anew. We want to get away from the city, its expansion into and exploitation of water. In the forest of Rya, we find a hidden place to hide. Perhaps here we can get away from this culture we built, distance us from ourselves into nature.

**This is not the wrong place**
*On the screen appears an image directed toward the sky, showing the crowns of several trees.*

MONIEK:
The forest is nice, the crowns of the oak trees whisper shyly. As we raise our eyes to see these crowns dance, we take notice. Oaks normally don't stand this close to each other—but since these have come to do so, they exhibit what botanists call 'crown shyness', [20] growing tall instead of wide to be able to resist, together, showing us how to make space for each other.

20 See, e.g., Hallé, Francis. "Branching in plants", *Branching in nature: dynamics and morphogenesis of branching structures, from cell to river networks.* Fleury, Vincent, J-F. Gouyet, and Marc Leonetti, eds. Vol. 14. Springer Science & Business Media, 2001. p. 38.



As we return to face the fence surrounding the oil refinery, we smell the air of a planet giving her last effort. It is at this point that we realise that the border is gone. We cannot escape the culture we built, as we have inextricably entangled it with nature. In this space in-between, we are in it together. This means that we are not lost. We are not in the wrong place. Our condition is one of place-making, for us and for others. If the place is wrong, we made it wrong.

MAIDIE:
Serves a marsh-forest-beer. The audience can smell the distillate from spruce (*Picea*), larch (*Larix decidua*) and juniper berry (*Juniperus communis*) through a vaporizer. Next to it stands a jar with water mint (*Mentha aquatica*), the smell of which has a hint of petrol in it.

SCENE 10
**The waters we carry**
*On the screen appears an image from a low vantage point of a metal entrance door to what seems to be a weathered building with a patch of green plants in the foreground. The façade of the building bears resemblance of a temple.*

MONIEK:
We as humans have now reached what has been called the Anthropocene—a point in time where our influence on the earth system is so immense that we now have to imagine ourselves as geological force. Strangely, this realisation is frightening and comforting at the same time. Comforting, however, only if we learn to take on this role and assume the humility that it demands of us.

We need the help of a friend, a teacher, and seek out a musician in the dark. The darkness we find is not a regular one, but one reserved for water. When the city matured its social divisions, it did so by assigning us quotas. Those who had the least were generously patronised with public bathhouses to stave off the sickness of poverty. [21] At least we treated the symptoms.

*On the screen appears an image of a dimly lit space with high columns and bows. A human figure with a flute appears in between two columns.*

MONIEK:
In the neighbourhood of Majorna, habitat of hip higher middle classes, housed where dockworkers had built homes, our musician friend found a defunct reservoir, buried under the hill, and played his music with the ghosts of the waters that were once there. As we enter the hall of this mountain king, as we hear his tunes reflect off the walls, they reverberate the waters we carry within. Let's close our eyes and listen. [22]

GESTURE:
We listen to the sounds made in the dark by Jorge Alcaide—a composition of metal pipe drums, air instruments made from tubes, footsteps, drops of water echoing through the space. A child's voice says, 'It's dark, I can't see anything… now I can see something'.

21 For more notions on histories of urban sanitation in Sweden, see Harris, Bernard & Helgertz, Jonas "Urban sanitation and the decline of mortality", The History of the Family, 24:2, 207-226, 2019; Mils, Jule & Nilsson, Mattias. "The new ancient. A bathhouse in Gothenburg". Master Thesis in Architecture, Chalmers University of Technology, 2019.

22 For more information on this site, see https://www.kulturtemplet.org/



SCENE 11

**Breathing in waves**

*On the screen appears a moving image of a carpet of seaweed moving on the rhythm of the waves*

MONIEK:
As we exit the hall under the hill and return to the light, our eyes adjust. With blurry vision and fluid awareness, we wander. South of the city, we are drawn by the sound of the sea and the smell of salt. The park of Stora Amundön was given to us as a place of respite. We called it nature and designated it for us to breathe free air. But nature stranded here, as a blue whale beached on the shore of Askim Bay.

*On the screen appears an image of a whale head on wheels coming through the outer facade of a eighteenth-century building. A horse is standing in front of the head and is tied to it with several ropes. They are accompanied by several men in long coats.*

MONIEK:
In awe of its greatness, we, human animals, took this whale around Europe, out there and back again, to finally put it on display at the Museum of Natural History. The royalty drinks coffee and Arrack Punsch in, what they thought of as, the belly of the beast, which is now clad in blue cloth with golden stars, and furnished with benches and little tables.

*On the screen appear two images. On the left, the wide-open mouth of a whale fills the image. The whale is placed inside*

*a two-level room that is surrounded by a balcony. A group of people are sitting inside the whale. On the right, there is an image of the inside of the whale, taken from the backside. In the belly, a table is set and a group of people of various ages are drinking coffee.*

MONIEK:
Following her sound waves through the North Sea, we travel south, thoroughly salty, wandering windswept. With a sudden crash, our path is broken.

*On the screen appears an image of a river shore with small puddles in between rocks covered in seaweed. In the water, in the background, a long dam and windmills appear.*

MONIEK:
A large wall marks a border between us and them—those that built it scared of the devastating force of sea water. Before these walls were built, my grandparents were among those who fled the waters that entered a space we had thought ours for so long. Then, new plants took root under the waters of this newly constructed border between us and the others.

MAIDIE:
Shows a herbarium of seaweed and algae on the table. Maidie tells a story about the opening and closing of the Neeltje Jans dam and how that created space for movement and growth of new ecologies.



**EPILOGUE**

MONIEK:
It is safe to say that, *affectively*, water does not care about life and death. It just flows, following rhythms, scales and times completely of its own. Aware now of our place in-between water and land, of our acting in-between time and space, our skin has become thinner. As we allow ourselves to see her in our reflection, we can now see her stories as our own. Now, let's stand up and gather around this watery cartography on the table. We would like to ask you to think of something you want to dedicate a toast to.

GESTURE:
While the members of the audience consider their dedications, we prepare them for the toast—a brush stroke of rose vinegar is put on their hand with a fermented beach rose (*Rosa rugosa*) leaf and a salt crystal on top. The leaf has become almost transparent and becomes some sort of a second skin. We make sure they all have a glass of water.

MONIEK:
I will toast to the waters that broke when my children were born.

...

Thank you for joining us on this journey and sharing your watery imaginaries. There is now time to wander around the table, put your feet in the rose water bath standing in the back and start watery conversations.

Figure 34. Lichen on rock.

**Everywhen: The past in the present that speaks of the yet-to-come**

In his book *On Time and Water*, Icelandic author and activist Andri Snær Magnusson (2020) combines family memoirs, interviews, literary references and scientific findings in an attempt to grasp the enormousness of the rapid climate change. He tries to understand why the climate crisis is not widely perceived as an urgent, distinct, transformative event, like, for example, the fall of the Iron Curtain or the collapse of Kaupthing Bank. The book clarifies that the fundamental problem is our comprehension of—and relation to—time. Climate change seemed to happen in slow motion, but we have now arrived at a stage in which earth's forces have surpassed the scales of geological time and sped up to the scale of human time—glaciers melt away, ocean levels rise, global temperatures increase, leading to floods and droughts—or, in Dalip Da Cunha's vocabulary: a rise and fall of wetness. Paraphrasing the analogy Snær Magnusson uses to clarify this shift: all this will happen before my now very young children live to be the age my great-grandfather died some years ago, at a 100 years old. This speed has changed from mythological times, that address Fernand Braudel's *longue dureé* (Braudel 1995)—the long term—in allegorical form, to the immediate times of progress which Reinhart Koselleck conceptualised as a new temporality of modernity (Koselleck 2004: 3-4). However, humans have long relied on mythology to make sense of unexplainable phenomena. So as the imaginary journey of the audience of the performance lecture embarks in Jotunheim, by way of the Nordic creation myths after which this place was named, here, I would like to use Snær Magnusson's explorations to unfold these mythological time frames to connect them to immediate temporalities.

According to the Prose Edda, the giant Ymir—who was to become the earth we live on—was nursed by the cow Audhumbla, who herself was nourished by licking salty blocks of ice. As she licked the ice, a man emerged: Búri. Although with a risk to become too anthropomorphic, this story becomes meaningful when we realise that it is actually the glacier—the frozen cow—that is feeding the world—the giant. While the glacier over time grounds the rock bed beneath itself, dissolved minerals flow into milky white rivers that fertilise the grounds along its ways. Now that we fast forward, while glaciers are now melting, the river flows on which many human settlements depend will temporarily increase but eventually cease (Snær Magnusson 2020, 84-94). To understand these structures and the agents that drive them, we need to be able to comprehend how it is imagination that generates this agency.

In his seminal work *Memory, History and Forgetting*, Paul Ricoeur (2004) theorises his way through synchronic and diachronic ways of analysing relations to the past by focusing on the Annales School's division of historical structures into short-, medium- and long-term durational phenomena (see Braudel 1995) to then arrive at a differentiation between scales of history; microhistory and individual memory are set in opposition to macrohistory and collective memory (Ricoeur 2004: 131). However, individual and collective memories cannot be separated if we want to understand how long-term and large-scale memories that water carries spill into our everyday surroundings and lives. In his 'Anthropocene Time', Dipesh Chakrabarty explores the history of the concept of the Anthropocene, coming to the conclusion that it lives a double life, sometimes even within the same texts:

> [A] scientific life involving measurements and debates among qualified scientists, and a more popular life as a moral-political issue. So long as the Anthropocene was seen mainly as a measure of human impact, though acknowledged as the impact that ushered in a new period in the planet's history, the focus remained on the force and its wielder (humanity, capitalist classes, rich nations, capitalism), and questions of geological time simply fell into the shadows (2018: 9).

In a sense, the first scene of the performance lecture proposes ways for imaginaries to travel from mythological to current times. To reach the long times of stone and rock, the gateway guarded by lichen is introduced (Figure 34). As a patient symbiosis between fungi and algae that grows in the crevasses of stone, lichen blooms only when the stone is exposed to water at the right moment and at the right temperature. As a living organism that experiences birth, growth, life, decay and death, their temporality lies between the mythical timelessness of stone and the immediate time frames that can be recognised in modernity (see Koselleck 2004: 3). By introducing the Jotunheim perfume, the performance allowed the audience to jump between Koselleck's temporalities. The distillation vessel was filled with stones covered in lichen, reindeer moss (*Cladina rangiferina*), fern (*Polypodiopsida)*, sedum (*Crassulaceae*), real goldenrod (*Solidago virgaurea*), juniper (*Juniperus communis*) and bearberry (*Arctostaphylos uva-ursi*), all collected in the Jotunheimen glacial mountain area. This resulted in hydrosols of which the high notes of the scent were distinctive and musty, caused by chemical compounds called geosmins and the release of petrichor, giving it the pleasant smell of fresh rain on dry soil, to which humans are highly sensitive (Bear and Thomas 1964).

The slow chemical process of de- and recomposition of the soil becomes ephemeral in the aerosols that carry bacteria and viruses from the soil of which the scent is released through humidity. As such, the perfume describes an earth re-membering water and a narrative of a 'memory, tinged with anticipation. Petrichor is the past in the present that speaks of the yet-to-come… It is a meeting, a greeting, a chemical reaction, an intra-action, a proposition, a becoming-with' (Wright 2016: 147). In the act in the performance lecture, the framing of water as heritage—and its activation of the cultural memory surrounding it—relies on the ephemerality of water, as described by Da Cunha further above. Because our notion of water relies on the cultural framing of a specific moment of its hydrological cycle (Da Cunha 2019b), the notion of water as heritage highlights how this ephemerality is a core element of heritage as a concept. In the moment the audience put the perfume on their skins, it narrated a human longing for and attraction to water through an all too familiar fragrance from the past. As such, it addressed a memory of a living world shared across bodies, lives and times that is not easily caught in a linear time frame but rather in an ephemeral, mythical sense of timelessness.

Figure 35. Myrtle gale (*Myrica gale*) at the Nordkroken peneplain, with Maidie van den Bos harvesting in the background.

**Savouring eroded relations in thick time**

In Scene 2, 'The work of water and wind', the performance lecture has moved from the remaining glacial areas of Norway to where once, a long time ago, glacial movements carved out the Lake Vänern basin and Göta Älv estuaries. In an extension of the previous scene, we are now moving one step down in Braudel's timescales to the *moyenne durée*—the medium term. Although the *longue durée* is very present on the Nordkroken peneplain, with the eroded flat rocks and the lake, it is exactly these circumstances that are perfect for the growth of myrtle gale (*Myrica gale*, see Figure 35), which is an oceanic species that normally grows in acidic bogs and sandy soils. As mentioned in the performance, gale used to be the herb of choice to flavour beer in Sweden, before hops became dominant through the increased trade with cities in the Hanseatic League (Behre 1999; Verberg 2020). It is important to remember that the role of beer in society has changed over time. Before alcohol percentages became standard parts of our socio-cultural leisure life, it primarily served a very practical function as protection against polluted drinking water: beer was more drinkable than water, and the presence of brewing facilities was an absolute necessity for the growth of early cities (Poelmans and Swinnen 2012). More than a recreational product, gale beer was simply essential for urban life.

With the transition to using hops, and the development of commercial trade routes, there is an argument to be made about a change in the *moyenne durée* of the region and city of Gothenburg. A plant, myrtle gale, which was only able to grow in the area because of the creation of the peneplain over the *longue durée* and that allowed the city dwellers of its vicinity to drink was pushed out of the market by a German competitor. To explore this link between layers of time, it seems pertinent to consider the affects and effects of the gale beer tasting in the performance lecture, taking into consideration how this experience relates to the different time frames Braudel determined.

Remember here that the gestures in the performance lecture seek to connect abstract concepts—here in a material expression of Braudel's time frames—with experiences of and in the human body to surpass teleological discourses of controlling the future or saving the past that persist in a climate-changing world. In Scene 1, this happens when the audience, through the sense of smell, comes into first contact with the long timeframes and sense of timelessness in the mythical memories of stones and lichen. Next, tasting the gale beer as a practice and product of fermentation becomes laden with power and contested meanings—dynamically bringing together material, semiotic and transformative aspects of different entities, bodies and places.

When the tasting of the beer is framed as a part of the narrative in the essay, it does not only create an experience of savouring the long times of the peneplain rocks and emerging ecologies. In a stretch into a nonchronological durationality—described by Neimanis and Walker as 'thick time' (Neimanis and Walker 2014: 561), it also gives a hint of a beer brewing practice that was lost because of the invention of commercial trading routes. The myrtle gale foraging, fermentation process and tasting of the beer orient toward a human-plant relations that existed before lines of power were drawn in which crops were commodified and the global food economy started to take shape. In the present moment of corporeal exchange, water, flora, microbes in the beer and human bodies, as framed by the narrative of the essay, together contain elements of the glacial movement, changing weather patterns, commercial lines of power and the pleasure of a sip of

cold beer, as interconnected temporalities in a rapidly changing climate. This bodily exchange, this moment of becoming-with (see Haraway 2016), creates a space for engaging in transcorporeal temporalities and different scales of interconnectivity. This exercise of imagination moving through time and space, creating pathways for connection, which can be perceived as a space for political engagement—or, in Karen Barad's words, as a 'politics of possibilities' (Barad 2007: 246)—and in which modes of thinking in economics are reassociated with an affective place of ancestral practices and tastes, material and ecological conditions that have enabled and sustained urban lives.

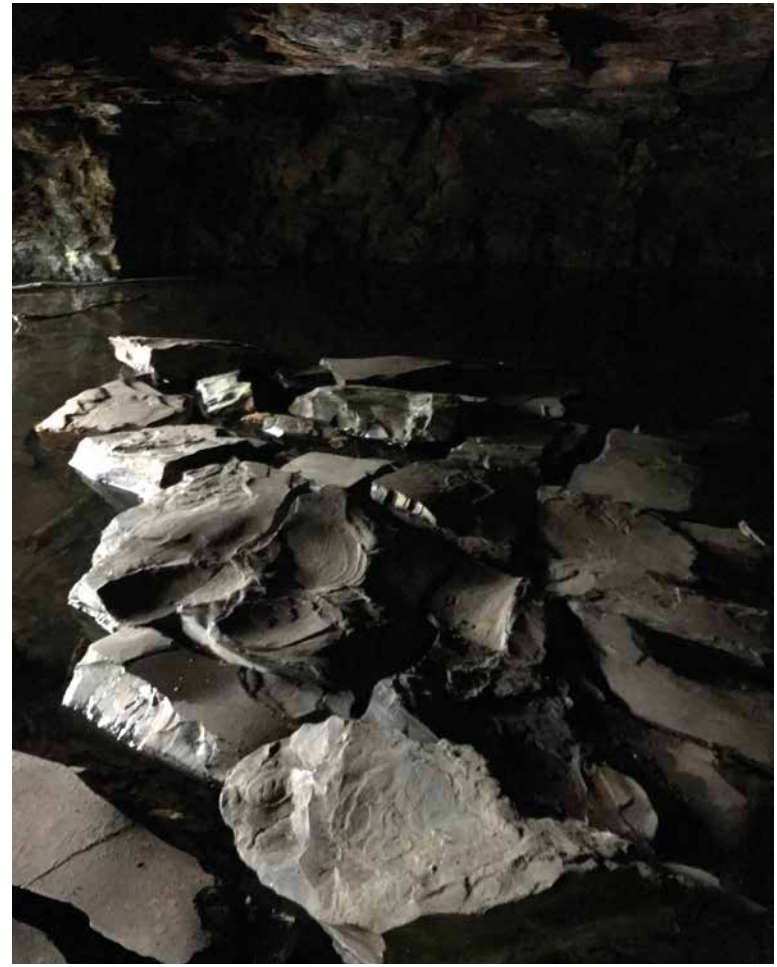


Figure 36. Along the road between Västra Tunhem Church and its rectory, we entered this cave with limestone embedded in alum shale, which remains of the quarrying that took place for centuries along the foot of the mountain.

**Unearthing dispersed deep time connections**

In the third scene, 'Layers of time below the surface', the commercial and even violence-based structures created through human divisions and borders drawn through lines of power across the lines directed by water continue to guide the narrative. Limestone in the mountainous area South of Vänern Lake—that formed out of calcareous sediments rich in remains of living organism, deposited around 550 million years ago in the shallow sea separating the Nort American and Northern European continents—was commodified in the late nineteenth century as a major raw material for building an industrialised society (Figure 36). For centuries, stone masons had used different stone layers of the mountain in churches, graves, houses, cattle sheds, bridges and many other constructions. However, it was in the time of industrialisation that the demand for limestone increased and machines, new mining methods and a fine grid of railroads could deliver the material beyond the growing cities (UNESCO 2021). This means that, for Gothenburg, to be built, the 'deep time' of geological conditions was mined and exploited. When Sweden, and other similar places, entered times of industrialisation, destruction and creation went hand in hand.

As with other materials mentioned in the performance, at this point, such as the black oak, what ties them together is their excavation, exploitation and exportation to establish dominance over a place. The commodification of the long layers of time meant that those who were in control of place would be the richest. That, in turn, meant that others, who were seeking to conquer that power, were fenced off with fortifications. At first, this fortification was literal; for example, the Fortress of Bohus was built to withstand attacks from foreign armies in its use from 1308 until 1783. Today, this power is hidden in the mechanisms that underpin the systemic exploitation by industrial forces catering to a global market that is built to be detached from those who consume its products (Hallén 2019). The production of cement, hydropower and ferrochrome in the near vicinity of Vänern Lake are all examples that attest to the lines of power drawn by these industrial forces that strategically settle where most profit can be gained.

In 2022, an area of 15 flat-topped table mountains was designated as Platåbergen Geopark, Sweden's first geopark recognised by UNESCO. As such, the area is part of a global network of 'single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development' (UNESCO 2023)—an area part of a shared narrative of planetary development. UNESCO promotes the global network of geoparks as sites to 'celebrate how our planet and its 4,600-million-year long history has shaped every aspect of our lives and our societies' (UNESCO 2023). This definition frames geoparks as opportunities for human society to reconnect at different levels to the planet called home. Indeed, the sights of the rock formations of the peneplain, the flat-topped mountains and the cliffs marking the shore of Vänern Lake and the granite on which the limestone sits leads our thoughts back the origins of the continent.

However, in the definition of the Geopark as a site of celebration, an important issue emerges that needs to be addressed. From Peter Krieger's conceptualisations of the 'geo-aesthetic' experience of a geopark (Krieger 2018), it becomes clear that the celebration of the planet that has shaped every aspect of our lives and societies cannot happen without reflections and contemplations on the human use of landscapes—and, thus, water. This includes a critique of the persisting idea of landscapes as

archives of unlimited resources that can be exploited and an acknowledgement of the geological, social and cultural impacts of the continuing exploitation of the planet. In other words, the romantic image of pristine nature can also turn toward the conflictive histories of human impacts.

The limestones that were on the table during the performance lecture re-member the degraded parts of the Platåbergen landscape—with rows of quarries, scrap stone piles, kiln remains and red ash heaps. They hint toward the connections between the long-term formations of the landscape and its destructions to enable the construction of our cities. Platåbergen's designation as a Geopark offers opportunities for slowing down exploitative forces and for educational projects and restoration. Still, the systematic exploitation continues to be very prominent in other parts of Sweden, where, at the beginning of 2022, a large foreign mining company obtained governmental permission to open a mine on Sámi land, despite opposition by local indigenous communities, environmentalists and human rights protectors. The mine puts the local community at risk—destroying important grazing land for reindeer, possibly polluting the adjacent area by leaking heavy metals into the groundwater, causing air pollution and endangering old-growth forests (Kløcker Larsen, Boström, District et al. 2022; see also Jääskeläinen 2020).

Outside Sámi land, away from any of the places that suffer from exploitation, these threats can only be perceived if we make an effort to see them. Through cartographic reasoning, we can create an understanding of delayed destruction and harm that is dispersed through time and space, the phenomenon that Rob Nixon coined as 'slow violence' (Nixon 2011). To achieve this, the gestures of the performance lecture allow the audience to engage with varying temporalities. At the very beginning of the performance, I asked the participants to slow down. Beyond a narrative ploy to create a contrast with the fast-paced lives of most urbanites, the main concern here was for them to: 'let go of our own narrative of progress'. From the exercise of imagination in this scene, we can understand that the re-membering at play here confronts the participant with the story of the consolidation of exploitative structures that the city is built on—that continue to cause harm, hidden away from the collective imaginaries of those living outside of their direct vicinity.

Figure 37. True Goldenrod (*Solidago virgaurea*) growing at Gärdsås pond.

**Cur(at)ing time**

While the performance has lingered on the deep time connections with the Göta Älv flowing on top of glacial sediments, the narrative of the performance lecture enters the city. In Scene 5, 'Travelling backwards in order to imagine forwards', we arrive in Bergsjön, where, in 1996, the restoration of the Gärdsås pond was initiated after it was dug out in the 1970s. The purpose of this restoration was to relieve the downstream Kvibergsbäcken, which was negatively affected by polluted stormwater that, subsequently, disturbed the water quality of the Göta Älv. The pond makes ecological processes more visible and was perceived as a preservation of the cultural landscape (Lönngren 2001; Heyman 2004; Louhi 2005). The year after the restoration of the Gärdsås pond as part of a system for stormwater treatment, an on-site public artwork was commissioned to Ulla Mogren. The cut-down oak trees that created space for water to flow freely reminded the artist of her childhood wanderings in the woods and sudden encounters with small pieces of black oak. She then envisioned that the remaining oak logs should be buried at four to five metres deep to let the microbial organisms, living in the anaerobic environment of the pond, cure the logs to transform them into black oak—a process that takes approximately 100–300 years.

During the 2019 GIBCA, Ulla Mogren presented a bankbook of the project that she denominated 'Ekobank', including documentation of the transformation of the site, leaving instructions for future generations and showing how the process maximises the economic value of the oak logs (GIBCA 2019). On the one hand, the *Ekobank* project shows a possibility of what thinking beyond one human lifetime can create—envisioning an organic curing process below the surface of the murky waters, that asks for

patience and trust. This trust does not only go toward future human generations, but also toward the microbes that are deeply emerged in the transformation process. However, imagining forward, one might wonder if harvesting the black oak is not the same kind of exploitation as the mining process. The act of pulling the logs out of the earthy water and leaving holes seems quite violent because the logs then have settled and become part of a specific ecosystem, from which many exchanges between different species emerge. On the other hand, the material will probably have gained a lot of economic value—something that will leave future generations with a dilemma at hand.

Wetlands—including marshes, fens, peatlands, lakes, rivers, tidal areas and shallow coastal zones—have been considered highly biodiverse and economically valuable ecosystems that can, among many other virtues, maintain water quantity and quality (Russi, ten Brink, Farmer et al. 2013; Costanza, de Groot, Sutton et al. 2014). However, wetlands have been and continue to be degraded or lost because of 'conversion to first extensive and then intensive agriculture (croplands), changes in water use and availability, increasing urbanisation and infrastructure development and, on the coast, also port and industrial developments and aquaculture' (Russi, ten Brink, Farmer et al. 2013: 14). Therefore, the restoration of wetlands seems to push against homogenising powers of modern infrastructure, built to provide limitless quantities of uniform, clean, potable water—causing anxieties and aversion to unknown microbes. In his book *Virtuous Water*, anthropologist Casey Walsh (2018) describes how the striving for homogenous and uniform water—H2O, free from 'impurities' such as sodium, iron, sulphur, carbonates and microorganisms—is the result of a cultural shift imbued by modern large-scale infrastructure projects to support urbanisation in the nineteenth century that were to create clean cities. Remember here how the separation of clean and dirty waters in urban spaces became part of colonial projects because this was 'how things [were] done in Genoa, Venice, and other cities in Italy and the states of Flanders for the conservation, provisioning and order of the republic' (Candiani 2014: 49-50). The heterogeneity of waters that flow through the city does, however, 'not fit easily into modern narratives of water as a single, uniform, inert element that can be managed by a unified infrastructure' (Walsh 2018: 6).

The Gärdsås pond, as a place in between land and water, as a site where diversification can take place, requires a diversion from the modernist paradigm of thinking of water in binary identities. Instead, it suggests thinking of water as queer. Here, waters do not conform to a norm or category; they used to be unseen but are now liberated. On the other hand, the pond still has a clear function in a larger system of absorbing pollutants, alleviating the downstream Kvibergsbäcken. All these waters, then, will be more inviting to amphibians and other water creatures. Hence, it might be time to reconsider the heterogeneous qualities of water and the relational agency happening when different waters encounter different bodies. In the example above, the water in the pond that meets the soil, and the oak creates the perfect environment for a long, curative soak through centuries.

In the performance lecture, the audience was served a lemonade of water cured with resistant and plants attracted by water that were harvested around the pond (Figure 37). Most of the plants used had potential medicinal effects on human bodies—cleansing kidneys and bladder, as an antiseptic or disinfectant or containing salicylic acid, which is a natural aspirin. In the fermentation

process, these plants, their medicinal substances and all the microbial life, invisible to the human eye, coevolved in and with the water. Although this process is irreversible, it does not have a permanent state either. With the end of the curing time—when the bottles were opened during the performance and oxygen from that specific moment in that specific environment got in touch with the lemonade—and the drink poured into the gut of a human body, full of its own microbial life as well, yet another process initiated in which 'species, materialities, meanings and matters are made and remade' (fff 2021: 28). While ingesting the lemonade, previously unfamiliar bodies coincide on specific times, specific places and under specific circumstances, which results in unique 'webs of physical intimacy and fluid exchange' (McMenamin and McMenamin 1994: 5). In this process, the human body does not stand outside of the natural transformation, the queering of water, but takes a very direct and active role in it. In no way do the modernist, reductionist binarities of good-bad, safe-contaminated, pure-impure and us-them apply.

The earthy water, or watery earth, of the pond, and the flora gathered around it show how this non-normative site is a place of cure and care, for the waters, for the soil, for others and for humans. Contrary to the modern planning paradigm with its large-scale infrastructure projects that tend to colonise waters and lands into binary identities, safeguarded by authorised heritage discourses, the restoration of wetlands suggests an alternative planning practice that takes into account places of water—in this case, the pond—as a heterogeneous heritage site where waters can flow, as it is, in full sight. This is how its agency in drawing the lines between dots on the map comes to its full potential. Remember here that, according to Gunnar Olsson, as soon as we baptise these lines of power, they will start to tremble. So the relations between the dots on the map are, in essence, ephemeral. Therefore, the ephemeral quality of waters is central here, both in the performance as in this argument. Queer theory has been described as 'fluid, unstable, and perpetually becoming' (Browne and Nash 2010: 1), which has led Ghaziani and Brim to conclude, 'The methodological directive that follows from a mandate to embrace the mess is to devise new modes of inquiry and analysis' (2019: 13). If the queerness of waters becomes a premise for our study of heritage, allowing for an imaginary beyond binary structures, one imposed by modernity, then the separation between 'past', 'present' and 'future' as part of a narrative thread of progress can dissolve to allow for imagination to freely flow through time and space. Perhaps this form of 'epistemological disobedience' (Mignolo 2009) allows for the lines of power—traced by both human and nonhuman protagonists, both dead and alive—to continuously shift positions. As such, unstable and porous relations between the dots on the canvas can be drawn speculatively and temporarily, without closing off the possibility for multiple and changing meanings.

Figure 38. Light post on Franska Tomten, with Eric Magassa's mural *Walking with Shadows* (2019) in the background. Picture by Hendrik Heitler ©.

**Plotting imaginaries of what should have been, could have been or might still be**

In Scene 6, 'Watery memories floating as ephemeral heritage', the narrative of the performance lecture moves to the city centre, to what used to be Franska Tomten, the French plot, but is now formally named Packhusplatsen. In 1784, this plot of land in the city's harbour was exchanged for the Caribbean island of Saint Barthélemy as part of a trade deal with the French Empire. Sweden took over the colonial administration of the island, while the French were given free trade rights in Gothenburg. Although the exchange might seem symmetrical, it hides deeply asymmetrical relations. The island became a hub for trading enslaved persons on Swedish ships, while the harbour was also a free port for use by other nations. Various decades after the slave trade had been abolished and the Swedes were no longer able to take profit from the island, the island was sold back to France (Pålsson 2019).

One of the most prominent traces of the Swedish presence on the island of Saint Barthélemy—which today is a luxury tourist destination—is the name of the capital: Gustavia, named after the eighteenth-century Swedish King. On Franska Tomten, however, traces of the shared history seem harder to identify. Upon closer observation, it becomes clear that a structural colonial history is very much present in smaller and bigger details of an infrastructure that bears witness to interrelated 'flows of goods, capital, bodies and ideology' (Rosendahl 2021) that span over several centuries and various geographies: the former headquarters of the transatlantic ship company; the Court of Appeal for Western Sweden housed in the former building of another shipping magnate; old warehouses that today house a casino and the museum House of Emigrants; the river and the sea. Zooming in on the facades

and lamp posts, several sculpted reliefs become visible, many of them depicting racist stereotypes (Figure 38). Law connected to international trade, connected to the mobility of goods and connected to migration are all synergised on this anonymous plot of asphalted urban ground. In very concrete ways, these material traces are evidence of relations across time and space that show how exploitative practices everywhen and everywhere have lasting effects—that is, practices of exploitative labour and produced structural inequalities are still ongoing. How is it possible, then, that these material traces are hardly commented on as if they are hidden in plain sight?

To come to a closer understanding of this phenomenon, let us take note of indigenous studies scholar Jodi A. Byrd's conceptualisation of colonial agnosia as a practice of those who face complicity with colonial occupation (Byrd 2011). The concept of colonial agnosia—without pushing its analogy too far toward the operations as a pathology or disorder—refers to a neurological condition that renders it difficult to 'assemble elements of an image into an understandable whole, and difficulty in grasping the relationship of objects to one another' (Vimalassery, Pegues, and Goldstein 2016). The argument here is that colonialism is not comprehended in its relationality between persistent violent structures that are beneficial to only a few and cause harm to many others—in the past, present and probably in the future. To take these notions a step further, historical anthropologist Ann Laura Stoler describes a process of colonial aphasia to signal a produced historical loss and dismembering that causes a profound disassociation rendering colonial histories illegible in the present (2011). This means that the history is simultaneously known and unknown, that there is a space between knowledge and ignorance.



Memory studies scholar Jan Assmann, who sees memory as a collective and social phenomenon, identifies the dependency of each individual on social structures, in which certain high priests of memory are given the power to interpret and communicate a memory that is more true than others (2008: 114-118). Heritage can, in this context, be framed as the structures, material or intangible, in which the narratives approved by these high priests of memory are enshrined. With these thoughts, knowledge production about the past, present and future has become socialised but it also becomes clear that there are many, conscious or unconscious gaps that mark the blind spots in narrations of the history of the formation of the modern welfare state. For the 2021 GIBCA, Franska Tomten was used as a narrative device to trace a narrative outwardly to 'where it meets other voices and stories [...] to narrate history in a more complex manner, through a multiplicity of voices and contexts rather than a singularly authored discourse or master narrative' (Rosendahl 2021). The exhibited artworks honoured 'the ghosts and move[d] beyond them, acknowledging the violence and beginning processes of repair' (Rosendahl 2021). As such, the biennial offered a temporary structure, in which meaning could be added in the gaps of collective memory.

A striking example of this way of thinking and making was Ayesha Hameed's installation 'Two Ships' at the Gothenburg International Biennial of Contemporary Art (GIBCA 2021). The artwork intertwines narratives of the twin city plans and canal systems of Gothenburg and Batavia, now Jakarta—both influenced by Dutch planners—in the 1620s and a hurricane that struck Saint Barthélemy during Swedish colonial rule in 1852. The colonial trading histories of the three places are interwoven by 'evoking the winds moving through them, carrying ships, slaves, seeds, and

storms' (GIBCA 2021). A narrator connects the historical commodification of nature with current environmental crises, textiles hanging from the roof are printed and impregnated with pigments of plants and spices used as colonial commodities, while a soundscape remembers two trade ships that were caught in storms and shipwrecked outside Gothenburg. Through the different elements of the artwork, the artist achieved to pair the geological project of heightened industrialisation and the terraforming project that is part of human homemaking in cities and elsewhere while acknowledging the legacies of slave trade and extractive capitalism. As such, all these narrative layers mirror the past in the present and the Gothenburg harbour in the world—and vice versa. However, the pigments and smell will fade over time, and the installation is only temporary.

Inspired by the smell of cinnamon and coffee in the room where Ayesha Hameed's work was exhibited, in a more condensed gesture, cinnamon buns were served to the audience in this scene of the performance lecture. It was made clear that we purchased the buns at a certain globally well-known Swedish furniture warehouse—a company that, in itself, is a clear example of the infrastructures of an overly industrialised world, in which the overexploitation of, among others, forests, to produce the popular flat packed furniture is barely commented on. Without colonial abuses, the woody taste of cinnamon and the sweetness of the sugar would most probably not have been so familiar to most palates because these goods trace direct lines across the waters to Ceylon and Barbados from where they became available to larger population groups in Europe when the slave trade from Africa to America intensified in the second half of the seventeenth century and Swedish refineries processed the raw materials (Rosendahl 2021).



Although Sweden might not have been able to pursue their ambitions in colonisation policies, to present Sweden's history as shielded from colonial powers is simply false—the cinnamon bun, as a very prominent element of everyday life is, in fact, proof that, as are the visual and material traces on Packhusplatsen. Tracing the use of colonial aphasia further to Michel Foucault's work, this leaves us with a heterotopia of disturbance that makes it 'impossible to name this and that' (Foucault 1989: xviii) without evoking an 'ongoing fragmentation of resemblances represented by the aphasiac' (Vimalassery, Pegues, and Goldstein 2016). More than claiming that colonial structures should be more visible or recognised, the argument here rather becomes one for expanding imagination and multiplying agencies by adding directions for orientations in time and space that include more to the same plot—using the plot as a physical meeting place and a narrative site that is compelling for imagination to make the plotted lines of power tremble, twist and turn.

Figure 39. Detail of one of the five female figures on the *Järntorgbrunnen*. Image by Olof Ohlsson, published in *Göteborgs Posten* 'Järntorgsbrunnen är ett kolonialt monument', 23 January 2021.

**Dirty lines, hidden and revealed**

Still following the lines of colonial ambitions—following the water, following the money—the narrative thread of the performance lecture arrives in Scene 7, 'The thin line in between land and water', at Järntorget, the Iron Square. A prominent feature on the square is a bronze statue on a granite fountain called 'The Five Continents', better known as *Järntorgsbrunnen*, the Iron Square Fountain, created by Tore Strindberg (1927). Nowadays, the square functions as a public transport hub for trams and buses, where many residents of the city pass by the statue at such a fast pace that they take it as just another part of Gothenburg's cityscape. However, many of the elements of the statue can be traced back to the times when this square used to be the point of departure for Swedish iron came to the city via the river to be exported across the sea, mainly to England. Around the fountain, there are 30 iron hallmarks that were used to weigh iron on a scale placed on this square, right next to the former port of Gothenburg. This iron shaped the basis of the global economy of the slave trade because people were chained and bought with the Swedish ore by traders from all of the major European slave trading countries (Evans and Rydén 2018).

The statue consists of a fountain with five naked female figures (Figure 39) representing the five continents and a small ship on the top with currents symbolising the five oceans. It illustrates a worldview based in Linnaeus' eighteenth-century categorisation of human species. Although his nomination of *homo sapiens* demoted humans from their place of ruling over nature—now making them part of the animal kingdom—the classification that arranged humans in a series of races resulted in a hierarchic and divisive worldview that perceives certain races as superior over others. At the same time, classifying

humans as rational animals prevents the full naturalisation of humans and continues to create dualisms between living and dead, sentient and insentient, rational and irrational beings. These ideas are still very much persistent today and deeply embedded, not only in Swedish collective memory, but in many other contexts as well (for a detailed analysis of Linnaeus classification of man, see Voegelin 1933; Frängsmyr, Lindroth, Eriksson et al. 1983).

When, in 2020, the Black Lives Matter protests against racism challenged colonial legacies in the public sphere, petitions were started to take down statues of Linnaeus because of his contributions to contemporary racial thinking and racism (Osei-Kofi and Sawyer 2021). During that same time, in various cities around the world, statues that symbolised racism, colonialism, slavery and violence were removed. Historian Ana Lucia Arajuo states that removing these kind of statues works for opening up debates, but it will not end systemic violence against minority groups automatically (Araujo 2013, 2020a, 2020b)—other monuments are needed to rethink public spaces and collective memory regarding violent pasts, presents and futures. The statues at Järntorget, however, still stand as a supposed celebration of Swedish adventourism and conquering of the sea.

In the context of Jan Assmann's thoughts on cultural memory, the fountain can be perceived as a canon cut in stone, interpreted by an elite group within a culture where this memory asserts hegemony as authorised heritage. In reading the fountain from this standpoint, the metaphorical map of meaning pointing toward colonial intentions becomes quite clear. The elevation of the Swedish ship, towering over the seminaked women, racialised according to stereotypes of their provenance, carries a direct signification of perceived superiority over other peoples through the might of Swedish naval prowess. If we now include Olsson's thoughts on the world as cartographically reasoned in metonymical relations, the fountain begins to unfold itself into a broader surrounding imaginary. Memory studies scholar Sjamme van de Voort has based an investigation on the work of Olsson's dictum that '[t]he Signifier is consequently not a thing-in-itself but a metaphoric image of a thing, the signified not a meaning-in-itself but a metonymic story of a meaning' and concluded that 'any investigation of memory therefore becomes an investigation into the temporally and spatially possible directions of ideological agency' (van de Voort 2021: 135). Following these thoughts, the collective memory of the history that the statue refers to is not necessarily embedded in the object itself but rather results from subjective semiotic actions that bridge the known and unknown—the past, present and possible futures. The fountain, then, can be metaphorically interpreted as a sign of involvement in colonial trade, but it depends on who is observing and their imaginative capabilities—not understood here as an intrinsic character trait, but rather as the structures of memory plotted as dots and lines on their map. In other words, to return to Sara Ahmed, orientations matter (2010).

In the previous chapter, I set out an argument for 'expanding imagination by adding directions for orientations in time and space that include more to the same plot' to not close off 'the possibility for multiple and changing meanings'. On a plot adjacent to Järntorget, another practice of interpreting the past can be found on a building site, where archaeologists, in an attempt to put historical maps in place in the city of today, have been digging through the past layers of clay. In the accumulated layers of sand and clay, they are looking for the remains of the wooden beams that gave shape to the moats through

which waters from the Göta Älv were directed into the city. As they try to find hidden waterways and the ships that sailed out, they trace the iron lines of power.

When I, for some months, put up my desk at the Urban Development Unit of the Gothenburg City Museum—the department from which the archaeologists are sent out to specific places in the city to excavate on sites of planned new constructions—I overheard the comment, 'The archaeologists are out there, looking for the truth'. What stands out here is the word *truth*. Restated in a conventional axiom, producing knowledge is the pursuit of truth, although the meaning of truth may vary according to different paradigms and ways of knowing. In coining the term 'truth-spots', Thomas F. Gieryn (2018) embarks from two basic premises: first, although truth can have many forms, it must always take place, and second, each place generates a certain set of criteria that determine one value of truth over the other. In Gieryn's definition, places consist of three essential ingredients: the unique location in geographical space, the material stuff gathered at this spot and the narrations and interpretations and imaginations that give the place distinctive meaning and value. Following this definition, a truth-spot is a place where a distinct feature of one or more of these elements gives it a higher value than its counterpart in other places. In this sense, the acceptance of a place as a truth-spot does not rely on the place alone but depends on many different determinants of credibility, he claims the following:

> Rather than wish for a universal and absolute Truth lurking behind these culture-bound judgments, we would do better to figure out why the inevitably partial and situated truths of some people—and vitally, not other people—assume the appearance of 'the way it must be' and thus become the operative reality for decisions that affect us all. The grounds for assigning credibility to some claims but not others just might involve putting that assertion on the ground somewhere—literally, taking it back to its geographic and material provenance, like a fine wine, where it was found, made, deliberated, adjudicated, announced, displayed, stored, or challenged (or may be lost, hidden, disguised, or forgotten) (Gieryn 2018: 18).

Following Gieryn's lines of thought, the fountain on Järntorget, as well as the adjacent archaeological site, produce a series of different truths in time and space, which arise from specific imaginaries, paradigms and epistemologies that guide the configuration and agency of these truth-spots. That is, the dots produce truths that project lines aimed in different directions, laced with diverse intentions, navigating through multiple dimensions of time and space. As such, the work of the archaeologists combines situatedness and careful observation of details in material traces, with articulations in time and space.

The produced value of the archaeological site immediately and unequivocally creates relations between the truth-spot and another spot—whether that be another truth-spot, a spot of no particular importance (yet) or even a spot of lies. To give some examples, the moat can be assumed a metaphoric signification because it is similar to one found in the Netherlands, and this relation then asserts a narrative of Dutch involvement in urban planning in Gothenburg in the 1600s. The easy comparison between these similar moats draws a clear relational line that gives the impression of causality, supporting the false idea that Gothenburg was built by the Dutch, obfuscating the more complex story of the origin of the city with inhabitants

from many different backgrounds (Scander 1981). Another example is the twenty-metres-long, sixty-centimetres-wide logs uncovered at the archaeological site. The logs draw a line to a time when these big trees were still more present, while nowadays, old-growth forests in Sámi territories are logged and replaced with monoculture plantations to be harvested in sixty to eighty years. The logs also suggest that, in the seventeenth century, enormous investments of resources were made by the state for the constructions of moats and walls that could defend Gothenburg and its trade (Stadsmuseum 2021).

The difference between these two examples lies in their different semiotic mechanisms. The metaphor of 'this-moat-equals-that-moat' generates a stable imaginary of two hegemonic powers and their conquest of nature. Contrarily, the metonymic signification of change invoked by the beams made from trees that now have ceased to exist functions as a narrative device that activates imaginaries in which the subject doing the imagining can actively question the origin and continuation of exploitative patterns. Seen in this way, there are many relations to be traced, depending on the paradigm of truth, which is the system of knowledge production. What becomes clear from these examples is a repeated pattern of historical narratives that find their echo in present-day discourses and practices. So a question remains: How can we create a paradigm shift that acknowledges enforced ideologies and impacts on the planet?

Taking into account Sven Lindqvist's work 'Dig Where you Stand' (1979), the argument here becomes one of turning away the focus on the high priests of memory that decide the historical narratives of the city, here in search for engagements with everyday life in the past, present and possible future to allow moments of reorientation and decolonisation to happen in which economic and social value systems are reversed. Instead of only focusing on the archaeological finds, we harvested glacial clay from the archaeological site—the 'side product'—to include it in the cartographic table setting of the performance lecture. When talking to botanical archaeologists Jens Heimdahl, it became clear that this dense and sticky substance under the river was an accumulation of many hidden histories of everyday life in the city and its ecologies emerging with and from interactions between humans, plants, water, waste and others. The clay acts as an archive of organic material traces, and as the archaeologists opened this archive, narratives emerged, drawing out a patchwork of ecologies—peat that has developed over 100 of years on the border of water and land, was covered by sand that was dumped in some minutes or other bodies of soil that cover water bodies. The audience of the performance lecture was invited to dig their hands into the clay. As the clay came into contact with their skin, a smell of metal was released. Because the sticky clay was difficult to wash off their hands, it left 'impressions on the skin' (Ahmed 2006: 2) intended to make the audience turn toward previously ignored—or feared—historical patterns of violence and exploitation.

Figure 40. Public swimming pool at *Frihamnen*. Picture by Thomas Jansson, published in *Göteborgs Posten* 'Hundratals premiärbadare trotsade kylan i Jubileumsparkens bad', 19 June 2022.

**In the meantime**

In Scene 8, 'Full of hope we swim', the narrative, for a moment, leaves identities, clothes, privileges and money behind, diving into the water of the Göta Älv as we arrive at *Frihamnen* (the Free Port) and the public swimming pool of *Jubileumsparken* (the Jubilee Park), located at the northern shore (Figure 40). Frihamnen was inaugurated in 1922 when the invention of steamships required greater port capacity and expanded infrastructure. For a long time, bananas were unloaded here, and thereafter, it functioned as a cruise ship terminal. Today, the area is part of a project that aims to lessen segregation, envisioned within a framework referred to as RiverCity Gothenburg (Gothenburg 2012). Many of the plans, programmes, studies and activities are carried out by the public developer Älvstranden Utvecklings AB in collaboration with the City Planning Authorities in Gothenburg. Since 2013, Jubileumsparken has been a temporary park as a prerun for a permanent city park celebrating the 400th anniversary of the city in 2021. According to the municipal announcement of Gothenburg's 400 jubilee, Gothenburg is a city that:

> [...] for almost 400 years Gothenburg has looked outwards toward the sea and the world beyond. Our city was built and planned by Dutch and Germans. As a maritime city of trade and industry, we have fostered close relationships and been able to exchange skills with many other countries. International contacts, outside influences and people from different cultures have always been an asset to Gothenburg, and still are today (www.goteborg2021.com).

The discourse for the jubilee builds on an image of the city as a successful conqueror of the horizons, of craftsmanship

and of international relations. It is constructed in such a way that it gives shape to a 'identity-enhancing and self-celebrating' collective memory, much like the concept of national memory, which Aleida Assmann classifies as not dialogic, but monologic (2009: 40). When a glorious past is framed as distant, as an ideal that the present has moved away from and which we must retrieve to 'make the present great again', these dynamics come close to what has been described as nostalgia, most notably conceptualised by scholars such as Laurajane Smith and Gary Campbell, Kate Houlden and, perhaps most prominently, Svetlana Boym (Boym 2001; Houlden 2010; Smith and Campbell 2017; see also van de Voort 2024, forthcoming). In keeping up this positive self-image of the port city, not only are violent pasts obscured and ignored, but the nostalgic story also turns the attention away from neglected, forgotten or distorted narratives that continue in the present. For example, right after it functioned as a venue site for the world fair Gothenburg Tercentennial Jubilee Exposition in 1923, the amusement park Liseberg was inaugurated. Nowadays, the park is a municipality owned company that is currently developing a waterpark, in which people can spend jolly good time in the water, free of troubled histories, surrounded by what the development website calls: 'A unique theme, inspired by Gothenburg's history and the East India Company in combination with Liseberg's own unique DNA' (www.liseberg.se).

Another example can be found in how the nostalgic story turns away from current struggles of dock workers. According to a testimony of the harbour union leader, Erik Helgeson, during the 'The Length of a Dot is One Unit. 8 Perspectives on Seafaring' panel in the Gothenburg City Library in November 2021, the expansion of the harbour and sale of the port to the biggest—foreign—customers has led to a loss in variety in skills of the dock workers and, thus, a loss of craftsmanship. Current plans for dredging channels into the port to allow bigger ships to access will cause too high concentrations of work and huge public investments for infrastructure, leaving a lot of power to private investors. The concept of nostalgia, in this case, is one of dissociation with negative aspects of the modernist identity formation of the city. By tracing lines of power solely between the present waterfront as a possibility for development of property and a past city, canonised in authorised heritage as a united entity of industrious, prosperous and adventuresome jolliness, future inequalities and dominance of minority identities are suppressed by the disregard of their stories in the truth produced in these spaces. The river, here, is mainly perceived as a connection to the world and influx of money. Although many bodies have clustered in the city, around the river, because of the river, because of the water, it has mostly occupied a backdrop of urban life since the harbour moved further away from the city centre, places of access to the water were restricted—the river turned into a marker of segregation.

Whereas the brutal effects of a riverfront development project that worsened segregation and put economic interests before any other consideration are neatly obscured by the nostalgia described above, it is blatantly visible in the Belgrade Waterfront project, which I had the opportunity to learn more about during my Safe Harbor artist-in-residence at the Institute for Urban Politics, as described in the introduction to the present dissertation. 'For the Belgrade Waterfront project to make sense, Belgrade has to be imagined as a ruin, a shell, a city in need of saving—perhaps from the desires of its own citizens' (Roth and Dudas 2015). The Institute for Urban Politics, which at that time was still known as the Ministry of Space, responded

to this process through the movement *Ne Da(vi)mo Beograd*, resulting, among many other things, in the protests in front of Parliament with the giant paper-mâché duck, also described in the introduction.

The Ministry of Space was founded in 2010 as an initiative born out of the right to the city movement, following Henri Lefebvre's 1968 demand for renewed access to urban life (Lefebvre 1968). David Harvey takes notion from this when he states the following:

> [...] far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights (2008: 23).

Harvey's notion of the right to the city as a right to *making and remaking ourselves* emphasises the right to improve the way we collectively shape the city and the waters in it according to our subjective imaginaries. The urban past, present and future are constantly negotiated in everyday practices because they stand at the centre of urban conflicts, often revolving around who is recognised and/or who is excluded. This is, however, a collective right rather than an individual right. In other words, changing the city depends on the exercise of collective power over the process of urbanisation.

The collective work of the Ministry of Space was initially focused on the defence of public space in Belgrade, using what they themselves call a 'DIY philosophy' (Čukić), which enables temporary uses and micro-spatial urban practices. They demand that citizens have a stake in shaping the future of their city and that the government applies a set of laws equally to everyone, including itself. Although, in the beginning, their activities were mostly related to struggles concerning the occupation of spaces for cultural production, it soon became clear that fights for other public goods, such as the right to water or the fight against commercialisation of public space, were all connected.

This same mentality of 'do-it-yourself urbanism' (Iveson 2013) and 'tactical urbanism' (Lyndon 2012a, 2012b) has been an integral strategy for solidifying Jubileumsparken. The collective power of change was practised through a strategy of temporary use, in which various 1:1 prototypes tested citizen proposals, like a swimming pool, a beach and a public sauna. In this sense, the process of transformation of the area into Jubilieumsparken gives clues on how to create a shared space for negotiation and how to inhabit the 'meantime' as a space of collective care (Sandström 2020). This can be framed as a fugitive space, a retreat from fast-paced and divided city life, where we can shape-shift and try out new forms for community building. The question remains if the municipality-owned public development company in place will be able to change the paradigm of economic growth (see Lindberg 2015). Here, the idea of ephemeral heritage creates a dialectic turn in which the question is not what kind of city we want, but what kind of humans we want to be. That is to say, the idea that heritage does not function in metaphorical signification, but rather in metonymic significations in which multiple lines are imagined in many simultaneous directions, turns us away from the paradigm in which cities become more adequate to capital than to humans, waters and other bodies (see Harvey 1996). A reconceptualisation of Harvey's notion of

a collective right to the city and the making and remaking of ourselves within it should include the element of ephemerality as a central notion to avoid falling into traps of solid categories in frozen binaries.

While swimming in the water, the vulnerability of the area in its relations with other places, our human bodies and others becomes clear—the water can indeed feel refreshing on a warm day, but especially after rainstorms, it accumulates sewage waters and polluted rainwaters coming from upstream (Gartéus 2017). In the meantime, songbirds have found a perfect breeding space in between the thorny branches from which we harvested sloe berry (*Prunus spinosa*). What seems like a sweet treat leaves the audience of the performance lecture with a bitter taste because the astringent effect of the berry leaves their mouths dry, much like the sensation of the closing of the spaces temporarily made available to the public, when the new development companies return to end the party.


Figure 41. The fence marking the border between Preem fuel company and Rya Forest, with a 'stop' and 'forbidden to photograph, draw or describe the protected object' sign.

**A hint of fugitive times, within and beyond fences**

Drifting further along the Göta Älv, in Scene 9, 'A hidden forest to hide in', we come ashore at a site where the barriers created around our lives become clearly visible. The moving image on the screen shows fences around an oil refinery (Figure 41), a power plant and a sewage treatment plant. Yellow and red prohibition signs on the fence make clear that no one is allowed to film, photograph or trespass. While the camera moves 180 degrees, a patch of green space appears, and the image enters a forest with large oak trees, squeezed between the industrial areas just west of the Älvsborg bridge on the northern bridgehead. Besides the centuries old oak trees, this marsh forest, denominated in Swedish as *Rya Skog* (Rya Forest), displays a very diverse flora and fauna.

In 1923, botanist Carl Skottsberg described the area as a friendly oasis, a last remnant of a formerly grand forested landscape (Skottsberg 1923: 315, own translation). Skottsberg's words were an appeal for the protection of Rya Forest in a time of rapid industrialisation. The site has been declared the region's first nature reserve in 1928 after a threat of deforestation because of the city's expansion toward the west and protests by the Swedish Society for Nature Conservation. Still, the area has been targeted repeatedly by industry and commerce—little by little, parts of its territory have been chipped away on the edges for the construction of infrastructure, pipelines for oil and water and the construction of the sewage plant. However, over the years, because of the protection of Rya Forest, the surrounding industry has also expanded vertically—for example, newer technologies made it possible to build higher oil cisterns. As the project of industrialisation on a global scale has transformed its scope into a level that now has geological impact and humans have become terraforming beings, it is here conquering the skies rather than occupying more land and water. Now, being around and in Rya Forest, it is difficult to perceive whether we are inside or outside the fences. What does become apparent though is that the protection from deforestation allowed this site to become a reminder of permanence and slow growth, in contrast with the rapid tempo of urban expansions. The so-called *allemansrätten*, the right of public access, applies here, which is summarised by the Swedish Environmental Protection Agency as 'do not disturb, do not destroy' (see www.naturvardsverket.se). This demand for caution and consideration creates an opportunity to take refuge in this forest.

In this scene, the audience was engaged in this scene in three ways. The scent of forest grounds had been perceivable during most of the performance—a steam vaporizer on the table slowly distributed the smell of spruce (*Picea*), larch (*Larix decidua*) and juniper berry (*Juniperus communis*), mostly to the participants sitting nearby. Various members of the audience came closer to experience the smell more intensely because the smell did not travel through the air so far as to reach the back of the room. Once there, they touched the branches of the watermint (*Mentha aquatica*) that was standing in a bottle next to the vaporizer—what they thought would be a familiar smell of mint, surprisingly, had a slight hint of petrol in it. In the meantime, a marsh beer was served, containing the same ingredients as the distillation in the vaporizer. The beer, as well as the distillation, had an effect on the airways, creating a space to take deep breaths.

The narrative in this scene of the performance lecture suggests that, despite the fences—and many other constructed divisions in the city—the culture we built is inextricably entangled with nature. Although

understanding the entanglements of the human city-building project, as well as other times and places that enable and sustain the project, can be helpful to imagine a reciprocal relation with our environment, critiques on the vanishing distinctions between nature and culture seem to be pertinent here. Andreas Malm (2018) argues that, in an age denominated as the Anthropocene, actively putting limits around the social realm instead of further 'annexing' nature might be necessary to allow for contextualisation and critical reflections on the impacts of human actions. Taking this further, Virginie Maris suggests that the idea of being able to manage or control everything around us is upheld by a blending of boundaries, which is simply not possible as many things escape our understanding, our perception and our imagination. She argues that the climate crisis requires us to recognise and respect other beings and inanimates that humans share their space with and, even more, to acknowledge that humans might not be able to know everything, thus accepting the 'unknowable' (Maris 2021). These arguments give clear clues in the search for a fugitive space that started in the previous scene, in which hope floated away in the realisation that a system guided by capital prohibits finding the fugitives spaces of ephemeral heritage that were so quickly co-opted in Frihamnen. To allow for shapeshifting metonymic relations and significations to be drawn, Maris' argument for creating more 'wild nature' seems pertinent for imagination to wonder more broadly and recognise other beings in their own realities, acting according to their own logics and creating, here in relation with others, their own agency. If we accept the hypothesis of the Anthropocene, the idea that human beings are now the prime geological force of the earth system, the danger is one of responsibility. To the modernist idea of industry, prevailing in the nineteenth century, it must be liberating to finally be crowned as conqueror. It is this conquest of imagination that an understanding and acknowledgement of the others, that we share our planet with, is an antidote for.

With the declaration of Rya Forest as a natural reserve and prohibition 'to cut down trees and bushes, to break twigs or remove them from the ground, to pick flowers, to hunt and kill animals or snatch bird eggs, to erect buildings, to make fire, and to let cattle graze' (Billing 2020), environmentalist expressed concerns that the forest went wild and was becoming an 'impenetrable, junglelike and severely brushy' and, as a consequence, less attractive and accessible (Feodor Aminoff, quoted in Malmström 1962: 22). It became clear that Rya Forest had not been a wild forest, where nature itself has been the sole gardener (Liljedahl 1921: 73) but was shaped by foraging and other forms of maintenance. Although the rewilding has been tamed, nowadays, the forest is still a lush oasis amid a grey industrial landscape.

The contrast is clear. Intense odours coming from the sewage treatment plant find their way across the fences and into the forest, blending in with the earthy smells of decaying logs—just like the smell of watermint (*Mentha aquatica*) revealed a hint of petrol in it. Comfort can be found when looking up—in a similar vertical movement of expansion as the oil cisterns, the oak trees in Rya Forest exhibit what botanists call 'crown shyness', 'growing tall instead of wide to be able to resist, together, showing us how to make space for each other' (see, e.g., Hallé 2001: 38). In the forest, what can be interpreted as destruction or decay very often becomes a force of creation—a mortuary becomes a nursery for other species to thrive. Rather than a space for continuous growth in all directions, the 'wild nature' of Rya Forest, when given time to adapt, allows for different lives—

in plural—to emerge. Although humans here have an active role as place-makers, they are not necessarily the only kind of active force at play. As the performance recognises these other characters to play a role in the narrative, it traces metonymic significations rooted in varying timeframes, beginning to tell new stories that abandon the modernist human drive for subjective supremacy.

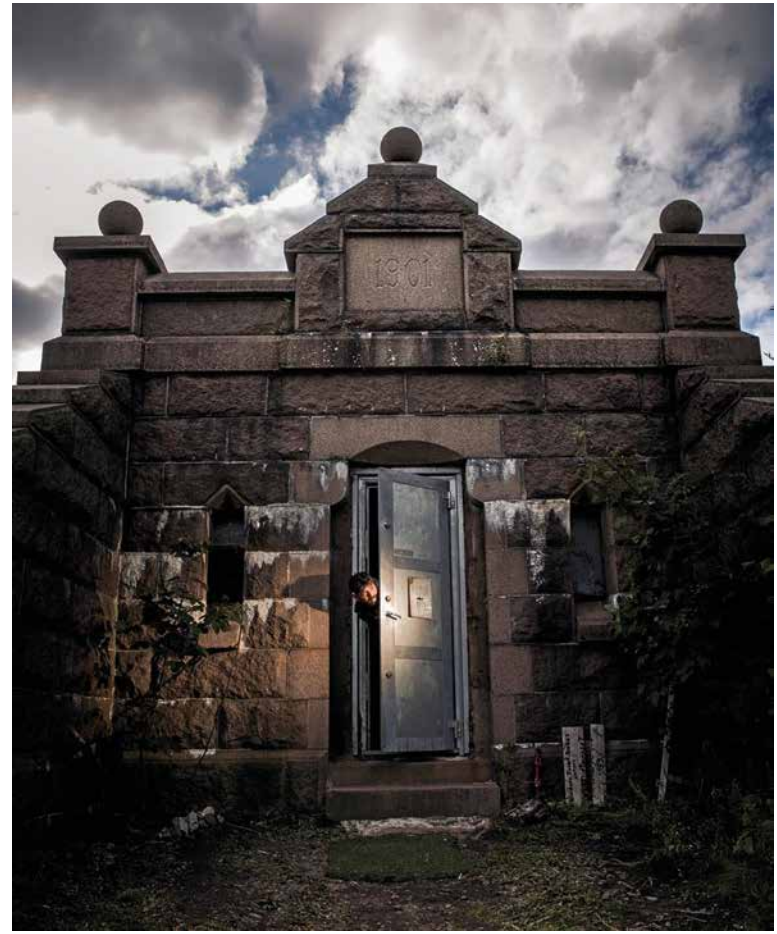



Figure 42. Musician Jorge Alcaide at the metal entrance door of what used to be the Gråberget water reservoir and has now become the *Kulturtemplet* (the Culture Temple). Picture by Nicke Johansson, published in *Göteborgs Posten* 'Så ser livet ut inuti Göteborgs vattentorn', 16 October 2021

**On sensing in the dark and resonating with companions**

In Scene 10, 'The waters we carry', we arrive at the top of a hill, in front of a thick metal door that gives entrance to the Gråberget water reservoir that was built at the beginning of the twentieth century to supply the surrounding part of the town with water for domestic use and public bathing facilities (for more context on urban sanitation and bathing culture, see Wetterberg 1995; Harris and Helgertz 2019; Nilsson and Milz 2019). The water reservoir was closed for seventy years but has achieved a renewed interest when musician Jorge Alcaide (Figure 42) discovered the marvellous acoustics in the basement. In the spring of 2018, Jorge invited me to join him on one of his sonic explorations of the water reservoir. I was thirty weeks pregnant at that time. Surrounded by darkness, he played a flute, walked slowly, stamped on the floor and drummed on metal tubes still present in the room. The sounds' vibrations found their way through the almost one litre of additional fluid in my womb, through my whole body and, from the inside out, I quite literally resonated with the idea that human beings were—and still are, in fact—aquatic beings.

In her thinking of how the material constitution of human bodies as mostly water opens up new ways of relating to other bodies and the earth, Astrida Neimanis (2017) pays close attention to what water can teach about feeling, care and justice. If, indeed, we perceive the waters that the human body carries as teachers of being in the world, the assertion here becomes that these waters are constantly shaken by the polyphony of sounds and vibrations in the urban environment—although the human sense of listening might not be able to perceive all frequencies, human bodies can resonate with the environment on a broader spectrum of vibrations. The empty water reservoir offers an opportunity to have a close experience of being under water. The limitations of our senses and human bodies are emphasised here—under water, we cannot rely on our sight, smell does not travel far, and human bodies are unable to breathe and, thus, survive there. However, the acoustics under water are all-embracing. As such, the underground room becomes not only a room for exploring sound but, possibly, also for understanding more broadly what is going on under the water surface and for resonating with others that perceive the world differently.

To contextualise these assertions, I want to refer here to an interview with wildlife biologist Kate Stafford in September 2020 on the *For the Wild* podcast. Oceans are aplenty with a naturally occurring polyphony of sounds from events such as underwater earthquakes, volcanoes or the wind rushing on the surface, creating waves. These soundscapes are, however, increasingly more intensely loaded with anthropogenic, human-driven sounds in the water from ships, oil and gas explorations. Because of industrialisation and massive, primarily commercial, shipping across the oceans, sound levels in lower frequencies, unperceivable for humans, have increased. Stafford explores the intersection of where human noise overlaps the frequency bands that are used—made and received—by animals in the water. Although most humans tend to be very visual animals in the way we navigate the world, marine animals depend on sound to find mates, find prey and navigate. Referring to a report from Susanna Blackwell, Stafford mentions the dual response from bowhead whales to increased sound levels, that, in their communication, in first instance would increase their calling rates but eventually would stop calling altogether. In underwater recordings that are used as interludes in the interview, it becomes clear how each species in the marine environment essentially searches for an acoustic niche in

the ocean where their songs are amplified and radioed. So although many sounds might overlap, each voice maintains its distinct sonic character in the ocean. That is, until it drowns in too much noise (Stafford 2020).

Although the audience of the performance lecture had been listening to the reading to guide them through various entangled storylines, up until now, the sense of listening was not given any particular attention. Now, the audience was invited to close their eyes as a recording from the abandoned water reservoir was played out loud. At this point of the performance, it has become overly clear that human senses are incapable of perceiving all frequencies and instances of light, sound, smell, taste and touch—thus, no knowledge is comprehensive on its own. Therefore, the narrative and gestures of the performance lecture serve to expand human senses and create bridges from one epistemology to another, not the least by relying on collaborations in which different acts of knowledge-making complement each other. Even more, much alike the different species in the ocean search for the acoustic niches in the ocean to communicate, the audience of the performance lecture, through the narrative and gestures, is invited to explore in between spaces that allow for resonance with companions—human and nonhuman—in acts of reorientation in which, in Donna Haraway's words, 'who is/are to be in/of the world is constituted in intra- and interaction' (2016: 13).

The main—human—companion in this scene, Jorge Alcaide, who, in the performance text, is called 'a friend in the dark' and is closely related to what Jan Assmann has called a high priest of memory (2008: 114-118). The difference lies, as before in my writing, in the mode of signification. Whereas the high priest of memory is the authoritative interpreter of canonised cultural memory—and thereby a conductor of metaphoric signification of 'this means that'—the friend in the dark relies on metonymic signification as a guide suggesting the way through troubled waters. The entrance of the water reservoir metaphorically refers to a remnant of urban sanitation strategies from the turn of the twentieth century after modernisation of the water supply system and installation of a big cistern next to the old basin. The high priest of memory could, furthermore, tell true stories about the use of water at specific moments in history, of the construction methods, the power structures that can be read out of the water supply and much more, surely. Jorge, however, has endowed it with metonymic meaning that goes beyond that. He baptised the reservoir as *Kulturtemplet* (the Culture Temple), but instead of installing a plaque with an engraving of the inauguration date and the intended function of the building, Jorge's performances explore its properties by inserting some of his own—in this case, the acoustic properties filled with sounds made by his makeshift instruments. What is at play here is the third element of Olsson's map: the projection plane. Whereas the archetypical modernist historian hopes to obscure himself and portray the truth about the past as close to the scale of one to one as possible, Jorge's projection remains in the open. It might even be said to function as a protagonist in his work. What happens when a musician becomes the custodian of built heritage? While humans enter the reservoir to bathe in sound and resonate deeply with the surrounding space, water is finding its ways back into the reservoir through the pores of the thick and mouldy concrete walls. Jorge proposes to let the water continue to seep through—not adapting the space to keep the water out—and think of ways to adapt ourselves and learn to be with the water in the same room.

Whereas the anthropogenic landscape of the city is haunted by dreams of progress turned into rubble (Tsing, Gan, and Bubandt 2017: G2), the suggestions made by this friend in the dark—the creation of soundscapes in a space that was not initially made for musical performances—softens up the hard truth-spots and produces new possibilities for taking care of this abandoned space. The water reservoir becomes a space to exercise the senses and to imagine the in between spaces that allow for resonance with companions. At the end of the sound piece played during the performance lecture, a child's voice says, 'It's dark, I can't see anything … now I can see something'. This child was, in fact, my son, three years old at the time, accompanying me on my field trip. Without invoking the most prominent human sense, sight, the web of life that is being spun here through the sound waves, consists of long narrative lines traced back to human ancestors breathing water, while other senses slowly adapt to the room, to be able to move around. In this act of reorientation, new maps come into being in an act of turning inward to deeply listen to the sounds from the surrounding environment that enter our human bodies and feel how these resonate in the waters we carry—and the water humans are.

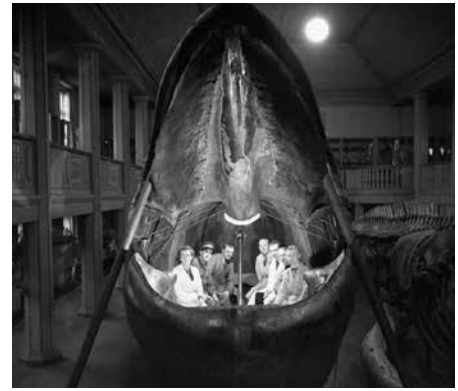


Figure 43. Above: The Malm Whale being transported from what is now the Gothenburg City Museum to the Gothenburg Natural History Museum in 1918. Below: In the preservation process, August Malm already envisioned people entering the taxidermic specimen of the whale.

**A sea change**

We begin Scene 11, 'Breathing in waves', by adjusting our eyes after being in the dark before arriving at the sea in Askim Bay. In 1865, a young blue whale washed ashore here. Now known as the Malm Whale (*Malmska Valen*), it is exhibited in the Gothenburg Museum of Natural History. When hearing about the beached whale, taxidermist and conservator August Wilhelm Malm went to the site to purchase the animal for the museum collection. Malm extensively documented the killing, transportation to the Gothenburg city centre, scientific measurements and preservation of the seven-month-old, sixteen-metre-long whale in the book *Monographie illustrée du baleinoptère trouvé le 29 Octobre 1865 sur la côte occidentale de Suède* (Illustrated Monograph on the *Balænoptera* Whale Found on the West Coast of Sweden on 29 October 1865). Although Malm wrongly presumed that he discovered a new species, by preserving the whale in its entirety, he did become the creator of a historically unique taxidermic specimen.

Fishermen Olof Larsson and Carl Hansson, in their testimonies that are included in the *Monographie illustrée*, explain to August Malm what happened when they encountered the whale. Rising twenty-five centimetres above the water surface, 'the whale was lying there, struggling with all its strength, and loudly spouting water high into the air'. The fishermen chose to approach the whale in a large boat to avoid 'being swallowed'. Coming closer, they observed something shiny on the side of the head, that was moving 'in the same way a human would' and they 'decided to poke it out so it would not be able to see [them].' What follows is a horrendously detailed description of the actions the fishermen took the first day that the whale was spotted. They leave the scene in the evening to come back the following morning, when they observed that the whale was losing more and more strength. After many more hours of stabbing the whale and waiting for its passing, in a last dramatic move, the whale 'raised its body, leaning on its head and tail, like an arc, altogether over the surface of the water' to then remain immobile at the shore (A.W. Malm 1867: 1-3). While the whale did not have the strength to breathe in open air, nor to regain water, its fate was in the hands of two greedy fishermen and a scientist with big aspirations for securing his reputation.

After its death, the whale was taken apart and, after the preservation procedure, treating the skin with arsenic and mercury chloride, copper furniture studs were used to piece it back together. In this sense, the Malm Whale is unique, because a whale's body, particularly its skin, quickly putrefy when not immersed in water. Even nowadays, the smell in the exhibition room is quite peculiar. Since its installation at the Gothenburg Natural History Museum, the stuffed whale has been equipped with hinges, allowing its jaw to be opened, not only to 'closely observe the baleens from the inside, as well as the rest of the interior of the mouth'. August Malm foresaw that people would want to enter the 'belly of the beast' so in 'the belly, which is three metres high, some decorations and instalments are made for the comfort of the visitor' (Figure 43). It is still open for coffee or dinner on special occasions, like *valdagen*, election days—the double meaning of *val* as 'election' and 'whale' has become a known word joke, typical for Gothenburg humour. The story goes that the whale's mouth was closed after, in the 1930s, a couple, consumed by their passions, was caught making love in its oesophagus.

The story of the prophet Jonah—who evades to deliver a godly message of destruction of the city of Nineveh, is held captive by a giant fish and is then be released to fulfil his fate—becomes particularly symbolic and meaningful

here. According to psychologist Abraham Maslow, who was credited with coining the term, the 'Jonah complex' is a condition of running away from responsibilities that are dictated by others is guided by fear of success (Maslow 1971). Looking at the case of the Malm Whale, in first instance, its killing seems to be defined by fear of the unknown, greed and ambition. Remember here also how dangerous and unexplored territories of maps early to late modernity were often marked either with a warning '*Hic sunt dracones*' (here be dragons, here be monsters) or with drawings of these supposed monsters (K.E. Macfarlane 2016; see also Figure 30). The fright of the unknown life out there in these early maps is mirrored in the comfort that Lewis Caroll's characters find in a map of the sea being a blank slate in 'The Hunting of the Snark':

> He had brought a large map representing the sea,
> without the least vestige of land: And the crew were
> much pleased when they found it to be
> A map they could all understand.
> 'They are merely conventional signs!'
> 'Other maps are such shapes, with their islands and
> capes!
> But we've got our brave Captain to thank'
> (So the crew would protest) 'that he's brought us the best
> —A perfect and absolute blank!'
> (1996: 683)

Going back to the beach on which fishermen performed those acts that we today know to call cruel, we understand that, beyond the very real fright that people might have felt when seeing a large and strange creature on a shore they thought was theirs, the conquering of the monster—the dissection and ultimate museafication of the whale's body—ultimately was a very real tool of empire (Reidy and Rozwadowski 2014; K.E. Macfarlane 2016), in its conquest of the seas (for an extensive work on the history of oceans, see Rozwadowski 2018). It is curious to see, though, how this whale can gather such attention in its landlocked death, while its cospecies living today are hardly thought off—unless, of course, they begin sinking yachts disturbing their habitat (Imbler 2023; Gabay 2021). Mammals that wash ashore and trespass the perceived dividing line between land and water rely on a human response—'these ocean-dwelling animals are mostly hidden from humans during their lifetimes, but in a stranding death, they reveal themselves to us, and call on us to care. This care can take many forms—from traditional ceremony, to scientific necropsy, to community vigil' (Neimanis, Chang, and Neimanis 2022). The meticulous labour to conserve the Malm Whale turns around the relationship of unknowability into one of deep attachment. From that point of view, the collections of the Natural History Museum offer opportunities to decentre humans from history.

In her book *Elephants Are Not Picked from Trees*, Liv Emma Thorsen (2014) explores the process through which the Gothenburg Natural History Museum obtained certain animals for its exhibits and dives into the transformation of living beings into museum displays. The title of the book refers to a statement made by Swedish taxidermist and conservator David Sjölander during his expedition to Angola in the autumn of 1948 when he fulfilled his lifelong aspiration of hunting and preparing a magnificent bull elephant. The whale, the elephant and the other animals that ended up as museum exhibits tell the cultural history of human-animal relations and how these are influenced by historical, social and cultural contexts. Similarly, in her book *Fathoms—the World in the Whale*, Rebecca Giggs

defines the museum as a place for 'thinking about the past; the ancestral past of human cultures, the surge and violence of acquisitive imperialisms, and, too, those taproots of time that extend far further, beyond the reach of traceable generations and family trees' (2020: 111). In this thinking, the Malm Whale conveys a timescale of tides, breathing in waves, that goes beyond the units of human biological life and has long been perceived as unchanging and glacial. Now that the great ice packs of the world are disappearing and whales have been marked as an endangered species, encounters with the stuffed whale at the museum, to an even greater extent, become an opportunity to connect to the past occupied by whales and their ancestors.

Most knowledge from oceans is obtained from embodied experiences in shallow waters, and what is known about the deep sea is mainly coming from a combination of data gathering technology, combined with imagination (Rozwadowski 2005). A now popular viewpoint on the undersea can be found in aquaria around the world. How this viewpoint can lead to practices of care with all that lives undersea was shown to me at the Gothenburg Maritime Museum and Aquarium. For the maintenance of the aquarium as an artificial habitat for marine life, many sensitive decisions and risks are involved that rely on the existent limited knowledge of the undersea. As such, Jens Fahlström defines his work as a marine biologist as a cultural practice. Although he is not directly immersing himself into the water, in his experience, marine life allows him to make a living while they are alive because of him doing his work. Their constantly transforming interactions and connections are an expression of being in a reciprocal relationship of care. From this perspective, the ocean becomes a home for some with whom humans share the planet.



To understand the figurative and literal sea change that melting ice packs can cause, the double meaning that lies in a 'fathom' comes at hand here—meaning both the measurement of the average arm span of a human adult and the act of reaching out to the unknown and understand a complex problem. The latter is a challenging situation in which the double relationship between understanding the world while also shaping it becomes a reworlding practice: an encounter with a beached mammal and deciding what actions to take, standing next to the stuffed Malm Whale and feeling drawn to its insides or taking care of with marine life in the aquarium. The same logic holds true for the engineers tasked with developing a plan to never face again a flooding like the one that happened in the Netherlands in 1954. When they tried to imagine the future, they designed the Delta Works, consisting of a series of dams, sluices, locks, dykes, levees and storm barriers with a forty-centimetre sea level rise in mind (Wilmink, Kust, Strijker et al. 2019). We now know that this number might be much too low and that previous efforts to differentiate land from water and humans from others that live undersea are in need of a sea change.

At this point of the performance lecture, the audience was presented with a herbarium of seaweed, harvested around the Delta Works. In the 1970s, anglers and environmental movements successfully advocated a semiopen flood system—instead of the completely closed-off flood defence of the original plans—to maintain the tidal flow and preserve the salty tidal environment of the estuary: a food source for birds and a nursery for North Sea fish and shrimps, among others (Schipper 2008). While Esther Breithof, in her chapter 'Oil Matters' in *Heritage Ecologies*, writes about how vertical coral reefs grow on decommissioned oil rigs (Breithoff 2021), new ecologies

emerge around the engineered constructions that are still functioning at the Delta Works. Rather than waiting for a decommissioning to happen, care and giving others time and space indeed seems like a better idea.

Figure 44. Leaves of beach rose (*Rosa rugosa*) floating in a water bath, with mist caused by dry ice—refrigerated carbon dioxide in solid form at a temperature of -79 degrees Celsius, that sublimates in air as soon as its temperature changes. Picture by Studio Makkink & Bey

**From witness to withness**

The 'epilogue' of the performance lecture opens a space for the audience to digest the journey presented to them in between water and land and in between their bodies and others. With the material traces of the dense and troublesome layers of city history still on their arms, on their hands, in their mouths, noses, ears and guts, it has become clear that acts of remembering are not merely related to reconstructing the truth of what has happened in the past, but also to how narratives of the past spill into our present lives and how they are passed on as truth to next generations.

In her lecture on 'Truth and Memory' for the public lecture series 'Truth to be Told: Understanding Truth in the Age of Post-Truth Politics', Aleida Assmann (2018) explores different relations to truth. In her investigating different kinds of truth claims, she examines possible frameworks for unheard voices to be affirmed and become part of a shared narrative. She does so by focusing on different types of witnessing, affirming the category of the historical witness as the missing link between sites of catastrophe and 'the place and time of the distant, ignorant and unsuspecting' (Assmann 2018). The role of the historical witness is today often assigned to a journalist, a photographer or a film maker that not only sends information of the sites of injustice and violence they are reporting from, but also includes a moral message. Although these witnesses might be committed and empathetic viewers, they still rely on who wants to listen and their capacity of observing and listening, to actually have an emotional impact on the receiving end. To put this assertion in the context of my research, many stories in images and words on the devastating planetary effects of exploitative and violent patterns have been produced and circulating, but for many, they are still difficult to grasp and act on.



Therefore, the narrative and the gestures of the performance lecture sought to dissolve the borders between us and others by marking human bodies, water bodies and soil bodies as vessels that combine the roles of witness and victim to convert them into living proof of the historical patterns to which we need to testify. The kind of testimonies here do not necessarily rely on scientific facts or a strong commitment to Truth, here written with a capital T, but rather call on imagination and affect. In this sense, the audience of the performance lecture now comes to a point in the journey where a plurality of contesting memories slowly settles in and they transition from the role of passive witness into a state of sensibility that allowed them to think *with*, rather than *about*, the journey through time and space we presented to them—a transition from witnessing to 'with-nessing'. John Shotter developed 'withness'-thinking as a method from Bakhtin's notion of 'hidden dialogicality' to rise above studying social relations as an object and learn from the engagement in them as a researcher who is inescapably also a subject in this situation (Shotter 2005: 2, 55). It is through engaging with these sensitivities that, during the performance lecture, new possible relations emerged and other lines of power could be drawn. These lines go beyond an interpretation or feeling and instead respond to a bodily sense of possibilities for orientation in present interactions.

To allow for the activated imaginaries and affectivities to be externalised, the members of the audience were invited to stand up and gather around the cartographic table setting and think about a dedication that they wanted to share in a collective toast. Meanwhile, the back of one of their hands was painted with rose vinegar and carefully draped with an almost transparent fermented rose leaf, crowned by a salt crystal. In their other hand, they carried a glass of water.

The dedications were, for me, the guide of their journey, both deeply moving and giving me a sense of what 'stuck' with each member of the audience—from very personal histories to concerns about global sustainability. Examples of what participants toasted to were the following: 'I will dedicate this toast to … the waters that broke when my babies were born … the sea that makes me calm … unshed tears … the undercurrent … the water that keeps my boat house afloat … water from the shower that rinses the sweat off my body … disappearing glaciers … healing warm baths for my husband when he was sick … the crystalline waters from the place where I grew up … the waters from my homeland (Palestine and Pakistan were mentioned) that are under danger from occupation or corruption'.

The fugitive space that the performance opened for its participants, gave room for *sentipensar*, from the Spanish verbs *sentir* (feel) and *pensar* (think). In the bodily expression of 'thinking-with-feeling' or 'feeling-with-thinking', there was room for tenderness, solidarity, grief, care, rage and love to be shared. In the work of Arturo Escobar, the concept describes the mode of imagining that happens as 'they orient themselves towards that moment when humans and the planet can finally come to co-exist in mutually enhancing manners' (Escobar 2016: 14). In the epilogue of the performance, this concept became poignant. As I have described previously, in its very nature, human imagination is locked in language—or, in Olsson's words, 'Language is the medium in which the mind operates, the issue is not the collection of facts but the communication of how these facts are ordered in the mind' (1975: 6b). Although water does not possess a capacity for speech comparable to that of human beings, the sensorial experiences of the performance served here to increase the number of senses needed by the participants to follow the narrative journey through space and time. Whereas the audience of the performance lecture relied on a conventional understanding of language to guide the narrative, the combination with the experimental gestures carried out by Maidie van den Bos filled the story with gaps in which the participants were forced to depend on other senses. The acts of expansion of the senses in moments of reorientation reflect Olsson's idea of 'the self-conversing with its likes in the Bar-In-Between is always a self in the making' (2007: 109). The toasts dedicated to water, then, allude to the process of triggering the imagination of the participants when they filled these holes with missing narrative—and to the agency driving these imaginaries into the future.

# AS WE FLOAT—OR: WHAT HAPPENS WHEN WE ALLOW OUR IMAGINATION TO FLOW THROUGH TIME AND SPACE?

The second iteration of the fluid methodology serves as a hypothesis for navigating the world fluidly. The main title of this chapter hyphenates the term 're-membering' because it does not only refer to acts of imagination that reassemble perceptions of the past and expectations for the future—both of which are, by definition, never present—but also points toward mending articulations with distant pasts and futures of radical others by reconnecting to the absent-present and present-absent. The re-membering happening in the moments of orientation in Gothenburg, addressing the cuts and connections that are made in imaginaries of the past, present and future of the city. The line for following the Göta Älv extended way beyond what is determined as the city of Gothenburg. Apart from the physical line, in kilometres, being way longer than the one we walked in Mexico City, the water to be followed in the 'Flow' stage was more visually present. Still, this journey, as another exercise of paying attention to who and what were moved by or toward the water, and the ways in which these encounters took place, revealed more hidden structures under and beyond the smooth surface of the river depicted in the more recent maps of Gothenburg. More specifically, this journey marked the profound relations between the waters in urban spaces and those in other territories on which the city depends for subsistence, as well as the differences in approaching these connections as matters of concern or not.

The performance lecture can be perceived as a 'more-than-representational' (Lorimer 2005) enactment of the explorations following the Göta Älv. The ontological removal of the border of the human skin is a slow move away from representation—by acknowledging that other-than-human imaginaries are part of the unfolding narrative—challenging the idea of the environment as being instrumental. This is a move away from a land-based cartography in which water is caught between lines of power because these are determined as dissociative and limited in their tracing of relations between local and global issues, while taking the earth system for granted. Therefore, in the performance lecture, all the senses—sight, taste, touch, smell, hearing and the sixth sense of culture—are involved in the relations that constitute an immersive cartography that, in its reasoning, acknowledges the movements of water through human and other-than-human bodies that hold it as vessels. In the ontological transformations between the physical and the social, the water cycle emerges as an imaginary of heritage in the Anthropocene, in which the planetary common becomes the reference plane to preserve humanity.

Some places and names might have been known by the audience, others not, but the imaginary journey could take them anywhere. With the conceptual manoeuvre that allows for water to become a protagonist in the cocreation of narratives lines, it needs to be reiterated that water, of course, cannot speak in the human sense, and most possibly, it *affectively* does not care about life in the city or elsewhere. Still, regardless of water not having lungs,

vocal cords, a tongue or lips to produce words, the fluid methodology employed in Gothenburg and beyond opened possibilities to explore alternative vocabularies. The notion of ephemeral heritage, for example, conceptualises existing disassociations between narrative of the here and now, along with those of larger scale and longer duration. At the same time, the notion of ephemerality emphasises how multilayered and multidirectional narratives makes the signification of heritage unstable. The notion of queerness, then, serves as an entry point into understanding transformative differences and the need to go beyond binary categories.

During the 'Floods' and 'Mist and Evaporation' stage, the shared space of the performance lecture and the utterances by the audience facilitated understanding of entangled materialities and space-times, as room was created for paying attention with all the—human and limited—senses, to catalyse agencies at play in diverse imaginaries. This again emphasises how embodied and lived experiences are essential in various, if not all, stages of the research process. The focus on the in between, then, allows for being mindful of any ethical and political implications in what Nigel Thrift describes as the taken for granted in the 'little things' (2000) that provoke a metonymic ripple effect. This opens the opportunity to actively remember long-term and large-scale imaginaries carried by water and, thus, the earth system that operates along these varying scales. The methodological framework, in this sense, allows for the present research to unfold in intersectional, multilayered and transdisciplinary ways.



# PART III

**Óyeme como quien**
**oye llover,**
**ni atenta ni distraída,**
**pasos leves, llovizna,**
**agua que es aire,**
**aire que es tiempo**

(Octavio Paz,
*Árbol adentro*, 1987)

**[Listen to me as one listens to the rain,**
**not attentive, not distracted,**
**light footsteps, thin drizzle,**
**water that is air, air that is time]**

(Octavio Paz, *A tree within*, 1987,
translated by Eliot Weinberger)

# DISCUSSION AND CONCLUDING REMARKS

## WHEN KNOWLEDGE BECOMES FLUID

In this concluding chapter, I would like to come back to the initial 'Reoccurring aims and questions in an iterative research process' (p.42) in a discussion of the two iterations of the fluid methodology in Mexico City and Gothenburg. The research questions guide this discussion in two closely connected directions. First, the roles of collaborative design approaches that have been scaffolded in the methodology are discussed, with the aim to consider what the framework afforded in a general sense and in this specific research, in which it was carried out throughout iterations in two different research contexts. Contributions in foregrounding precarious issues in processes of heritagisation are discussed while reflecting on the structure of the methodology that allows for it to be used as a system in transformation. Then, reflections are attuned to how aquatic agency challenges AHD, as well as notions of the relations between humans and more-than-human worlds, encompassing historical perspectives across different time frames and scales. In the overall discussion, possible extended opportunities for refinement of the conceptual framework—linking heritage, cartographic reason, orientation and imaginary agency—come to the fore. Finally, a series of concluding remarks on planetary regimes of care are considered as ways to transgress design and heritage.

**Anchoring imagination in different moments of the hydrological cycle**

In the present dissertation, I have presented two iterations of a fluid methodology, which allowed for the research to take form in a manner that simultaneously arose iteratively from one specific context while also being transferable to another. As a subject, water showed ways of being in the world, fluidly leading this project to insights that took different shapes in each of the two cities in which the research took place. The scaffolding along the hydrological cycle, here as stages in the methodology, has allowed me to include the transformative nature and imaginaries of water in a structured reflective practice. The queering of water heritage thereby leads to a queering of the research practice itself. Although aligning with principles of epistemological disobedience—as discussed in 'Cur(at)ing time' (p.247)—this methodology is informed by the development in fields dealing with the categories that outline the conceptual framework in 'Marking the ending and beginning of this conceptual journey' (p.71): heritage; cartographic reason; orientation and re-orientation; and imaginary agency. From this standpoint, subscribing to these notions, I have problematised the dichotomous understanding of land and water, as well as the adherence to disciplinary boundaries in academia.

The relational practice embedded in the methodology contains notions of collaboration and cocreation that reframe the idea of management—in project-based, goal-driven and institutionalised structures. In a field like heritage studies, in which a range of disciplines with different epistemological foundations come together, the challenges and obstacles of mobilising a transdisciplinary approach are many. A very concrete example emerged when interviewing people at the Urban Development Unit at the Gothenburg City Museum, where experts in archaeology, built heritage, cultural landscapes and urban planning speak, think and practice in different time frames and scales. Now, this research does not suggest that they should all work in the same epistemology. Rather, for them to collaborate and use the knowledge that they build from their individual epistemological standpoints, this research shows what can emerge from a more fluid approach to disciplinary epistemes by creating points where knowledge can permeate, leak, spill and flow over.

It should be noted that the methodology proposed in the current dissertation is no quick solution in 'a creative version of management consulting or a secret weapon for problem-solving'—that I have critiqued in '(Re)positioning across fields and literature' (p.50). Although, in the first instance, the methodological framework seemed to scaffold a generalist approach, the structure allows for personal interpretations to happen. Whereas the transition from the 'Flows' stage to that of 'Floods' in Mexico was marked by the production of a map to serve as a pamphlet and inlay for the book *This Morning, I Caught You on My Finger* (Driesse 2019), it took form as a cartographic table setting for the performance lecture 'Imagining the In-between of Land and Water' (p.207; see also Figure 33) in the case of Gothenburg. Both were tools to transmit the stories of my journeys following waters to new collaborators. In that sense, the methodology provided points of orientation that, in practice, can take on various forms and variations. As such, the present dissertation performs the methodology through my practice as a design researcher. On the one hand, it does so through a designerly way of observing details and larger patterns. On the other hand, design practice served as a tool to attend to problems of 'translation between epistemologies' (p.55) and curate narratives into moments of orientation. In that sense, the transdisciplinary methodology that this research sought

to probe became an approach to move on the borders and overlapping parts of various fields of study, practice and life. In what follows, this will be illustrated and reflected on in more detail.

The *modus operandi*, defined in 'From methodology to methods' (p.89) as seven metaphors or propositions, are mirrored here to show what they could afford in each iteration. The first three stages drew attention to the importance of water as a ubiquitous material substance that shapes the city and becomes a matter of concern in various ways. The first stage of 'Permeation' is significant for a designerly approach because it represents the moment of inspiration and intrinsic motivation. While initial thoughts are gathered and possibilities for funding and collaboration are explored, part of the positioning happens here. This inciting moment is often overlooked, even though it plays a crucial role in shaping the rationale, overall circumstances and eventual outcomes of the project.

Through the exchanges in the stage of 'Drips and drops', the complexity and ambiguity of the matter at hand became evident. The chorus of those who claim aquatic understandings consisted of multitudes of voices, each talking from their viewpoint, thinking in different scales of time and space, which could have easily resulted in a cacophony. This emphasised a need for rearranging existing epistemologies, questioning subject-object divisions and linear time perspectives of development and decay. Each succession of places where this moment of orientation happened could be associated with different epistemic virtues. For example, in Mexico City, questions regarding the human right to water, as well as indigenous rights, came to the fore, meaning that subsequent steps came to relate to these epistemes in their orientation. In Gothenburg, entirely different modes of knowledge production asserted themselves in this phase. Participation in the CHEurope Research School's 'Curating the City' work cluster led me to the Gothenburg City Museum's Urban Development Unit, where the city's past, present and future is curated in terms of defining, preserving and mediating urban heritage. This meant that orientations here drew different vectors through points on the projection plane. In a possible next iteration of the conceptual framework flowing into a methodological scaffolding, disciplinary boundaries towards the natural sciences could be crossed more deliberately. An example could be Karen Barad's work on 'relational agency' (see Barad 2007)—which is briefly mentioned in this dissertation in 'Savouring eroded relations in thick time' (p. 236)—or Kathryn Yusoff's work on inhuman geography, political aesthetics and questions of subjectivity and materiality in the context of dynamic earth events (see, e.g., Yusoff 2013, 2018).

Staging water as an active narrator of its own reality, in the stage of 'A natural spring erupts', was an initial effort to forefront overlapping 'matters of concern', as Bruno Latour defines the 'gathering' of ideas, forces, players and arenas where issues persist, not because of facts, but because they are supported, cared for and worried about (Latour 2004). As such, these first stages gave rise to moments of orientation that defined specific water points on the map, with narratives surrounding these places evolving over time. Here, to put it in Thomas F. Gieryn's words—arguing for the contributions of 'place' to the credibility of claims of truth—each locus could be perceived 'both as the empirical referent of analysis and the physical site where investigation takes place' (Gieryn 2006: 6). Understanding the relationships between knowledge claims and their emplacement became specifically relevant in this moment of orientation. In Mexico City, place-specific

narratives emerged in conversations during the movie nights on the rooftop of Primal Studio, as described in 'The basin of Mexico: design researching everyday relations with water' (p.94). Here, the participants expressed the common matters of concern that cut across their various modes of knowledge production. In Gothenburg, place-specific narratives emerged through my engagement with institutions that produce knowledge about the city's past, such as the City Museum and GIBCA2019, as described in 'Aesthetic encounters with glaciers in Jotunheimen to flood barriers in the North Sea' (p.103-105). These encounters plotted the narrative dots on the map that I then, in the following stages, connected by following waters through the respective cities.

In the 'Flows' stage, physical engagement in connecting previously defined points on the map allowed for experiencing articulating narrative threads and exploring what kind of other stories and places could emerge from this meandering action. In Mexico City, this stage was when I followed waters through the city for three days, walking from Santa Catarina del Monte on Mount Tlaloc to the Cárcamo de Dolores with Sjamme van de Voort; in Gothenburg, this was when I followed the Göta Älv from Lake Vänern to the Kattegat with Maidie van de Bos. This stage was initially inspired by Lucius Burckhardt's concept of 'strollology' (2006) and Richard Long's artwork *A Line Made by Walking* (1967). From the perspective of research creation, Stephanie Springgay and Sarah E. Truman have written on the diverse and extensive history of walking as a research methodology in social sciences and humanities. They underscore its value for conducting an inquiry that is situated, relational and material in a more-than-human world (Springgay and Truman 2017). In the embodied experience, in the repeated action of taking step after step, following the trails of water or by consciously being with water, the affects and effects of its presence and absence could be felt and seen.

Then, in 'Floods', the experience in cocreating and performing the 'Water carriers', in the next iteration, led to applying the performance lecture as a method that allows for a meeting between artistic and scholarly research. Paraphrasing Joseph Beuys, who famously said that he thinks with his knee anyway, artistic thought goes crosswise and around corners and is not necessarily rationally explicable. Both Daniel Ladnar and Bel Cerezo recognise the performance lecture as an opportunity to overcome restrictions and challenges of academic research by combining theoretical approaches with more experimental ways of producing knowledge in a hybrid of artistic research, visual art and performative narrative techniques (Ladnar 2014; Cerezo 2016). In this stage, water was transferred from being the subject of the conversation to an active agent in it.

In the performance lecture 'Imagining the In-between of Land and Water', attention became a relational matter between the observer and the observed, listener and narrator while also provoking metonymic interpretations of hydro-cartographies. It has to be mentioned that the ultimate effects and affects of the performances on the audience could hardly be measured from the point of view of the performer—that is, me. This was never my intention. Instead, the reactions throughout the performances, as well as the conversations with attendees afterwards, served as moments of orientation, in which imaginaries of water were given new dimensions. In the performance lecture, the use of the past as a coordinate, related to lost spaces but, at the same time, served as a reminder of what is worth fighting for—as a moment to grieve for what is lost

or to acknowledge that the past has not past but is a part of us. In that sense, 'Floods' was also a moment of orientation that allowed for explorations of how places can resonate with each other by making articulations in time and space on various scales, to acknowledge that some large-scale and long-term narratives are inherently part of planetary life cycles and will continue, despite human interventions; yet at the same time, this does not mean that humans can rest on their laurels. Feeling and thinking with the ice age in Gothenburg and the colossal clashes of the plates of the earth in Mexico City showed how leaving the human forum and travelling back and forth in time with the earth system is an exercise that allows for queering conservation discourses in which the earth needs saving and rather reiterates that destructive actions mostly impact life forms, humans included, that are interrelated.

In 'Mist and evaporation', the attempt to change the perspective with which humans approach waters led to suggestions for redefining human relations to water. The change of perspective that was set in motion in previous moments of orientation and became specifically evident in this stage, in, for example, writing a letter from water's point of view, was not necessarily an attempt to become the other or even not to represent the other. It was rather perceived as a means to imagine a way out of relationships of exploitation. In Eva Pavlič Seifert's letter to water (p.183), this was expressed through love, rather than necessity. What needs to be reiterated here is that, although these epistemological shifts sought to go beyond management paradigms of control, this did not seek to erase, for example, water scarcity and security as urgent matters to attend to. In fact, this moment of orientation enabled relations of care and solidarity across differences that, at the same time, nurtured more equal relations.



In 'Distillation', mappings of aquatic imaginaries came together and created a cartography of contiguous epistemes. In this mode of analysis, Mexico City and Gothenburg ceased to be the main subject of the narratives wherein this research took place. This created a move beyond discussions of whether or not an insignificant space becomes a place by adding meaning (extensively researched by, e.g., Tuan 1979; Certeau 1984) and rather explored articulations, not only in time and space, but also between the diversity in embedded meanings and perspectives on specific locations. Here, the words of Gilles Deleuze and Felix Guatarri, when they describe their ideas on distinguishing the map from the tracing *in* and *of* worldly encounters, gained more meaning than I could have speculated when setting out the theoretical considerations for this research. They state that this 'map is open and connectable in all of its dimensions; it is detachable, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting—reworked by an individual, group, or social formation' (Deleuze and Guattari 1987: 12). In this stage, it was from the perspective of water bodies as vessels that various dimensions and temporalities of space as a basic element of reasoning—cartographic reasoning—were explored with the intention to move away from earth-bound ideas of space that create a false impression of stability and linear time.

The methodology of this dissertation operationalised the conceptual framework by taking care of moments of orientation as opportunities for paying attention and remembering connections, or disconnections. It followed Sara Ahmed's statement that 'after all, it is this noticing that makes things real' (2017: 31-32). Anchored in the hydrological cycle, by definition, it asked for continuous reorientation, as happened in each new mapping that was

produced along the way, such as the inlay for the book, as well as the cartographic table setting for the performance lecture, as mentioned above. When narratives of water were, subsequently, taken from their initial epistemological, socio-cultural and geographical contexts in Mexico City and Gothenburg, respectively, and narrated in new contexts, such as what happened during Duizel in het Park or the performance lecture at Waterschool, new understandings were given by the subject at hand: water. This manner of orientation and reorientation facilitated understanding the language of that which has no speech. The notion of imaginary agency, then, existed in relation to the existing world, while imagining a way out of it, by connecting with the present-absent and absent-present. This latter notion led, for example, to the realisation that the waters of the Gärdsås pond were neither entirely water nor entirely land (p.245), leading the way to the conclusion that water is inherently queer. The outcome was more than the sum of its parts because, in between each stage, in the transformation between each step, insights and claims are not set in stone but were rather anchored in the world that inspired them, and as the world changes, the arguments change. Emerging stories functioned as maps that led to new points of orientation and reorientation and, as such, defined a cartography of becoming, researching in and with the world.

In an ideal situation, all seven iterative moments of the methodology would have received the same level of attention. In reality, all stages showed a range of possible approaches that, throughout this research, have been applied while taking into consideration diverse circumstances of time and resources, among others. When looking at the two iterations of the methodology as a full cycle, in Mexico City, the different stages were all fully curated by me, while, in Gothenburg, some of the stages were rather the result of me becoming part of different constellations, like the CHEurope Research School that placed me at the City Museum of Gothenburg. Beyond the academic skills of balancing theory, methodology and empirical data gathering, this required a very human ability to balance varying interests, expectations and ambitions through trust, empathy and solidarity. Still, in both iterations, the different moments of orientation were woven together in cartographies in which, through exercises of imagination, narrative lines steeped in power and violence are queered. Or, in other words, in these moments, lines of power were destabilised and turned toward narratives of care for the planet.

**Thinking and feeling with imaginaries of water becoming heritage**

In the present thesis, I have interrogated human-water relationships and the practices that draw and redraw, lines of power. In so doing, I have discussed how the divide between land and water is established epistemologically in Mexico City and Gothenburg, how this is simultaneously embedded in and a source of cultural memory and how this leads to heritage imaginaries that relegate water into the taken for granted. By scaffolding a fluid methodological framework based on a continuous series of orientations and reorientations, I have directed this research towards the appearances of water in Mexico City and Gothenburg. This approach allowed water to become a subject of its own story, showing itself as a queer entity with multiple storylines crossing dimensions of space and time. The conceptualisation of water as a subject as a carrier of imaginaries, furthermore allowed me to approach the

concept of heritage critically, attributing it with ephemeral notions that queer canonised binary narratives. This then, ultimately, becomes a first step in a reorientation towards practices that guide planetary regimes of care.

The watery lens in the mapping optic that the present research has adopted, created an opportunity to engage with the inescapable challenges of interdependence and interconnectedness of local realities with(-in) planetary dynamics and conditions. At the same time, it offered a possibility to focus on decentralising humans and recentring narratives *from* liquid spaces in cartographic reasoning. In doing so, rather than only speaking *about* a certain place, the hydrological cycle became a point of departure to let lines of inquiry emerge *from* these places. For example, in 'Plotting imaginaries …' (p.249), Franska Tomten, although seemingly being an 'anonymous plot of asphalted urban ground' (p.250), became a 'heterotopia of disturbance' (p.253) plotting lines spanning over several centuries and various geographies. Narrative lines moved outwards and inwards, starting from what was available and following to where other voices and stories connect. In this movement, AHDs and other master narratives diluted into a multitude of stories, as, in the 'Bar-In-Between' as conceptualised by Gunnar Olsson, historical tropes are shortened or extended, are straightened or bend, become thinner or thickened, depending on the instance of orientation in which cartographic reason happens. Another example of this can be seen in the Gråberget water reservoir turned into a 'temple for culture', where the hard 'truth-spot' (Gieryn 2018) is softened to make room for new possibilities in taking care of the abandoned space.

It is through the moments of orientation, or reorientation, that the present research has become a quest for finding openings in prevailing narratives—that inform authorised heritage discourse—to intervene and let new opportunities for practices of care emerge in the in between. In this sense, modern heritage paradigms of conserving traces of humanity as a cultural benefit for future generations are challenged as presumably fixed cartographies—earlier carved in granite—prove to be dynamic, unstable and in constant transformation—when written in water. For example, when confronted with the materialities of the Gärdsås Pond, accounted for in the essay 'Cur(at)ing time' (p.243), it became clear that its waters were part land, its land part water, challenging fixed binaries that place land and water on either side of a line. The shift from water cartographies drawing the line between land and water, toward queer heritage cartographies that acknowledge the ephemerality of water suggests, therefore, simultaneously, the ephemerality of heritage.

Instead of seeking how to map subjects or heritage, the current research focused on the ways in which mapping and the cartographic gaze have produced subjects in specific categories, to, subsequently, create moments to experience the effects, affects and possibilities to imagine ways beyond these fixed geocodes and the taken for granted. In the essay regarding the beginning of the walking journey through Mexico City, 'Birth: the mountain' (p.138), the sensitivities brought about by this methodology gave new perspectives on seemingly simple phenomena. Mount Tlaloc transformed from a fixed point on the map of space to become fluid and spread through the Valley of Mexico. When juxtaposed to the mines, where stones accumulating over millions of years are excavated to build the city, this point in space transcends into a knot in time, vectoring a line that stretches from a prehuman past into the future of the megalopolis.

The moments of orientation give way to argue that an understanding of water as a connecting cultural matter becomes an approach to examine and alter practices with which places are articulated in time and space. The two contexts in which the iterations of the methodological framework were carried out can be mirrored in one another in the sense that the 'logic of colonisation' (Plumwood 2002) that guided the modern planning paradigm in Mexico City over the past centuries can still be found in Gothenburg as well. This indicates that the trope of progress and development governing prevailing cartographies toward the future of Gothenburg, among others, can be criticised, as urban life is sustained and enabled by many that are pushed to the margins. The fluid methodology provides tools to actively (re)imagine the past, present and future of the human and more-than-human city by allowing different infrastructures, ecologies and cosmologies to emerge from the imaginaries that water carries.

**Remarks on planetary regimes of care**

The overall objective of this research was to 'inspire mending practices of *curating the city*, as a collaborative effort in relation with others, in reflective and bodily engagement with the city and its more-than-human pasts, presents and futures' (p.43). In these final remarks, I would like to highlight some of the broader implications of the present dissertation by situating it in relation to *kulturvård* and practices of care. This, in turn, is about transgressing design and heritage research and practices in times of a planetary crisis—that, keeping in mind Amitav Ghosh's assertion, also entails a crisis of imagination (p.29). The current dissertation suggests that the survival of the human species is bound to the heritagisation of the planet as a common earth system that is affected by many different relations. The different iterations in Mexico City and Gothenburg reflected that the burden of living on a damaged planet lies in power relations and ways of living in disconnect with other lifeworlds. Clear examples of this can be found in the conditions of 'agnosia' and 'colonial aphasia', as described in 'Plotting imaginaries of what should have been, could have been, or might still be' (p.250). The present dissertation has shown how both these concepts can be expanded to a scale of planetary agnosia and aphasia, which reiterates the need to repair planetary relations.

The Swedish denomination *kulturvård* in the way that Sverker Janson (Janson 1974) coined it in the 1970s, offers a way of looking at, managing and taking care of the environments in which humans have settled, while it also underscores the need to create new understandings of management paradigms to bring about different conditions for a collective future. The aim of the present research was exactly to find ways for doing this, with water, in a theoretical approach to imagination and a methodological way to instrumentalise it in research and practice. This was done to recognise where skills and capacities can be oriented to overcome colonial logics, expand imaginaries and nurture practices of solidarity and reciprocity. I see opportunities for the fluid methodology and, in a broader sense, perceptions of water, brought to the fore in the present dissertation, to be valuable for professionals who engage in long-term planning of urban resources—those involved in *kulturvård*, heritage and other management, in cities and other habitats. This is not to say that these professionals are all planners, in the strict sense, as many professions—including artists and designers—can be part of these processes. What must be noted here is that,

in the present dissertation, I do not perceive heritage as a resource, but rather as a navigational system, tracing different relations in and with the world.

The current dissertation recognises that life on earth is long while the notion of taking care for the environment expands toward care for the diversity of planetary concerns. These demand *intersectional*, *multilayered* and *transdisciplinary* responses to connect previously unrelated spaces. As such, these terms, rather than adjectives, become modes of being in a continuously changing relationship with the world. Moving with the water cycle in this dissertation has led to orientations toward heritagisation of the earth system as a planetary common. However, it also became clear that care as a planetary regime and the geo-bio-politics of heritagisation are not easily connected. This emphasises the need for taking responsibility for exclusions happening while making urban futures, and, in that sense, the need to address, even more, exercises of collective care. In practice—and in relation to water—this can mean that research carried out in other fields could find inspiration in the present thesis when finding ways for giving space to more wetlands that absorb nutrients and from which new habitats emerge; creating alliances with microorganisms to break down and remove pollutants; collecting rainwaters to be stored for water self-sufficiency; removing barriers and opening spaces for degraded and river ecosystems to regenerate so that water quality can improve while the biodiversity increases.

My design research practice has evolved throughout this project to facilitate collaboration and cocreation with, for example, policymakers and decision-makers. Throughout the iterations of the fluid methodology, imaginaries were anchored in concrete realities. Simultaneously, imaginary agency was mobilised to go beyond those realities, acknowledging the rights and interests of diverse humans and other-than-humans to explore how these could be encompassed and approached in more equitable ways for giving shape to—and being in—the world. Although the present research has now been centred around certain areas of expertise, for future development, other professionals could be engaged more directly in exploring the liquid gaze and fluid methodology. In this sense, the fluid ways of working set out in the current dissertation can be applied as a method or pedagogical tool to inquire on diverse issues related to scale in time and space. This thesis, thereby, orients toward practices of re-membering, repairing, remediating or designing planetary regimes of care by making room for paying attention, thinking, feeling and imagining—with others.

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This dissertation centres around the role of water within urban heritage. However, its main concerns transcend beyond water, urban environments and heritage. The fluid methodology, developed in this dissertation, provides tools to actively (re-)imagine the past, present, and future of the human and more-than-human city, by allowing different infrastructures, ecologies, and cosmologies to emerge from the imaginaries that water carries. As such, urban waters of Mexico City and Gothenburg, through a framing with a point of departure in critical heritage studies, complemented with methodological and theoretical insights from design research, critical geography and ecofeminism, become a window into the agency of imaginaries. In doing so, this dissertation contributes to discussions on critical design practices and critical heritage studies by directing the creative potential of design towards fostering collective imagination and regimes of care.

**Moniek Driesse** holds a BA in design from the Design Academy Eindhoven and an MArch from the Universidad Nacional Autónoma de México in Mexico City. Her design research embraces the subjective nature of human experience to understand it in its context and to promote change through her work on the agency of imaginaries.


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