

Scenography for transition

- in search of utopian visions beyond growth

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What happens at the end of the graph?

Abstract

What if the proposed causality between GDP growth in Sweden and sustainable development turns out to be wrong, that this utopia for some means a dystopia for others? If GDP growth does not guarantee a livable state on Earth for all, then we, the global North, are short of visions for an alternative future. There are articles, books and reports from practices ranging from political science, spatial planning, economy and environmental science (Brown, 2015; Hagbert et al., 2018; Raworth, 2017; Rockström, 2015) stating the need for a transition of unprecedented proportions. Testimonies of the social or ecological failures of capitalism does not just imply the need for a change of habits but for a fundamental shift in mindset and of societal values. A transition moving us away from economization, consumption and inequality in order to avoid potential social unrest, climate refugees and dystopias in a near future.

But a transition to what?

Since the narrative of growth is tenacious in our society, the study has turned to an adjacent field of expertise proficient in spatial storytelling. Perspectives and methods of scenography supports my process in developing a future spatial narrative questioning and offering an alternative vision to growth. Four scenes are put together to show a potential future path inspired by the report 'Future scenarios beyond GDP growth' (Hagbert et al., 2018). The scenes form what I call the Master

Scenario, which helps investigate what architecture in central urban areas should enable in the future. The case used in this inquiry is Kanaltorget in Gothenburg, a central public space currently characterized by infrastructure, parking garages and noise.

An evaluation of the Master Scenario beyond GDP growth concludes the thesis. It contributes to a discussion regarding what an alternative future architecture needs to do, rather than if we need an alternative. The aim of the study is that it will be an empowering call to arms for architects to be daring, as key actors in visualizing futures yet unseen.

Is there an option if we fail to address this challenge?

Keywords

Transition, planetary boundaries, growth critique, scenography of public space, future images, sustainable development

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And thank you Sussie, Klara, Karin, Gustaf, Moa & Julia for the winding road here!

With hope that the utopias we envision will help repair some of the damage done and guide us towards building a sustainable future for generations to come.



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på bortträngning?"
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Reading instructions

Overview of chapter:

Each chapter will start with an overview listing the chapter's individual headings.

Structure of the thesis

This work makes use of a scenographic method to study public space. A result of this approach is that the structure of this thesis differs somewhat from a traditional one. After the introduction chapter, which provides background theory for the thesis, seven chapters are titled according to seven scenographic work areas as described by scenographer Pamela Howard (2009). I introduce the thematics of each chapter through her scenographic lens. The last two chapters include a design proposal presented as four scenes and a concluding epilogue.

Certain keywords are explained in the glossary list on the page to the right. When these *keys* occur in the text of the introduction chapter they are set in italic. All images by the author, if nothing else is mentioned.

I. Text: the hidden story

As in a scenographic process I have started with the Text, which introduces four future scenarios beyond GDP growth. They are combined into one narrative for the thesis to follow providing a visionary framework which I call the Master Scenario (MS).

II. Space: measure to measure – playing in the space

The second chapter revolves around Space, and the stage in this thesis is Kanaltorget in Gothenburg. This setting is described and analyzed through a traditional architectural spatial analysis.

III. Research: asking questions – finding answers

Chapter III represents the larger part of my theoretic investigation. The theory spans from economics to environmental science and formulates a conflict and a problem to which the architect needs to respond.

IV. Direction: finding the way

This chapter is an overview of Swedish political and corporate visions, goals and policies for built envi-

ronment and sustainability. It also contains literature findings regarding the context and space of maneuver of the architect and points out strategies and programs for the design part of the thesis.

V. Performers: the scenographic actor

To gain perspectives on actors and actions in public space chapter V looks into empirical studies of Performers in the context of theater and exhibitions.

VI. Spectators: the great mystery

Like the previous chapter number VI uses empirical studies of theater plays and exhibitions but focusing on the mystic role of the Spectators.

VII. Color & composition: the balancing act

The narrative of the space is explored through sketches of Color & composition framing the materiality of the four scenes.

VIII. Scenographies – four scenes

The design synthesis of the investigation is compiled in chapter VIII in a four step transition with drawings, diagrams and explanations relating to the seven scenographic work areas.

IX. Epilogue

In the epilogue chapter I summarize, analyze and discuss my findings in order to arrive at my conclusions.

Chapter summary

At the end of chapters I-IX there is a short summary with chapter conclusions. Here there will also be an introducing text of the next chapter and the encounters we will make there with important *Spaces*, *Performers* and *Stakeholders* put in italic.

Keys

Acceleration	<i>Increase in speed - a Great Acceleration in economic activities has been observed from the 1950's onward (Steffen et al., 2015)</i>	Homo oeconomicus	<i>"today's homo oeconomicus is /.../ tasked with improving & leveraging its competitive positioning & with enhancing its (monetary & nonmonetary) portfolio value across all of its endeavors & venues" (Brown, 2015, p.9-10)</i>
Automation for quality of life	<i>Wealth is used to work less. Robots/ automation are not seen as treats, but are rather treated as possibilities for freedom & meaningful occupation (Gunnarsson-Östling et al., 2017, p.15)</i>	Neoliberalism	<i>"...as economic policy, a modality of governance, and an order of reason is at once a global phenomenon, yet inconstant /.../ a peculiar form of reason that configures all aspects of existence in economic terms" (Brown, 2015, p.20)</i>
Circular economy	<i>Legal & economic instruments are used to achieve a system of resource-efficiency & circular production loops (Gunnarsson-Östling et al., 2017, p.21)</i>	Planetary boundaries	<i>A theoretic framework describing nine boundaries or limits to the Earth's geology, beyond which lies danger zones for crossing tipping points pushing the Earth and risking irreversible geological change (Rockström, 2015)</i>
Collaborative economy	<i>We share, rent, borrow and swap products and services with each other rather than own and buy (Gunnarsson-Östling et al., 2017, p.7)</i>	Self-sufficiency	<i>Provision security & sustainable solutions based on local resources are the focus of the local communities (Gunnarsson-Östling et al., 2017, p.11)</i>
Degrowth	<i>A concept imagining and enacting an alternative vision to modern development relating to a form of re-politization where degrowth takes sides with ecology rather than economic growth (D'Alisa et al., 2015)</i>	Social foundations of life	<i>Term describing the lower limits for leading a decent life (see Doughnut economy)</i>
Development, critiques of	<i>The concept of development surfaced together with the term "the Third World" and is interlinked with the strategy to bring modernization to it (Escobar, 2015)</i>	Steady-state economy	<i>Term describing an economy with a constant stock of people & artifacts with the lowest feasible flows of matter & energy (Daly, 1991)</i>
Doughnut economy	<i>A theory describing the challenge of sustainable development as a doughnut where the outer border is our Environmental ceiling and the inner border is our limits for Social foundations of life (Raworth, 2015)</i>	Sustainable development	<i>The activities of human civilization operating within the planetary boundaries or as put in the Brundtland report: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World commission on Environment and Development, 1987, p.41)</i>
Economized	<i>When practices, domains, even politics, are treated according to economic logic: "All conduct is economic conduct; all spheres of existence are framed and measured by economic terms and metrics, even when those spheres are not directly monetized" (Brown, 2015, p.10)</i>	Transformation	<i>Means 'change in shape' "...transformation analyses highlight 'what' it is that changes from emergent patterns of change and what are outcomes at a systemic level", (Hölscher, Wittmayer, & Loorbach, 2018, p.2)</i>
Environmental ceiling	<i>Term describing the upper limit for planetary resources (see Doughnut economy)</i>	Transition	<i>Means 'going across' "...transition analyses focus on the processes and dynamics producing patterns of change to explain 'how' the non-linear shift from one state to another is supported or hindered", (Hölscher, Wittmayer, & Loorbach, 2018, p.2)</i>
GDP	<i>Gross Domestic Product, the market value of goods & services produced within a nation (first measurement was called GNP - Gross National Product, and included national value produced abroad)</i>		

Scenography for transition

There is a strong consensus in the global north regarding the benefits of economic growth, and UN relates it to sustainable development. The focus for this thesis is this questionable relationship between growth and sustainability, as well as investigating options to the narrative of growth. A narrative which is so strong that it is hard to even imagine other means, goals or settings.

The stage where we all might act, the public space, can be understood as a scenography for everyday life. What stories it frames, enables or prohibits is connected to what we imagine for it when we plan it. Architecture entails the creation and recreation of built environment, but it can also be put in relation to the creation of environmental and societal threats. The architect can be described as the scenographer of the built environment, telling a spatial story of our society. This storytelling is connected to a narrative or vision – the prevailing current narrative being that of economic growth. It is also a storytelling linked to the use of natural resources which in turn are dependent on the use of land for production or extraction. Architects risk being part of and amplify ecological and social problems, however, architects are also in a position to affect the development in other directions. Subsequently, it is crucial for architects to, like scenographers, know the narrative they help staging and to be aware of the direction it points out.

Economic growth in a Swedish context – one narrative

There is an option to strive towards *GDP* growth or towards something that does not imply unlimited growth. The Swedish context is an interesting place to research this choice. Our relatively high political ambitions for sustainability and our government's explicit belief in, and strive for, continued economic growth allows for an investigation of these two potentially paradoxical concepts. Sweden is also a country with a substantial level of consumption, supporting, and being a prerequisite for the narrative of our economic growth. But are Swedes the ones in need of this growth? Aiming for sustainability, the global civilization needs to choose where to strive for a growing economy. If *GDP* growth cannot guarantee an equitable and *sustainable development* for all, this thesis argues that developed countries like Sweden need to explore alternative storylines and means to achieve them. In order to comprehend the risk that we are taking by not questioning economic growth in Sweden as the means to sustainability, reflections on spatial consequences of crossing geological tipping points are made in this work.

The architect's space of maneuver

The architect as linked to, and entangled in, the logics of economic growth. Being a creator of values architects risk helping to lock in an unjust distribution of wealth, globally and locally. My case study investigates how the architect, in working with the public space and in visualizing unseen futures, can help create a new narrative. Finding inspiration in scenography, this thesis argues that public space is loaded with narratives. That spaces which architects design could either reproduce a problematic narrative of unsustainable worldviews and behaviors or question it. Using scenography as method changes the perspectives and toolbox of the architect, possible untangling the architect somewhat from the dogma of growth.

Transition as another narrative

Confined by public space and architecture, this thesis illustrates a future scenario of *transition* beyond economic growth. The scenario is framed as a narrative with scenes constructed to complement, or contradict, those of economic growth. Informed by scenographic approaches, an investigation has been made into potential catalysts for this trajectory. The spatial interventions are regarded as scenographies; structures that carry a message or supports a narrative, and that occupy space for a limited period of time. A narrative of transition towards independency of economic growth suggests options to the omnipresent narrative of consumption. The research has its focal point in Kanaltorget. Consumption is being anchored in its present and history as well as being part of the current climate challenge. Inspired by the report 'Future scenarios beyond *GDP* growth' (Hagbert et al., 2018), the transition storyline builds on *collaborative* values with increased *self-sufficiency* and *automation for quality of life* in a *circular economy*.

Comparison & analysis

Life as we know it could dramatically change by our own hands, either as a drastic response from nature due to climate change or, preferably, by our own *transformation* of the logics of our civilization. The dilemma between continued economic growth and sustainable development can be illustrated by the graph to the right. I have worked with Kanaltorget, a public square in Gothenburg, and the result of my work is an analysis of a transition scenario aiming for sustainable development (flat graph to the right) and putting it in comparison to the potential risks of continued growth (growth curve to the right).

Purpose & research questions

There is an urgent question of what the developed world is able, and willing, to do to ensure a sustainable development for all. Using public space, this thesis leads an argument that aims to illustrate the potentially paradoxical relationship between GDP growth in the West and sustainable development globally.

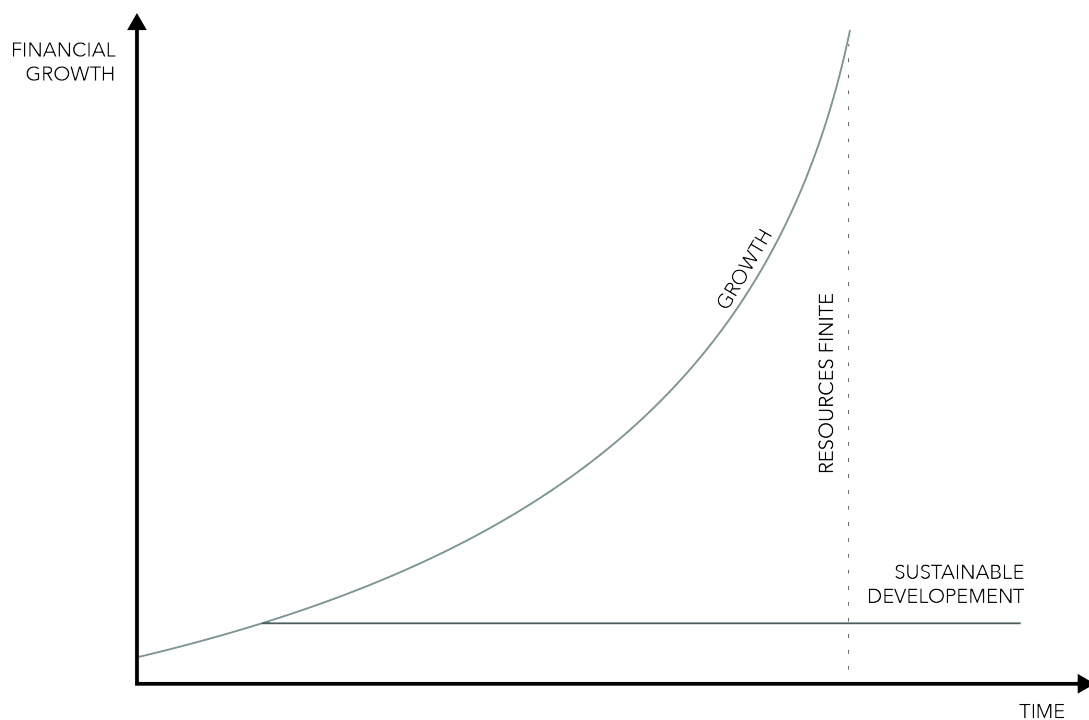
If the future images architects produce affect the actions people take or even imagine, then there is an importance in diversifying the visions for a more sustainable and dynamic tomorrow. I aim to raise doubt regarding a causal relationship between economic growth and sustainability. A future scenario beyond growth helps visualize what physical manifestations another target point could result in.

Through exploring the position and space of operation of the architect I want to empower myself and other architects, planners, and even policy makers and politicians to look beyond the logics of finance. Furthermore, I want to help develop a broadened spatial vocabulary and contribute to ideas of what

sustainable built environment beyond GDP growth could be in the context of public space.

Thinking of architecture also as a communicative scenography opens up for an analysis of what stories are embedded in built environment. I aim to explore how scenographic approaches to public space can open our minds, and be utilized to understand underlying messages or emotional imperatives in the built environment. In the case of this thesis the emotion/emotive force I want to investigate is the will to change and the questions I want to raise are:

- *What could an architecture beyond GDP growth be?*
 - » *Arguing that GDP growth in Sweden does not guarantee sustainable development; How could a specific public place in Gothenburg be used as an example to visualize a spatial narrative beyond GDP growth?*
 - » *How to use a scenographic perspective to help the understanding of potential conflict between GDP growth and sustainable development in relation to public space?*



Why is the end of the exponential graph of economic growth, the point where finite resources cannot support growth anymore, so seldom shown?

Background

One Earth is the prerequisite for human existence but if we globally lived according to a Swedish lifestyle we would need about 4 Earths (WWF, 2019).

A single planet

Acceleration in the economic activity of humanity continues to increase (Steffen, Broadgate, Deutsch, Gaffney, & Ludwig, 2015) and as we are exceeding *planetary boundaries* we risk crossing irreversible geological tipping points (Rockström, 2015). To meet the needs of all using only available planetary resources is a highly complex task, and it has been proposed that the challenge can be understood as a *doughnut economy* where the outer border is our *environmental ceiling* that we need to remain beneath and the inner border is the minimum level for *social foundations of life*. What looks like an ever increasing line/graph describing growth agrees with our understanding of ‘good is forward and up’ and for 60 years economic thinking have told us that GDP growth was a good enough proxy for progress. Raworth claims this century calls for quite a different shape and direction of progress where “good is in balance” (Raworth, 2017). Supported by this theory, growth in the western world might be questionable, if we also aim for a development which lifts developing countries out of poverty, and still want to remain within the boundaries of our planet.

Global definitions of sustainable development

The first point in the conclusions of the famous Brundtland report is often quoted: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The second, less quoted, part of the paragraph mentions two key concepts: “needs”, mainly referring to the world’s poor, and “limitations” imposed by the state of technology, social organization and the environment’s abilities (United Nations World Commission on Environment and Development, 1987, p.41).

In face of the environmental threats of today, all UN member states adopted 17 international Sustainable Development Goals (SDGs), as part of the ‘2030 Agenda for Sustainable Development’ (UN, 2015b). The SDGs are a call for global coordinated action to end poverty and to “improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests” (UN, 2015a).

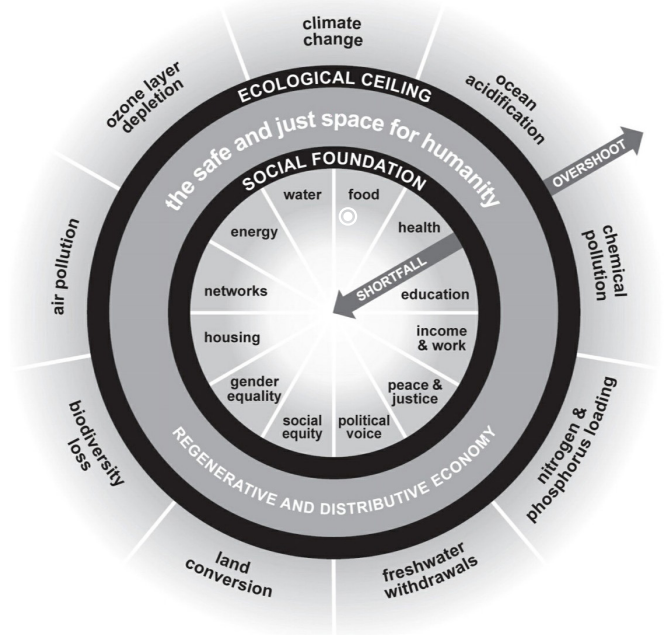


Image: Kate Raworth

A narrative of economic growth & development

UN’s view on the outcome of these goals might seem naïve, but they are none the less ambitious. In their ambition they want to change an unsustainable practice, and to do so they rely on growth. SDG #8 ‘Decent work and economic growth’ focuses on and promotes a sustained economic growth with higher levels of productivity and technological innovation and they argue that growth is key to eradicate forced labor, slavery and human trafficking (UNDP, 2018).

The OECD-countries, dedicated to economic development, according to themselves collect many of the world’s most advanced but also emerging economies. Their mission is to help governments; Restore confidence in markets and the institutions that make them function; Re-establish healthy public finances as a basis for future sustainable economic growth; Foster and support new sources of growth through innovation, environmentally friendly ‘green growth’ strategies and the development of emerging economies; and Ensure that people of all ages can develop the skills to work productively and satisfyingly in the jobs of tomorrow (OECD, 2019). In other words, they rely on economic growth to take us out of both the environmental crisis and social challenges.

However, the blind belief in economic growth is starting to shift, if ever so little. In the Swedish Government’s ‘Proposition for designed living environment’ they state that: “If short-term economic aspects are put above other regards we risk fundamental values in people’s lives as well as society’s long-term sustainability, not least regarding the possibilities for ecologic balance.” (Regeringen, 2018, p.17).

Current economic logic – a threat?

The science report ‘Futures beyond GDP growth’ (Hagbert et al., 2018) presents a growth critique that questions GDP growth in Sweden as the most reliable means to assure sustainability and argues the need for diversified images of a sustainable future.

“In economic and political discussions, the notion of continuous economic growth is often taken for granted and seen as a prerequisite for a safe and sustainable societal development. At the same time, the blind faith in and expectations surrounding growth can constitute a threat to building a sustainable society if growth declines.”

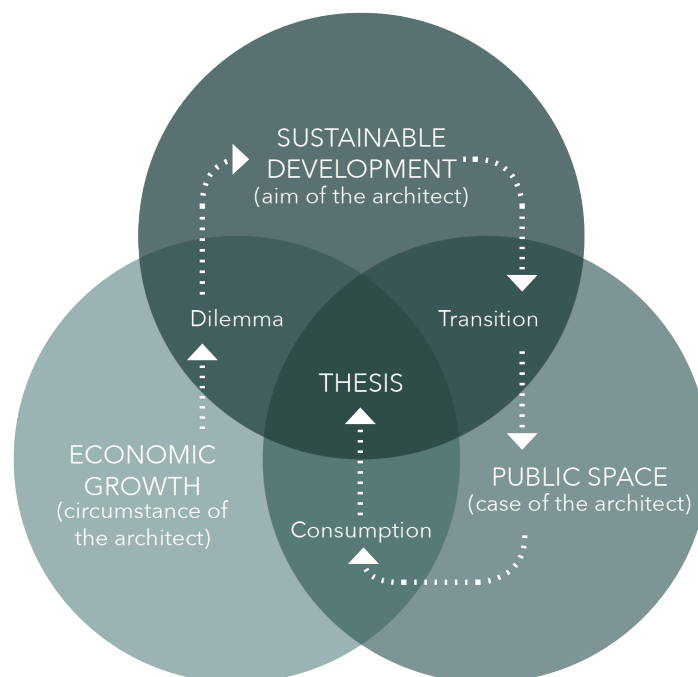
(Hagbert et al., 2018, p.7)

Further arguments to question economic growth are presented by the political scientist Wendy Brown who criticizes *neoliberalism* and claims that all societal spheres have been *economized*, permeated by a financial logic. She argues that the neoliberal normative order of reason has developed into a widely and deeply spread governing rationality, resulting in a logic where:

“All conduct is economic conduct; all spheres of existence are framed and measured by economic terms and metrics, even when those spheres are not directly monetized.”

(Brown, 2015, p.9-10)

Brown states that we are everywhere and only *homo oeconomicus*, a human figure acting only to enhance value. Following Brown’s argumentation further she refers to Plato’s often challenged homology between the city and the soul where each is claimed to consist of the same constituent elements – reason (philosophers), spirit (warriors), and appetite (workers). Their order is described by “If appetite or spirit, rather than reason, governs either the individual or political life, the cost is justice or virtue” (p.22-23). Brown claims neoliberal reason has resulted in both persons and states having conformed to, and are expected to, maximize both their current and future capital value or risk downgraded credit or even bankruptcy. She further argues that the new homology between city and soul has economic coordinates rather than political meaning economic ends replace political ones. This is profoundly destructive to the very fiber and future of democracy in any form, she claims. Through, in a revolutionary way, limiting people’s way of reasoning rendering us unable to think or act beyond market logic. The notion of the citizen is reduced into a consumer on a market where the only power we can perform, to be Shakespearean, is the power to buy or not to buy. Since the market is not an equal place Brown argues that this is now threatening democracy itself (Brown, 2015).



Due to the potential dilemma between economic growth and sustainable development, this thesis explores visions of transition within public space, helping to redraw patterns beyond narratives of consumption.

Discourses – beyond economic growth

Apart from the recent environmental warnings of a stressed ecosystem as a consequence of human behavior, the current growth dependent economic system has been under critique for a long time. Questions have been asked like what are the limits to growth?

In the early 70's 'Limits to Growth' (Meadows, Meadows, Randers, & Behrens, 1972) was published arguing that present rates of growth would imply that the Earth could not sustain us beyond 2100. Five factors that limit growth were identified; population increase, agricultural processes, nonrenewable resource depletion, industrial output, and generation of pollution. Environmental restraints and the consequences of an overshoot caused the authors to define the need to explore "a fundamental revision of human behavior" (p.190). They claim inequalities caused through growth, on a planet of finite resources and space, could be mitigated by global efforts for substantial improvements in developing countries. Deeming this a global problematic in need of globally coordinated responses the authors argue that a major responsibility rests with the richer countries to "encourage a deceleration in the growth of their own material output while /.../ assisting the developing nations in their efforts to advance their economies" (p.195). If not, we risk increasing already large inequalities eventually likely to result in power struggles between developed and developing countries. A conflict that will become increasingly difficult as we approach material limits. The authors also stress that this is a challenge for their generation that cannot be passed down to the next, if we are to reach an equilibrium through planned measures and not by catastrophe. It is described as a slow and difficult process of shifting values and objectives, including individual sacrifices and political and economic change.

Steady-state, degrowth & development critique

Since 'Limits to Growth' there have been many others forming critiques against the current dogma of growth and proposing alternative frameworks to how we could organize society differently. Ecological economist Herman Daly proposed in the 90's what he called the *steady-state economy* – a physical concept described as "an economy with constant stocks of people and artifacts, maintained at some desired, sufficient levels by low rates of maintenance throughput, that is, by the lowest feasible flows of matter and energy from the first stage of production /.../ to the last stage of consumption" (p.17). This theory was formed against the back-

ground of economic growth, arguing that if something grows forever then it is inevitably non-physical. The ability of economic growth, being physical in its nature, to grow infinitely was thereby being disproved or at the very least questioned (Daly, 1991).

Degrowth, rooting from Gorz and Georgescu-Roegen, is another term signifying a critique of growth, calling for "the decolonization of public debate from the idiom of economism and for the abolishment of economic growth as a social objective." (D'Alisa, Demaria, & Kallis, 2015, p.3). It is a concept imagining and enacting an alternative vision to modern development relating to a form of re-politization where degrowth takes sides with ecology. The degrowth transition can be described through four points: grassroots economic practices (a shift from production for trade to production for use ranging from cooperatives, urban gardens and time banks, to online communities and digital commons), welfare institutions without growth (state job guarantees, basic income and zero unemployment), money and credit institutions (with a debt free creation of public money combined with local currencies) and politics of a degrowth transition (various political strategies to shift to values of degrowth) (D'Alisa et al., 2015).

Arturo Escobar, professor of anthropology, has a perspective on growth and *development* from the Global South. He puts forward a *development critique* that presents the diverse perceptions of development ranging from the modernization of poorer countries to development as a reflection of the aspirations for a dignified life or even a destructive process one is forced to coexist with. This recent historical process of development involving social, economic, political and cultural aspects has roots that can be traced back to the late 1940s when Escobar claims the economic development became linked to the (enforced?) modernization of "under-developed areas" meaning to mimic the industrialized countries with technology, urbanization, industrialization and modern values. In that era growth economists also related savings and investments to growth which the author points out as an important part in the process of linking development to growth. He also describes an early occurrence of the concept of development in strategies to eradicate poverty. Escobar argues that the concept of development surfaced together with the term "the Third World" and that it is interlinked with the strategy to bring modernization to it (Escobar, 2015).

Method

Scenography for transition

To explore what architecture in a future beyond economic growth would look like and do, I turn to scenography for inspiration, help and new perspectives. Architects are part of the building industry and answer to municipal confinements, both heavily defined by the imperative to produce economic growth. A viewpoint influenced by scenographic approaches helps to reposition myself, and the role of the architect, from normative architectural approaches tied to the logic of the building industry, speculative land value and consumption. It also assists in a research into how architects act as co-creators of spatial storylines towards an end-vision. Through a scenographic lens a broad spectrum of themes is explored theoretically ranging from environmental, economic and political theory. Starting in both literature studies and exhibition and theater visits this thesis investigates themes of climate change, growth critique and transition towards sustainability – all linked to consumption. The structure of the thesis' chapters follows scenographer Pamela Howard's seven focus areas for understanding scenography (2009). My use of them is presented under Methodology, see diagram on p.15.

A case study of public space beyond GDP growth

To explore a narrative beyond economic growth, the site Kanaltorget has been chosen. It is a public space in the force field between consumption: the parking garage of Nordstan shopping mall, and storytelling: the Gothenburg Opera house. The site is linked to many strong stakeholders; the national Transport agency, the Västra Götaland Region, the municipality of Gothenburg and private actors such as the Nordstan association. Transition beyond economic growth will be discussed through the case Kanaltorget in four moments in future time, as four scenes in a story if you will. The investigation revolves around the architecture of a public square and its potential role as scenography for a narrative beyond growth and consumption. The scenes will illustrate a scenario of transition visualized by collage-like architectural designs. My focus is two-fold – on a structural scale I am touching upon urban design strategies and programming, and on an architectural level I will make use of scenographic methods to explore narratives for public space that enables the inhabitants to engage in a transition towards sustainable lifestyles. Initially I will map the current prerequisites for the site including its historical roots as well as

overview the municipal plans and visions for the site including the drivers behind them.

Creating a Master Scenario as a study framework

Like scenographic work follows a text, this thesis makes use of the report 'Future scenarios beyond GDP growth' (Hagbert, 2018) to examine what physical manifestations a transition could entail. The four future scenarios of the report have been developed according to sustainability goals defined by the authors. Common for all scenarios is the need for a changed consumption pattern. I have rearranged the, sometimes intentionally contradicting, scenarios and compiled them into what I call a new Master Scenario (MS). By detailing the level of intervention, from international to local, some contradictions have been mitigated or clarified, whilst other contradicting differences simply have meant leaving a few aspects out of the new scenario. The MS is built on the values of collaboration, local self-sufficiency, automation for quality of life and circular economy in the welfare state presented in the report. This offers me a vision or a framework for exploring physical responses to an alternative path towards sustainable development beyond GDP growth.

To compare & analyze

The contrast between the present narrative of economic growth in public space and a narrative of transition towards other values enables a comparison of how these two approaches might serve us in response to climate change and future challenges. The analyses of the "scenographies" and the spatial storytelling these frame will help discuss different visions. It will strengthen and illustrate a discussion on what values, risks and actions we inscribe in the design of public space. A discussion revolves around public space in a Swedish city and what its design might entail for the city's inhabitants as well as what consequences it holds for sustainable development.

Scope/delimitations

I will discuss economic growth in relation to sustainability and make overarching designs for a public space.

I will not go into building details, but this is something I would have wanted to include more if time was of no limit.

Methodology

It is hard to imagine a society beyond the confinements of economic growth. It is so hard that I have struggled to enter the actual design phase. Turning to scenography for input has allowed me to use a guiding text freeing me somewhat from the straitjacket of growth.

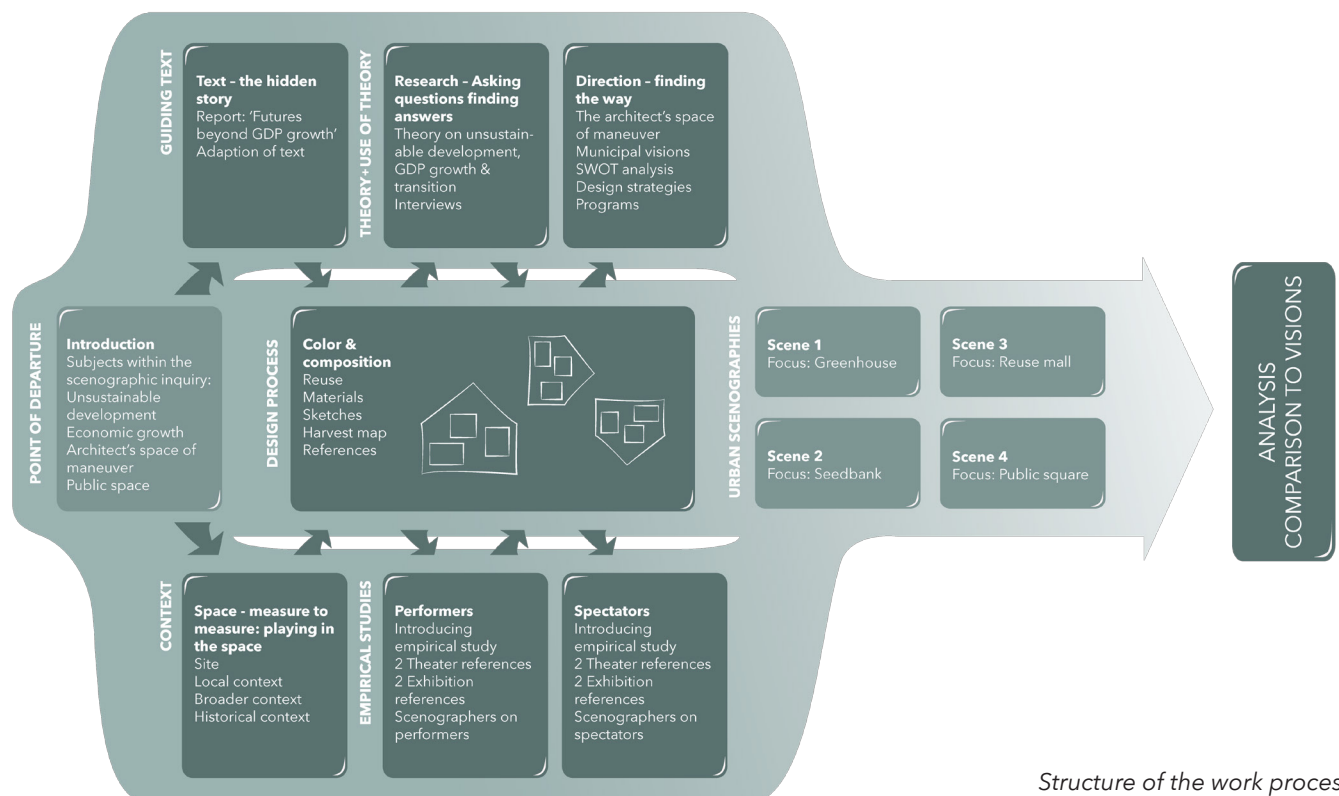
Through the lens of the scenographer new perspectives might arise on architectural conundrums. Using a method inspired by Howard's book 'What is scenography?' divides my work into seven areas; text, space, research, direction, performers, spectators, and color and composition. This has been an attempt to come to other/new conclusions regarding what a sustainable public space might do or become in the future. In letting the architectural methods reside in the shadows the proposal might, and should, drift rather far from what could be perceived as rational today. The guiding MS, deriving from the scenarios of 'Futures beyond GDP growth', will help me maintain a focus and vision in the process. This can be compared to the scenographer's work and designs around the scenic text.

I hope that this movement towards the scenic arts will help the reader to explore the visions with a more open mind. But there is also a risk that this movement might be perceived as too far fetched and distant from what could be considered realistic. If the outcome is somewhere in between these two, I would be content with the result.

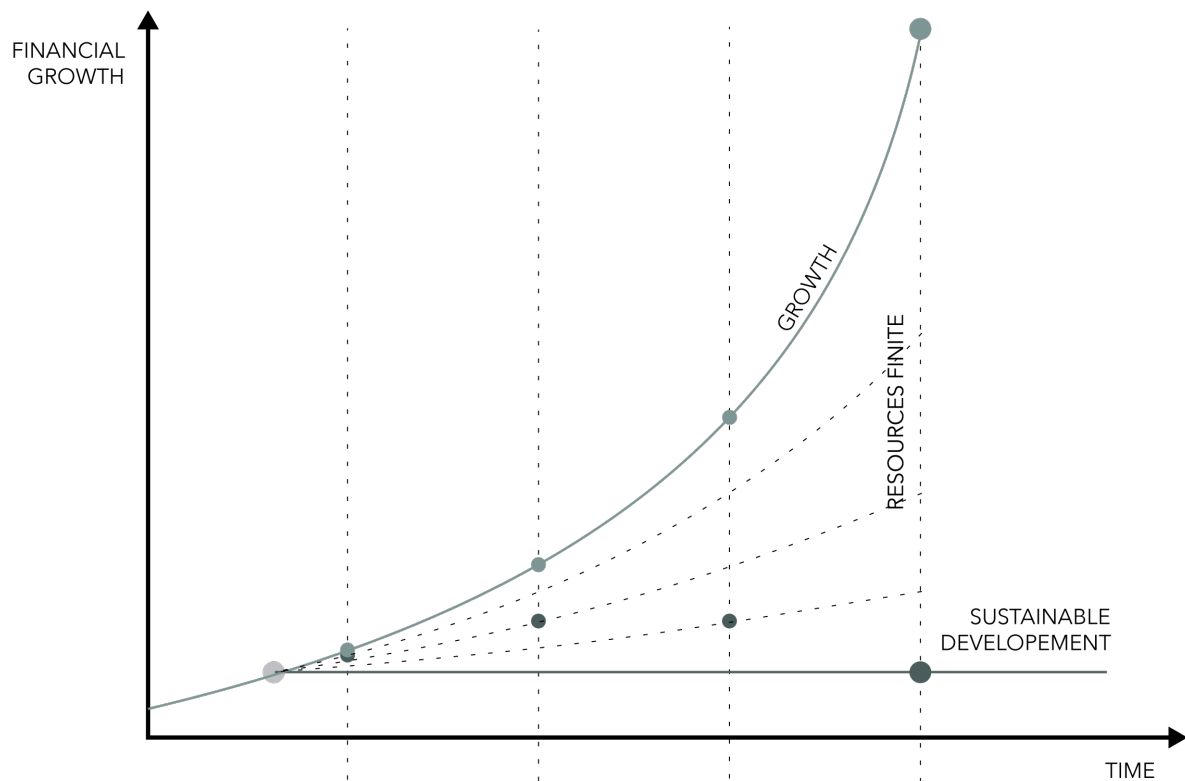
Sources

My sources are intentionally not architects, or even texts strictly regarding architecture, but rather they put architecture and the architect in a wider perspective of the economy and society. I chose them because I have experienced an increasingly paralyzing feeling of powerlessness in relation to what visions we as architects help draw up. Visions accompanied with grand words and stunning images, but that fail to address pressing environmental issues and acute challenges, and instead locking in questionable structures and built environment for decades to come. These sources limit me in a way, keeping me occupied with overarching, large political questions and built environment in broad terms rather than to explore in detail how the architecture could respond to the issues. The field of scenography is used both as a source of inspiration to close in on the spatial aspects of this exploration of a future scenario, and as a way of repositioning the point of departure. It also assists in the argument that the dogma of economic growth is but one of many possible narratives to frame our society.

In the coming chapter the Text will be presented, processed, adapted and reborn as the skeleton around which this exploration will grow. We will stumble upon the Collaborative Economy, Local self-sufficiency, Automation and the Circular Economy but they will leave the center of the stage for the rise of the Master Scenario.



Structure of the work process.



RISKS
LINKED TO
ECONOMIC
GROWTH

A

PL. BOUND.
Biochemical
flows (P/N)

DRIVERS
Industrial and
agricultural
processes linked
to artificial
fertilizers

B

PL. BOUND.
Biosphere
integrity
(genetic
diversity)

DRIVERS
Demand on
food, water, and
natural resources

C

PL. BOUND.
Land system
change

DRIVERS
Deforestation,
mining, sand
extraction &
agricultural
conversion

D

PL. BOUND.
Climate change

DRIVERS
Resource
intense human
activities with
overconsump-
tion as one
aspect

SCENES FOR
TRANSITION
IN MASTER
SCENARIO

I

PL. BOUND.
Biochemical
flows restored

MITIGATIONS
ON SITE
Medium scale
co-productivity
through a CSA
in greenhouse
made from
reused materi-
al with a
cultural meet-
ing place for
stage perfor-
mances

II

PL. BOUND.
Improved
genetic
diversity

MITIGATIONS
ON SITE
Seedbank
storing and
circulating
species in a
biotope
building
restoring and
creating new
habitats

III

PL. BOUND.
Land system
mitigations

MITIGATIONS
ON SITE
Sharing and
circulating
existing
resources to
minimize
virgin resource
outtake

IV

PL. BOUND.
Climate change
is halted

MITIGATIONS
ON SITE
Subdivided
green square
strengthening
ecosystem
services where
canals allow for
sealevels to rise
with fluctuating
water levels

*4 /9 planetary boundaries are in danger or high danger zones,
we need to find ways to mitigate these.*



In this chapter:

A future narrative beyond GDP growth
Adaptation – four scenarios become one Master Scenario
The Master Scenario – four scenes

Introduction to Text in scenography

As a scenographer Howard uses the text as the starting point for her process. She describes the text as “unexplored territory yet to be mapped out”, and she reads it many times with different objectives in mind. Like this she creates an imaginary visual map of the landscape of the text. She emphasizes the need for the scenographer, in order to work from a position of strength, know the text thoroughly. And further to ask what it is the text is trying to say.

“I think of myself as a visual detective looking for clues to pick up, that eventually, when I have them all, will give a surprising solution”

(Howard, 2009)

Other scenographers on Text

Lars-Åke Thessman, opera scenographer, regards the text and in his case the written music as the skeleton

for the spatial work, and he knows the text as well as the director and the actors in order to contribute at his best (Appendix 2G). Architect Pierre Sonrel argues that the play depends on the literary work and the actor to carry it, and that the responsibility of the scenographer is subordinated the inspiration of the poet (Sonrel, 1956). Rolf Allan Håkanson, scenographer, also reads the text notoriously to find all spatial references and potential physical objects that he needs to put together (Appendix 2E). For all the scenographers I have interviewed, Thessman, Håkanson and Ulla Kassius, the text is the starting point for the scenographic inquiry.

A future narrative beyond GDP growth

Using a guiding text in architecture can be translated into the vision that the architecture is trying to reach. I would argue that a vision is different from a goal, which can be to make a flexible building or a green space, whilst a vision takes on a political and longterm aspect. Architects, manifesting visions in built environment, need to, like scenographers, know what vision we are embedding in our work. Beyond the specific short-term goals of the projects. For this thesis the vision that will serve as the guiding text is one exploring futures beyond economic growth.

A report as skeleton for the “dramatic” text

To explore the themes of public space, consumption and sustainable development I will use the science report ‘Futures beyond GDP growth’ (Framtider bortom BNP-tillväxt) (Hagbert et al., 2018). The report is the culmination of a four-year interdisciplinary research project. It has been put together to explore societal drivers and goals beyond economic growth in order to achieve sustainable development objectives defined within the research project (Fauré, Svenfelt, Finnveden, & Hornborg, 2016).

Sustainability goals

The four normative scenarios in the report are the result of a backcasting strategy aiming to fulfill these goals:

- *Sweden shall be fossil free by 2050 which means that no fossil fuel is being used as fuel or in industrial processes. The consumption of Sweden can contribute with a maximum of 0,82 ton CO₂-equivalents (GHG) per person and year.*
- *Land use per person used for the Sweden’s consumption does not exceed the global biocapacity.*
- *All inhabitants in Sweden, regardless of gender, gender-specific expressions, sexual orientation, ethnicity and religious views, age, disabilities, class and level of income, has the right*

to participate in and influence political elections and decision-making that affects their lives.

- *Inhabitants in Sweden have sufficient access to resources and services that enables them getting housing, education, social care and social security as well as beneficial prerequisites for a good health. These resources and services are being distributed according to equity principles.*

Four future scenarios

All the four scenarios in the report (Hagbert et al., 2018) build on decreased consumption and production with focus on re-production and higher spatial efficiency. They also assume our population to a large extent maintains a vegan/vegetarian diet. There are different focuses for the four scenarios and their sub-headings are listed below:

Collaborative economy

- *Digitalization creates opportunities to share resources*
- *Collaborative solutions on different levels*
- *Creative clusters and polycentricity enables cooperation*
- *The power and the production are spread between multiple actors/stakeholders*

Local self-sufficiency

- *Local resources and prerequisites are in focus*
- *People's proximity to countryside or urban farmland is of importance*
- *Direct democracy within local arenas for decision making*
- *Adapted production methods and low import*

Automation for quality of life

- *Robotization has enabled fewer workhours*
- *Everyday-life is online and rich in experience*
- *Digitalization has increased the possibilities for direct democracy*

Circular economy in the welfare state

- *Waste no longer exist as a concept*
- *A strong state guarantees circular systems and welfare services*
- *The population is centralized and concentrated to big city regions*
- *Governing with both carrot and whip*

Most aspects of these subheadings will be taken into account when compiling the four original scenarios into one new. But some aspects of digitalization are down-played due to their contradictory nature to the others.

Adaptation – four scenarios become one Master Scenario

The scenarios are intentionally not compatible in their original state, but explores different ways of achieving the sustainability goals by 2050. In order to be able to explore a transition towards this, the scenarios' texts have been cut up, rearranged and structured into a chronological order devised by me. The interference with the original scenario texts has been to translate them from Swedish to English (see Appendix I), removing contradictory elements to a minimum extent or define on what level of power these contradicting elements occur and finally to merge the four different scenarios into one, what I call, Master Scenario (MS). I have avoided added things (parentheses mark additions). The down-playing of some of the digitalization aspects are due to their high resource requirements that are hard to combine with the other original scenarios. Therefore digitalization is mainly focused on healthcare, transport and communication in the MS.

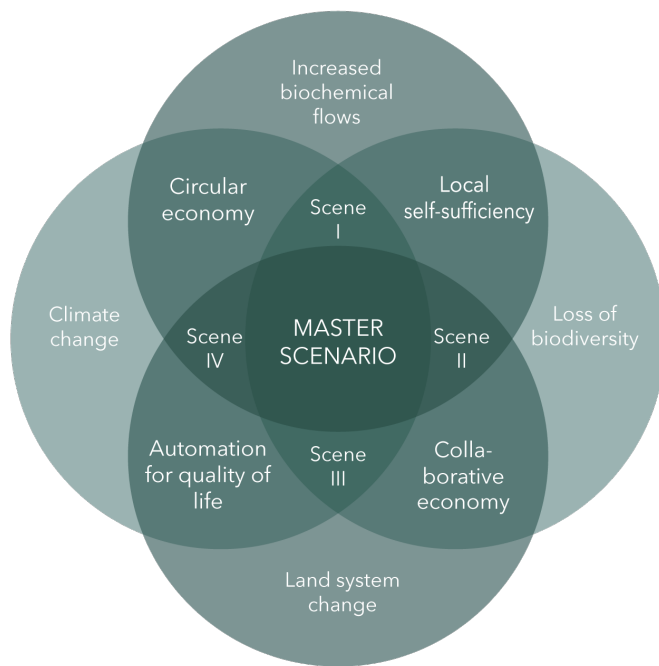
Arranging the new Master Scenario into four moments in time – four scenes

One can understand the MS as the equivalent of the dramatic text for the scenographer. As such I have put the text together in a way that defines a proposed chronology leading up to 2050. Four future moments in time have been defined – four scenes that convey the vision of the MS and bring its narrative forward. The first scene is set in 2020, meaning very soon, the second scene in 2030, the third scene in 2040 and the fourth and final scene is set in 2050. The scenes show a transition in four steps towards a future beyond economic growth.

Adding a dramatic conflict

Four of the planetary geological boundaries, that are currently in danger or high danger zones for crossing tipping points, are introduced as complicating factors, one for each of the four scenes. The scenes then attempt to mitigate these, simultaneously as they convey a piece of the MS-text. The planetary boundaries in question are, in chronological order, as follows:

- *levels of biodiversity*
- *biochemical flows*
- *land system change*
- *climate change*



The Master Scenario - four scenes

This MS is compiled to, in a development in four steps, show ways to mitigate the threats to planetary boundaries that we know are currently in danger zones – *biodiversity*, *biochemical flows*, *land system change* and *climate change*. The skeleton for the text derives from the four original scenarios regarding *collaborative economy*, *local self-sufficiency*, *automation for quality of life* and *circular economy*. Aspects from these scenarios are embedded within the four scenes. This gives the architecture in this thesis its environmental challenge, a vision and a chronology that prompts the development of Kanaltorget.



Year 2020 – Scene I

The scene needs to present a way to mitigate the environmental threat of increased biochemical flows

Governing & politics

A strong welfare state and its institutions provides all citizen's with access to services ensuring basic security. The realization regarding the limits to ecosystems have driven a stringent (international and national) legislation (and regionally) promoting a circular economy built on reuse and circulation of materials. There is a representative democracy, but citizens are not particularly active politically. (However) in Sweden people have become aware of the backsides of the consump-

tion society in the form of environmental pollution and low-salary workforce in faraway countries.

Economy, market & production

The (national) economy has to a larger extent started to be characterized by cooperation rather than competition. The work effort is considerable, however, more than half of the workhours are un-paid and the hours vary to a large extent throughout the year. (Otherwise) human labor is mainly needed in advanced administrative tasks, knowledge production and sharing, creative work tasks and in stimulating social connections. Creative centers for production and consumption generate a polycentricity in the built environment, but the geographic location is no longer depending on large scale infrastructure but is enabled by digital networks. Many stakeholders are engaged in production which creates a diversity in what is being produced, and the goods are generally for the local network, rather than for export. Economic activities are adapted to the conditions in the local communities, which vary in different regions. Supply security and sustainable solutions based on local resources are the focus of the local communities. A swift (green) technological development has resulted in robots and digital technology replacing (some) human workforce which is perceived as an opportunity to work less rather than as a threat to our jobs.

Values, lifestyles & built environment

Sweden has succeeded well in taking care of its resources and has a clean environment, resulting in people being able to lead good lives in spite of decreased imports and consumption. People are digitally interconnected and the physical location is of less importance for the inhabitants' ability to participate in the production of goods and services or to access education. (However,) local knowledge regarding local resources is considered to render better conditions for resource maintenance. A transition into local self-sufficiency is rooted in that people willingly (have started to choose) self-sufficiency and less consumption in order to live within the confinements of our ecosystems ability to sustain us and absorb and clean up pollution. The transition also builds on a wish to be feed from centralized business models and modes for decision-making. Social status and consumption are no longer linked – instead exclusive services or leisure activities combined with the demonstration of knowledge regarding how to consume the “right”

and most sustainable products/services/activities for any given occasion. Cultural capital is the main means to manifest status. Detached housing areas as well as multi-family housing have been densified and the heated living area per person has significantly shrunk, in response the households have access to larger communal spaces in the same building, block or neighborhood leading to a more efficient and flexible use of built environment.



Year 2030 – Scene II

The scene needs to present a way to mitigate the environmental threat of loss of biodiversity

Governing & politics

The state (still) has a strong position as a (national) guarantee for the supply of prerequisites and incitements for an efficient use of resources and to ensure a basic access to classic welfare services. The principles for distribution have clear strokes of classic welfare politics where all citizens have the right to general welfare systems. The majority of the decisions concerning the govern of (resources in) society are made by the state which uses both incitements and punishments towards resource efficiency in all parts of the society. Political decision making (otherwise) takes place on several levels (nationally, regionally and locally). Digitalization has led to increased possibilities for direct democracy but there is a high level of trust in politicians and the technocratic elite developing and managing the digital control systems. (Still), the power is (starting to) spread between many stakeholders and bottom-up initiatives where shared maintenance built on mutuality and active engagement are (becoming) important principles.

Economy, market & production

The economy is a mixed economy (blandekonomi) where some tasks are organized by the public and some by private, cooperative or social enterprises. Automation and digitalization generate a relatively high economic activity simultaneously as sustainability goals have led to heavily increased resource efficiency and decreased resource use. The amount of time put into paid labor is large with the 40 h work week as norm. Production in Sweden is automated, digitalized

and specialized (and some) trade with other countries occurs through import of resources for the industry and goods hard to produce in local or national networks as well as export of goods and services produced nationally. The state collaborates closely with market stakeholders (especially innovators and technology developers) and researchers in order to develop and design tools for continued automation within planetary boundaries. Technology is (used in medicine) and increasingly more integrated in people's bodies. Both state and corporate power are strengthened in relation to the citizens in the wake of a harder control of resources. (To some extent) the development is moving from a "buyer's market" to a "producer's market" since enterprises own and control resources used in production. (However) society is characterized by an open exchange of knowledge, DIY solutions and self-organization. The consumption of goods has decreased and is guided by needs, there is a justice-ethics where people do not want to, through their consumption choices, outperform others in their surroundings.

Lifestyles & built environment

Most people live in the city regions of Stockholm, Gothenburg and Malmö, but also in some larger regional towns with Universities and Colleges. Some people settle outside the automated city complexes in search for other values, but the countryside is scarcely populated and intensely cultivated supplying the urban population with goods and ecosystem services. In the cities land is intensely used and ecosystems involved in the circulation process might be located far from the inhabitants. Urban city cores have high efficiency and smart systems where automated, track bound public transport constitutes the backbone in the transport systems complemented by walking and cycling (including electric bikes). Population density guarantees a large supply of activities, private and public services and good connections through walk and bikability and public transport. Building additions are made through strategic densification in locations well provided with public transport and many live alone in small, efficient apartments. Earlier infrastructure investments in broadband and mobile networks are maintained for continued means for communication, and IT is one of the prerequisites for circulating and sharing. However, new investments are not coordinated nationally but made according to local needs for example within the food production.



Year 2040 – Scene III

The scene needs to present a way to mitigate the environmental threat of land system change

Governing & politics

(National) politics are aimed at large-scale solutions to promote sustainable design and innovation, and to reduce the resource withdrawal and use of materials as well as to influence people's consumption patterns and lifestyles. Govern towards a resource efficient circular economy has resulted in a relatively good access to material resources in spite of a heavily reduced resource withdrawal. The border between private and public has in large been erased and governing from the public is focused on further enabling the collaborative economy through legislation and promoting sharing solutions. Many functions earlier managed centrally are now governed on a local level. Energy supply is for example often local and independent of national infrastructure.

Economy, market & production

New business models have been developed enabling sharing of companies and coordination of large-scale investments. The access to resources and services is more important than private ownership and means for production and material resources have (to a large extent) transferred from private and public management to shared ownership. The (local) economy is based on both large-scale and small-scale production units and production is mainly targeting local consumption. A significant portion of the citizens' paid labor has been replaced by unpaid and non-profit work in the shape of efforts for different kinds of collectives or collaborations. Collaborative solutions do not, however, need to be (exclusively) local but there are both small-scale local as well as broad national and international digital platforms. The export, import and consumption of goods have decreased significantly, but with flourishing local markets. Well-connected railroad nodes are maintained with development of built environment surrounding them. (Long-distance) transport of goods happen only to a small extent since the local self-sufficiency is high. Trade occurs between regions, especially of goods differing between regions due to local variations such as timber and agricultural products. The amount of imported goods is small, resulting in

a low to none dependency on foreign land. Forest related export is the main source of international trade. Citizen power, informal economic activity and collaborative solutions have grown more important and are enabled by digitalization, open source and digital commons. Digital communication occurs not just between people and organizations but between things – everything, and almost everyone, are online.

Values, lifestyles & built environment

Sufficiency characterizes people's lives rather than a chase for material status and consumption is (continuously) low. The decreased (paid) workhours lead to people scattering more across the country, but still predominantly in larger cities or secondly gathered in clusters and medium-sized cities in order to swap services and borrow from each other easily. The benefits with sharing existing resources are increased resource efficiency, that it is good for the private economy and furthermore that it, in many cases, is stimulating through interactions with other people. Digitalization has created good opportunities to distribute and circulate existing resources through sharing, renting and borrowing rather than owning and buying. The technology is simple, small-scale and comprehensible predominantly from reused materials and managed by the users. Many production units work as an extended family that provides services such as childcare etc. Many are prosumers, both producers and consumers of goods and services. Waste no longer exist as a concept – products used in Sweden are designed and optimized for dismantlement and reuse. Recycling only ever happens when reuse is impossible. Consumables are exclusively made from biological ingredients or nutrients able to return to the circular system.



Year 2050 – Scene IV

The scene needs to present a way to mitigate the environmental threat of climate change

Governing & politics

Local arenas for decision making has a prominent role and the influence from the state (on a municipal level) is diminished. The local communities, which in most cases are smaller to the surface than present day's municipalities, are responsible for provision of

basic technological infrastructure and organization of welfare services. The ideal for governing is direct democracy, leading to local referendums according to the principle one person – one vote. The municipalities and citizens have increasingly gained power and influence over local resources and their own development. Income and production are being distributed to avoid increased wealth and income gaps. The economic profits are to a large extent invested in enabling working less and work is no longer the focus of public debate, but rather freedom, meaningful occupation and the right to do what you please and many spend time with family and friends.

Economy, market & production

The (national) economy is mainly based in the service sector of eg. cultural and nature experiences and a large focus is on the production of welfare services. (Advanced) health care is to a large extent (supported by automation) as is the education sector, routine driven administrative tasks and parts of public care. All citizens in working age are expected to contribute to the production of food and supplies, and in the maintenance of technical infrastructure as well as in care for children and elderly, education etc. The total workhours of people (payed and un-payd) is governed by their life situation and through Timebanks they can create a buffer for periods of less work. Many live on the countryside and in smaller or sparse cities where the opportunities for cultivation or other kinds of production are good. The pressure on the urban areas has eased, and most people do not travel but lead their lives in the local community. Many appreciate the possibility to spend time in nature without electricity or being online. Globalization and urbanization, that were regarded as inevitable up until 2020, have halted.

Values, lifestyles & built environment

Ecosystem services are important to circulate carbon and nitrogen therefore these services are being actively promoted and maintained. There are significant regional and local variations due to varying regional prerequisites leading to diverse land use and local diets. Since the workload is shared by the population, there is a new radically shorter average work week [of 10 h?]. Physical meeting places such as public squares are central and the differences between housing and spaces for community life and recreation are blurred with a flexible use of space

for common activities. Increased disposable time leads to people spending a lot of time close to home, (if in urban areas) in green and appealing surroundings with parks and playgrounds within the otherwise dense environments. Close family or friends often share a household in extended family constellations in rather large housing spaces, or with shared functions or housing units gathered in clusters. Many people dismiss destinations only accessible by car and car ownership has drastically decreased – in return carpools are common.

These four scenes will be interpreted into spatial programs and designs connected to a potential future development of Kanaltorget.

Chapter conclusions

I have in this chapter conveyed how my equivalent to the dramatic text have been compiled. By using scenarios from a science report a vision has been conceived for my exploration of how architecture can be a scenography for a narrative beyond economic growth.

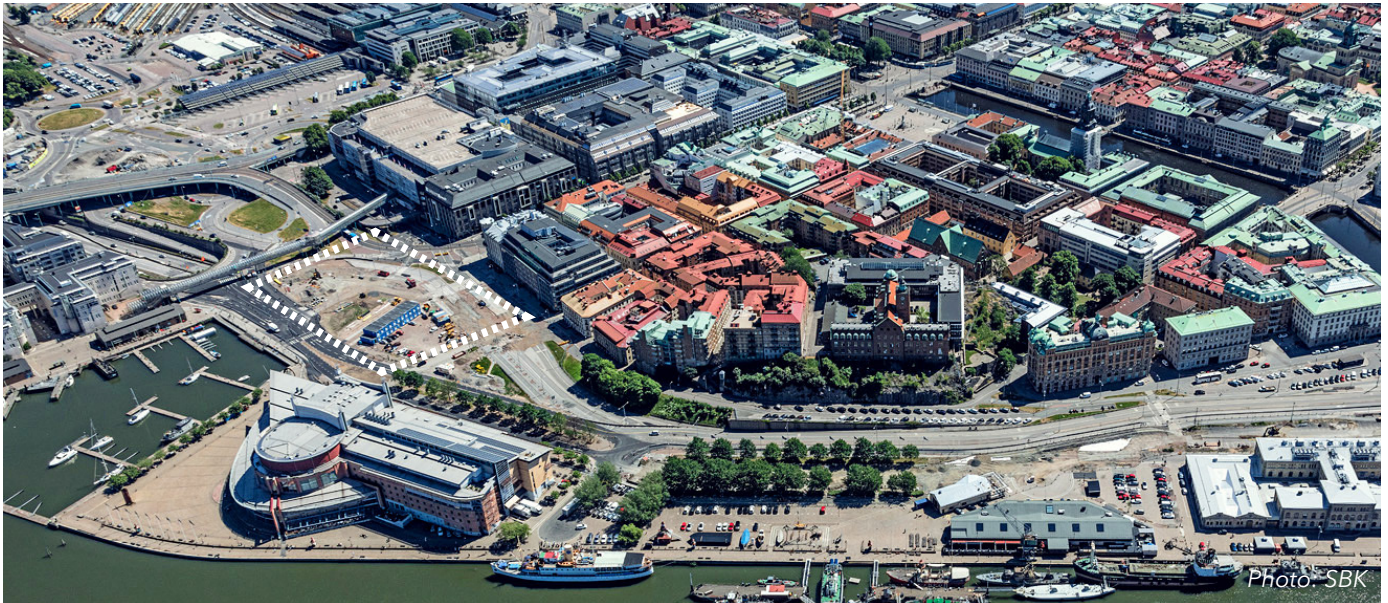
Using a Text to guide the design is a way of borrowing from the scenographic method. This is an attempt to come to other conclusions than an normative architecture process would entail.

The Text in this thesis is:

- *based on text from the four future scenarios in the report 'Futures beyond GDP growth'*
- *rearranged scenario texts put into a chronologic order devised by me*
- *divided into four scenes for me to create "scenographies" for*
- *further divided into subheadings*

The next chapter discovers the spatial context of *Kanaltorget* and we uncover infrastructure dividing the *Mall* from the *Opera*, the relationship between the *Twin Squares* and cross paths with a *Four-Armed Octopus*. Unraveling history back to the *Fortified City* we meet a social duality. A mix of society's non-privileged; the *Prisoner*, the *Immigrant* and the *Prostitute*, as well as the more privileged; the *Manufacturer*, the *Tradesmen*, the *Customer* turning into the *Consumer* as well as the *Office Employee*, the *Driver* and the *Opera Visitor* who might all have ordered from the *Bartender*. Encounters that sometimes must have proven a challenging collision.

II. Space: measure to measure – playing in the space



In this chapter:

Kanaltorget – the space in question

Mapping of the local narrative

Historical narratives

Current narratives of Kanaltorget

The broader narrative

Introduction to Space in scenography

Howard talks about Space as part of a scenographic vocabulary, where we translate and adapt it to create suggestive space linked to dramatic time. To understand the dramatic space she turns to a quote from Ming Cho Lee who called it “an arena where the great issues – of values, of ethics, of courage, of integrity and of humanism are encountered and wrestled with”. Howard also talks about space as action, and through recognizing where its power lies making and breaking it to enhance the human being and the narrative. She further puts space in a continuum of time:

“A space is a living personality with a past, present and future.”

(Howard, 2009)

Other scenographers on Space

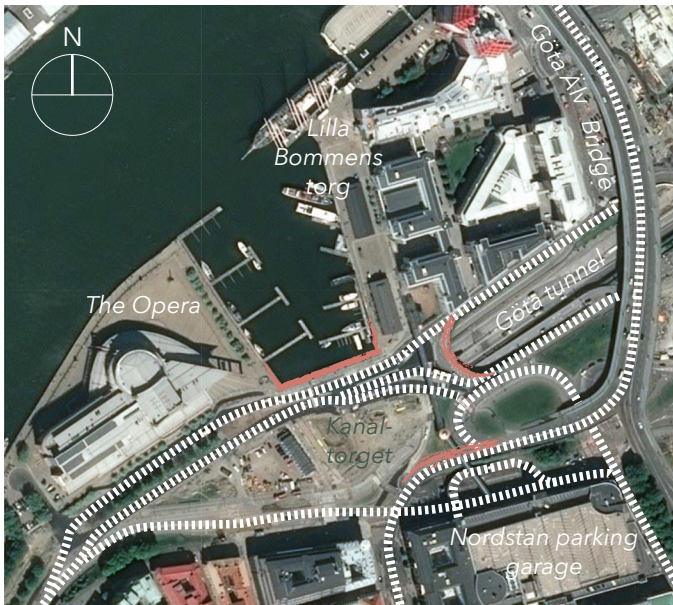
Thessman describes an interaction where the spatial environment affects the human, who in turn affects the space. In theater the space is his tool to build the narrative, and help the music give life to a story (Appendix 2G). Håkanson finds the inspiration for his work in the space and if working with a movie he starts out scouting for the right place early on (Appen-

dix 2E). Kassius talks about the empty space and says nothing is more powerful than the actor coming out to this emptiness where the architecture itself provides the setting with which to interact (Appendix 2H).

Kanaltorget – the space in question

Kanaltorget can be described as the waterfront finale of the main axis of Gothenburg – a public space with easy access through public transport in the heart of the city. It can also be described as the backside of the city centre, a place struggling with multiple layers of infrastructure and holding a history of both past and present social challenges.

Kanaltorget is the “hard to spot” square between Lilla Bommen (former access point to the canals and the trade in the city), the Gothenburg Opera and the parking garage of Nordstan shopping mall. Kanaltorget’s Southeast corner meets the foot of the Göta Älv Bridge where trams traffic towards the central interchange node Brunnsparken, but a new bridge is in the making. The square is currently a parkinglot with surroundings fenced off due to construction work for Västlänken public transport tunnel. It has a long and ambiguous history of not really being a public square but rather being either an intersection, a roundabout or the starting point of a canal. It has been troubled by security issues and has been a refuge for people on the outskirts of society with large groups of immigrants, homeless people, addicts and open drug trade. For twelve years Älvrummet center for city planning resided here and gave it more of a public character. The feris wheel known as Göteborgshjulet also started out here before moving to the theme park Liseberg. Now both these programs are gone, and there is ongoing detail planning for deciding its future.



Mapping of the local narrative

Infrastructure dividing the Mall & the Opera

The square Kanaltorget is heavily characterized by infrastructure, edges and barriers. To cross the site pedestrians use an elevated walkway, Torsten Henriksson's walking bridge (also known as the Urethra), or walked through the criss-crossings of roads and the ramp to the Göta Älv Bridge. As of now the Parking Garage of Nordstan and the Opera house are kept apart by the square turned into a building site for the public transport tunnel Västlänken. It is going to be dug next to the Göta tunnel, a part of Götaleden. Götaleden will partially be covered, but according to current plans not all the way to Kanaltorget.



The Twin Squares

Kanaltorget is, both geographically and in terms of ambience, the polar opposite of Götaplatsen, the grandiose fond of Kungssportsavenyn with the statue of Poseidon looking down on the city. The characteristics of the two squares could not be more different. They are linked by the main artery of Gothenburg – the avenue and Östra Hamngatan (a former canal supplied by water from Lilla Bommen by Kanaltorget). This artery is framed by shopping windows, offices and restaurants. It reveals a clue regarding the fact that Gothenburg is not created as a city facing the river, but rather organised around its canals where trade, transport and laundry occurred.



Passing a Four-Armed Octopus

The site is situated in one of the most central car traffic nodes in the city with multiple layers of infrastructure. From Kanaltorget four arms are reaching out towards Backaplan/Hisingen, Götaplatsen/Johanneberg, Gullbergsvass/Gamlestaden and Masthugget/Majorna. Historically there was a raft here to reach Frihamnen on Hisingen. The space does not invite to lingering, rather to pass by. The site is under planning under the name Norr om Nordstan, bordering to six other large-scale areas being planned by the municipality within STUP Centralenområdet including the Central Station area, Hisingen Bridge area and the covering of Götaleden.

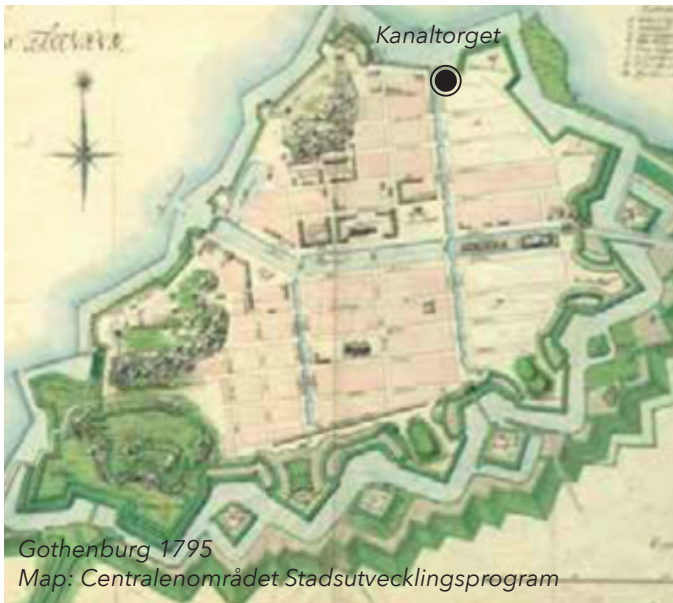
Historical narratives

The Fortified city, harbour activities & infrastructure

The founding of Gothenburg in 1621 was a military strategic move, with a fortified eye towards the West. The site Kanaltorget is adjacent to the former St. Erik's bastion on a straight axis from what used to be the city's main gate – Kungsporten (see map). During this time canals were dug, led by dutch workleaders, to permit harbour activities and trade within the fortified city. A moat, in large parts still in place, was constructed around the city walls. In 1807 “Corps de Garde” was situated at present day's Kanaltorget (Wikipedia, 2019).

From the 1840's shipping, trade and industry occupied the river front with harbour functions such as storehouses, boatyards and factories (Stadsbyggnadskontoret, 2006). But the areas around the docks also included housing, hotels and a bath house. The river shores have historically been places of work rather than of leisure or nature experiences, and everyday life mainly unraveled along the canals.

In 1856 the first railroad opened. The station was located on top of the Northeast part of the moat, and the stretch adjacent to Lilla Bommen was filled in 1878. In the late 1800's the canals started to be converted into streets to support increased traffic starting with the south part of Ö. Hamnkanalen (present day's Ö. Hamngatan) and filling the northern stretch in 1936. Stora Hamnkanalen led to present day's Brunnsparken, and it can still be seen in the center of the old fortified city today (see map to the left).



Development of Kanaltorget



1880

The moat is recently filled between Lilla Bommen and the train station but the basin is still supplying Ö. Hamngatan's canal, which is here crossed by Lilla Bommen Bridge, one of ten bridges. A cell prison with gardens lies next to St. Eriks Square.



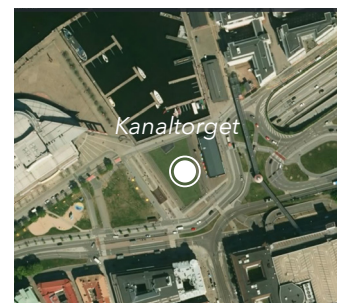
1945

Kanaltorget is now framing a roundabout, the northern canal has since 1936 been filled and turned into a street. Traffic still characterizes the site. Adjacent to the water are storehouses and to the south are the city blocks of Nordstaden.



1975

Similar circumstances as in the 40's. However, in the bottom right corner one can see that the demolition process to build Nordstan shopping mall has started. During 1973 the square disappears due to new detail planning. Photo: Lantmäteriet

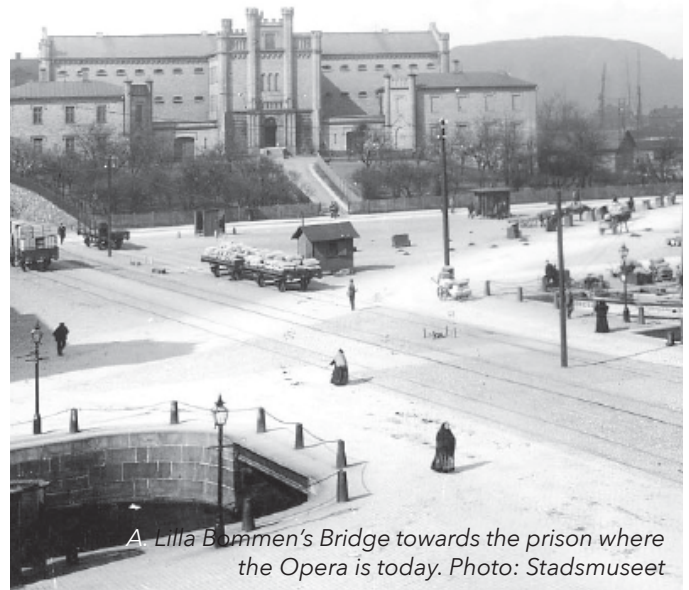


ca. 2017

Kanaltorget in a new location, here framed by the Opera house and Ålvrummet center for city planning. Nordstan parking garage in the bottom right and the mall was built on the demolished district 1972-1985. Photo: Eniro

The bridge between the Prisoner, Swimmer & Manufacturer

In 1857 a cell-prison surrounded by gardens was erected close to where the Opera house is today, on the western side of Lilla Bommen's Harbour. It held prisoners and was in service until 1907. S:t Erik's Square was connected to Kanaltorget through Lilla Bommen Bridge, a stone paved broad and well-trafficked bridge with tracks for transports. There was a bath house, Simskolorna, with pools for men and, contestedly, women between 1835-1850. In the 1850s the area was part of what was called the Signeulska Gardens, named after a paint manufacturer.



A. Lilla Bommen's Bridge towards the prison where the Opera is today. Photo: Stadsmuseet

A story of both trade, migration & prostitution

Trade and migration have been important parts of Kanaltorget's history. Migrants have stepped onto Atlantic liners from Gothenburg to America since the mid 19th and until early 20th century. A liveliness characterized Östra Nordstaden with people in transit from the train station towards the harbour, it was a place of big dreams. But many migrants were conned off their emmigration money, and too embarrassed to return home empty handed they got stuck in Nordstaden in what was in the mid 20th century perceived as a slum area with many bars and social issues with addiction and customers of prostitutes as we will discover in the Performers chapter.



B. Hasselblads handelspalats from Illustrerad Tidning, 1876. Image: Stadsmuseet

Tradesmen at the mouth of the canal

The square was originally situated on the eastern side of the Ö. Hamngatan canal, the present site was at the time in the middle of the river. In 1883 the square got its name and in the year 1900 it was a functional square 3 676 m² large (present day's square is about 3800 m²). At Lilla Bommen the shippings from the larger boats were transferred to smaller ones and heading from Lilla Bommen Harbour they entered Ö. Hamnkanalen for the tradesmen to access the inner city commerce.



C. Kanaltorget from the water, 1902
Photo: Unknown - Bildsamlingen, Göteborgs Stadsmuseum

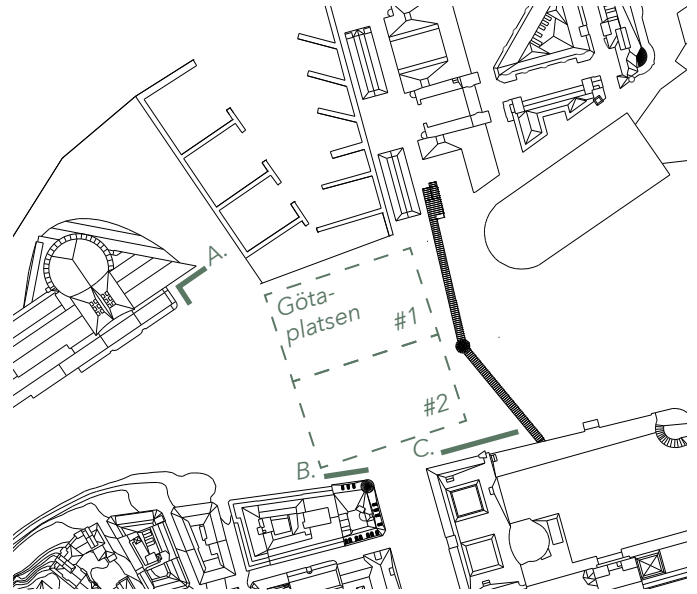
Current narratives of Kanaltorget

Why work with a story for Kanaltorget?

This is a public space in a tricky detail planning area in the very pumping economic heart of the city. It is at the center for a large central urban development, Älvstaden, that could decide the future direction for the city for a long time ahead. If we are to address challenges of sustainability and economic growth and explore options, we might as well start at the core. And we might be talking about a transplantation of the whole muscle in order to build a new story. What better place to unfold this new story than around a public space currently, according to me, in desperate need of attention? Kanaltorget feels like the right place to initiate the exploration of this story.

The Consumer on an axis between culture & consumption

Kanaltorget is situated on the backside of the largest mall in Scandinavia, Nordstan, and next to the house for grandiose scenographies, the Opera. The whole city district to the south was acquired by Östra Nordstaden Samfällighetsförening in the 1960s and, with the municipality claiming to be otherwise engaged in “urban sanitation” and not interested in meddling in the merchant business, they were allowed to demolish all of it. Between 1972 and 1985 the association made the consumer the main actor on the site and built the mall that the multi-storey garage facing Kanaltorget now serves. On the other side of the square is the Opera by



Lilla Bommen's Harbour with the ferry boats. The glazed facade of the Opera faces the water, and outside there are seatings in a curved stair leading down to Jussi Björlings Plats. This place has a spectacular view of the water, but suffers a lot from wind and weather conditions.

A square without borders

The open area around Kanaltorget is about two times the size of Götaplatsen, not counting the area in front of the Opera. Still, a sizeable space. But there is a big difference in how the squares are framed - whilst Götaplatsen has three adjacent facades with public buildings, Kanaltorget has little support. It is too far from the square to surrounding office workspaces, buildings and programs. Speed, void and noise makes the square hard to even detect. It is borderless.

Characteristics of Kanaltorget



THE PARKING SQUARE

The multiple car lanes and the orifice of the Göta Tunnel characterizes the space in terms of noise, barriers and a lack of people moving on foot. The square is currently a parking lot dedicated to cars.



MOUTH OF THE TUNNEL

Lowering and over decking parts of Götaleden is in the making, but the mouth to the tunnel will remain uncovered according to current plans. This contributes to noise and particles reaching the square.



ANOTHER LAYER

Public transport-ramps to the Göta Älv Bridge constitutes barriers in the surroundings of the square. The current construction of a new bridge will entail new ramps when replacing the old bridge.



ACCESS TO THE WATER

The waterfront is close to the square, with a lowered walkway at the fringe leading to Jussi Björlings Plats in front of the Opera. The quayside is however cut off from the square by four lanes of cars and buses.

Programs of Kanaltorget now

Opera visitors at the institution flirting with history

The Opera house is one of few public programs beyond Nordstan in the vicinity of Kanaltorget. The location was picked after decades of debating where to put the new Gothenburg music stage. The building was finally designed by Lund & Valentin architects and erected between 1991-1994. Jan Izikowitz, architect, describes the building as inspired by the hard-to-catch harbour landscape with the elegance of a ship, a seagull's wings and the aerodynamic shape of sails. It blinks towards the site's seafare history, and visitors have both loved and hated for its postmodern appearance.



A. Main entry to the Opera, 2019, one of few target points beyond Nordstan

Traces of the trade & new social challenges

The old Hasselblad storehouse- and trade palace in the corner of Ö. Hamngatan and S:t Eriksgatan is one of few remaining buildings from the 19th century facing the square. Its groundfloor houses a restaurant with a small sidewalk terrace viewing the Opera. The whole two blocks earlier facing the square where the garage now resides, are gone. However, the legacy of social challenges has been prevailing even in later years. An ambience of unrest has been present with occurrence of drug trade, violence as well as challenges with large groups of immigrants and homeless (Appendix 2C).



B. The corner building is still here 2019, but most other historical buildings are gone.

A narrative for the Consumer & the Driver

The Nordstan parking garage of seven floors and 63 500 m², later extended to 75 000 m², was built between 1971-73. A car service shop was later put in place on the ground floor. Facing Kanaltorget are car entries and exit points on both ground and first levels. The backside entry to the shopping mall is centered on the facade. For pedestrians the elevated Torsten Henriksson's walking bridge, built 1986-1988 when the back entrance was remade, leads from the first floor parking garage to Lilla Bommen's square. The actual Kanaltorget square is currently consumed by a building site, cars and infrastructure on what can be describes as Gothenburg's most central backside.



C. Kanaltorget from the water, 2019. Looking towards Nordstan parking garage and Torsten Henriksson's walking bridge.



The broader narrative

Global environmental challenges

To understand the broader context of Kanaltorget we can look to the global scale. Climate change and environmental pushbacks are global challenges. However, they affect countries differently and often those suffering from global warming the most might also have little means to influence the main drivers. While the big emitters, like Sweden, so far only sees milder consequences and still spend more than the planet has to give. And the Anthropocene comes with uncertainty, there is no knowing what will happen, to the planet or to Sweden, in the next couple of decades. We have seen worrisome indications of potentially catastrophic consequences.



Sweden's space of maneuver

Sweden's current levels of consumption does not keep us within the limits of the Earth, and our national self-sufficiency has decreased in recent decades. But the country is wealthy and has good opportunities to use its wealth in a transition from a system dependent on economic growth into a system that takes care of the planet and its inhabitants first.



The geology of Gothenburg

Gothenburg is a coastal city, environmental pushbacks and raised seawater levels will have effect on the local geography and likely its economy. Göta Älv runs through the city and supplies communities along it all the way to Vänern lake, changes to it would have regional effects. Waterfronts might move and weather become more extreme with rains and draughts. For Kanaltorget, being situated on the verge of the water, this will be part of its future narrative.

Photos: Adaptations from viamichelin.com

A narrative of people & space

If people active on and around Kanaltorget in different layers of time could somehow tell us about their relationship to this space, it is likely that we would encounter many different people with very different stories. We might befriend a 17th century *Canal Worker* in charge of constructing the aquatic infrastructure of the Fortified city, who would probably speak to you in Dutch. Or we might cross paths with a *Guard* at the S:t Erik's Bastion who might have heard rumors of Danish or Norwegian enemies on the approach of the Älvsborg fortress which in this century was moved from mainland to its current location in the Rivö fjord.

A 19th century *Prisoner* might look at you longingly across the gardens around the cell-prison as you discuss a shipment with a *Merchant* trading in Asian goods. And late that century a *Migrant*, your cousin from the country, might be asking you for advice on a hotel to stay at in the waiting for the journey of their lifetime. And advice might be good, to keep her travel money and tickets safe in the 'Amerikakoffert'.

As time goes by the house in which you have lived might have been poorly managed, and the establishment of a small workshop and a pawnshop underneath your kitchen window might have given the place a dodgy feeling. The *Sailor* drinking out on the street after having been thrown out of one of the many bars by a hefty *Bartender* sings out a humming drunken tune that keeps you from going to sleep. In the morning a *Prostitute* that you pass on Postgatan might gossip that she heard from a *Customer* that the municipality has agreed to let the whole district be demolished in order for an association of builders and entrepreneurs to build some kind of indoor shopping street. You might laugh and move along, not thinking too much about it. Still, not so long after you might have said goodbye to neighbors moving out as the great grandchild of that *Merchant* might help direct the excavators around the first blocks being torn down.

In the new mall the *Customer* might have turned into the *Consumer* now looking for the *Bankman*, and who would maybe consider buying a new shirt in the shop on the way there. Then moving along to meet a colleague *Office Employee* and might spare a coin for the *Homeless* passing Kanaltorgsgatan. And today you might bump into the *Opera Visitor*, the *Migrant*, the *Driver* as well as a *Dealer* on the back of the garage.

Chapter conclusions

This chapter has been an attempt to understand the Space that I am intervening in – its historical and present narratives and occupants, both in a local and a broader context.

Kanaltorget has a long history of being a bystander to different kinds of infrastructure projects in the city, from the canals and seafare to present layers of car transport below and above ground. It has been linked to global trade, both in the past and at present, and been a site where people in transit pass. Up until the 1960s different historical layers were prominent here, and a future spatial transformation should maintain links to the roots and preserve clues to historical use.

The square has been fluid in a way, moving from a defined corner location to floating out across a big surface having unclear borders. What if Kanaltorget could get defined physical borders again as a public room with walls but enable fluid programs for the unknown needs of the citizens of tomorrow? To support and permit narratives beyond consumption and traffic, to give the square a bigger purpose.

The following research chapter will present the theoretical framework of this exploration of a future beyond economic growth. We meet, for the second time, the *Environmental Scientist* and the *Environmental Economist*, we are introduced to *The Great Acceleration* accompanied by the *Anthropocene* and get to know *The Doughnut* better.

In this chapter:

*Unsustainable development
Transition into the doughnut*

Introduction to Research in scenography

Engaging in the Research phase of a project, according to Howard, “opens windows” beyond what the text describes. Creative research entails both exploring the ever-changing larger picture and encompassing contemporary historic events and to dive into research on specific key details to support the story.

“The objective of visual research is to be able to inform not only the vision /.../ but also to pass on this information”

(Howard, 2009)

Other scenographers on Research

Thessman divides his work into three phases: orientation, association and problem solving (Thessman, 2018). The Text, Space, Research and Direction chapters can be said to be part of the orientation section of this work – Research being the most theoretical one. Sonrel, having written a handbook on scenography (1956), shows how knowing the development of a field can serve as inspiration and reference in a scenographic work, as echoes from or winks to the past.

Unsustainable development

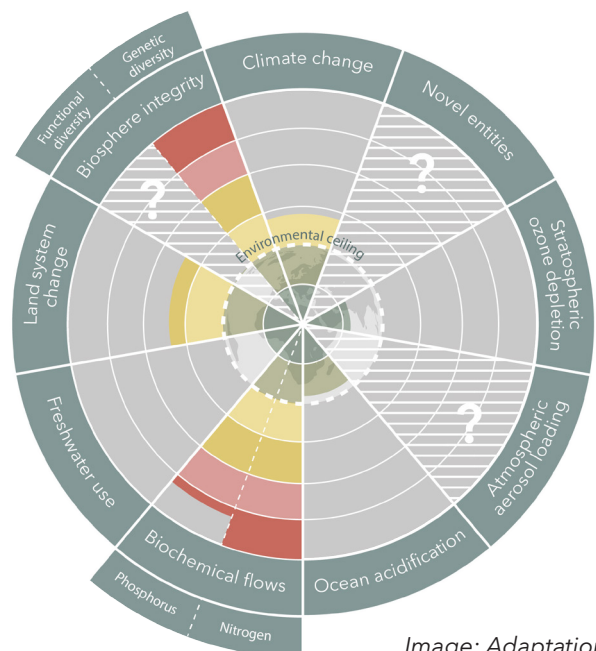
As the theoretical chapter of this thesis the research into the scenography of a transition beyond economic growth will depart from a study and compilation of a broad theoretic framework. It includes fields of economy, environmental science and urban design with perspectives from scenography. You will discover that they all converge in the field of architecture. As we learnt in the first chapter of this thesis, arguments can be made that humanity is pushing the planetary boundaries (Rockström, 2015). Furthermore the proposed link between economic growth and sustainability might turn out to be a lock-in into a system that could undo the foundations for our whole civilization (Raworth, 2017). Referring back to Brundtland (1987), it is questionable if we are leaving behind a planet in good shape for our children to support their needs. Could our global civilizational behavior in fact be called an unsustainable development? Arguments in this chapter are put forward that claims this is the case.

The Great Acceleration & the Anthropocene

The term The Great Acceleration emerged around the shift of the millennium when the International Geosphere-Biosphere Programme (IGBP), started studying 12 indicators for the human enterprise and 12 for features of the Earth System to identify links. They observed an unprecedented acceleration connected to the transformation and imprint of the human relationship with its natural surroundings starting at the mid 20th century. This acceleration in the economic activity of humanity is continually increasing and is strongly linked to equity issues. Population growth since 1950 has predominantly occurred in the non-OECD countries whilst the OECD world still dominates the world's economy measured as GDP growth and is strongly associated with consumption. This has caused the Earth to leave its geological era of the Holocene, a stable and life-giving epoch that has sustained all large human civilizations, and pushed it into the Anthropocene where humans are the strongest force shaping the planet. What the more unstable Anthropocene will entail is uncertain (Steffen et al., 2015).

Planetary Boundaries according to the Environmental scientist

Using the concepts of professor in environmental science Johan Rockström, we are closing in on multiple planetary boundaries and risk crossing tipping points where human action could push the Earth system to abrupt and irreversible geological shifts. He claims that we need an integrated perspective to develop new practices for a stable Earth system and that “The



*Image: Adaptation of
Steffen et al.*



Image: Adaptation of Raworth

planetary boundary framework contributes to this new paradigm by delineating a safe operating space, in terms of the degree of human perturbation of environmental processes, consistent with maintaining the planet's stability" (p.2). This can be illustrated through a circle chart (to the left) consisting of the Earth, with nine planetary boundaries as cake pieces showing their current level of threat to cross tipping points. For four out of these nine boundaries we have pushed into danger or high danger zones with an increased risk of setting these irreversible geological processes in motion (Rockström, 2015).

Planetary boundaries in danger zones are:

- *Biosphere integrity (genetic diversity)*
- *Biogeochemical flows (phosphorus, nitrogen)*
- *Land system change (deforestation etc.)*
- *Climate change (global warming)*

The Economist's Doughnut – ceiling & foundations

The *doughnut economy* is a theoretic framework developed by economist Kate Raworth describing the challenge of meeting the needs of all using only available planetary resources (Raworth, 2017). She stresses the

importance of images to understand abstract concepts, and illustrates this concept with a doughnut shape. The outer border represents our *environmental ceiling* (see *planetary boundaries* and chart to the left) that we need to remain beneath while the inner border of the doughnut represents the minimum level for *social foundations of life* (Raworth, 2017, p.10). These social foundations range from sufficient access to food, water and energy to social equity, political voice, work and education. As we learned, there is an environmental overshoot for at least four of the defined geological aspects. Quoting Tim Jackson Raworth says that we are presently being "persuaded to spend money we don't have on things we don't need to make impressions that won't last on people we don't care about" (Raworth, 2015, p.57). She puts this logic in relation to the results from human rights data that, in spite of many advances, show a shortfall across the whole field of social aspects. This means that we are currently neither remaining below the ceiling nor above the foundations. The doughnut model visualizes the relation between the environmental threat and substantial equity issues where we are currently not within our safe operating space. She also brings notice to that we never illustrate the end of the exponential graph of growth, because where does it end? Or rather when?

Transition into the doughnut

To question fundamental unsustainable societal images Raworth argues that they need to be replaced with new ideas and images. Dividing the 20th century economic worldview into seven illustrated principles (see illustration on next page) she serves up a list of images that she sets out to exchange for new 21st century ones.

To move from what Raworth describes as a growth addicted system and get into the doughnut she mentions five important factors: population (achieved social foundations = stabilized population = less stress on the planet), distribution (inequity pushes us both above and beneath the borders of the doughnut), aspiration (how and where to live, urbanization, consumption), technology (efficiency, green transition) and governance (how the 21st century governance manage to address these challenges). Her list to relate to these covers what she argues must be obsolete models for economic thinking and what could (or should?) replace them:

1. *Change the Goal - from GDP growth to the Doughnut*
2. *See the big picture - from self-contained market to embedded economy*
3. *Nurture human nature – from rational economic man to social adaptable humans*
4. *Get savvy with systems – from mechanical equilibrium to dynamic complexity*
5. *Design to distribute – from ‘growth will even it up again’ to distributive by design*
6. *Create to regenerate – from ‘growth will clean it up again’ to regenerative by design*
7. *Be agnostic about growth – from ‘growth addicted to growth agnostic’*

A new goal

In the 20th century, Raworth argues, economics lost its purpose and started chasing the false goal of GDP growth. In recent decades this has pushed many societies into deep inequalities and it is pushing us all into ecological collapse. She claims this century calls for a new goal, meeting the needs of all within the means of the planet. The author describes this as getting into the doughnut (second diagram, right column), something we are far from doing now. People lack basics such as health care and education at the same time as we are exceeding planetary boundaries. What we do in the next fifty years will shape the next ten thousand. This is why Raworth argues for a goal of thriving in balance and to

redraw our economic models to fit this difficult task.

Starting out Raworth accounts for the origins of GDP (Gross National Product), the economic growth “measured as the market value of goods and services produced within a nation’s borders in a year”. Since the late 20th century it has been used as an indicator of economic health for a society (p.31). This started in the 1930s when Kuznets got commissioned by the US Congress to find a way to measure the American national income. GNP (Gross National Product) was invented based on the collective American income worldwide divided by its total citizens – the first economic model to enable annual comparisons. According to Raworth this single measure of national economic health in the context of social and ecological crises should be considered far too narrow.

After Xenophone invented a term for the art of household management in Ancient Greece - called economics, Aristotle would later distinguish this art from that of chrematistics, acquiring wealth. Raworth claims this is a distinction lost in our society and that the discussion of the economy’s goals were lost on purpose. Measuring GDP growth, she argues, has led to an expectation of growth, nurturing an addiction to it. It went from being a policy option to a necessity (p.40). After senator John Kennedy promised a 5% growth rate in the 1960’s election he later formed, together with other industrialized nations, the Organisation for Economic Co-operation and Development (OECD) prioritizing to achieve a maximized economic growth.

Towards an embedded economy

To see the big picture and understand the image of the self-contained market Raworth uses Shakespeare’s play ‘The Tempest’. The actors only got their own lines and cues with a short generic description of traits in the cast list. In quoting Shakespeare she says the world is a stage and “all the men and women merely players” (p.62). Viewing the economy as an international stage Raworth argues that its actors play out their predefined roles, but she questions which playwrights have set the stage. To answer this she goes back to the macroeconomic diagram of ‘Circular Flow’ by Paul Samuelson (self-contained market) showing the economy as a loop between production and consumption only interrupted and diverted by commercial banks, governments and trade. This image has become synonymous to the economy itself, a stage leaving out all factors but the market relation between businesses and households. When Friedrich Hayek and Milton Friedman later gave the actors their neoliberal

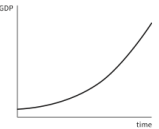





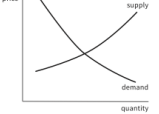
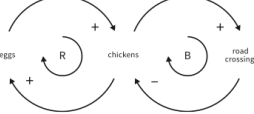

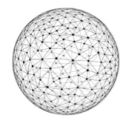

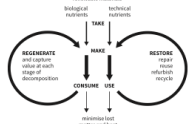
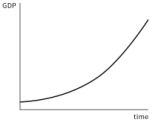
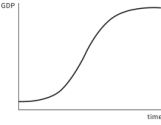
Seven Ways to Think:	From Twentieth-Century Economics	To Twenty-First-Century Economics
1. Change the Goal	 <p>GDP</p>	 <p>the Doughnut</p>
2. See the Big Picture	 <p>self-contained market</p>	 <p>embedded economy</p>
3. Nurture Human Nature	 <p>rational economic man</p>	 <p>social adaptable humans</p>
4. Get Savvy with Systems	 <p>mechanical equilibrium</p>	 <p>dynamic complexity</p>
5. Design to Distribute	 <p>growth will even it up again</p>	 <p>distributive by design</p>
6. Create to Regenerate	 <p>growth will clean it up again</p>	 <p>regenerative by design</p>
7. Be Agnostic about Growth	 <p>growth addicted</p>	 <p>growth agnostic</p>

Image: Kate Raworth

traits, Raworth claims, “the rest of the script almost wrote itself” (p.62). Raworth ironically describes the cast that the 20th century economics put on stage, in a Shakespearean way, as:

- *The market, which is efficient – so give it free rein*
- *Business, which is innovative – so let it lead*
- *Finance, which is in fallible – so trust in its ways*
- *Trade, which is win-win – so open your borders*
- *The state, which is incompetent – so don't let it meddle*

(Raworth, 2015, p.68-70).

Its flaws lies in the characters missing from the cast list according to Raworth, namely the environmental and social confinements in which it operates. She claims this excludes parts like The Household, The Commons, Society, Earth and Power (“which is irrelevant – so don't mention it”). This market fundamentalist performance has been the main narrative ever since Reagan and Thatcher “took the neoliberal script to the international stage” in the 1980s (p.67). Subsequently, after the economic crisis in 2008, an echo of ‘The Tempest’ with a storm of inequality, global warming and economic

collapse has been created. Raworth states that this storm might be the chance to rewrite the script, revisit the character list of the ‘Circular Flow’ diagram and redraw it.

For the 20th century Raworth envisions a new show and proposes the starting point be a question: “what do we depend upon to provision for our needs?” (p.71). Her visual answer is ‘The Embedded Economy’ (second diagram, right column) where financial flows between Household, Market, Commons and State are confined within the circle of Society, which is confined within the circle of Earth. Energy goes in, and material waste and heat are the product of its operations. Raworth has constructed a new cast list for the 21st century (in order of appearance):

- *Earth – which is life-giving – so respect its boundaries*
- *Society, which is foundational – so nurture its connections*
- *The Economy, which is diverse – so support all of its systems*
- *The Household, which is core – so value its contributions*
- *The Market, which is powerful – so embed it wisely*
- *The Commons, which are creative – so unleash their potential*
- *The State, which is essential – so make it accountable*

- *Finance, which is in service – so make it serve society*
- *Business, which is innovative – so give it purpose*
- *Trade, which is double-edged – so make it fair*
- *Power, which is pervasive – so check its abuse*

(Raworth, 2015, p.72).

Social adaptable humans

Raworth brings into focus the question of who economics tell us that we are. She argues that last century's economists invented rational economic man (third diagram, left column) to make humanity fit into their theories. He is, according to Raworth, at the center of mainstream economic theory and stands alone, only follows economic logic to benefit the self with great wants and nature at his feet. Raworth derives this character from Adam Smith's economic works in the 18th century such as 'The Wealth of Nations' and later developed by John Stuart Mill, via Charles Stanton Devas' "dollar-hunting animal" *homo oeconomicus* (later used by Foucault) to William Stanley Jevons' 'calculating man' that placed utility at the core of economic theory. They have in common that they try to quantify human behavior mimicing scientific methods reducing human nature to rational economic man. Raworth states that even Smith saw our bartering nature as second to our humanity and public spirit. And by refering to economist Robert Frank who says "our beliefs about human nature help shape human nature itself" Raworth stresses the importance of this movement away from human nature (p.100).

To paint a new portrait that enables us to thrive within the doughnut, Raworth proposes the 21st century character that, rather than being self-interested, is social, interdependent with fluid values and, instead of dominating the environment, is embedded within it. She continues that what is known is that we do not, anywhere, resemble the current model of economic man. In the waiting for broader research her observations of western, rich democracies show a species that cooperates, helps and shares, as well as hoards and snatches. In general Raworth sees our abilities to live peacefully alongside strangers. She traces this to the group's improved chances of survival if they are good at cooperating. These patterns differ culturally and depend a lot on the society's economic structure and the relative importance of the household, the market, commons and state in satisfying needs.

To problematize this social and networking human nature, Raworth refers to economist Thorstein Veblen. He introduced the term *conspicuous consumption*

– wanting to buy luxury products for status purposes. This leads to equity issues within and between countries, and people living beyond their means and consuming well beyond basic needs. The role of advertising becomes a big part of our economic behaviour that often appeals to deeply held values. The values that are activated often become stronger. Raworth stresses that we change values in our lives depending on our experiences. She shows the circumplex by social phsychologist Shalom Schwartz with two juxtaposed axes – one between openness to change (independence and novelty) and conservation (self-restriction and resistance to change), and one between self-enhancement (extrinsic motivation for personal success) and self-transcendence (intrinsic motivation and concern for others). She states that activating one often activates its neighbors and supresses its polar opposite. This, she argues, is a far more nuanced portrait of human nature than 'economic man'. And rather than to see humans as *homo oeconomicus*, Raworth proposes we embrace the compexity of human nature and calls humanity the protagonist of the story.

A dynamic complexity

On the economic stage Raworth argues that simplistic assumptions are the foundation for theories of micro- and macroeconomics. That their founders made false comparisons between the gravity's effect on a pendulum, putting it to rest, and the role of prices' effect on a market, allegedly pulling it to an equilibrium, suggesting that each market has one stable point of equilibrium. This takes Raworth to the diagram of supply and demand where the point at which supply matches demand represents the market equilibrium (the crossing point in the fourth diagram, left column). 19th century economists, according to Raworth, strived to resemble science and to define economic laws and models built on equilibrium to explain the movements of the markets. Engineer and economist Léon Walras who in the late 19th century called market exchange 'the mechanism of competition', according to Raworth, tried to scale the microeconomic logic up to apply to all markets taking the economy to an equilibrium maximizing utility. This "would, for any given income distribution, produce the best possible outcome for society as a whole", something Raworth contests (p.131-133). But this became the seed for later development of macroeconomic analysis. Raworth argues this is flawed since she claims it is impossible to add up all people's demand in a sloping curve, rendering also the equilibrium impossible. Instead, she argues, we should open our minds to economic

complexity and through a systems thinking, rather than mechanical logic, be better equipped to understand the changing world around us and the links between growing inequalities and the collapse of both markets and ecosystems.

Systems thinking is described as being centered around three “deceptively simple concepts”: the core element of stock and flows (people, trust, money in a bank etc.), their interconnections in the form of feedback loops (positive, potentially leading to explosive growth or to collapse, neutral feedbacks or negative ones), and delay (p.137-139). Their interactions are what is causing an unpredictable world of complexity. Systems are in turn described as a set of interconnected things creating distinct patterns of behavior like birds in a flock or banks in a financial network. The relation between the system’s entities, characterized by stock and flow, feedbacks and delay, paves way for their behavior. Raworth’s example to illustrate this is with chickens laying eggs leading to more chickens (a reinforcing loop) and chickens trying to cross a road leading to less chickens (balancing loop). If the population of chickens grow depends on the relative strength of each loop and whether there is a big delay between hatching and road crossings (fourth diagram, right column). Such delays in inflows and outflows are claimed to have a significant impact on the system, for example either as energy stored, savings in a bank etc. or as the time it takes to reforest a hill. Raworth argues that out of these interactions complex adaptive systems emerge: “complex due to their unpredictable emergent behaviour, and adaptive because they keep evolving over time” (p.141). Complexity theory therefore provides us with an understanding of how important events are related to underlying trends or changes within a system. But if the current dynamics continue, Raworth states that we face the risk of heading towards a collapse.

Distributive by design

The economic myth of “no pain, no gain” proposes that if people accept rising inequalities, the economic growth will eventually even it out (see *Kuznets curve*) through the trickle-down effect. Raworth argues that this has proven not to happen, and that the inequality gaps are at a high point beating the last 30 years. She states that this is not, in fact a necessary phase in a nations progress, but rather a bad political choice as well as a failure of economic design. Economic growth might never lead to equality, and the author argues

that we need a system that is redistributive by design. And she further argues this redistribution must go beyond income and entail wealth, land control, money creation, technology and even ideas. She claims a need to revisit our current economic practices and that the 21st century economist have a choice to now embed distributive design at the core of our economy. And she urges them to do so arguing that markets, commons and states should all be used to achieve this transition, with inspiration from bottom-up initiatives already driving this redistributive revolution.

Regenerative by design

For 200 years industrial activity has been based on degenerative design where we extract planetary resources, produce goods, use it and throw it as waste. This one way system Raworth argues opposes the logics of the natural world. Economists have presented growth as the solution to this issue, arguing that it is the means to clean up after this system. But at a global scale Raworth argues this is false, leading to the destruction of ecosystems on which we depend. She claims growth will not clean pollution and inequality up, and that we need to turn our degenerative economies into ones that are regenerative by design. The development of renewable energy, circular systems removing the concept of waste and linear processes are linked to our economic system and its potential to spur such regenerative tendencies. Raworth encourages economists to join at the design table of architects, industrial ecologists and product designers to help shape the regenerative paradigm. She also claims the economist is needed here, as a key to design the economic policies of the circular doughnut economy.

Growth independent

The consequence of the economics of the 20th century, Raworth argues, is that GDP growth has turned into the overarching target for economic policy. This has occurred to the extent that financial businesses and markets expect, demand and depend on it to continue indefinitely, even in the richest countries. In political lingo she states a better future is promised offering green, inclusive, smart, resilient or balanced growth, leaving out all options that does not include continued growth. Therefore, the author argues, we are left with economies that need to grow, regardless if they make us thrive, while what she claims that we need are economies that make us thrive whether or not they grow.

Raworth states that for high-income countries to maintain a growth it would entail not just a need for a relative decoupling of GDP, or even an absolute decoupling, but rather a sufficient absolute decoupling placing us back within the planetary boundaries. She calls for the creation of economies that are designed to be distributive of values to a much larger extent than present ones. And she calls for regenerative economies that work with, not against, the natural cycles of our world. Economies in which GDP, simply the cost of all sales on a market, may vary up and down and that enables a transformation of the economic logic. Raworth compares this to kite-surfing where movements occur in a dynamic interplay of the wind and waves, something that she argues that GDP must do in response to the ever evolving economy.

We are all economists now

Kate Raworth has made an optimistic book about the need for a new economic paradigm in face of climate change, rising equity issues and collapsing economies. In her final chapter she concludes that in order to achieve this transformation into a distributive and regenerative economic system within the safe operating space of the doughnut, there is a need to not just talk about how to change the economy but also to “*draw* the change you want to see in the world”.

Chapter conclusions

Our global civilization's practices and economic rationality poses a threat to our continued thriving existence on Earth.

Linked to the, arguably, unsustainable chase for GDP growth is a wide range of issues. There is a general acceleration of human activities with environmental impacts, approaching tipping points for planetary boundaries, rising inequalities and vulnerable economic systems. To reshape the economic worldview might partially be an endeavor for economist, but if architects can start to re-draw its images, built environment and public spaces this might help a transition into a logic beyond economic growth. A logic where built environment supports the life-giving ecosystems as well as our social human nature.

The next chapter will address what Direction the architect can take in order to assist in this work. We will encounter the *Architect*, the *Client* the *Municipality* and some other power hungry characters.

In this chapter:

The architect's space of maneuver

Future goals & visions

Direction for Kanaltorget

Design strategies

Introduction to Direction in scenography

Direction of a project according to Howard means to know the vision and to do so by letting all players share and contribute to it. The aim of Direction is to create harmony on the “stage”, and Howard emphasizes the need for the scenographer to be a good listener to understand the project. She also argues that the difficult texts that you struggle to love becomes the richest experiences. People of different views and skills coming together she regards as a recipe for success.

“Collaboration is more than an ideal – it is the most important creative force that enables ideas to be discussed and battled for and to eventually be coherently realized.”

(Howard, 2009)

Other scenographers on Direction

For Kassius the collaboration with the director is key, it is where the bigger vision is put together. She also enjoys when the actors, and even spectators, faced with different choices becomes part of the creation of the direction (Appendix 2H). Thessman express a similar relation the the director, but adds preparation and guidance in relation to actor and spectator as a key element (Appendix 2G).

The architect's space of maneuver

Architects do not act in a vacuum, nor do they possess all knowledge necessary in today's complex society in order to re-draw the economic confinements or control all the parameters in the creation of the built environment. It might not be desirable either. However, to understand the architect's position in the collaboration that creates architecture, public spaces and cities, the concept of power and influence becomes important factors to study.

Someone who has tried to shed light on and raise questions regarding the conditions of the architect in relation to the client is PhD in architecture Kristina Grange (2013). In interviews with architects and clients she has researched perceptions on the architect in the power relations of the building industry. What becomes clear is that when the public is the client, architecture often suffers due to a

low appreciation and salary for the work of the architect. This is something that she argues Swedish municipalities confirm in reasoning that there should be better ways to value creativity in architect services. Grange asks whether the low price for architect services reflects a more widespread issue in the Swedish society, a development where the understanding for architecture is relatively low. She points out that the space of maneuver of the architect is heavily influenced by a development since the mid 20th century with the development of an unusually strong position of the entrepreneur on the Swedish building market. Compared to other Scandinavian countries Sweden, in 2009, stood out with the largest entrepreneur companies accounting for 20-30% more of the total shares on the building market than within neighboring nations (p.14).

What Grange observes is a corps of Swedish architects that perceives themselves as diminished in regards of power in relation to builders and entrepreneurs. She also conveys an image of a politization where the privilege to define the problem and the interpretation precedence has shifted from the architect's field of expertise towards politicians with a downgrading of professional competence. This can be reflected in architecture competitions where Grange regards the composition of the jury as part of the design itself, and she highlights that juries does not always consist of anyone with knowledge of the field of architecture. She reasons that this mirrors how architecture competitions are used as political tools for political interests.

In relation to the client, Grange claims there is a glitch between what the client and the architect perceives to be the role of the architect. With this realization the author has attempted to define problematic aspects within this power relationship. Through six themes she summarizes the outcome of the interviews:

The interested Client

Grange observes a paradoxical situation where the clients' interest for architecture is rising while decision making is increasingly removed from the architect. This leaves her with the question whether the position of the architect is improving or diminishing.

To deserve one's role

Here Grange has identified a disbelief amongst clients to the architect's understanding for the business side of a project, and a perception among clients that architects have their own agenda. Architects, she argues, respond to this by claiming they need to prove their worth. Grange validly questions whether this applies for other professions

within the building industry. She finds another paradox in the demand for architects to have courage, but simultaneously not come across as pushing their own agenda.

Approval from the Municipality

Under the theme 'Acceptable with the City building counsel' (SBK) Grange makes observations on how clients in certain municipalities favor architects that are on good terms with the building counsel office. Subsequently, the municipal office becomes a power factor which for architects might lead to a reluctance to criticize and risk their continued approval.

Decent pay

Under this heading Grange accounts for how LOU (the law for public procurement) leads to low salaries for architects and how the criteria of earlier experience renders younger offices excluded from participating. Simultaneously bigger firms opt out from participating in public procurement due to the low pay. Grange fears this will have consequences for the general architectural quality in public building.

The Swedish model

The development of a mediocre Swedish architecture Grange links to turnkey solutions where clients often promotes the option for the entrepreneur to swop expensive architectural elements. As a result architects tend to refer from drawing all the details that they might have wanted in a project. The author once more argues for a paradox, here between a government that claims that the public should act as a role model at the same time as they, according to Grange, politically do little to support the knowledge and understanding for architecture in society. (Since this book was published the Swedish government has adopted a national politics for designed living environment (Regeringen, 2018)).

Architect education – exclusivity for better & worse

Here Grange pin points the glitch between architecture students' expectations and the reality of the building industry's culture. She argues that the secluded education leads to an encounter with clients where their points of view are regarded as criticism by the architects. The need for architects to be able to argue for how their choices relates to societal issues and questions is brought forward.

In Grange's final conclusion she claims that the conditions that frame the space of maneuver of the architect is reflected in to what extent architecture is valued in

society and she regrets the absence of the government in regards of architecture. As mentioned before, national politics for designed living environment has been adopted since this publication. It states that "Quality in architecture, form and design is about creating values, not just for the client and user, but also for the surrounding society and future generations" (Regeringen, 2018, p.17).

Future goals & visions

Since the planning for the site and surroundings of Kanal-torget is ongoing, the future for the square is still unclear. But goals have been formulated to point out a vision for Gothenburg with a direction for the city in large.

Municipal vision & development of the area

Sweden has defined a national goal for designed living environment:

"Architecture, form and design shall contribute to a sustainable, equal and less segregated society with carefully designed living environments, where all are given good prerequisites to influence the development of the common environment."

(Regeringen, 2018)

Starting from the national goal the City of Gothenburg has adopted an architecture policy stating that this goal will be achieved locally by:

- *sustainability & quality not being subordinated short-term economic considerations*
- *knowledge about architecture, form & design being developed and spread*
- *the public acting as a rolemodel*
- *esthetical, artistic & cultural-historical values being taken care of and developed*
- *environments being designed to be accessible for all*
- *collaboration & co-operation being developed within the country as well as internationally*

(Göteborgs Stad, 2018)

In this policy the city argues for developing Gothenburg into:

- *An attractive city with a strong identity*
- *A city for people*
- *A brave role model for architecture*

In the municipal Development Program for the area around Kanaltorget (Göteborgs stad, 2016) the place is regarded as the new entrance to Gothenburg with around 2000 housing units and 16 000 places for em-

ployment being planned. The vision for what is referred to as Älvstaden talks about the two sides of Göta älv being developed into dense city environments enabling meeting points and cooperation. The project of Älvstaden is an important part of what is called Västsvenska paketet, a collection of investments in public transport, railroads and roads in the Gothenburg region including the contested Västlänken underground train connection.

The vision for Kanaltorget is described as an allowing, active and worthy place with connection to the water and a future tram stop and acts as a counterpart to Götaplatsen. Three main strategies for achieving the vision for the whole area are introduced: to heal the city, meet the water and strengthen the city core.

What is known regarding the future of Kanaltorget is that its surroundings will change a lot since large-scale detail planning on adjacent areas is ongoing. Decided is that a new Hisingen Bridge will replace the old Göta Älv Bridge (which will be demolished at the latest in 2021), that there will be an over-decking of Götaleden and that an exit for the new Västlänken will emerge in its vicinity. The planning and construction for these three building projects are already underway. Apart from this the municipality is investigating the future layout of the square and its surrounding traffic and discussing a new boulevard from Gullbergsvass in the northeast to Skeppsbron in the southwest passing by Kanaltorget in the position of Kanaltorgsgatan. Input that the city asks for regards the future programming of the square (Appendix 2A).

Other future stories

Nordstan is exploring the possibility to add shopping in two stories as well as hotel facilities as the exit for Västlänken is being investigated within the northern corner of the parking garage. In addition they are looking into possibly add private housing and other public programs on the roof of the garage (Appendix 2D). The Opera, run by the region, also have development ideas and wants to open up towards the city. The addition of a smaller stage adjacent to the current facilities have been discussed but are currently put on ice. But the Opera work continuously with accessibility mainly through their SKAPA operations for reaching new audiences but also through digital platforms and 'behind the production' experiences (Appendix 2F).

Direction for Kanaltorget

To decide the direction for the future of Kanaltorget,

in relation to the role of the architect, the visions for the built environment and the present characteristics of the square, a SWOT-method could help.

SWOT – direction for the future of Kanaltorget

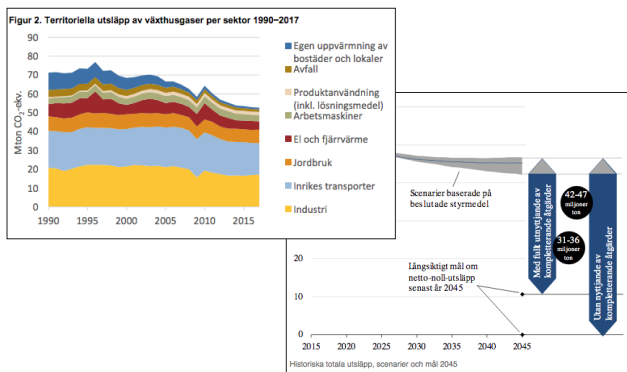
The strengths of Kanaltorget are arguably being a large un-programmed central area well-connected with public transport. But it suffers from noise pollution, traffic, social challenges and few public target points beyond Nordstan shopping mall. Another weakness is its lack of immediate facades to support the square which is perceived as borderless. Some of the opportunities for the site is detail plans in progress that could address social and environmental issues linked to the site for example through the use of ESSs. A potential increased flow of people by foot or bike due to adjacent building development as well as the planned exit for Västlänken could prove an opportunity. Being so close to the water, a threat for Kanaltorget is future rising sealevels and the effects of climate change. Increased consumption would be a threat to sustainability and equity as well as render parking needs if combined with car use. High land value also risk to cause an over exploitation around this central area.

SWOT – direction for the operations of the architect

One could argue that the direction of development should play to the strengths of the space, the city and its stakeholders and users. Potentially one of the architect's strengths might be the coordinating position between different fields of expertise, as well as the ability to visualize different futures. A weakness is the architect's relative decrease in influence and power over the final vision of a project and views regarding the need for architects to prove their worth in ways not asked for in relation to other professions in the building industry. An opportunity is to restore a confidence in the architect's profession by developing a proficiency within the field of sustainability as national policy and politics are starting to raise the demands for this. Finally a threat is that climate change will be more rapid than the architect's ability to acquire sufficient knowledge or mandate to address them adequately and in time.

Timeline for future direction

On the next spread a timeline shows four moments in time that this thesis will illustrate. The four moments have been linked to different reports and guiding documents, directing the future scenario investigated within this work. In the bottom left corner is an illustration of the planetary boundaries presently at risk.



2020

Naturvårdsverket's report:

'Underlag till regeringens klimatpolitiska handlingsplan' (Naturvårdsverket, 2019)

Status report on Sweden reaching the national climate goal of not having any net emissions of greenhouse gases (GHG) by 2045.

It states that:

- with current use of political instruments there is a gap of 31-36 million tons to reach the goal by 2045
- Swedish emissions decreased mainly during 2003–2014, after which the rate of decline has decreased. In 2017, emissions were only 0.5 per cent lower than in 2016
- we need to reduce industry emissions to near zero, heavily reduce transport emissions by 2030 and long-term, separate, transport and store carbon dioxide
- the targets for emission limitations communicated by the Paris Agreement to 2030 are insufficient to limit the temperature according to the objectives of the agreement

(Observe the dip in emissions of GHG coinciding with the financial crisis of 2008 in the graph to the upper left)

2030

Agenda 2030 & the SDGs:

'The 2030 Agenda for sustainable development' (UN, 2015)

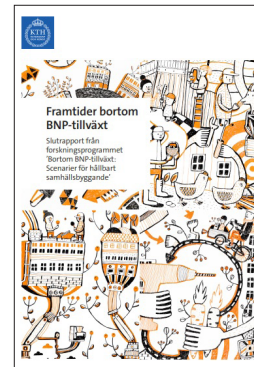
An international agreement by the 193 member states of the UN to achieve a sustainable and just world by 2030.

It states that:

- 17 sustainability goals of the agenda are to be fulfilled by 2030
- the goals will help eradicating poverty and hunger, realizing human rights for all, achieving equality and empowerment for all women and girls, and ensuring lasting protection for the planet and its natural resources
- the goals balances the three dimensions of sustainable development: the economic, the social and the environmental
- goal #8 Decent work and economic growth is key to eradicating forced labor and trafficking



4/9 planetary boundaries in danger or high danger zones for crossing tipping points, 3/9 are unquantified



2040

Swedish climate law & climate political framework:

'Det klimatpolitiska ramverket'
(Regeringen, 2017)

Climate act, goals and policy council as a national framework and climate strategy for Sweden.

It states that:

- the long-term climate target is to by 2045 not have any net emissions of GHG, in order to subsequently achieve negative emissions
- GHG emissions from operations in Sweden should be at least 85 percent lower in 2045 than the 1990 emissions
- for the year 2040 this means a 75% reduction of emissions
- emissions covered are mainly from transport, work machines, smaller industrial and energy plants, housing and agriculture
- supplementary measures to reduce emissions include eg. uptake of carbon dioxide in forest and soil as a result of additional measures

2050

Futures beyond GDP growth report:

'Framtider bortom BNP-tillväxt'
(Gunnarsson-Östling et al., 2017)

The report has formulated four national sustainability goals to fulfill by 2050:

It states that:

- Sweden shall be fossil free by 2050 /.../ no fossil fuel is being used as fuel or in industrial processes /.../ consumption of Sweden can contribute with a maximum of 0,82 ton CO₂-equivalents (GHG)/person/year
- land use per person used for the Swede's consumption does not exceed the global biocapacity.
- all inhabitants in Sweden /.../ has the right to participate in and influence political elections and decision-making that affects their lives
- inhabitants in Sweden have sufficient access to resources and services that enables them getting housing, education, social care and social security as well as beneficial prerequisites for a good health. These resources and services are being distributed according to equity principles

Design strategies

To connect my design for Kanaltorget to the goals presented in the report 'Futures beyond GDP growth' I have put together a few design strategies of my own. They focus on aspects of the goals that the architect can influence.

My design strategies

To reduce the use of fossil fuel and the land use per person the design will:

- *Show a way of organizing **public space without incentives of consumption**, for example by erecting or repurposing buildings around the square that are free of charge, offering spaces without counter demands or demands of time engagement rather than money*
- *Enable active and diverse use of public space for **creative or productive collaborations** ranging from professionalism to hobby activities decreasing the need for import and transport*

To increase the influence and participation as well as provide sufficient access to resources for the inhabitants the design will:

- *Use Kanaltorget as an **environmental and social buffer** for the city where inequalities have the possibility to be mitigated rather than enforced*
- *Employ **reuse of material** within the architecture of Kanaltorget*

Additionally the design will:

- *Use scenography to **inspire a narrative independent of economic growth** where public space can be a place for collaborations*

Programs

What programs that surround a square become part of its identity. Commerce, nature, parking a prison – they will influence the way people act and interact. Four programs will try to respond to and support the above strategies:

- *A seedbank that stores genetic diversity and facilitates seed circulation in the community*
- *A greenhouse with a community stage connected in a circular system without artificial nutrients*
- *Refurbishment of the parking garage into an aquaponic farm with a vegetable market as well as a Swap shop for reuse*
- *A largely unprogrammed public landscape integrating fluctuating water levels, enabling leisure and greenery experiences*

Chapter conclusions

The direction for Kanaltorget depends on political vision, the collaboration of present and future stakeholders within the area as well as on the proficiency of municipal officials, architects, planners and developers.

How national as well as municipal politics for built environment will affect the position of the architect in the future is unknown. As is who is going to pay for the service of the architect if the public continuously does not. But political programs aiming to address environmental and social issues related to the built environment might strengthen the position of the architect and the architectural corps provided that they can assist in that quest.

When the city is covering part of the E45 it shows a shift in priorities, and ambitions to mitigate barriers. But it also presents a large cost that the municipality might try to get returns on through densification. The yield gap for potential future land value for this large central area can be assumed to be significant which constitutes a risk of over-exploitation. A worst case scenario could be that public space in the area is diminished to the space in between buildings and the doormat for both large-scale shopping and environmental feedback. Potential, and even likely, future floodings, climate change induced migration and increased consumption pose a threat with possible consequences such as quays being under water, social conflict and stress to the environment.

Development in adjacent areas, however, brings focus to this site and its potential as a qualitative public space in the epicenter of Gothenburg. Kanaltorget could also be a part in connecting Centralenområdet to Hisingen and Frihamnen. If Kanaltorget can become a public space where traffic and consumption are diminished, maybe the city can achieve a sort of reversed gentrification inviting people back to act in the city center. Kanaltorget has the potential to continue to be a place for differences, in a less peripheral way, as well as guaranteeing ESS and being a test bed for the organization of a new society built on public engagement.

In the next chapter we will encounter the Performer in its many shapes: the *Acrobats* and the *Dancers*, the *Co-creators*, the *Tutor* and the *Apprentices* and we bump into both a *Rhinoceros* and a *Pirate* as well as the *Collectivist*.

In this chapter:

The empirical study

Theater & exhibition references

Introduction to Performers in scenography

Who is the performer in a scenography? In a way it might be anyone involved in its realization. Howard states that the center of the live theater is the human being and that the director and the scenographer's work with enhancing the performance starts from the most powerful living element in the space – the actor. To help him or her inhabit the scenic space.

“It is not always easy. Actors are mobile, unpredictable, possessing a transforming power onstage, different every night, and dangerous. It is the scenographer's job to find how to communicate with the actors, evaluate their needs and wishes, and make the right decisions that will achieve a united and harmonious result.” (p.156)

Other scenographers on Performers

Sonrel claims that the main element of a scenic representation is the actor (1956). He accounts for theatric art forms dependent on the actor like *commedia dell'arte*, also called *all'improvviso*, which underlines the importance of the performers' improvisation, or *commedia a soggetto*, which indicates that the subject alone was given to the performers, the dialogue being improvised, or *di zani* defined as “the collective and constantly renewed work of a troupe of actors working together, from a given subject, an improvised text and using, as characters, some types fixed in advance, and known to the public”. Historically up until now the performer is the performance.

Thessman (Appendix 2G) talks about his interaction with the scenic performer today that revolves around preparation, preparing them for what the space will entail before they see it, to instruct them on how it can be used practically and together with the director guide them and help them understand how they are perceived from the auditorium and the audience. For Håkansson (Appendix 2E) the focus for his work is also the performer, to help build their character by the objects they are surrounded by.

Taking the role of the performer far is director and scenographer Carolina Frände. She talks about the process of devising as method during the repetition period of ‘Om tyranni’ (Göteborgs Stadsteater, 2019).

The ensemble made the play evolve together and the scenic performers became, in a way, also the writers in charge of the content and anything could happen, there was no script. Frände argues that this enables new ways of telling a story and of working collectively, than if they would have dramatized the text that the play was inspired by. She also states that it opens up for the imagination to use different kinds of material as starting point, beyond the dramatic text.

An empirical study

Who will be invited to act in tomorrow's Kanaltorget? What will the space propose they do there? And how to attract them? This empirical study looks into the approach to the performer in theaters and exhibitions and will serve as inspiration as for how to relate to the role of the performer in the future public space.

Theater & exhibition references

Throughout the work I have attended several scenographic performances and public exhibitions in Gothenburg. Both plays and exhibitions represent a sort of public space and discourse, even if economically and culturally conditioned, with an aim to interact with an audience. How this intellectual, cultural or emotional exchange between people and space is staged or curated becomes an interesting aspect to analyze and study in relation to performers in architecture and the public space.

Theatric plays as design input

The theater plays serve as empirical input to scenographic approaches to the role of the performer. Their view of the performer, spatial manifestations and scenic perspectives inform the design approach in relation to actors in public space. It is also interesting to note what themes they have chosen to bring up, even though I won't use a substantial sample group to analyze the themes in a wider context.

Exhibitions as design input

The exhibition observations can be regarded as empirical studies of a public discourse about space and society. They are furthermore studied as a means to create interaction and dialogue between citizens and city. As such they can inform the architect in her or his work with public space.



The role of the performer in 'Bosch dreams'

Description of play – Acrobats, Dancers & art

This is a visual, acrobatic and twisted performance by a Canadian circus company. The narrative is inspired by the surrealistic universe of the medieval painter Hieronymus Bosch. In focus is his triptych 'The Garden of Earthly delights' that depicts Paradise, Earth and the Inferno, filled with strange creatures residing in them. It is a mixed media performance with acrobats where parallel stories run through the play. A contemporary narrative follows an art historian and his encounters after his lecture about the surrealist painter. Another enacts situations from the painting with its creatures coming to life both through the circus artists' costumes and acrobatics as well as through digital fantastical animations. A red ball, or berry, present in the painting runs like a red thread through the scenes, giving a sense of storyline to an otherwise fragmented history. The animations are projected in two layers resulting in a 3D-effect where the performers at times appear to merge with them completely and can be both in front of, in between and behind the imagery. The music of The Doors is woven into the fabric of the story.

Analysis of the role of the performer

The performers of 'Bosch dreams' engage in a speechless bodily exploration of space, in three dimensions. In their performance they utilize all the muscles in their bodies – hanging from the air, running up along poles and hand-standing on objects. They activate the senses of the audience through bombastic, almost tactile, visual sceneries choreographed to the musical elements of Jim Morrison with smokey mists, carrying both taste and smell, filling up the auditorium. The narrative is connecting history to the present in its framing of art and art history in a contemporary scenic event. It is also an enactment of a dream world of phantasmal, utopian and nightmarish experiences, literally balancing on the verge of the surreal.

Principles to bring to the public space

- *Enable a bodily exploration of public space and trigger the senses, from visual and sonic to taste, scent and tactile experiences*
- *Enable performers to utilize vertical space beyond the traditional manner*

Description of play – Co-create a Rhinoceros

An investigation into a local business man, Granberg, leads the narrative in this interpretation of 'On Tyranny', a book by Timothy Snyder. The book came out in the wake of Donald Trump's initiated presidency. It is a guide that presents different points on how to live in a totalitarian society. It is about democracy and resistance and how a population ends up choosing a political representative that does not, in fact, represent them or their best interest. The play picks up this theme of questionable influence between industry and politics and what a single person, with enough power, can accomplish or cause. They tell the story almost without enactment, reading from their scripts. Only every now and then they enact a scene which they imagine from the narrative surrounding their person of interest. In the context of Gothenburg they lay a puzzle of information, conspiracies and people, soon reaching global proportions to both South Africa, Russia and USA. Waiting for this puzzle to unfold and form an answer is the main act on stage. An act that finishes, not in an answers but in more questions.

Analysis of the role of the performer

This performance is a puzzle play about power, corruption and private agendas affecting the public and the democracy itself. The actors in 'Om tyranni' has through a method called devising co-created the scenic work together with the director. Using the book as starting point they have investigated its themes of power and resistance and what the influence of one person can do. In this manner the performers are not just the messenger, but the co-creator of the message brought forward by the play. During the story's sequences the actors break apart the setting, with pieces of cardboard with numbered cut outs, and start to build an object – obscure at first, but later figurative. In this way the performance might have lost some of its performativity, the actors being engaged elsewhere in research rather than in performing. It might be that this is refreshing, but it could also be a way of abandoning the act.

Principles to bring to the public space

- *Use public space as an investigative space*
- *Let inhabitants co-create the spatial narrative, aware of that it is an effort taking time from something else*



Description of exhibition – from Pirate to Collectivist

Inspired by archive material and the movie 'They are blowing up my city my heart' design students at HDK have made an exhibition. A projection of the movie portrays Östra Nordstan in the 1960s, a district characterized by hotels, pawnshops, smaller workshops and bars with a history of the alienated. It tells the story of the rise of migration in the 1860s, with new the Atlantic liners, and its social consequences. The people depicted are mostly men, some used to be workers, a former sailor called the Pirate, many are drunk. The sculptors Ida and Gösta Sillén talk about how they, as artists, live on demolition contracts and move every year. The filmmaker lies bare his dubious feelings about the urban renewal. There is an ambivalence with a raised concern for the rapid and painful urban transitions, a renewal here meaning a mall. An association of builders and other companies demolishes the whole district and the old street for prostitution will be turned into an indoor shopping street for consumers. A journalist asks about the plans and stresses the need for a lively debate and transparency since the project concerns so many with large-scale, permanent alterations of the area.

The works of the students are mainly focused on the people, the built environment and the migration. 'Saneringen' shows clips of a model of clay and Styrofoam gradually being demolished. Another, 'Resan till Amerika',

focuses on the migrants. An interview work, 'Kollektiv', plays the voice of a woman who lived in a shared student household. She says that there was little opposition against the demolitions, but that it had grown when they started the same process reached Haga.

Analysis of the role of the performer

The performers here act in different layers of time. One can see the performance as a chain of interpretations – from events in history to archive and film recording, from archive and film to contemporary exhibits, from exhibits to spectators. They all perform, even the drunks of Nordstan playing their part in the public space. The interlinked performers, in space and time, together create a rich image of both Nordstan, its people and hierarchies. Public space is contrary to this sometimes designed to exclude certain "elements" from disturbing, addicts and homeless are one example. But if these performers still exist, excluding them only relocates them to other, more peripheral, places and making them invisible to the people still invited to that public space.

Principles to bring to the public space

- *Protect historic layers and add new ones with care*
- *Allow the public space to be inviting, for different people and purposes*



Photo: Riksarkivet Göteborg



'Unmaking democratic design: Fredrik Paulsen'

Description of exhibition – Tutor & Apprentices

For the re-opening of the Röhsska Museum they exhibited the temporary 'Unmaking Democratic Design: Fredrik Paulsen'. The designer was invited to interpret what constitutes democratic design. To discuss this he chose to work with the chair and to invite the visitors to make their own. "In traditional design history, chairs are used to signify material, technological and cultural developments. Here, the same piece of furniture is, rather, used to dismantle, pick apart, and question the notion of democratic design." Some chairs in the exhibition show a development of the chair as a design object, but most artifacts are made by the visitors in a temporary workshop space. In addition different designers have been giving lectures and tutoring sessions with HDK design students led to the production of chairs. Then a workshop session with design students tutoring visitors resulted in further creations. Finally there was a concluding session where a visitor tutored the designer. Like this the exhibition has grown organically. Some chairs are playful like a caricature of a kids drawing of a chair, some forced into shapes the material does not seem to like and others have combined the chair with a function like a ladder. The exhibition asks what democratic design is, if it even exists? To broaden the perspective from being confined to utility, public spaces, accessibility or price it rather includes a maker perspective concerned with materiality and production process.

Analysis of the role of the performer

Leaving out questions of environmental sustainability, resource efficiency and an object's life span, we can focus on the social aspects. Taking turns in being the performer means knowledge is spread between people of different experience and skill. Maybe we all need to become more of performers, to become aware of the work, knowledge and resource efforts needed to produce what we consume? With digitalization everybody with access to it can be a producer. And there is a beauty in this myriad of shapes and ideas of what a chair is and what the same pine wood material could do. But maybe there lies a conflict here, can everybody be a responsible designer? Can professional designers even? It is almost like the exhibition is reproducing the conundrums of the consumption society – the conflict between our contemporary tempo in consumption with fast made, cheap and short lived objects and the notion of planning and distribution of our natural resources.

Principles to bring to the public space

- *Let the public space act as a venue for democratic inquiries, learning and experiments*
- *Enable engagement from inhabitants to different degrees*

Chapter conclusions

Scenography revolves around the performer. There might be a dramatic text, there might not be. But there is always a performer. Howard even defines theater as the meeting between an actor and a potential audience. The role of the performer, however, differs.

In theater the performer moves from being a physical instrument, almost like clay, exploring space with its own volume, to being a co-creator of a narrative with shared responsibility for the vision. A significant aspect from both of the exhibitions is that the invited performer has relied on participants with relevant knowledge of the performance. Even though the Röhsska exhibition is pushing it further by inviting any visitor to with tutoring co-create, there might already be a bias group inclined to visit a design museum and furthermore engage in a workshop session. But it brings up dimensions of knowledge spreading and learning by doing.

The theatric performer acts at a certain time in a certain place, and beyond that the performance does not exist. Sometimes the performer leaves an echo in the form of a recording, a trace, a memory or an object – but the act of the performance is no longer there. Sometimes the echo becomes part of a new performance in another time, at another place.

Looking at the people inhabiting and acting in the public space as performers provides the architect with a design tool. Public space differs fundamentally from the stage set in its relative permanence – a set that needs to serve different performances, and equally many performers with a scenography over the course of time. What performances it enables or prohibits becomes part of its longterm narrative. To provide the stage and a setting is the job of the architect and the team she/he is surrounded by. But the performance remains with the performers – the inhabitants. This requires the empathy of the scenographer in understanding what the performer needs and providing spaces that both enables their basic needs but also provokes them into exploring new ways of using the space.

Principles to bring to the public space

- *Enable a bodily exploration of public space and trigger the senses, from visual and sonic to taste, scent and tactile experiences*
- *Enable performers to utilize vertical space beyond the traditional manner*

- *Use public space as an investigative space*
- *Let inhabitants co-create the spatial narrative, aware of that it is an effort taking time from something else*
- *Protect historic layers and add new ones with care*
- *Allow the public space to be inviting, for different people and purposes*
- *Let the public space act as a venue for democratic inquiries, learning and experiments*
- *Enable engagement from inhabitants to different degrees*

Leaving the Performer behind for a while, we will now meet the character on the other side of the fence. The next chapter introduces the Spectator, bringing its own experiences to the theatric encounter. We will get acquainted with *Quasimodo*, the *Match Stick Girl*, the *Consumer*, *Nature* itself and the *Displaced* among others.

In this chapter:

The empirical study

Theater & exhibition references

Introduction to Spectators in scenography

To know if a scenographic work has been successful Howard talks about the meeting with spectators as the time of evaluation and completion of the rehearsal process and the start of a new phase. This is when the work areas text, research, direction, color and composition and performers can be judged by the spectators. She likes to study the audience's response from different points in the auditorium in a sort of self-education.

"By sitting in the audience, at performances, the whole integrated production can be viewed critically and differently each time, comparing the reactions of one group of spectators to another." (p.187)

Other scenographers on Spectators

In conversation with Thessman (Appendix 2G) he reveals that he sees the scenographer as the link between the performers and the spectators, helping the performers to see themselves from the audience's point of view. He brings forward an empathy and understanding for what the spectator will see and hear from different spaces in the auditorium or even if seated on stage. Their location affects their perception of the play.

Historically the perspective on the stage even reflected the status of the observer by literally being scewed to fit the Royal box where the king sat, according to (Sonrel, 1956). This meant the further away from it you sat, the more distorted was your experience of the set. In baroque theaters, shaped like a horse shoe to enable spectators to show off themselves and watch other visitors, some seats hardly permitted a view of the stage at all. Kassius (Appendix 2H) talks about these different stages in a theater, where it was equally important to be seen as to see, if not more, and how this aspect of making visible the people is a big part of public space as well.

Both Thessman and Håkanson (Appendix 2E) talks about providing the spectator with "layers" in the scenography, direct and obvious spatial information enriched with the opportunity to deepen the understanding of the plot. This could either mean that you broaden your perspective of the characters given time to observe it, or that you might need a more profound knowledge

in order to see it at all. The importance is to give the spectator an experience in different dimensions, and acknowledging that different spectators bring different experiences into the theater.

Kajsa Hilton-Brown talks about the aspect of time and that she finds a made up time helpful if the message is difficult or sad like in 'Flickan med svavelstickorna'. A scenography that is suspended in between reality and fairytale in a non-specific time gives the spectator some distance that might enable them to absorb the message (Backa Teatern, 2019).

An empirical study

If one argues that there are performers in public space, does that mean that everyone is actively doing things? If people become increasingly engaged in co-creating public space, then it is fair to suggest that they also might take a step back and enjoy it. And for those unable to perform according to the conditions of the space or due to their own condition? One can argue that public space should provide a place for all equally. Looking into ways of being a spectator provides input to the design of the square.

Theater & exhibition references

Having used plays and exhibitions to explore the role of the performer, I then reset the perspective to look at their approach in relation to the spectator. How do they relate and interact with a visitor or observer? In what ways can a spectator take part?

Theatric plays as design input

If theater is the interaction between a performer and an audience, then that makes the spectator half the play. But there is not one type of spectator, nor is there one single approach towards them. If inhabitants in a public space are regarded as theater spectators, how would the architect approach them, where would they be seated and what would the audience be invited to see?

Exhibitions as design input

Museums, universities and curators in Gothenburg are engaging in different ways of building an exhibition space with new angles to present historical, theoretical or artistic works. But they all focus on someone receiving the visual and theoretic content – a spectator. The exhibition spectator is, contrary to the theater spectator, mobile. It is the observer that moves, shifts perspective and decides the tempo. No one tells them where to sit and when the show is done.



'Ringaren i Notre Dame'

Description of play – Quasimodo's story

This scenic event depicts medieval Paris where a story unravels following an archdeacon, a gypsy dancer and the hunchback clocker of Notre Dame. Based on the Disney adaptation of Victor Hugo's novel, a grandiose musical fills the opera. The stage has been turned into one of the world's most famous cathedrals in one of the world's most visited cities. On stage there are church benches where parts of the audience sit as part of the scenography. The benches move throughout the play and the visitors are spectators and in part co-actors in monk hoods. Animations moves the story around in the cathedral, from the church hall, along the stairs up to the clock tower. Views over Paris backdrop the performance on stage. Parts of the narrative are solely physical scenography, giving those moments a different character from the animated cathedral. This is an affable audience courtship, with extensive scenography and musical performers supported by an entire opera choir.

Analysis of the role of the spectator

Letting the spectators up on stage breaks the "fourth wall" (the non-existent wall between the stage and the audience in a traditional frontal theater setting). Or at least it changes the perspective on where that wall is. This gives an energy to the performers as well as the spectators and the theater space. A dynamic that, in some ways, are more realistic than the one where the stage and the auditorium are separated by a proscenium. Involving the spectators gives the performance an element of uncertainty, even though the spectators in this case are very restricted in their movements. It is rather a way of instructing them and give them a very small part in the professional performance.

Principles to bring to the public space

- *Consider the point of view that one can have in relation to the square*
- *Enable interaction between active and passive participation*

Description of play – The Match Stick Girl

Backa Teater invites spectators to open rehearsals for selected upcoming plays. For the set up of 'Flickan med svavelstickorna' (The match stick girl), the director decided to make a silent theater with inspiration from silent movies. Together with the scenographer a world in greyscale has been created depicting the grim and frozen reality of the little match girl. The set is built around a moving tape or travelator on the floor, giving the illusion of the girl moving forward while still remaining on center stage. What is fixed in this story are the spectators and the girl. She is always in focus trying to sell her matches to people around her. The scenic shifts are horizontal, and every now and then an object, a lamp post, or a stair slides in from the side. On the backdrop projections of buildings pass by that show glimpses of families, dinners and fires as the girl walks by out in the whirling snow. People act as though she is contagious, or does not acknowledge that she is there at all. They make her invisible. As the story shifts from the grim reality to the girl's fantasies the decor and costumes will change into brighter strokes. This is not shown in the selected open rehearsal scenes.

Analysis of the role of the spectator

There is a trend of open rehearsals at cultural institutions for theater, dance and performances. It can be seen as a

form of democratization of culture, or as public relations trick. An open rehearsal is an interaction between the theater ensemble and a group of spectators during the rehearsal process. It is a chance for performers, musicians, director and scenographer to test the performance on an audience. And it is equally an opportunity for the spectators to be initiated in the creative process of the theatric play. Some say this opportunity is magic, some say it breaks the magic. This rehearsal was preceded by a quiz regarding silent movies relating to the choice to remove speech in the play. Taking away the dialogue has opened up the play beyond language, and its possible barriers. It allows spectators to interpret the play in an equal way, regardless of linguistic knowledge. This means that the spectator reads the play not through the words, but solely through the interactions of sound, space and bodies. This is close to how a spectator would observe the "play" in the public space. Not relying on a known script, they would interpret public space only through their observations, associations and preconceptions of what they see and hear. But is there still a narrative embedded in public space? And what, or who, would that narrative want the spectators to see? Or ignore?

Principles to bring to the public space

- *The notion of making visible hierarchies*
- *Explore important focal points*





'Human nature'

Description of exhibition – the Consumer & Nature

One enters Human nature as through entering a shop, neon opening signs, arrows on the floor and commercial messages in a maze-like grey corridor. One of the first things you see is a line of crouched people in an everlasting movement moving through metallic hoops of work-buy-dump. Glass showcases promotes absurd products such as the grass flipflops for urban areas lacking grass, baby perfume with satisfaction guaranteed or one-day-t-shirts with the encouragement to be eco-friendly by throwing them in textile recycling after use. Through cracks in the sterile walls one can see cities obscured behind the smoke from industrial chimneys, shorelines disappearing beneath stranded plastics and products being tested on terrified animals. A movie screening of the human impact on nature concludes this section of the exhibition. The next part is an open space with translucent cocoon-like pods connecting environmental threats to objects or practices from different world cultures. They show different aspects of environmental issues like climate change-resilient crops, indigenous peoples' practices of common lands without ownership but joint responsibility or art movements in service of the environment. There is a corner for therapeutically reflecting upon one's relationship to one's possessions. A pop-up mini-version of the exhibition on bike also ambulates the city, saving the spectator from even having to seek out the exhibition.

Analysis of the role of the spectator

At first the spectator is invited to a scenography imposing on him or her the surreal nature of our "reality" in a satirical way. One is invited to a shopping browsing in the corridor, but with the aim to inflict something beyond the will to consume. The backside of this consumption pattern is shown in a rather brute and simplistic way through the cracks. When this is put in relation to the long human history through various cultures' practices and artifacts the spectator might gain perspective on the potential consequences of the environmental threats. The exhibition tries to turn the spectator to look at him/herself and their own actions. Even if in a somewhat confusing and scattered way. But how can one sum up what human nature is or how the many ways in which our behaviour has impacted the Earth? How can we look upon ourselves as a humanity with open eyes and take in the full picture justly and honestly? Maybe through a sort of staging, like this, where the spectator is safely narrated through the story wanting to relate to the protagonist. Or maybe we need to see that we are really the antagonist in this odyssey.

Principles to bring to the public space

- *Explore alternative imperatives than 'Buy!'" and program it for actions beyond consumption*
- *Provide the users with places to reflect and become self-aware*

Description of exhibition – the Displaced

Phoebe Boswell, a Kenyan/British artist, exhibits her multimedia works revolving around notions of not belonging. With her outsider perspective she looks at Gothenburg and its people. 'Tramlines', 2015, is a drawing stretching seven meters across the wall. It depicts snapshots of people on a tram journey from the center to the suburbs. The paternal symbol of Gothenburg, Poseidon, is accompanied by the five female sculptures of the Järntoget fountain representing the different continents. 'Stranger in the Village', 2015, is a Tinder-exploration of "Swedishness", with tiny portraits of guys from the dating site. Her portraits try to capture these strangers while drafts of their conversations convey racist or prejudice comments. Other works regard collective memories, identity and home. 'Transit Terminal', 2014 – 2019 consists of coffin-sized boxes that carry the full size image of the backs of migrants with a bird and a voice inside the box. 'Mutumia', 2016, is a double sided projection in a long white gallery with an interactive work portraying women using their bodies in resistance. The walls gradually fill up with animations of what feels like an army of women, first a few in silence, then as more visitors enters the room, amplifying in numbers and volume into a gospel choir. Boswell says this formulates that the key to reshape societies is linked to our consciousness of ourselves and our surroundings, to our stories and voices, our speech and real listening.

Analysis of the role of the spectator

'Here' shows the power of an outside perspective - how an image can become clearer if freed from a personal history. But the outside perspective also brings other histories with it, from other 'heres'. Boswell, as both an artistic actor and an outside spectator in the city, creates this lens for the spectator to see through. She frames people and shows the simple, beautiful, racist, complex, absurd, unfair, happy and diverse city. This exhibition is both general and personal. The spectator is invited into the mind, and even body, of the artist, and in that personal sphere the spectators can mirror themselves. Allowing this mirroring, from one individual to another, could form and empower a kaleidoscopic collective identity. I also think that, provided with this outsider lens, the spectator can turn it around and review what they are already familiar with and see it differently. In the description of the exhibition there is a quote from American civil rights activist Audre Lorde: "your silence will not protect you." Saying that even if you do not speak up, you are still here. What will you do with that presence?

Principles to bring to the public space

- *Explore ways for the spectator to engage through their bodily presence*
- *Enable the spectator to become aware of their bodies*



Chapter conclusions

To understand the role of the spectator one needs to acknowledge their importance for the creation of a play in the first place. The spectator is the reason for its very existence. The play wants to communicate to someone, to connect. What does this mean for the public space?

One can understand public space in a similar way. That it is to communicate something, values and ambitions as well as making visible its different spectators. It addresses the bypassers, the curious, the ones in need for rest, the neighbours and the ones enjoying the surroundings of the public space. If public space is to make visible differences and similarities, stimulate connections and provide a venue to process these differences, then regarding its inhabitants as spectators teaches us their importance. If it is to reflect the society it needs to invite a wide range of spectators.

Another dimension of the role of the spectator in relation to the performer in public space is the ability of everybody to perform. Since everyone is not equal and have the same abilities it is important that the architect explores ways to participate passively, observe the “play” of public space and for inhabitants to see but also be seen in the public.

A pattern shared by many of the cities theaters is to invite the spectator to participate in or simply observe the process of making a scenic work – visits behind the stage, receiving introductions before a show in order to gain a deeper understanding of the work or even to sit on stage during the performance. This can be understood as a way of bridging between performers and spectators, to create new connections and lines of reason on both parts. This could be translated to the practice of the architects, and might inspire the profession to not just listen to the public voice but to engage in an educative process where both parties can learn from each others experiences.

Principles to bring to the public space

- *Consider the point of view that one can have in relation to the square*
- *Enable interaction between active and passive participation*
- *Explore important focal points*
- *The notion of making visible hierarchies*
- *Explore alternative imperatives than ‘Buy!’ and program it for actions beyond consumption*
- *Provide the users with places to reflect and become self-aware*

- *Explore ways for the spectator to engage through their bodily presence*

- *Enable the spectator to become aware of their bodies*

The next chapter will show how these principles as well as the theory and investigations of my questions will be compositioned and put in color in order to frame the development of four future urban scenographies in the context of Kanaltorget. We will look into *Urban Material Mines*, *Technology Intensive* as well as *Extensive Materials*, Torsten Henriksson’s *walking bridge* and we might encounter both a duck, Bertold Brecht and a Taiwanese ghost in the process of finding the *Harvest map*.

In this chapter:

Reuse & urban material mines

Technology intensive materials

Torsten Henriksson's walking bridge

Composition sketches

Resources – harvest map

Reference projects

Introduction to Color & composition in scenography

Color is compared to the key and range in a musical composition, with fixed intervals in between the extremes, balancing the space together with the formes. The Composition of a scenography is how the scenic objects relate to each other according to Howard. Seeing the scenographer as an artist, she talks about Color and Composition as “the crux” of their art.

The color can be used emotively and may well be the first step in composing the full scenography, and even using just one bold color speaks loudly. Composition and colour is what enables the artist to create focal points for each scene for the spectator to follow as the performance progresses. In composing the space Howard's inspiration moves from paintings, book layouts, spaces and colors. Taking the scenic idea from two to three dimensions is a key translation where the art is tested in a model. Referring to the works of Bertold Brecht and Caspar Neher she talks about the movement from illusionistic stage realism towards a poetic realism showed a yearning to make a profound statement about reality. Howard argues it is a scenic reflection of a literary movement also responding to new art movements for example leading scenographers like Jocelyn Herbert to the composing of chairs, tables or washing lines on stage.

Howard also emphasizes the importance of a critical awareness that enables to look at the creative work critically, and know how to alter it during the creative process. To discuss balance between light and dark, verticals, horizontals or diagonals, colors and composition which together form what in the text would be called the plot line. In an exhibition the composition is static, and the visitor moves around it in their own pace, while in theater the color and composition is changing constantly. Howard argues the unfolding scenography should, in a sequence of poetic statements of both recognition and surprise, unify performers and object and catch “the essence of truth and reality”.

Contrary to the permanence of architecture, in the ritual of the Taiwanese Ghost Festival temporary paper houses are built for the ghosts to inhabit for a night, which inspires Howard:

“... This incredible paper art is only temporary and transient. It will tell its story, through its shape, form and colour, and then be burned and remade emulating the eternal circle of life and death. As they say, theater is but a temporary hotel.”

(Howard, 2009, p.123)

Other scenographers on Color & composition

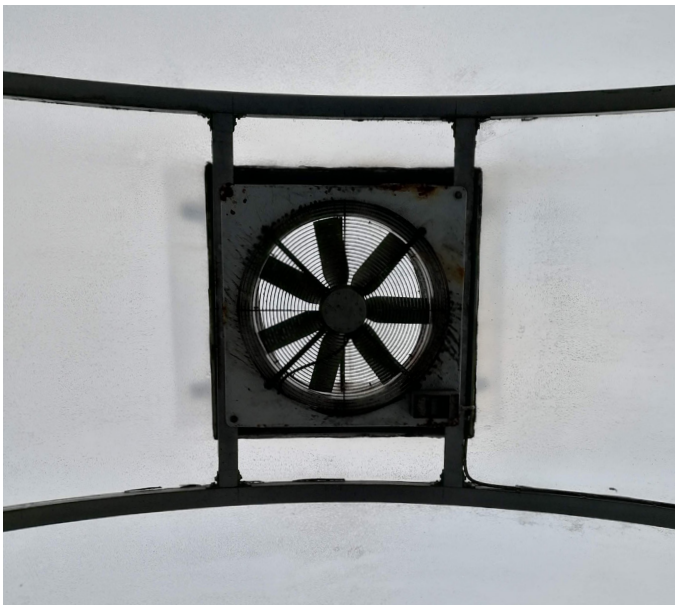
Ulla Kassius talks about a scenographic toolbox consisting of light, sound, visual imagery, text and motion. With it she builds harmonies, like in an orchestra, where some instruments are used at the time in order to leave space for the audience to interpret and imagine things. She also talks about the power of the empty space, to leave the actor in complete focus, and to only provide the surface material. This could be sand, hay, stones or water – all giving the performer a different experience and challenge while using the space. Kassius seems to conduct physical experiments, finding an object and trying it on stage with the actors not knowing the exact outcome (Appendix 2H).

Reuse & urban material mines

Materials can be said to be both color and composition at the same time carrying both volume, texture and nuances. And reuse of material is a growing part of society in the MS in order to help reduce outtake of virgin material, reduce transports (if materials can be mined locally) and creating diversity through the crafted and special made. On the site today is an elevated walking path, Torsten Henriksson's walking bridge. It is a neglected structure but with potential to become something new. The bridge is planned to be taken down as the development of the surroundings proceed. To explore reuse its material is a guiding design aspect for all four scenes as this chapter will show.

Technology intensive materials

To complete the designs other reused material might complement that of the walking bridge. And in certain cases ‘high-tech’ material such as photovoltaics integrated in glass, or micro wind turbines in paint and slow moving water turbines in the harbour are used. The technology intensive materials are not a solution everywhere, but mainly where it is truly beneficial providing energy and creating good architecture (meaning also just).

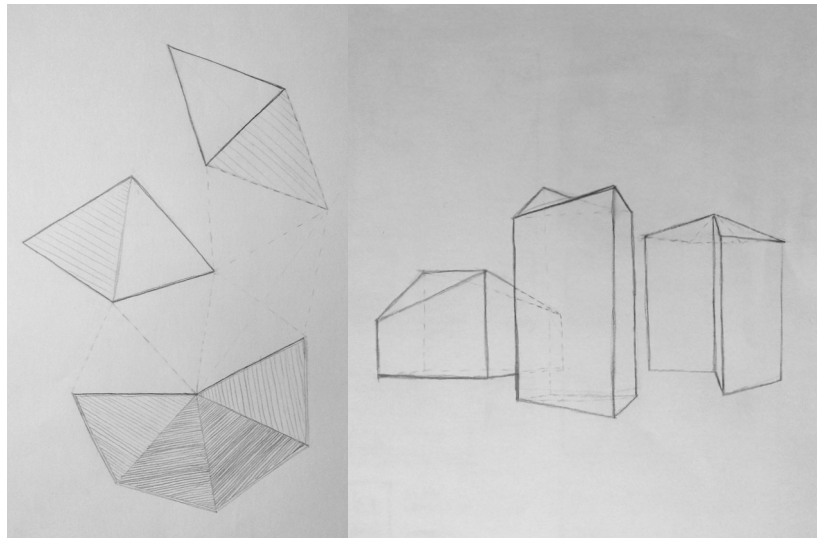


Torsten Henriksson's walking bridge

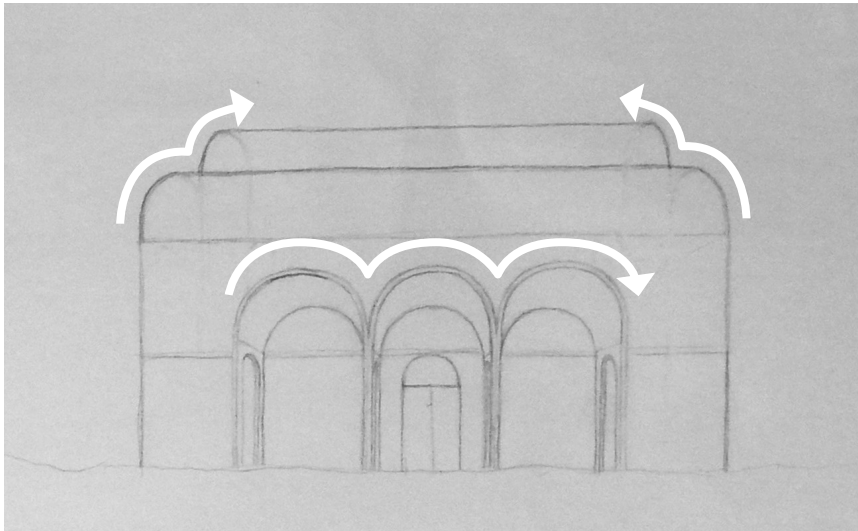
Composition sketches

Shapes inspired by the walking bridge

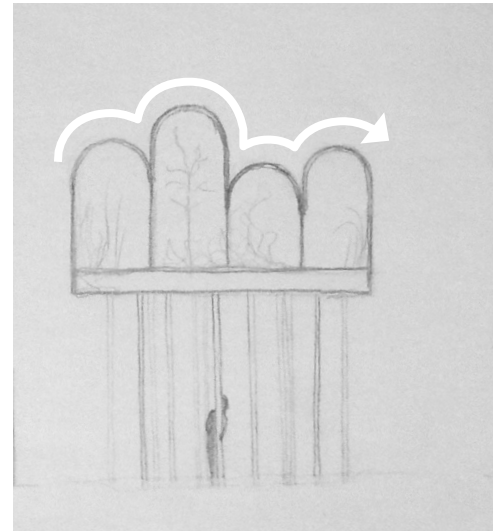
To compose the space and the buildings inspiration is found in the pedestrian walkway and its character. Being elevated, a typology traced back to the traffic planning of the 1980s, and reminding of two very long pergolas stretching out from a central gazebo it has a utopian tone of wanting to be something it cannot. And its qualities often gets lost or overlooked in its current modality. The composition will borrow, bend and oppose the shapes found within the structure from the arch, to the truss and the septagon as well as translate the elevated perspective.



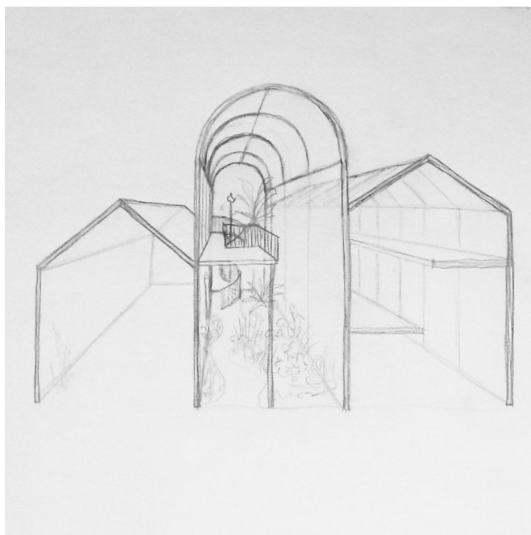
1. Fragmented septagon taken apart and turned inside out



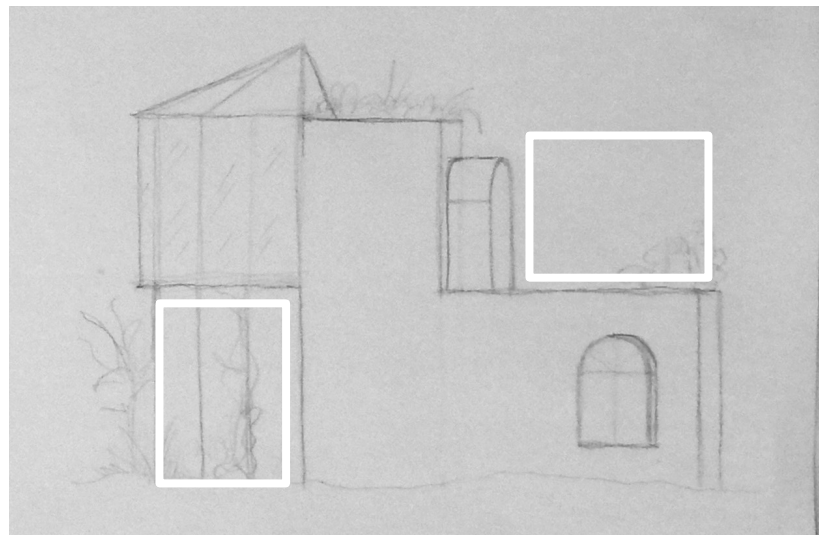
2. Even rhythmic motions



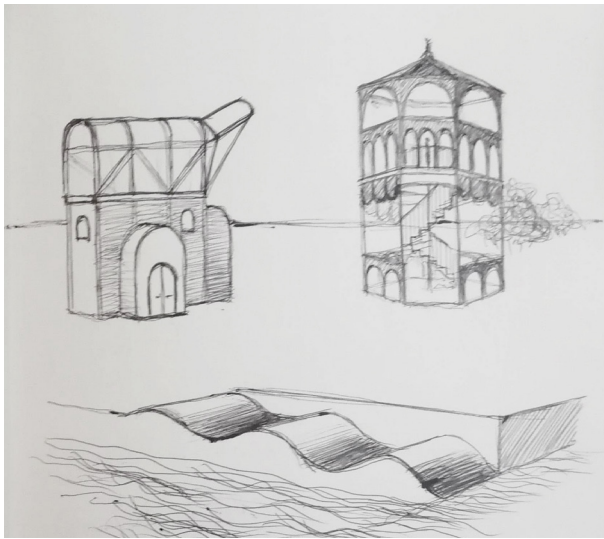
3. Bouncing rhythm



4. Sharp vs. rounded



5. Void on top, void under

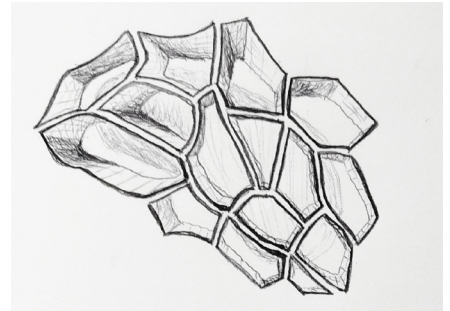


6. Solid vs. skeleton with views over water

Trying out compositional themes for the different scenes



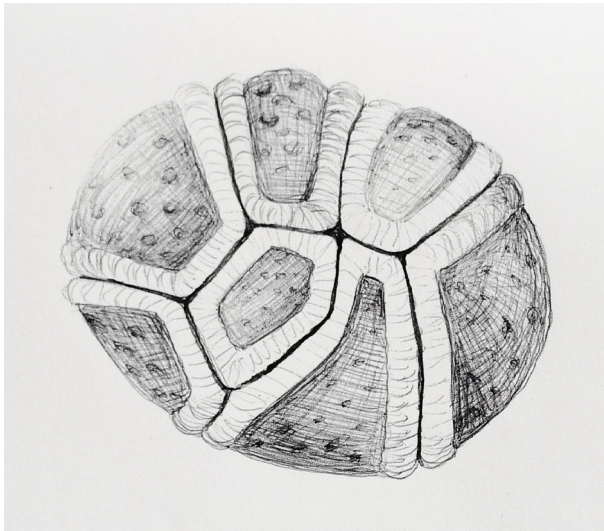
7. Layered facades with arcades playing with theatric notions



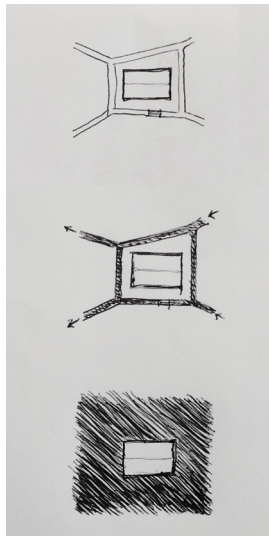
8. Inspiration - Prairie fire seed



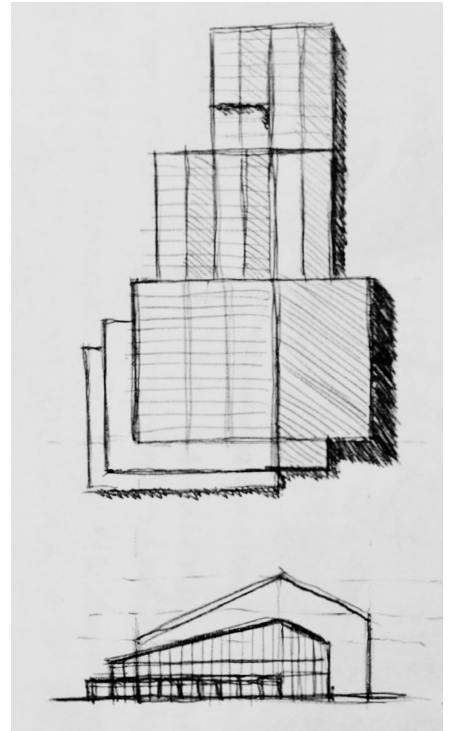
9. Floods & art



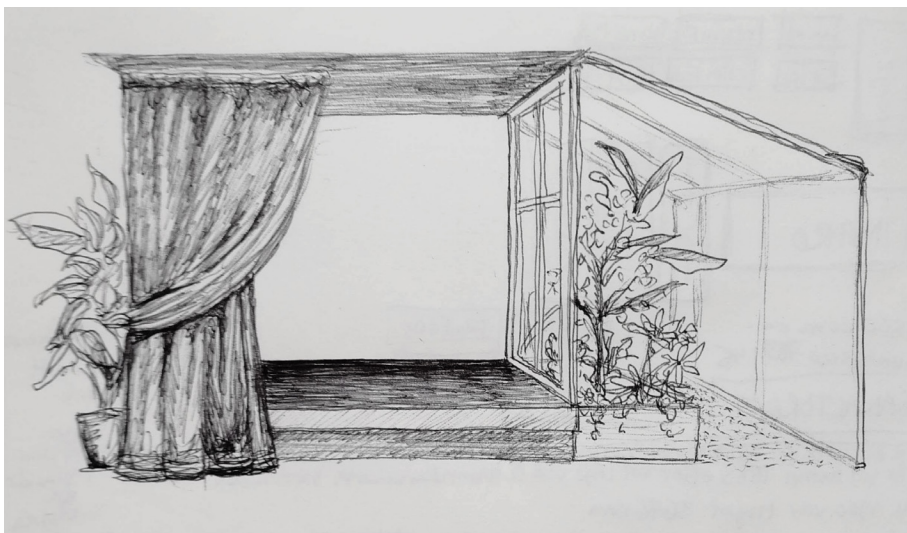
10. Inspiration Acacia pollen



11. Floods & canals



12. Layered facades with corners



13. Combination of materials & programs

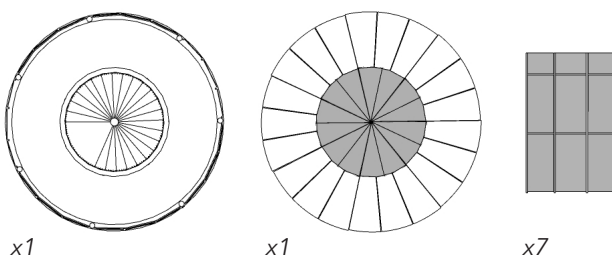
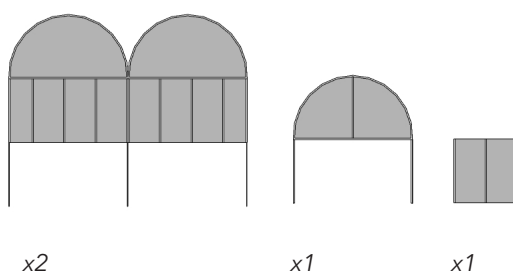
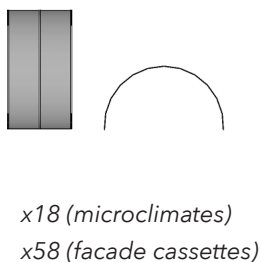
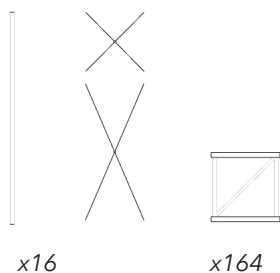


14. Playful cut-out in facade

Resources - harvest map

Part of decreasing our use of natural resources and diminish land system changes is to start taking care of refined materials already in circulation. The closer you can find the material, the better if the environmental gain is to be maintained.

Torsten Henriksson's walking bridge is planned to be taken down when Kanaltorget and the surroundings are being developed. It has been a place of insecurity, drug



trade and violence, but also a refuge for the homeless. While visiting the bridge the place smelled of urine. Some people call it the Urethra. At the time of my visit there were security guards that came running from the side connected to the parking garage of the mall. They forced people smoking grass to leave the walking bridge. Since it is also one of the entrances to Nordstan mall, it lingers between a formal and an informal place of visit.

Scene II - Grow

By 2030 reuse is growing in practice and most new buildings implore reuse at least to some extent (policy?). For the greenhouse/nature house the main structure is reused steel, truss and poles, from the old walking bridge. The method to stabilize the poles with wire is also copied into the new building.

Scene I - Seed

Old material is being collected to a large extent in order to then be circulated for new purposes, as is Torsten Henriksson's walking bridge. Reuse for the first scene is the site, the former location of the walking bridge, and the old roof plexi. It is reused as a facade material covering the acoustic cassettes towards Götaleden and is used to provide micro climates for plants on the roof as well.

Scene III - Circulate

Reuse has moved from being a lot about material to now often being a question about reusing the whole building. Demolition rarely happens, and if so all material possible is being collected and categorized. From a storehouse the old exit of the walking bridge has been recovered and is used as a store front for a swopshop.

Scene IV - Water

By 2050, new buildings rarely get constructed. Reuse with careful refurbishment or renovation is often sufficient, especially in the cities since urbanization has halted. For Kanaltorget the increased freetime of people is manifested in a gazebo (pleasure/desire house is a direct translation from the Swedish name). It is all reuse and allows for an overview over the surroundings.



Photo: Tomas Leidstedt

Reference projects

Role model: Augustenborg Ekopark

The open storm water management park in Augustenborg in the south of Sweden makes use of ecosystem services in a spatially, recreationally and environmentally creative and beautiful way. Water is incorporated as a design element in the outdoor living environment leaving room for both human, animal and insect habitats to coexist. The park is a study visit location that receives visitors from both within the nation and worldwide.



Photo: Erlend Bjørtvedt (CC-BY-SA)

Role model: 'Svalbard Global Seed Bank'

As a complement to in-situ conservation of species (in for example natural reserves) a seedbank can help forestall loss of genetic diversity in rare or imperiled plant species in an effort to conserve biodiversity ex-situ and gather information about strategies to reduce plant stress. By drying seeds to about 20% of the relative humidity many seeds can be stored, but eventually they need to be replanted to survive.



Photo: Retuna pressrum

Role model: Retuna reuse mall

This mall opened in 2015 and is located next to a recycling center in Eskilstuna and as the first mall in the world it only houses stakeholders engaging in reuse and upcycling. It is run by a municipal energy company and in 2018 reused products for 11,7 million SEK were sold according to themselves. But they also engage in education and knowledge spreading regarding reuse, householding with resources etc.



Photo: Ulf Celandner

Role model: Uppgrena Naturhus

To combine an insulated house or building with a greenhouse in a 'naturhus'-system gives benefits to both the building and the plants. Water can circulate to make use of nutrients and the facades of the building are protected by the glass which also provides a warmer climate in the immediate surroundings of the house. Uppgrena Naturhus has a four step water tank with biological decomposition of bacteria and particles before the water passes the plant beds and is released.

People, color & composition

The perception of what colors are nice or what type of design or composition that is appealing is a subjective matter differing from person to person. It has geographical variations and changes over time due to local prerequisites, trends and innovations. This provides the architect with a decent challenge in designing architecture and public spaces appealing to many different people durable over a long period of time.

Chapter conclusions

In order to translate the ideas presented in this thesis into a design color and composition have been linked to materials and the disposition of buildings and programs on and surrounding the square.

In theater the use of color can help set the atmosphere and composition could be understood as the arrangement and interrelation of shapes in the space. The use of colors in this work have been chosen to amplify the surrounding vegetation as well as to raise curiosity and inviting people to come and have a look. Vegetation is also used to suggest people should stay, sit down and enjoy the small oasis in the city. In some examples the color or vegetation is not drawing so much attention, in these cases the shape carry the lead role.

For this rather sketchy level of detail I would put materiality down as an important aspect for color and composition. On an architectural level the procurement of reused materials is the key design element. Technology intensive materials in the future are developed with a high precision to be regenerative and efficient, but they are used sparingly and combined with technology extensive and homemade solutions. The buildings as well as the square are inspired by the walking bridge. Vegetation is used both to color the square and to provide ESS and build rooms in a pleasurable public environment.

The composition on an urban level is addressing noise issues from the Götaleden, relating to the operations of the Opera, turning the back of Nordstan into a front and divides the square into spatial subdivisions. The square gets supportive facades to walk along as well as programs that can benefit the public space and make it populated. Its location in the future current of people in transit gives it a natural good composition to be a lively square.

The following chapter synthesizes the findings from this investigation into four scenes. The designs try to visualize what a development towards a future beyond economic growth could look like. We will meet *Grow* – the first step, *Seed* – where both knowledge and species thrive, *Circulate* – the heart of the new economy and *Water* – where we recreate ourselves and nature.

In this chapter:

Introduction to the four Scenes

Timeline

Scene I - 2020

Scene II - 2030

Scene III - 2040

Scene IV - 2050

Introduction to the four Scenes

What does a future beyond economic growth look like? What actions does it enable and what stories does it tell? Changing the goal from GDP growth to sustainability has spatial dimensions. Using public space to explore means to mitigate threats to the planet's sustainability has led to the creation of the MS and its four scenes (see diagram to the right), on a trajectory beyond growth stretching from the year 2020 to 2050 (see timeline on the next spread).

The four planetary boundaries currently overshooting our environmental ceiling, biochemical flows, decreased biodiversity, land system change and climate change (see diagrams below and next page), have been addressed within the scenes with the aim to mitigate them and propose alternative logics and operations.

The scenes explore some potential programmatic and architectural catalysts for shifting a mind-set from linear thinking and consumption to follow a new narrative of collaboration, self-sufficiency, automation and circular economy (see diagram to the right). They are the product of a vision fulfilling sustainability goals rather than depending on belief in infinite economic growth.

Planetary boundaries addressed in the four scenes:



Biochemical flows



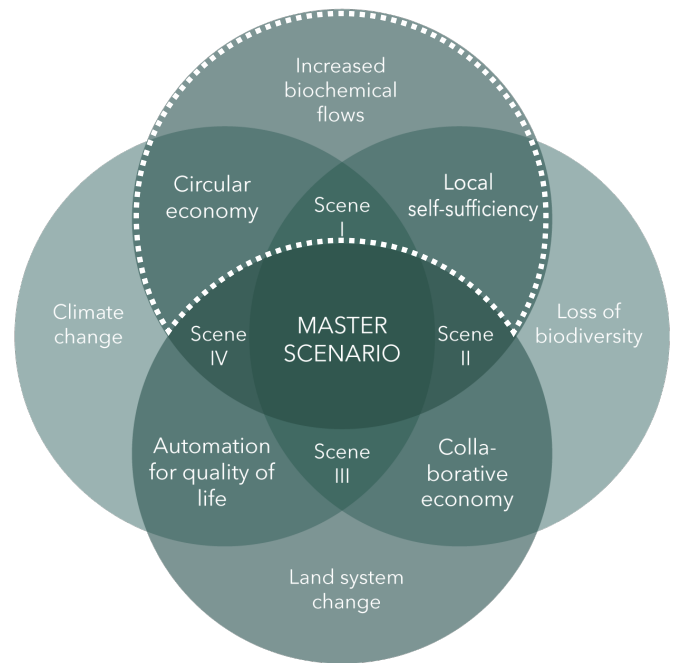
Biodiversity loss



Land system change



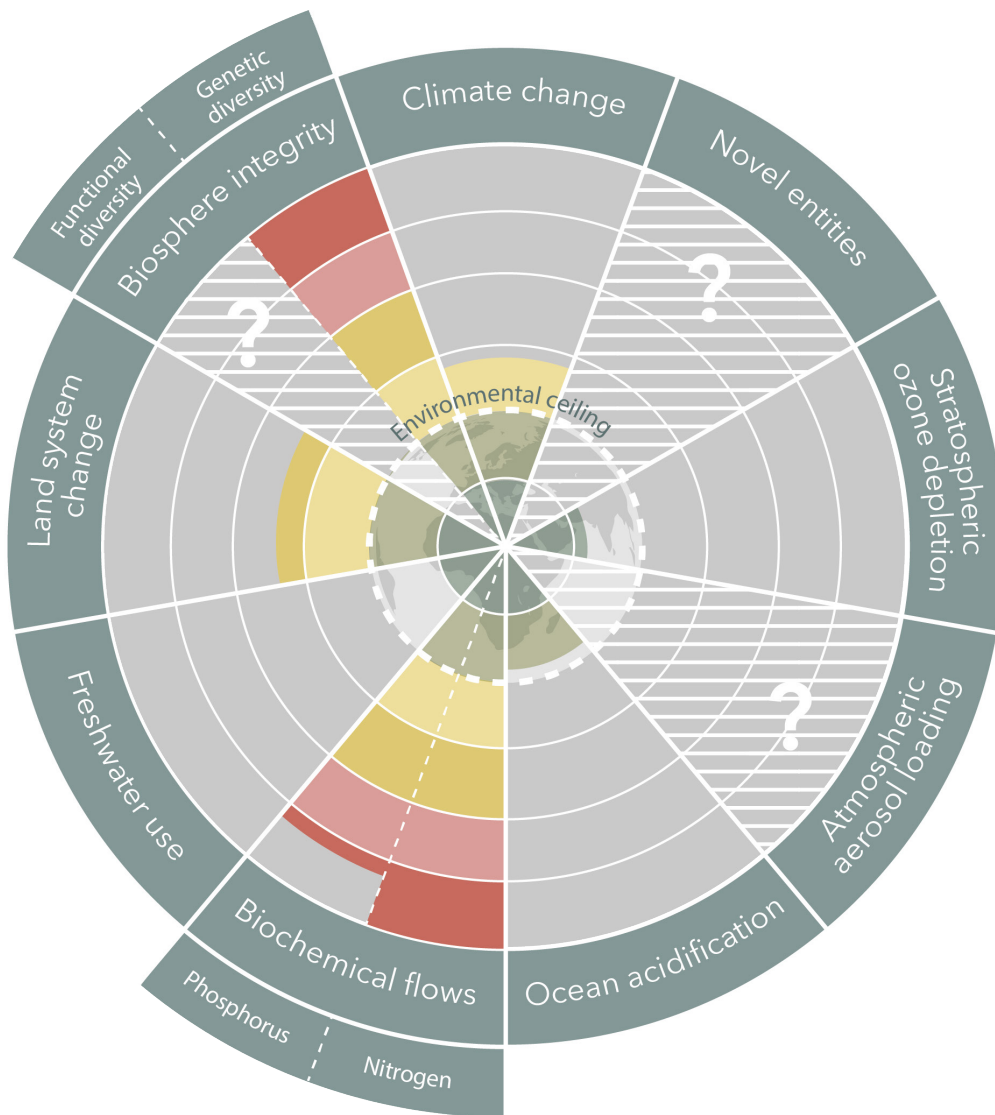
Climate change



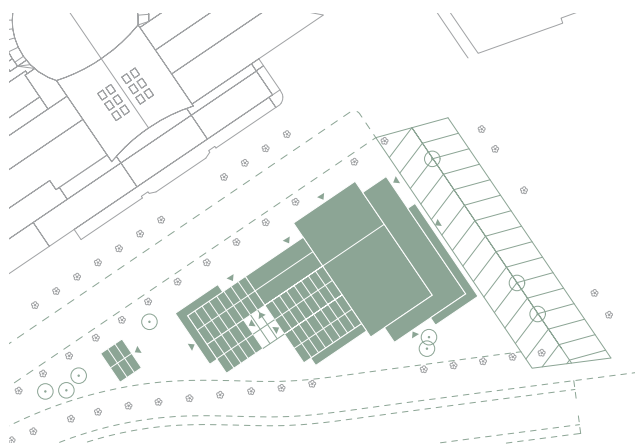
The scenes contribute spatially to the Master Scenario by each addressing issues regarding one planetary boundary through a design built on values from the report 'Futures beyond GDP growth'

Timeline

On the next spread you will find the four scenes put into a chronology. The timeline describes the scenes in relation to potential anchoring stakeholders, what planetary boundary the scene aims to mitigate and links the scenes to the guiding Text from the MS.



How to mitigate the planetary boundaries currently exceeding the confinements of the environmental ceiling?
 Image: Adaptation of Steffen et al.



2020

Scene I: 'Grow', adjacent to the Opera

Change towards a sustainable and just society starts within the confinement of the present system, but its goal is to change these circumstances. The Västra Götaland Region is proposed to be the anchor in this scene.

This scene enacts ways to mitigate sustainability issues concerning:

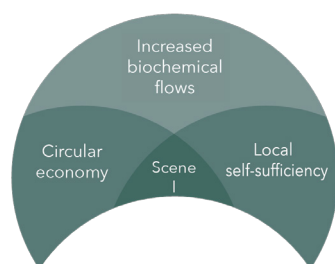
- Biochemical flows

How?

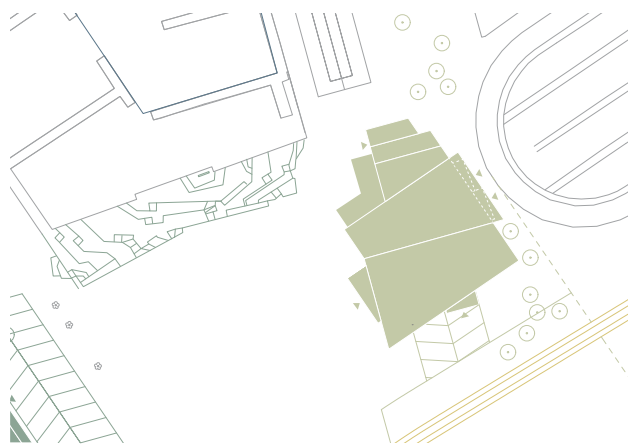
Local food production is increasing in urban areas. By regional support cultivation practices with a natural nutrition cycle are spread. People self-organizing through community supported agriculture (CSA) results in high self-sufficiency and decreased need to sell your work. Urban farmland and greenhouses emerge as a common scenery in the city.

"The heated living area per person has significantly shrunk, in response the households have access to larger communal spaces in the same building, block or neighborhood"

(MS adapted from Hagbert et al., 2018)



3/9 planetary boundaries in danger or high danger zones, one is mitigated



2030

Scene II: 'Seed', orifice Götatunnel

Options to economic growth are clearly formulated and a system beyond capitalism is well in the making with increasing self-sufficiency. In this scene the state funds but both the region and local actors are involved.

This scene enacts ways to mitigate sustainability issues concerning:

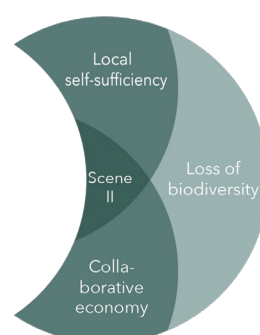
- Decreasing biodiversity

How?

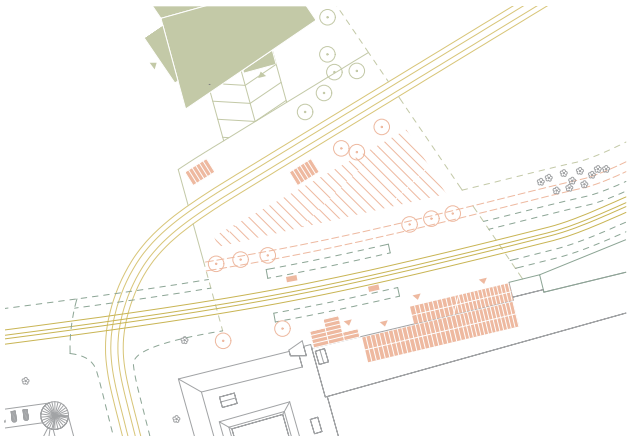
Through wood construction and green roofs a seedbank is put in place. Its staff is collecting historical and new species and catalogues them. The seedbank also enables circulation of seeds to the population, who in turn gives back seeds from their crops. And again receives new ones, in a looped system.

"...society is characterized by an open exchange of knowledge, DIY solutions and self-organization. The consumption of goods has decreased and is guided by needs, there is a justice-ethics where people do not want to, through their consumption choices, outperform others in their surroundings."

(MS adapted from Hagbert et al., 2018)



2/9 planetary boundaries in danger or high danger zones, two are mitigated



2040

Scene III:

'Circulate', Nordstan parking garage

A new system for householding and distributing global resources equally has been tested and refined and the Swedish society has flourishing local markets. Private actors, collaboratives and the civic society are here the main stakeholders.

This scene enacts ways to mitigate sustainability issues concerning:

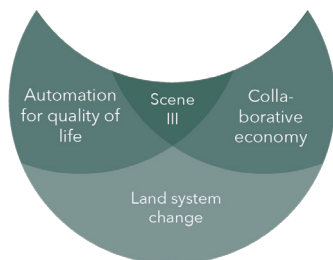
- Land system change

How?

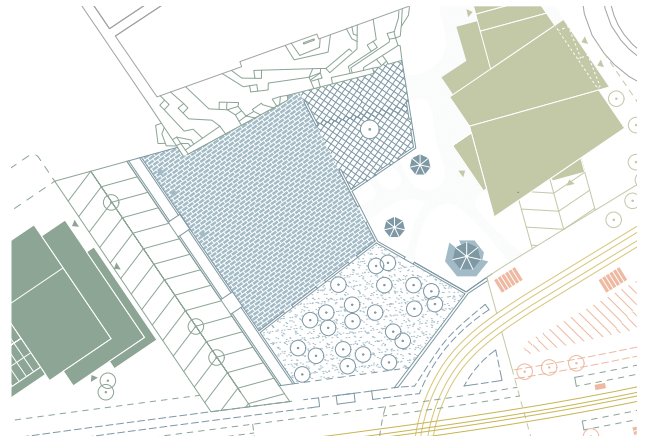
All production and extraction of natural resources is subordinated staying within planetary boundaries and the ability to fulfill basic human needs is prioritized. This means existing refined resources are valuable, and businesses build upon repurposing them. Reuse through circulation is an important and natural part of people's resource requirements, with local transport of reused goods.

"Many are prosumers, both producers and consumers of goods and services. Waste no longer exist as a concept – products used in Sweden are designed and optimized for dismantlement and reuse. Recycling only ever happens when reuse is impossible."

(MS adapted from Hagbert et al., 2018)



1/9 planetary boundaries in danger or high danger zones, three are mitigated



2050

Scene IV:

'Water'

The circular economy, with no waste and a natural and societal symbiosis, gives all people what they need within the confinement of the Earth. In this scene the municipality is a strong stakeholder.

This scene enacts ways to mitigate sustainability issues concerning:

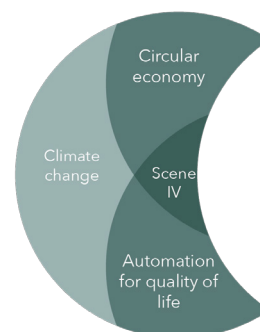
- Climate change

How?

Circular thinking is in the fibre of human civilization, similar to how economic growth was once perceived as a natural phenomenon. Eco system services (ESS), like CO₂ uptake by trees, storm water management through plants and phosphorus uptake by muscles, guides city planning. We consume less » work less » more time to spend freely. The urban public spaces are vital socially, for meeting, learning, exercising or sharing as well as for implementing ESS.

"Physical meeting places such as public squares are central [...] with a flexible use of space for common activities"

(MS adapted from Hagbert et al., 2018)



0/9 planetary boundaries in danger or high danger zones, four are mitigated



'Grow'

Due to threats to planetary boundaries different stakeholders around Kanaltorget try to find ways to transition rapidly without policy changes. The Region uses their organization to explore new urban agricultural processes and to build community through co-use with cultural activities. A stage tied to the Opera and managed by the Region houses scenic events ranging from amateurs to professionals. Connected to it is a communal greenhouse with a community supported agriculture (CSA). Here the inhabitants can engage in cultivation leading to increased self-sufficiency.

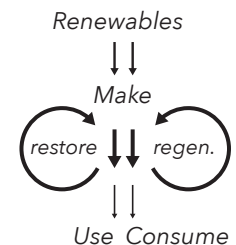
In a future not far from now...

"...the power is (starting to) spread between many stakeholders and bottom-up initiatives where **shared maintenance built on mutuality and active engagement** are (becoming) important principles." *

"...local knowledge regarding local resources is considered to render better conditions for resource maintenance. A **transition into local self-sufficiency** is rooted in that people willingly (have started to choose) self-sufficiency and less consumption" *

"**Cultural capital** is the main means to manifest status." *

"The heated living area per person has significantly shrunk, in response the households have access to **larger communal spaces** in the same building, block or neighborhood" *

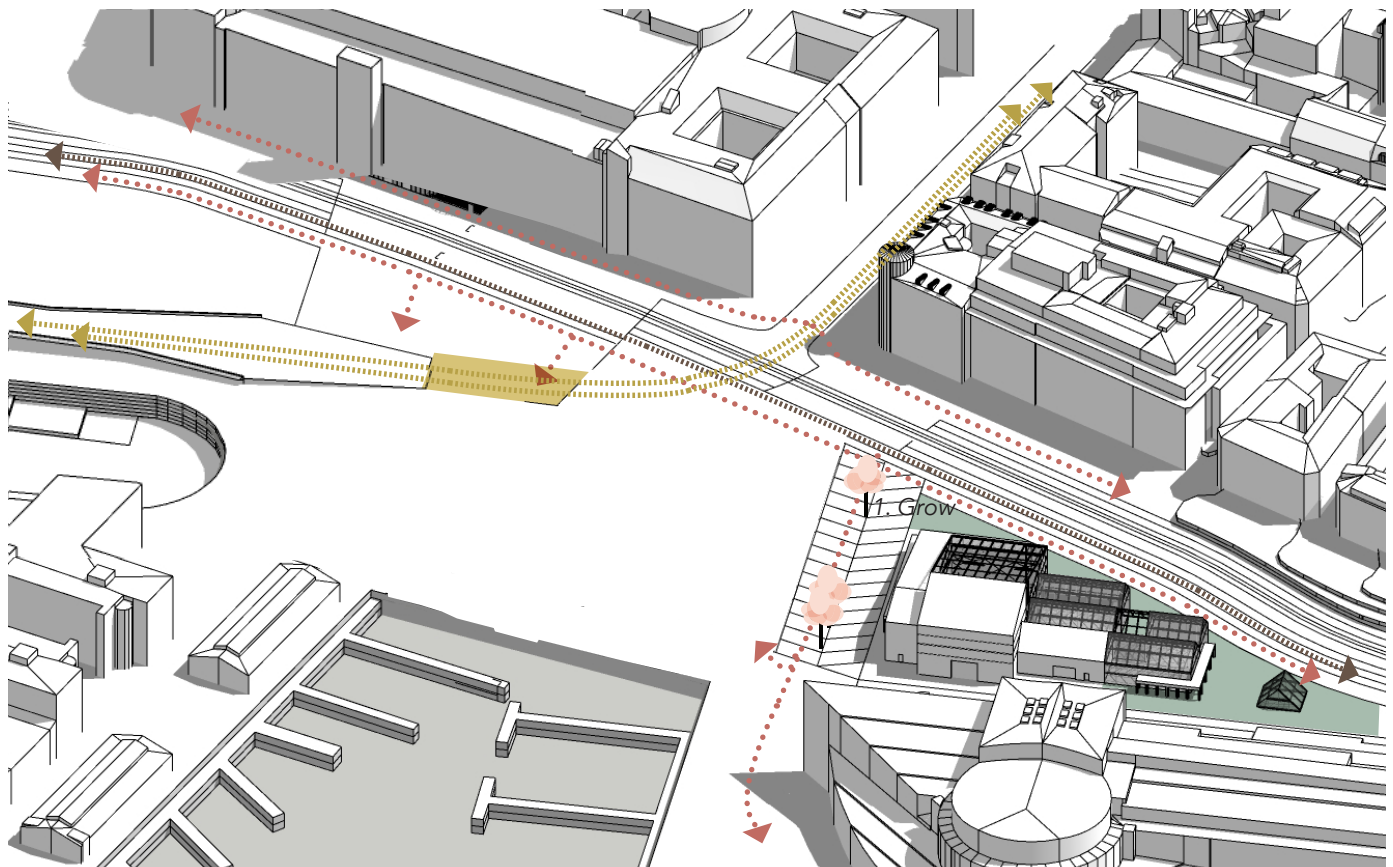


Biochemical flows

- reduce use of artificial fertilizers
- develop clean cultivation processes
- circulate water before releasing to the sewage

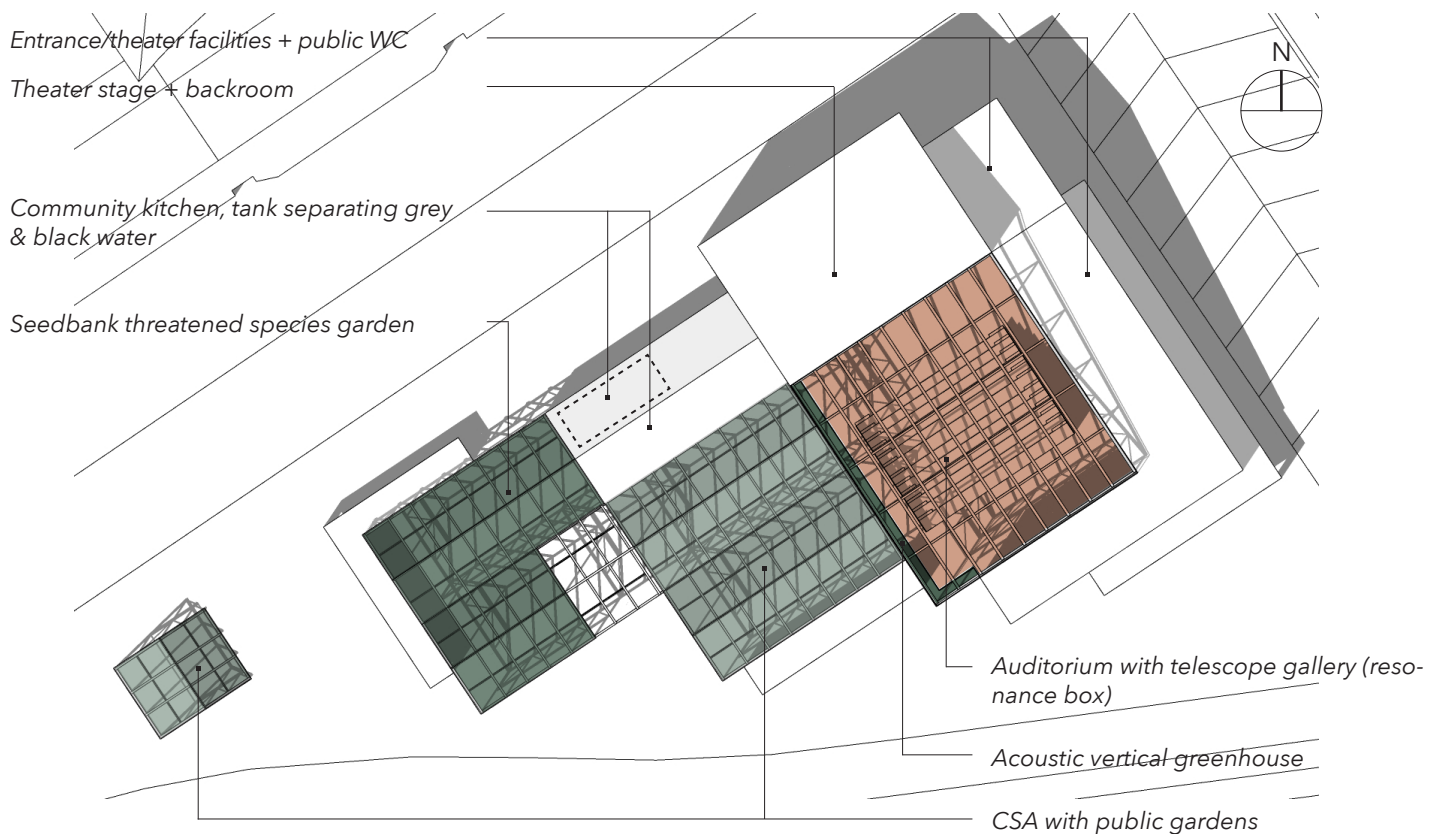
Regenerative by design

- separate black & grey water to use as cultivation nutrients
- regeneration of seeds from threatened species



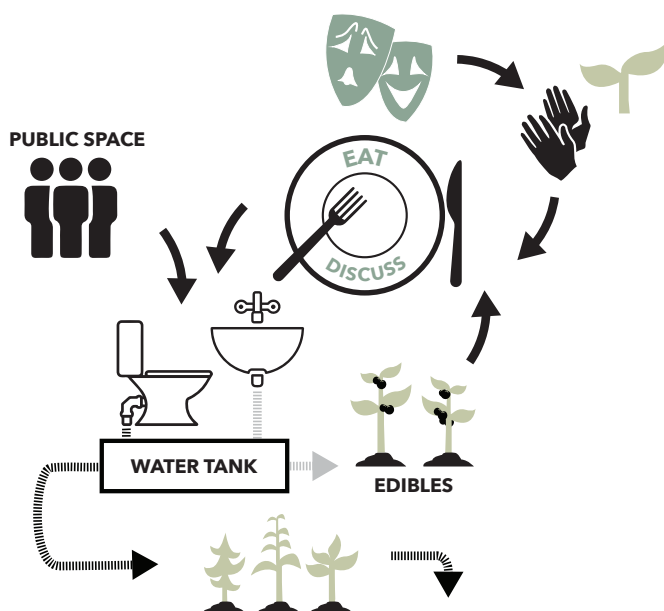
SPACE - Public transport (yellow), bikelanes (brown), walking paths (pink) and public garden (green).

* Quote from 'Scene I' in the MS. See full text on p.18.



DIRECTION - Growing cultural capital

Roof plan showing the disposition of programs fulfilling needs of building a sustainable culture making room for self-sufficiency in a pleasurable way.



PERFORMERS - Circulating nutrients

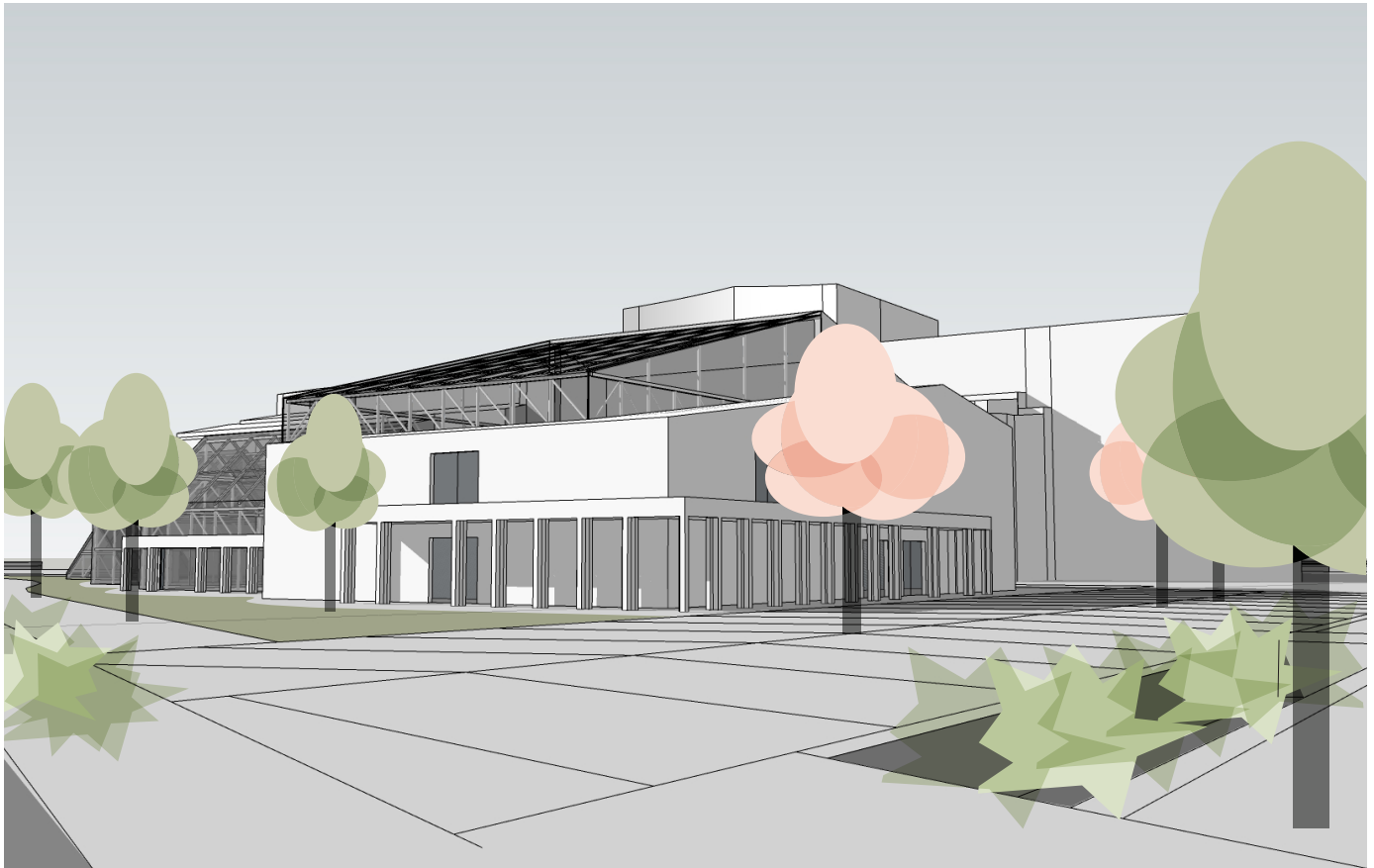
The greenhouse and the community theater are interlinked socially and connected in a nutrient circulation system. In stead of growing with artificial fertilizers nutrients from the grey and black water are brought to the cultivation soils. This decreases overfertilization of the water returning to the sewage system.



SPECTATORS - Sequence & rythm

Seeing the city from a bike can be compared to filmic sequences unraveling. When passing the greenhouse the spectator catches glimpses of both indoor and outdoor activities. There is a rythm in the facade that breaks down the perception of long distance for both the pedestrian and the cyclist.





Reflecting action

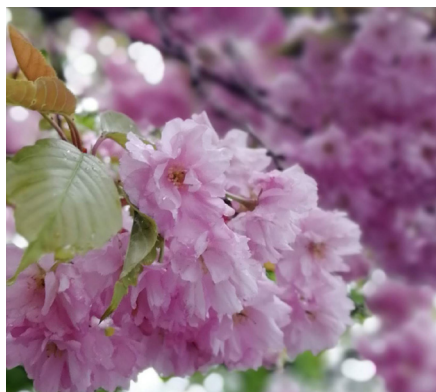
The activities inside the building are reflected in the scenography of the exterior. From Kanaltorget and the boulevard one can see greenhouses sprouting out in the back with plantations. The arcades on the facades creates a theatric reference as well as provides the basis for outdoor performances, both of cultivating and artistic character. Swings, climbers and other urban furniture pop up along an arcade walk. Sticking up is the auditorium where music and light sometimes shoots out, hinting about an event taking place on the inside.

Technology intensive meets reuse

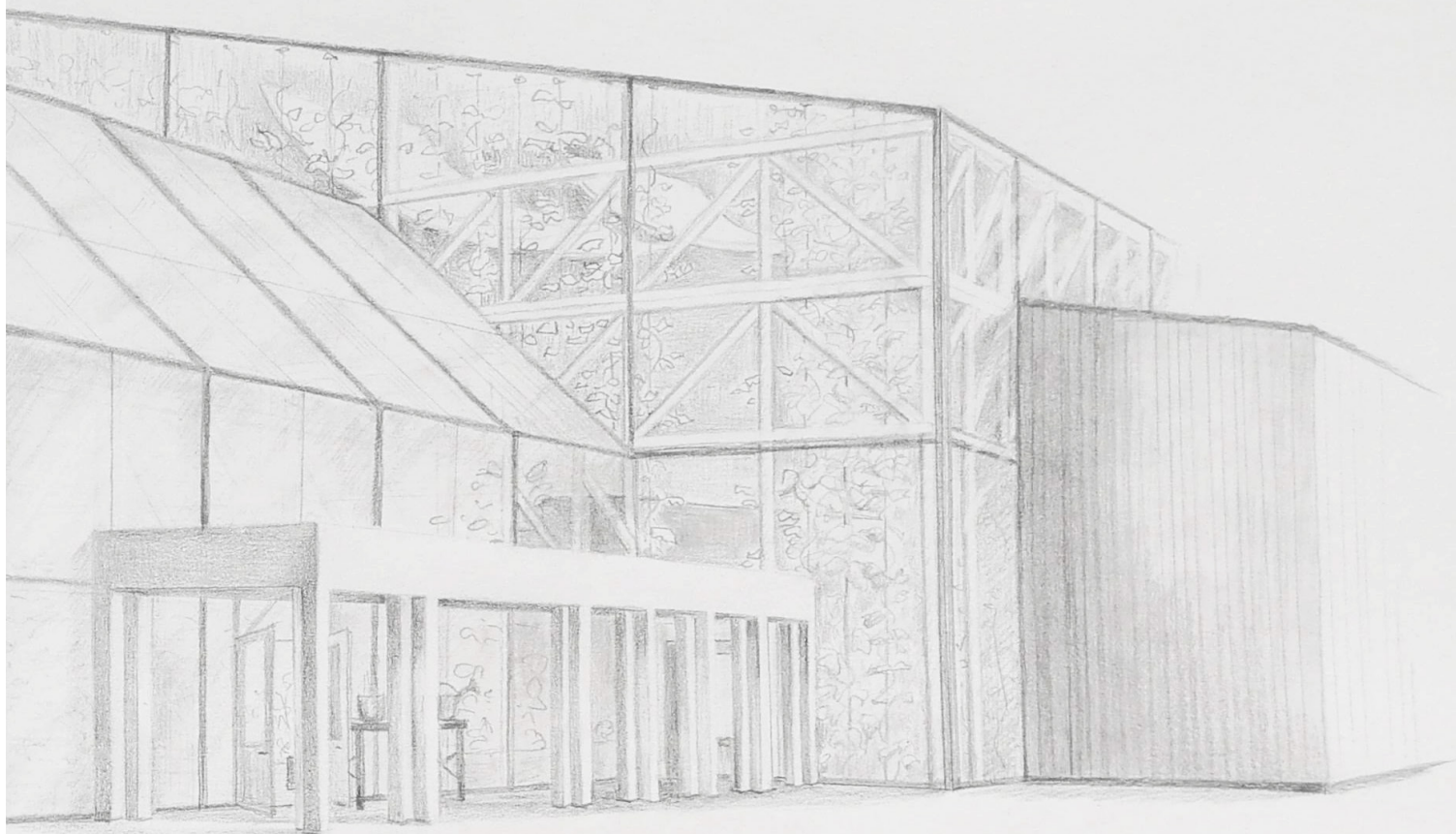
Joining solar energy glass with a reused steel structure creates an interesting collage-like architecture.

Vegetation & the boulevard

The boulevard is made. On a spring afternoon in May flowering cherry trees mark the arrival to the square. The bike is parked along the edge of one of the greenhouse gardens. As the cherry blossom petals fall to the ground, after their time in the spotlight, a pinky carpet rolls out looking like the confetti after a carnivale.









'Seed'

It was a real wakeup call on May 6th 2019, the UN stated that one million species risk becoming extinct only within decades due to human civilization. After that things happened fast, and preserving species and restoring habitats rose on all political agendas. Inhabitants in cities used their voices in critique and begun to reflect on their own behavior. Actions were taken to save the animals, the plants and the ecosystems! The Gothenburg seedbank is but one example.

Preserving species in a future where...

"...society is characterized by an **open exchange of knowledge**, DIY solutions and self-organization. The consumption of goods has decreased and is guided by needs, there is a justice-ethics where people do not want to, through their consumption choices, outperform others in their surroundings." *

"Building additions are made through **strategic densification** in locations well provided with public transport" *

"IT is one of the prerequisites for **circulating and sharing**. However, new investments are not coordi-

nated nationally but made according to local needs for example within the food production." *

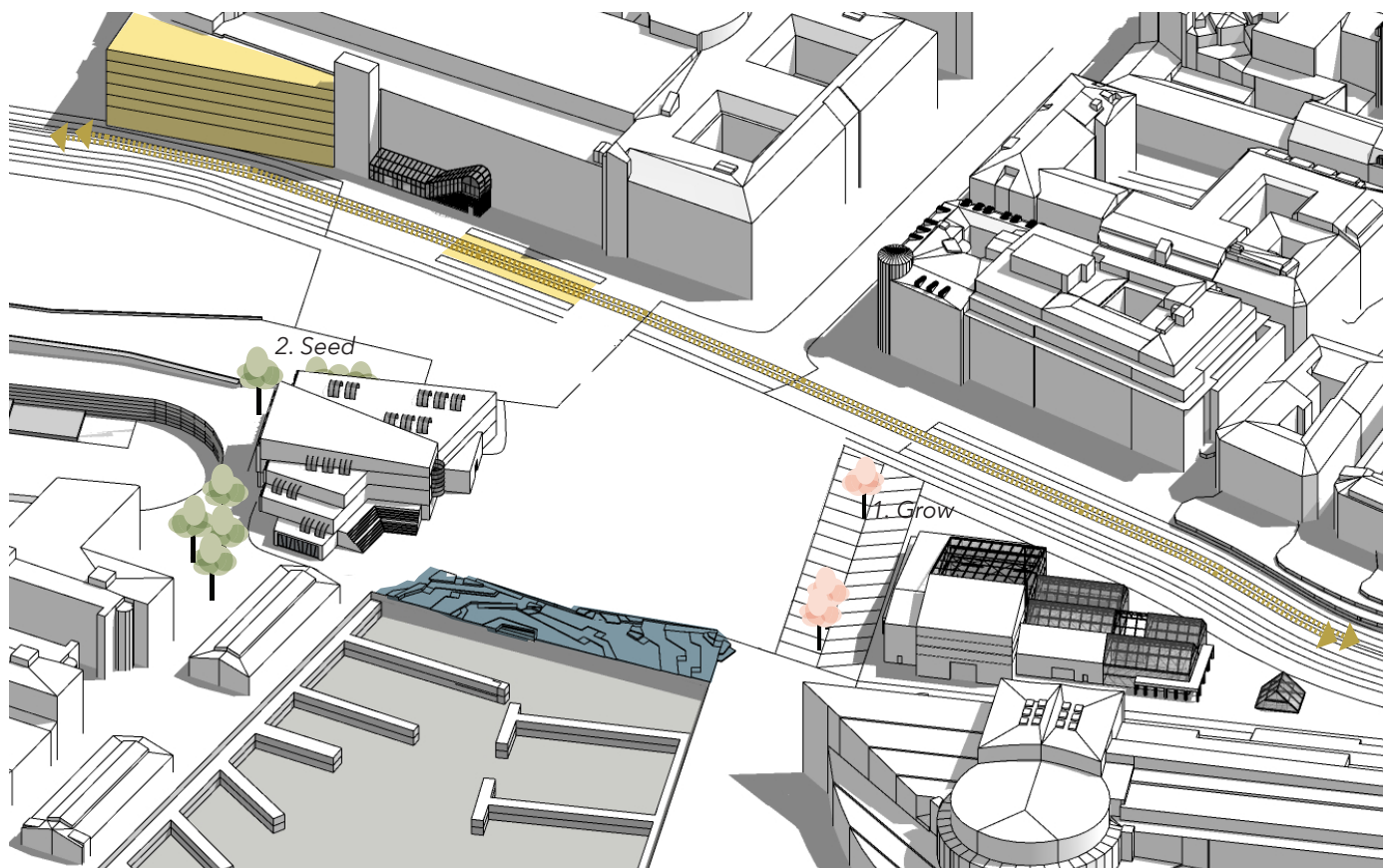


Biodiversity

- *mitigate loss through preserving threatened species*
- *add/restore urban habitats for pollinators*
- *circulate plant species*

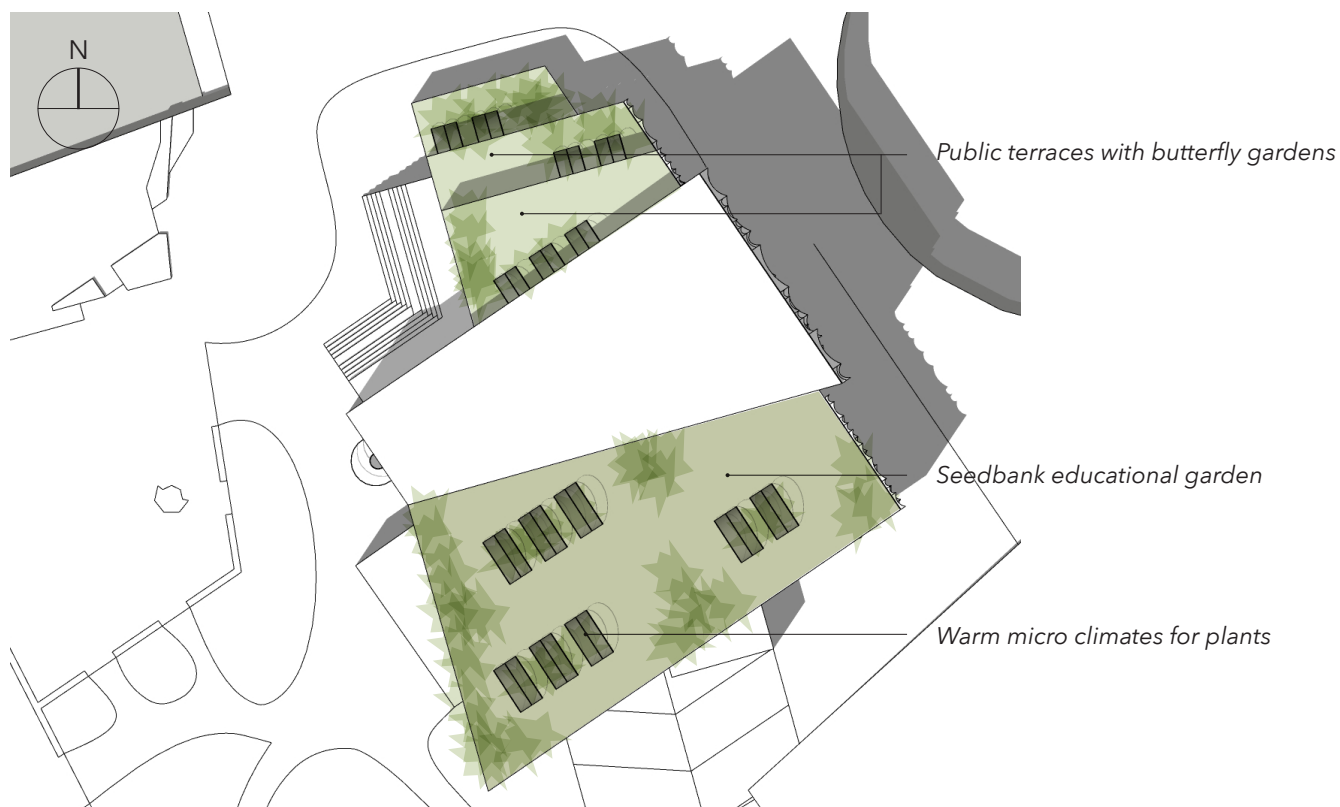
Change the goal

- *from GDP growth*
- *to a safe & just operating space*
- *through raised awareness about the issues of growth*



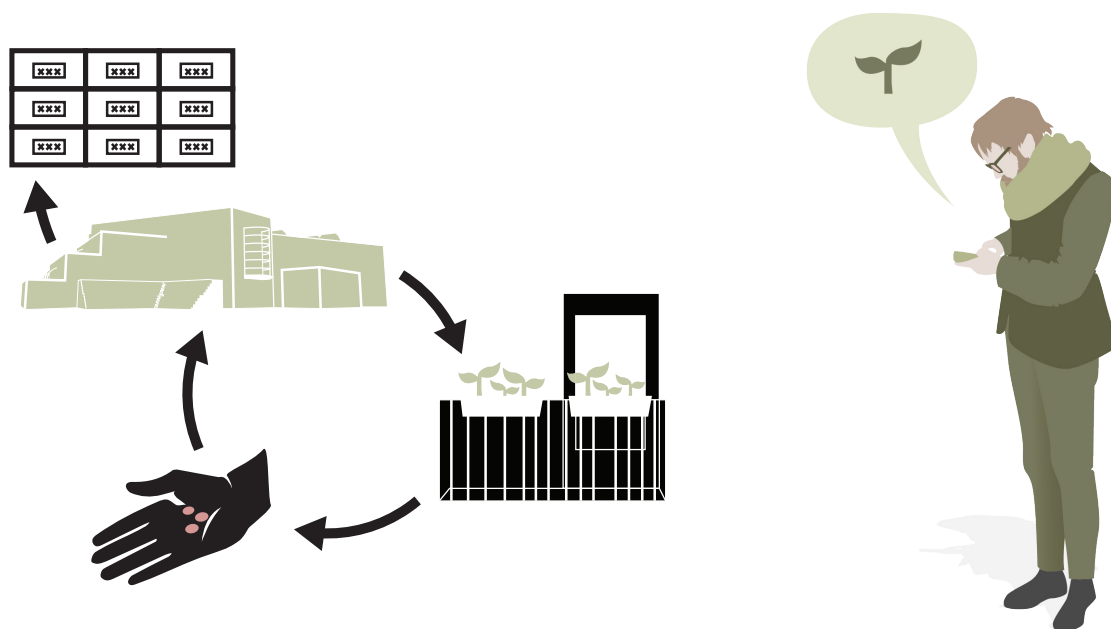
SPACE - Västlänken exit with a hotel, a second tram connection (yellow) and a water staircase w. preparation for canals (blue).

* Quote from 'Scene II' in the MS. See full text on p.19.



DIRECTION - To preserve species & restore habitats

Roof plan of public & semi-public gardens recreating habitats for pollinators and insects in the city. Through the vegetation the building changes over the seasons.



PERFORMERS - Circulation of seeds

From the seedbank's species library the inhabitants can pick up seeds for home gardening and cultivation. They harvest and collect new seeds which can be returned to the library in exchange for other seeds. This helps regenerate species as well as raises knowledge and awareness regarding plants and cultivation.

SPECTATORS - Online narratives

In a digital age being a spectator includes being a receiver of a constant flow of information. The operations of the seedbank is communicated through an online platform to enable learning, identifying species and swapping. Spectators get information about the content of the building on their GPS map.



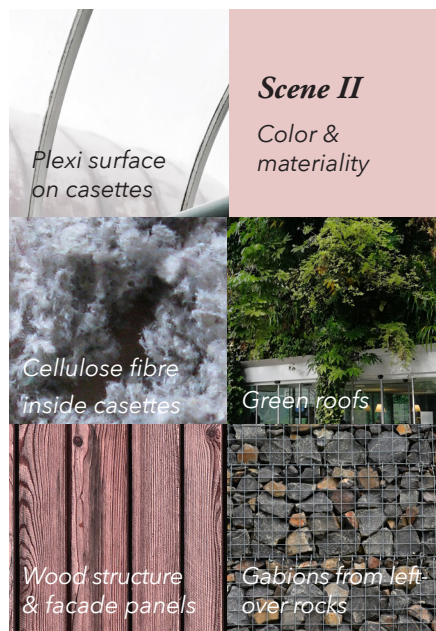
Creating an acoustic wall

The facade is made to absorb some frequencies in the acoustic cassettes, diffuse noise through its irregularities and to reflect sound away from the square.



Built for dismantlement

The location on top of Götatunneln leads to a precarious situation. The noise from Götaleden pollutes the environment at Kanaltorget and the tunnel restricts the use of the land in a third dimension. A wooden structure is placed above the mouth of the tunnel to block the noise but add minimal weight. It is made for dismantlement. The bank archives on the upper floors are facing this way for cool and light protection, while the bottom floor at points is transparent for increased sense of security.



Vegetation & a green river

Bridging from the boulevard a long and narrow stormwater management park on a rocky bed has been put in place. The open ditch collects water at high tide and is the home of various grass families and an army of ferns enjoying catching the raindrops on moody days.







'Circulate'

The notion of a mechanical equilibrium could not be more far from the reality today. People are aware of their consumption choices and enjoy finding new ways of recycling, trading and inventing. Malls like Nordstan, but especially on the outskirts of town, are turned into productive units instead of extending agricultural land. But here in the center the mall also provides a lot of social interaction.

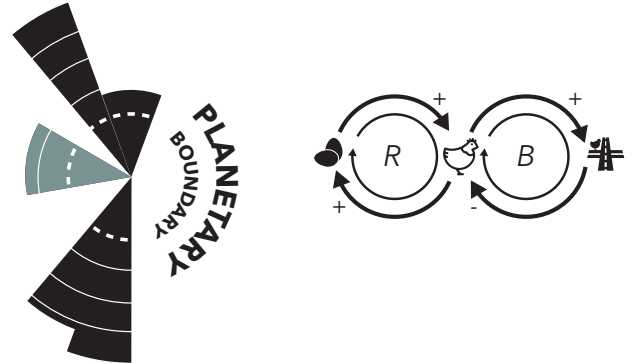
The beating heart of the new economy

"New business models have been developed enabling sharing of companies /.../ and means for production and material resources have (to a large extent) transferred from private and public management to **shared ownership**." *

"The (local) economy is based on both large-scale and small-scale **production units** and production is mainly targeting local consumption. A significant portion of the citizens' paid labor has been replaced by unpaid and non-profit work in the shape of efforts for different kinds of collectives or collaborations." *

"Many are **prosumers**, both producers and consumers of goods and services. Waste no longer exist as a concept – products used in Sweden are designed and

optimized for dismantlement and reuse. Recycling only ever happens when reuse is impossible." *

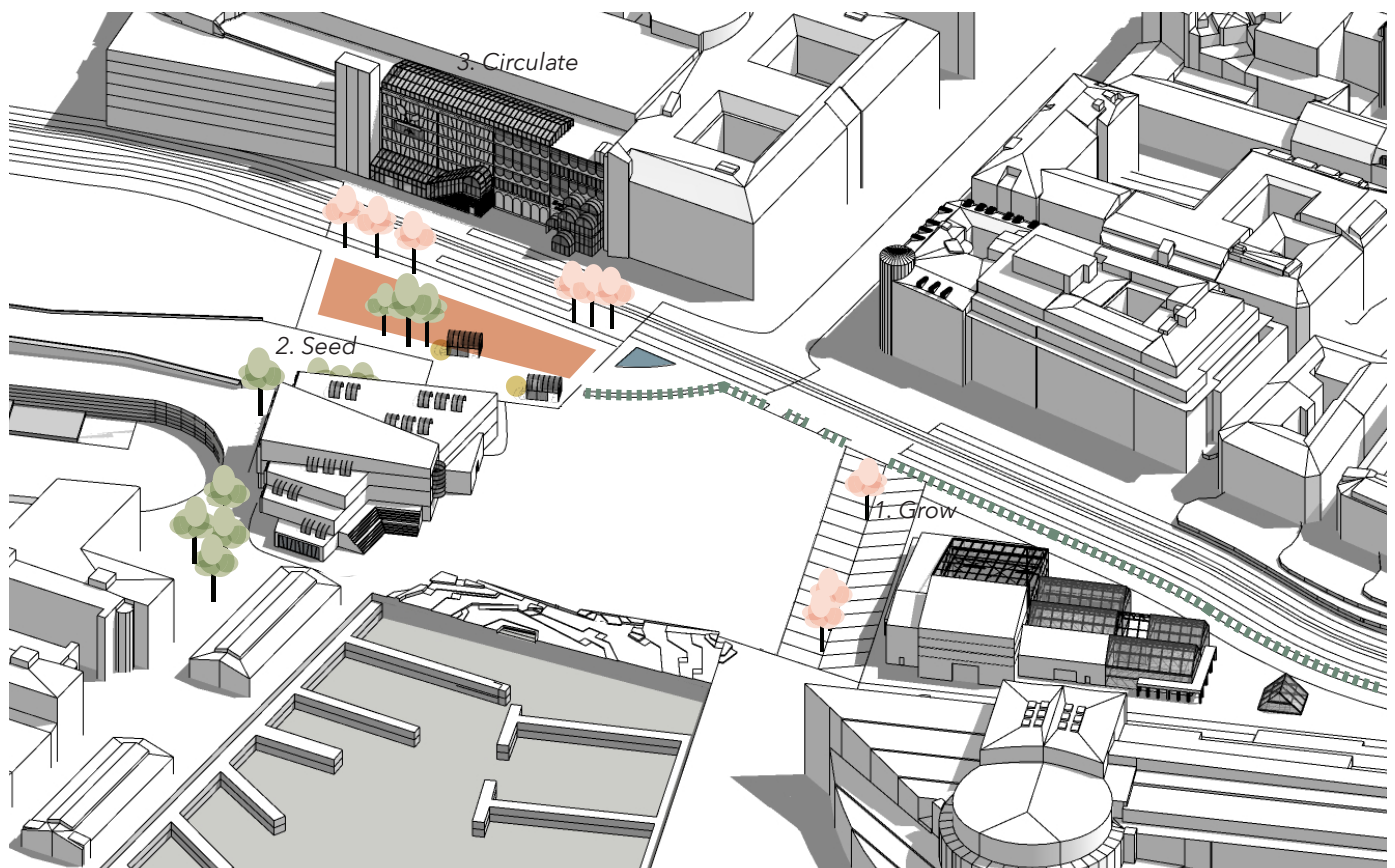


Land system change

- *redevelop existing built environment rather than using virgin land*
- *reduce resource outtake through circulation*
- *decrease long-distance transports*

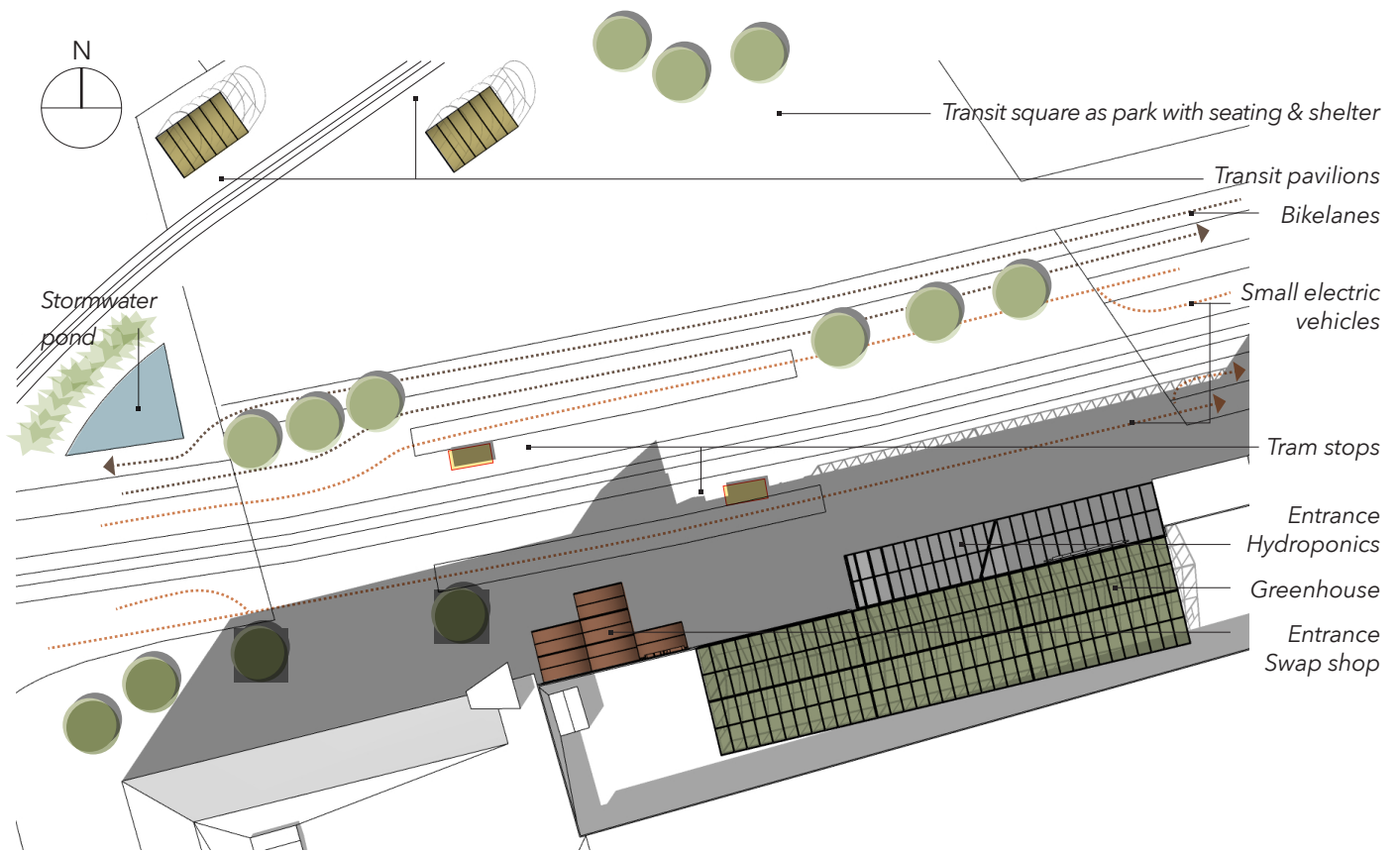
Dynamic complexity

- *move away from supply & demand logic*
- *plan with understanding for complex interactions*



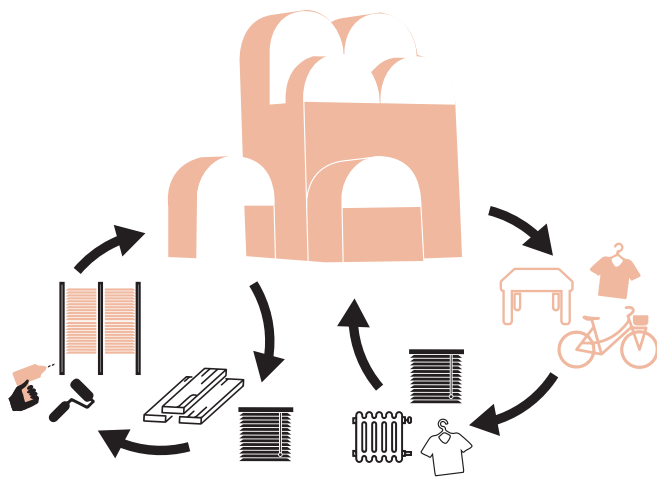
SPACE - Redeveloped garage, tram pavilions (yellow) on a transit square (orange) and a stormwater ditch (green) with a pond (blue).

* Quote from 'Scene III' in the MS. See full text on p.20.



DIRECTION - Reuse mall with collaborative hydroponic farming & Swap shop

The garage is converted into productive space in a heated reuse mall. The boulevard is developed for slow speed electric/motor vehicles (orange) and bikes (brown) with a park-like transit square with seating, vegetation & charging hubs for electrical equipment.



PERFORMERS - Circulating objects & services

In the Swap Shop there is a diversity of stakeholders; the sorting squad for incoming second hand goods (could be employed through Samhall), the carpenters, tailors, engineers and designers who upcycle objects, the storefront service personnel and technicians who helps people out with DIY inquiries.



SPECTATORS - Nudge the bypasser

What you see as a spectator in public space might influence you to act in different ways. Instead of inciting consumption of goods from new production, promoting upcycling and exhibiting reused material gives the spectator access to narratives of a more sustainable character.





Scene III

Color & materiality

Arches & slate planting

The recycle mall has been given a new facade creating an indoor climate in the former garage. Arch patterns are derived from the old entrance of the walking bridge, which itself plays the role of a showcase for the Swap Shop. Different activities are playing out in the store's workshop, storehouse and the boutique, all visible from street view. Next door is the collaborative hydroponic farm with industrial scale production of micro greens sold locally.



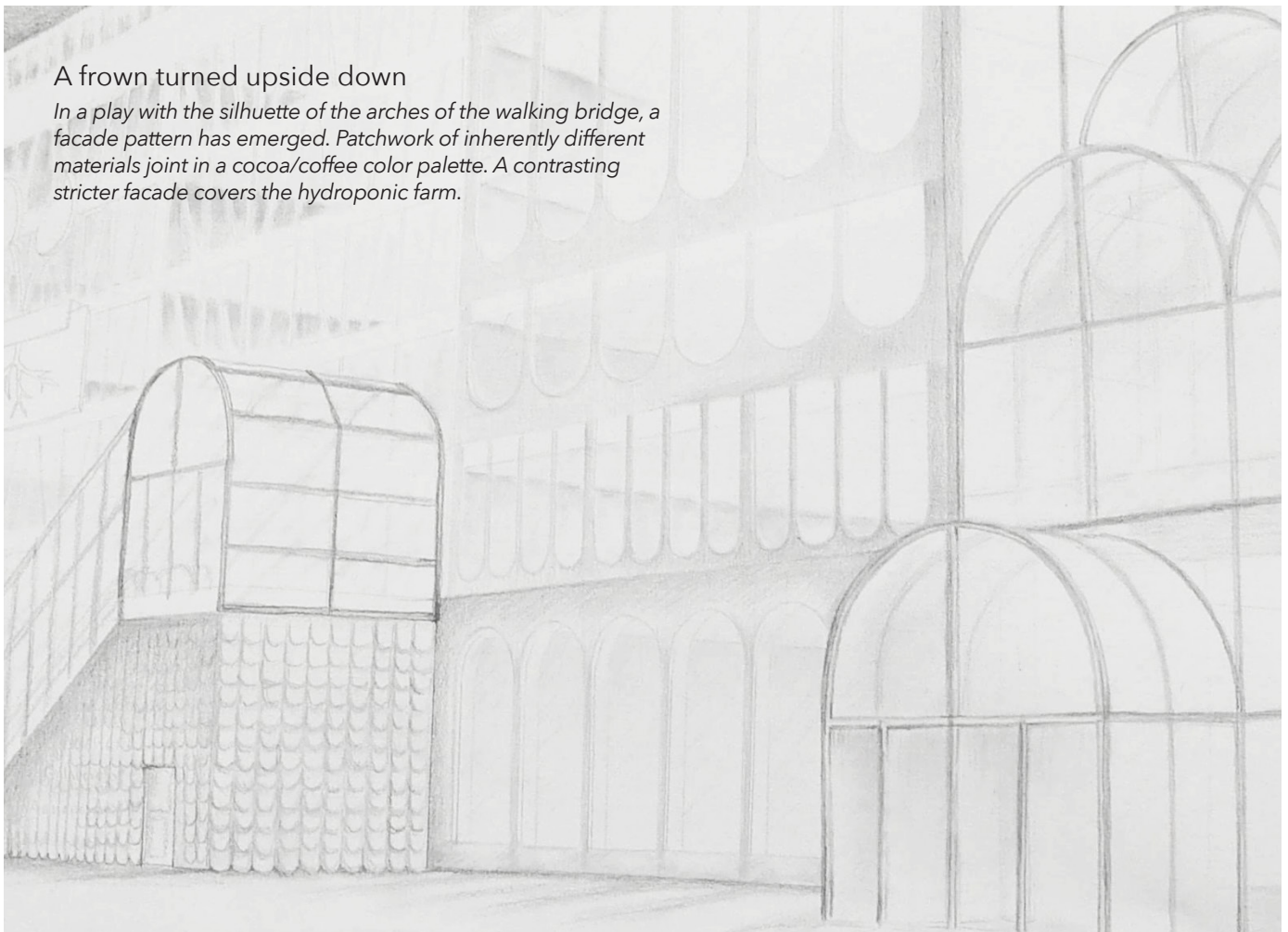
Vegetation & bulky characters

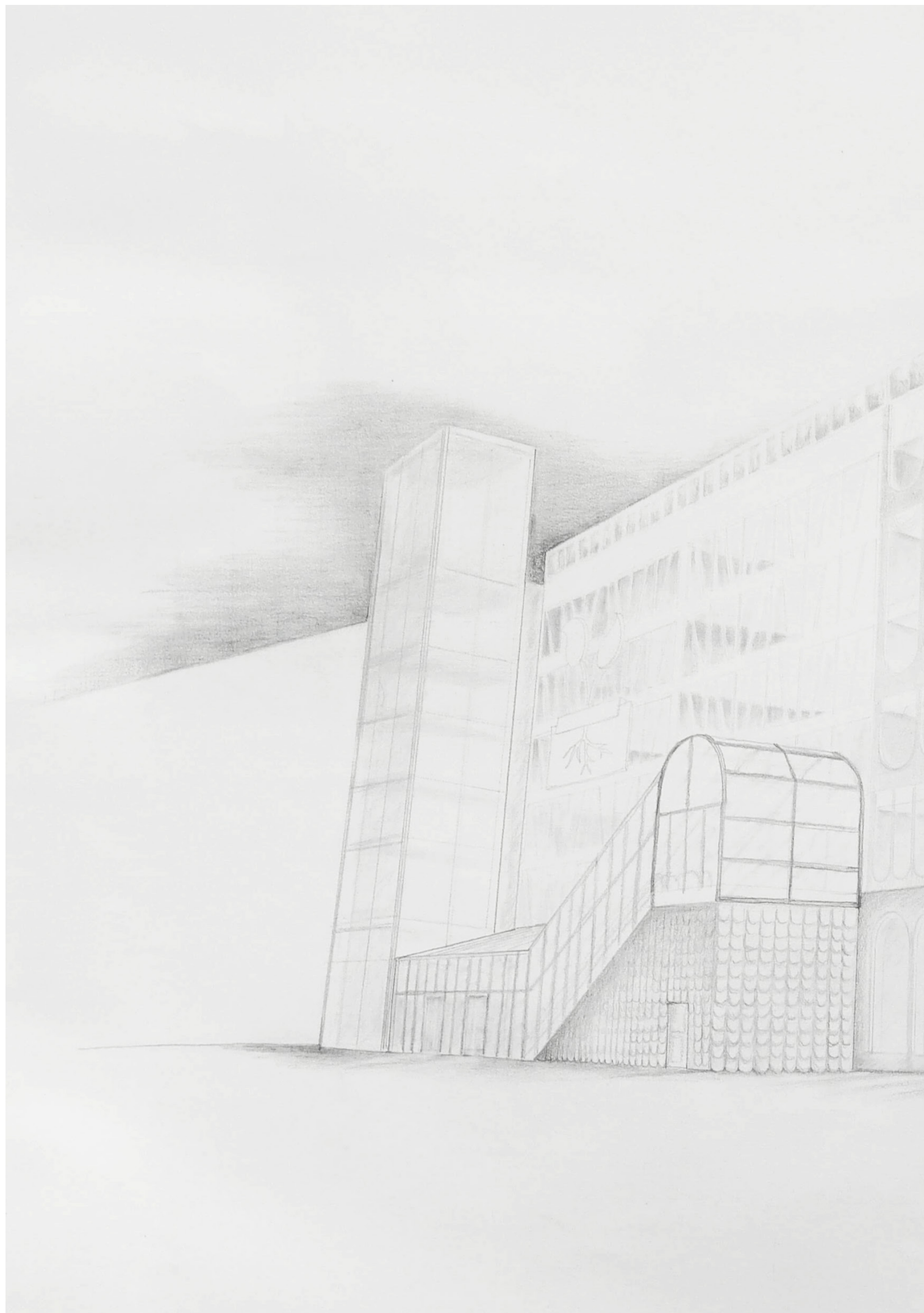
By the tram stop there are large lumpy trees that, from their rooted spots, look longingly at all the people in transit. There is a tiny pond where the stormwater park becomes broader, and if the tram is late the ducks provide entertainment as they clean their feathers in the rather clear water.



A frown turned upside down

In a play with the silhouette of the arches of the walking bridge, a facade pattern has emerged. Patchwork of inherently different materials joint in a cocoa/coffee color palette. A contrasting stricter facade covers the hydroponic farm.









'Water'

Spare time is something that has increased a lot since 2020. Public space is used more as the outdoor livingroom or garden of the inhabitants and their design vary a lot. Kanaltorget is characterized by canals and a play with water (stormwater and raised sealevels). The surfaces in between the canals are divided into different characteristics; a forest landscape with an arboret, a stone garden with a gazebo, a micro square and an open space for larger gatherings.

This is a story about the future...

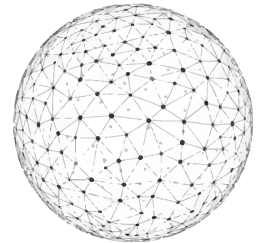
"Income and production is being distributed equally to avoid /.../ income gaps /.../ and work is no longer the focus of public debate, but rather **freedom, meaningful occupation** and the right to do what you please" *

"**Ecosystem services** are important to circulate carbon and nitrogen /.../ regional and local variations due to varying /.../ prerequisites (is) leading to diverse land use and local diets." *

"Physical meeting places such as **public squares** are central /.../ with a flexible use of space for common activities" *

"Increased disposable time leads to people spending a lot

of time close to home, (if in urban areas) in **green** and appealing surroundings with **parks and playgrounds**" *

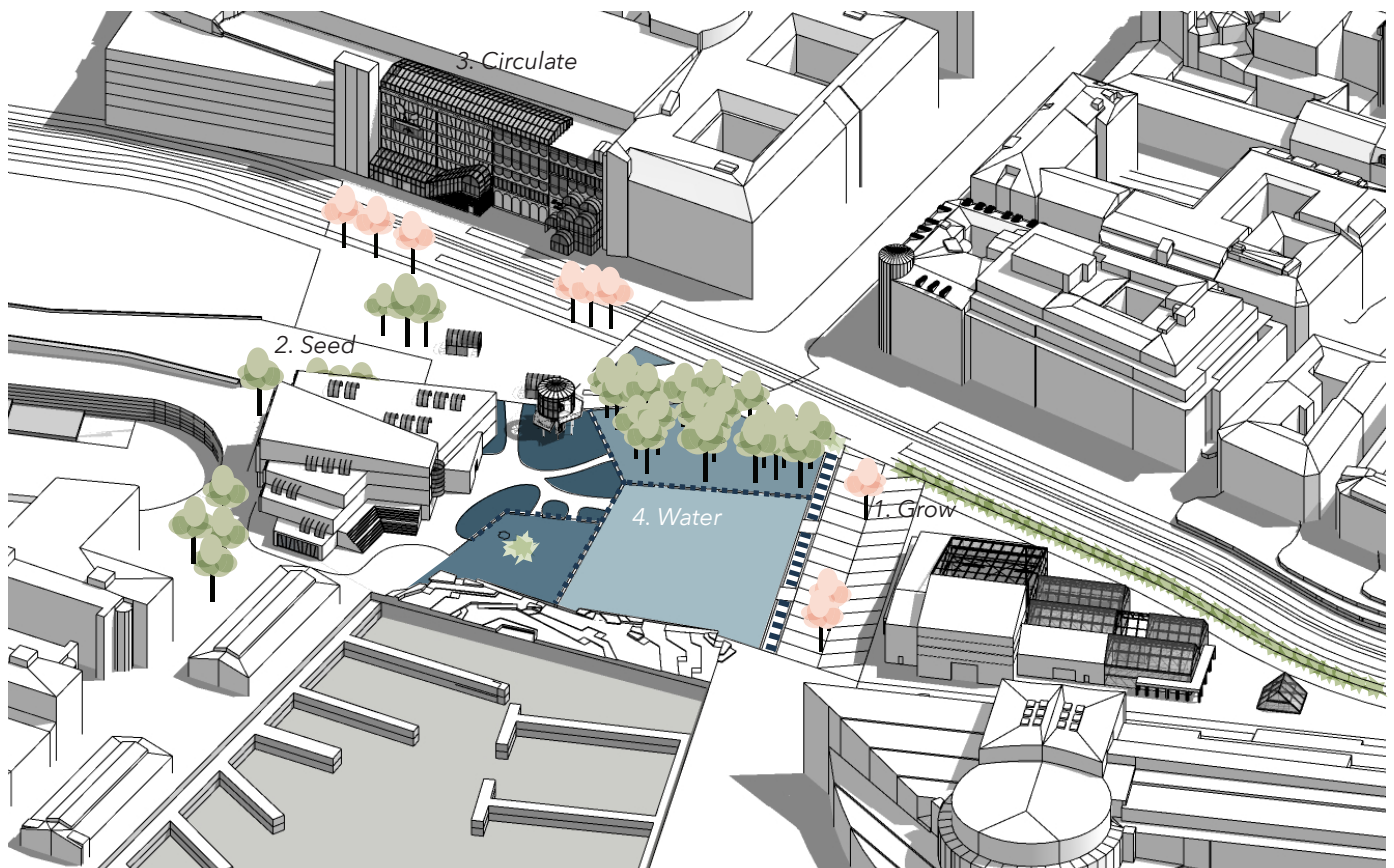


Climate change

- ESS part of the urban landscape
- mitigate global warming through slowing down
- increased spare time spent on recreation with family & friends

Redistributive by design

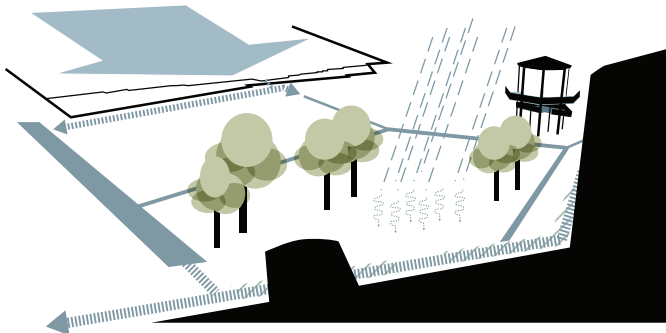
- focus on human & planetary needs rather than excess
- redistribute resources earlier imported to Sweden



SPACE - canals (dashed) divide surfaces of different textures, with a level of unevenness following the shades (bright = smooth, dark = uneven).

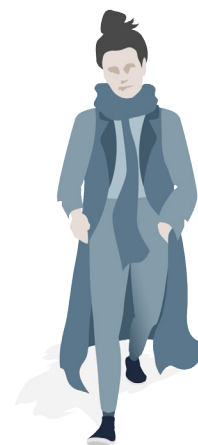


DIRECTION - The square has been subdivided to provide a variation of experiences without dictating a definitive program; the arboretum can become a playground, the edge of the canal a picknick space and the gazebo a music stage.



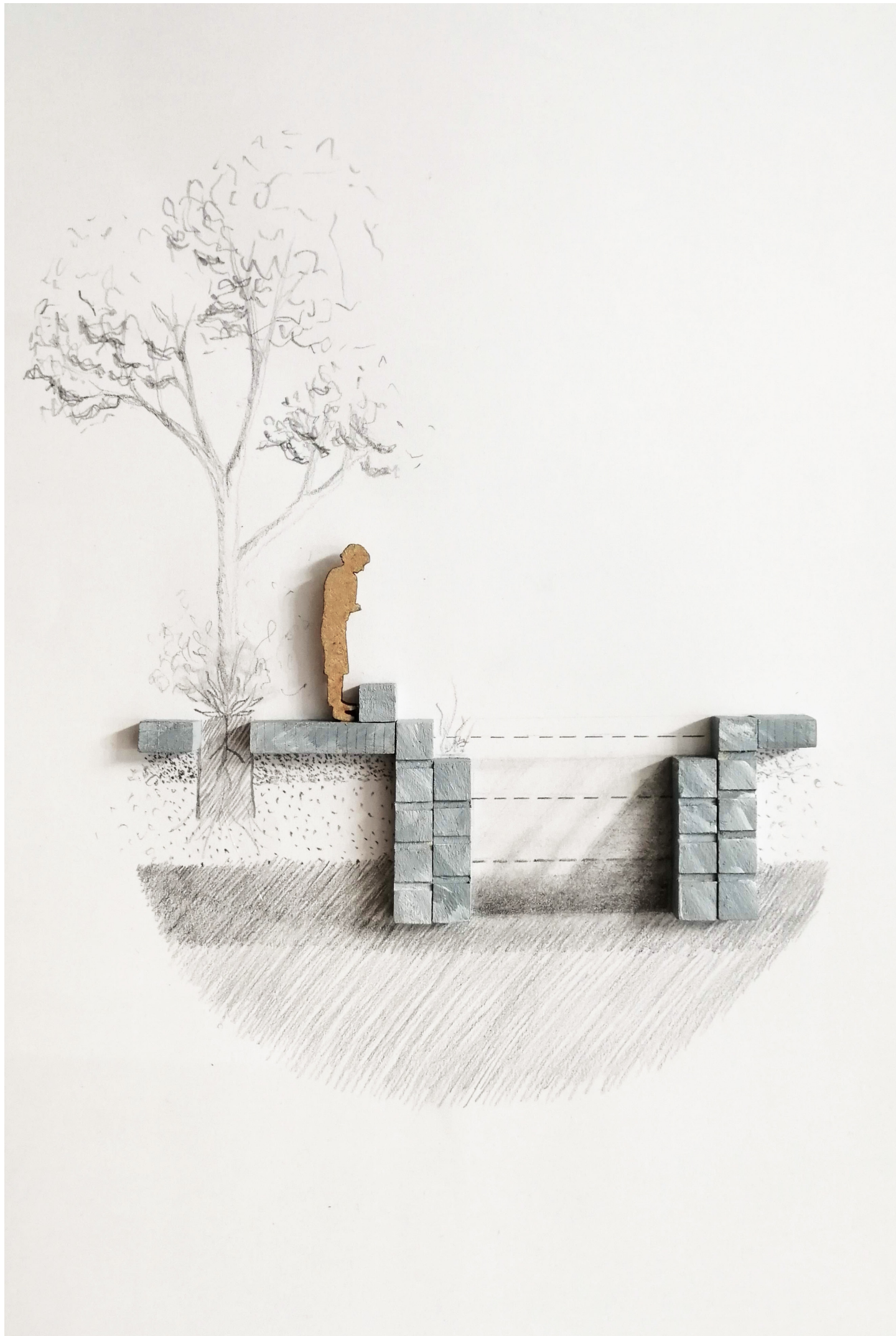
PERFORMERS - Ecosystem services

At high tide the water fills the canals which transports it to an open stormwater management park with plants and grass. Large parts of the surface of the square are permeable to let the rain filter down.



SPECTATORS - Borderwalk

The square, rather than being one large surface that people walk around the edges of, provides a pedestrian with many borders to walk along or sit down by. They can see and experience different urban floors with an ever-changing scenery of water and vegetation.





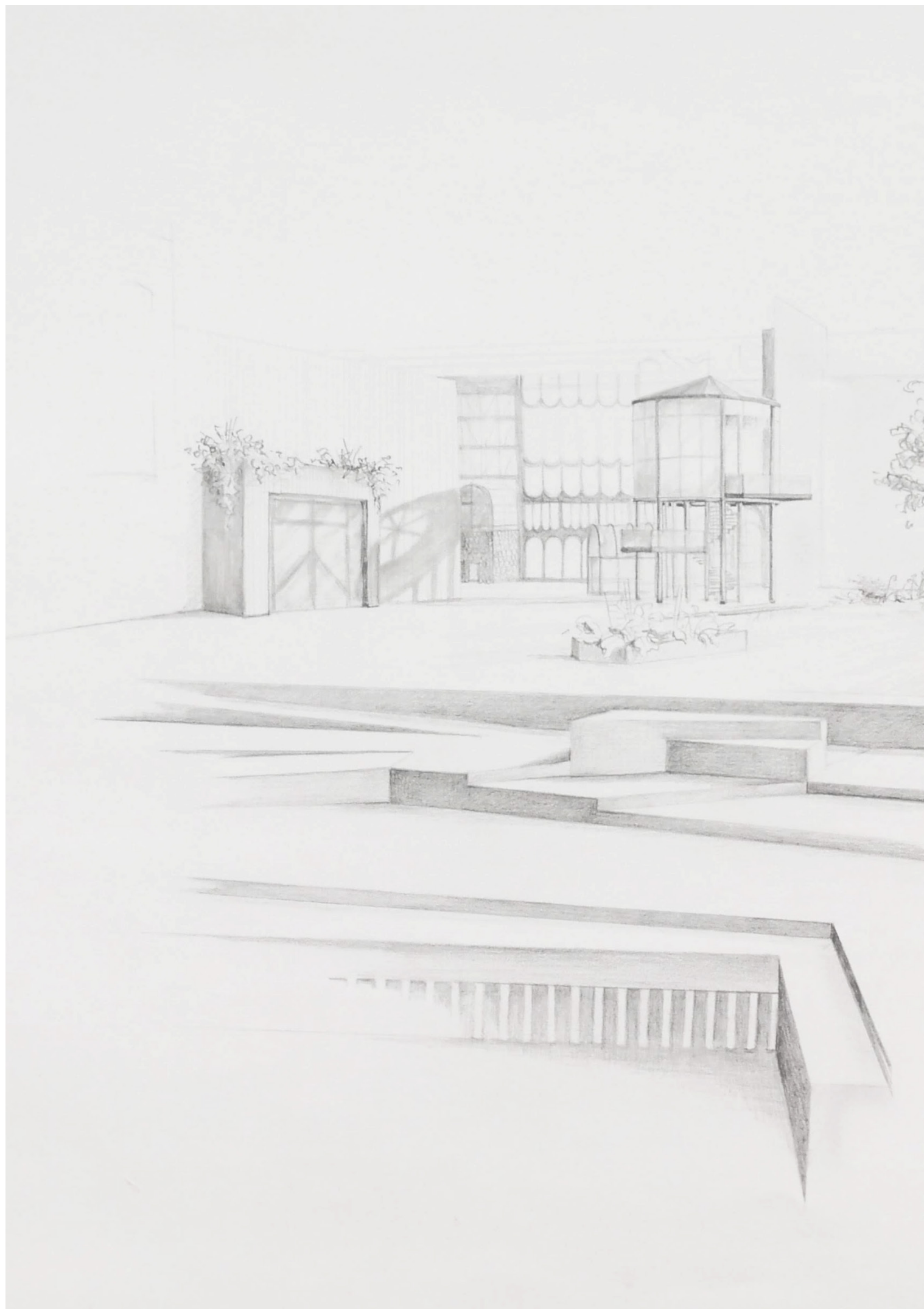
The sound of gravel & the smell of frozen water

For the square the ground surface has been addressed as the main design element together with the reintroduction of canal systems. The foot's interaction with the ground can consist in an experience of friction as hard-packed sand and the sole meet, or an uneven sensation of mixed paving stones if deviating from the smooth accessible paths. The canals have stone edges radiating heat in the summer welcoming someone to have a seat, whilst emitting an icy chill with the smell of freezing water in the somewhat shorter winter months.

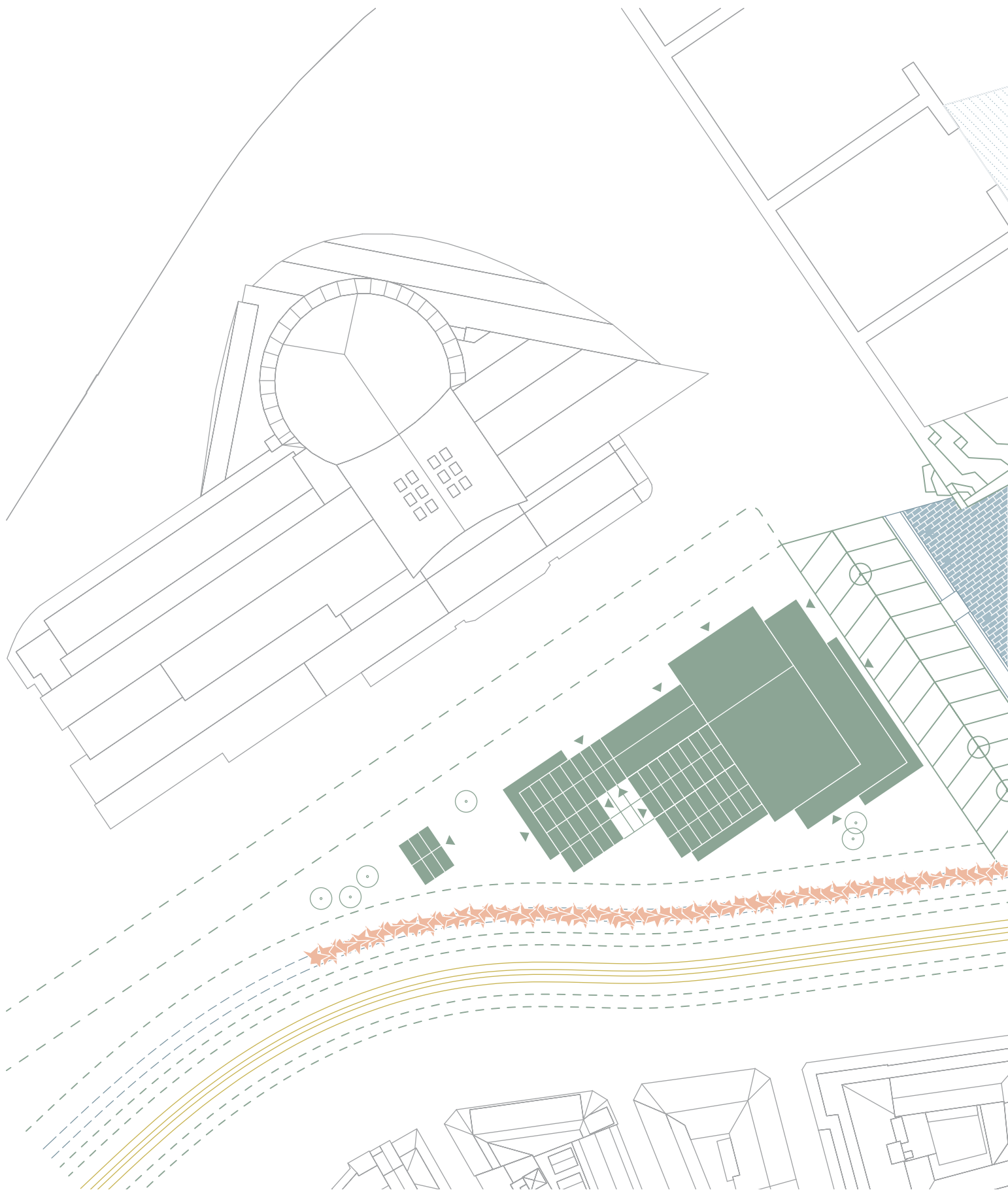
Vegetation & the filter

Leaving the ferns behind a graceful grove of birches greets visitors with a swooshing noise. Soft ground gives the impression of moving into something new with an atmosphere of calm as the city disappears behind. When reaching the square the surface hardens again and a water landscape with small canals reveals itself. Reaching the harbour a rocky landscape invites to sit down for a bit.



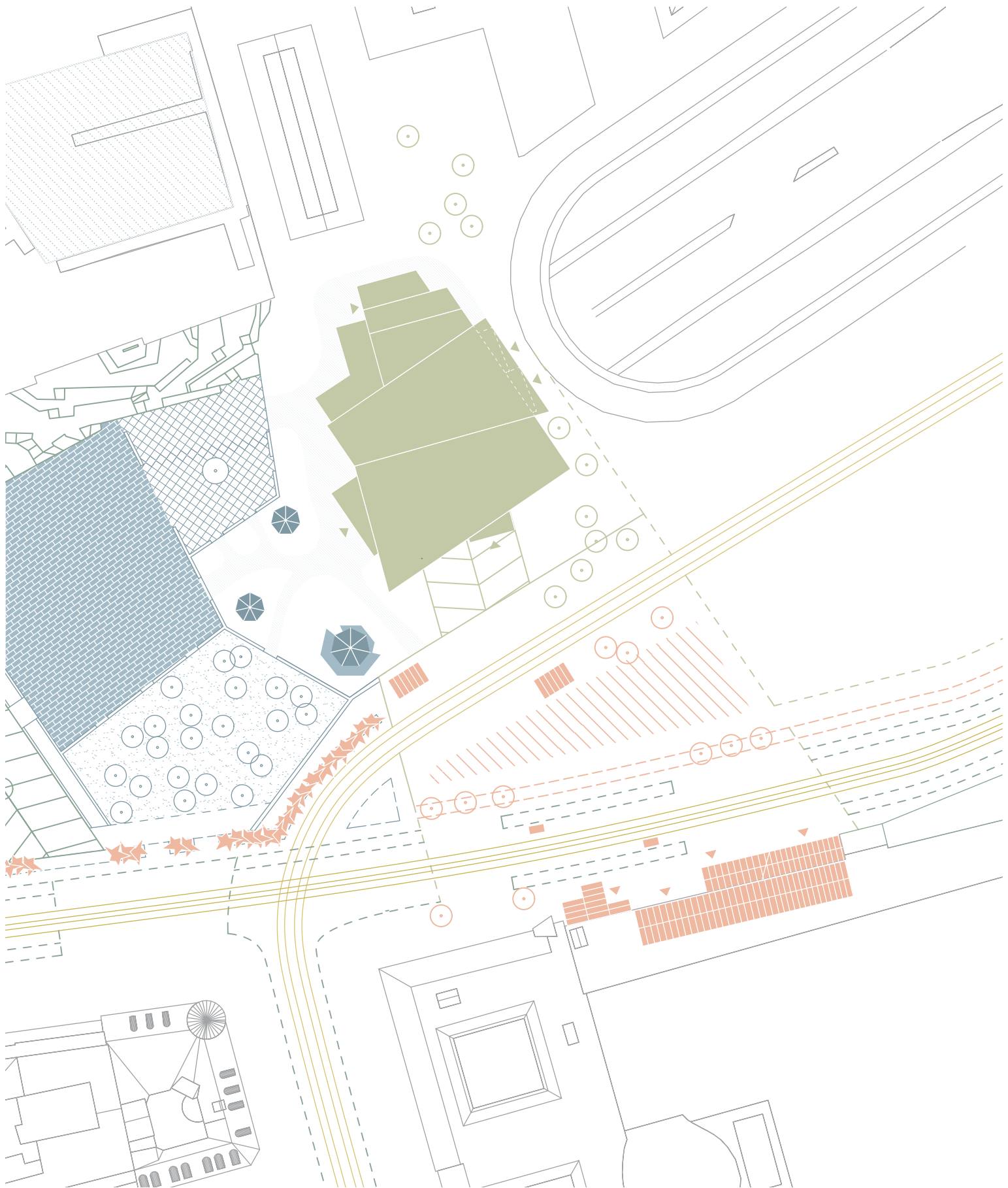






The developed area in 2050

A utopia beyond GDP growth or a viable future path to consider?



Site plan, scale 1:1000



Scene I



Scene II



Scene III



Scene IV

Summary & findings from research

What has this research into scenographies for transition resulted in? Findings from the investigative chapters I to VI follows.

The report 'Futures beyond GDP growth' has been used as the framework for the development of the four scenes, their spatial scenographies and public programs. Working with the text has provided insight into different variables that could help organize a future not dependent on economic growth. Developing a chronology has provided a valuable aid in trying to understand the process of transitioning and to reflect on the consequences of another goal than growth.

To understand Kanaltorget as space its past, present and potential future has been explored. We have seen it in relation to its twin, Götaplatsen, and noticed a significant difference in size, programs and values. Infrastructure, from seafare, canals, railroads, tunnels to car traffic, has come across as a defining spatial aspect for the square up until now. Commerce and trade also stand out as important defining factors for the spatial arrangements of the square. We have encountered some of its stakeholders and inhabitants in overlapping layers of time. All these layers show a diversity where different socio-economic groups have been represented. This has rendered an image of a public space as a point of intersection, not just for vehicles but for the people of Gothenburg. A place of transit where differences have met, not frictionless, but visibly. It is almost like the square has been as fluid as its migrating people, lacking support and roots.

When looking into GDP growth in relation to sustainable development, it is suggested that global economic growth is not sustainable. Due to threats to our environmental ceiling it is suggested that the current financial system building on and requiring continuous economic growth is not serving us. We have also discovered a list of possible ways to replace the etched economic images of the 20th century with new models built on equity and resource responsibility. Images that could help us become growth agnostic – independent of an unequal as well as unstable system abusive of the environment. Since the research presented has put images in the center for changing an obsolete economic model, it gives the architect an opportunity to help reshape the system so it can sustain us and the planet.

Then in what context is the architect operating? And to what end? In this work we have understood the role of the architect as dependent on both political vision,

the good favor of the City building counsel and of the client for whom the architect works. A climate act and a political framework for sustainable development as well as for good living environments has been adopted by the Swedish government. Questions arise regarding how the profession should approach this. I find sustainable development policy is a hidden opportunity for the architect.

What can the architect learn about performers in the public space? In scenography we have seen that the spatial arrangements are subordinated the actor in the space. And there are many ways of being a performer in visual arts, ranging from the Acrobat and the Dancer to the Collectivist and the Co-writer. In the exhibitions we saw that co-creation often entailed and drew from some form of existing knowledge of the performers. We also saw that the museum in one expo tried to turn the tables and make the Tutor the Apprentice, in order to question democratic design. Another important realization was that a performer acts here and now, it is about being in a moment, even if it sometimes leaves a physical, acoustic or mental echo. This is the same for both theater and actors in public space, but the scenography of the city needs to serve a multitude of performances and different inhabitants in a narrative stretching over decades.

The spectator is half the play, and the theater would not exist without it. It lies in the nature of communicative arts that there is a receiver. We have in this study understood public space as a communicative space addressing societal values, ambitions and diversities. All who pass or use public space are spectators and receives a message through the scenography around them. We have seen examples of when the border between performer and spectator is bridged, blurred or dissolved in different efforts to be inclusive, enable exchange or to question societal concepts. Looking at the inhabitant as a spectator also gave us the realization that there might lie the equivalent of an invitation in public space, often addressing the Consumer. Or a lacking invitation, for all or some spectators like the Match Stick Girl. In this investigation we have become aware that all might not have the ability to perform in public space due to inequality and various bodily prerequisites. To still enable ways to observe the "play" of public space and mirror society's diversity is something that the architect can work with in a similar way as the scenographer.

Analysis of design & findings

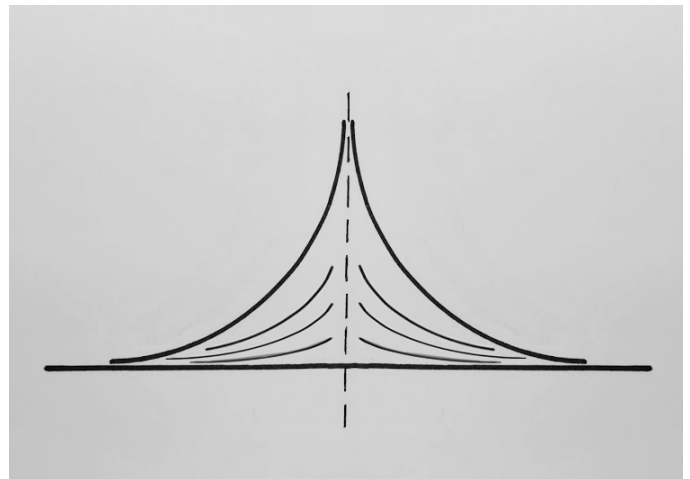
Following is an analysis of the findings made within this entire investigation into spatial narratives beyond GDP growth. The scenographic approach will be evaluated in relation to the investigation, the role of the architect and the chosen designs for future Kanaltorget.

A goal beyond GDP growth

For professions occupied with built environment and future planning there lies a difficulty in the many uncertainties. Faced with reports of accelerating environmental changes caused by human activity (Rockström, 2015) brings about questions of how we build our societies. This thesis has presented theory that suggests that our financial system, requiring economic growth, is one explanation to this threat (Raworth, 2017). To explore an alternative I have turned to the report 'Futures beyond GDP growth' (Hagbert et al., 2018) in an attempt to form a narrative, an alternative vision, to which the architect can respond. A future scenario text has proven a helpful tool to use. The text has brought a dimension of science, research and potentially credibility to the scenography of the Master Scenario (MS). A challenge has been to put the four different scenarios of the report together and create a reasonable chronology to follow. The original scenarios were constructed during a four year research project, this transformation of them into one MS is a drastic change. Regardless it would likely have proven difficult to, within this work, design for a future without growth as goal starting from nothing. Therefore the work with the **report can be considered fruitful in providing a context and a framework for the exploration of sustainable future development of public space.**

Kanaltorget

Kanaltorget as site puts this future scenario on the financial and geographic center stage in Gothenburg. A scenario enacted here sends a message of transition as a mainstream action, rather than a subcultural peripheral course of action. Transitioning away from eg. car use might also have the biggest effect on sites like this, characterized by parking and layers of infrastructure. In investigating a radical transition programmatic support and roots as well as physical historical layers are used to anchor it on the site with links to the past. **Kanaltorget could play a central role for a transition.**



A future of sustainability beyond economic growth

Environmental and economic theories showing the sustainability challenges we stand before has painted a picture of a paradoxical relation between GDP growth in Sweden and sustainable development globally. There is a proper challenge when SDG #8 (UNDP, 2018) declares economic growth to be a prerequisite for bringing people up to what, in the doughnut economy theory, is called social foundations for life, at the same time as we need to decrease the impact of our lifestyles to remain beneath the boundaries of the planet. In light of this **GDP growth can be considered questionable in societies above the limit for social foundations, like the Swedish society.**

The architect & the scenography for transition

In looking into the context in which the architect operates a raised political will regarding sustainable development and good living environment has been observed. This thesis has investigated how the architect could become a contributor of sustainable images of our future living environment. Densification and high land value pose a threat to public space and green structure in the city. The architect is one of few stakeholders that are in position to defend these. Our images can help reimagine built environment and direct it to become a driver in a transition towards sustainability. But architects also risk being part of an unsustainable development. A development that comes at an environmental and economic cost. And a development facing environmental challenges of raising sealevels, increasing inequity and questions of accessibility and not least identity. The direction the municipality and its corporate allies choose for realizing this development will affect Gothenburg for decades, even centuries, to come. **Kanaltorget can, and architects will, play a key role in this performance transforming the city.**

Setting the stage

The architect is a person of taste having own preferences, as well as the client. Architectural projects does not get composed as objective designs, but from a bias. If this bias is taught in the universities, learnt through interaction with peers or varies between architects due to skill, knowledge and geography might be of less interest than the fact that the architect, and the client, holds a power to affect the built environment people live in. Learning that the use of color in a scenography is used to highlight the focus of the plot has led to a use of colors and materials in a way that tries to bring focus to reuse as well as the living things around us, vegetation and people. In public space color and composition need to work from a far as well as close up. In relation to the scenography of public space we have learned that color and composition, in this exploration, can revolve around reuse of materials and shapes. To use the materials and the vegetation suggested for the site has guided the added color palette. In focusing on reused materials and adding bright colors the atmosphere can be said to have been set reminding us about the past and the power and creativity that lies in transformation. Since the future might entail things beyond our imagination technology intensive materials, like solar energy and micro/nano **technology, have been introduced to help diversify the energy supply. They can be found a huge future possibility, and come with an equally huge responsibility if we are to remain just** towards the countries where the component materials are mined. Therefore the use of it is limited and combined with less intensive technologies. The structures introduced are not temporary in the common sense of the word, but made for dismantlement, to enable adaptations in the future. For now their composition tries to frame the square physically and programmatically. **Color and composition can be seen as part of the “invitation” to public space. Together with the program** it calls for people to join or to pass by, to come in or to move on. Water as a composition factor providing ESS can be observed, it runs like a blue thread through the scenes. The color and composition concept is a bit similar to the wedding tradition of ‘something old, something new, something borrowed, something blue’.

Performers & spectators in public space

Today the main performers around the square are the Consumer, the Driver, the Tram traveler and the Pe-

destrian. There are not room for many performances beyond consumption and transit. Then what potential performers are introduced? Regarding questions of who will act in the future space of Kanaltorget and who it addresses we can return to the design principles of the performer and spectator chapters. One principle regards actions beyond consumption. In this aspect the scenes provide many examples of what such building programs could be involving people to different degrees. There is a possibility that these programs “leak out” on the square both physically and in a mental perception of the spectators in the space. In terms of making hierarchies visible, it lies in the nature of public space to be a place to show the different faces of society and handle conflict. **The most visible factor in relation to hierarchy I would argue is the shift from consumption driven programs to participatory and free programs.** The project might show a bias towards people with green fingers, and failing in providing more diverse options to engage in. A future study might entail other topics. Regarding active and passive bodily exploration, reflection and awareness one can argue that this is hard to tell before trying it out. But the use of vegetation sequences, the element of water together with shifting ground materials shows an attempt to signal different things to the visitor’s body and stimulate multiple senses in a quiet way.

The four scenes

The focus for this work was to visualize what a public space could look like, enable and do in a future not built on GDP growth. (To do so through a research by design method has turned out to be a big task....) How well has this been managed? The four scenes show a succession of buildings and programs appearing during a thirty year period.

The first scene in this gradual transition aims to mitigate increasing biochemical flows and shows a greenroom - a greenhouse with a stage area connected through the disposition of the building and through the circulating water. The program of urban farming is a way of decreasing the city’s need for large-scale cultivation with artificial fertilizers elsewhere. A program like this, run by the users in a CSA in collaboration with the Region, could be a way of people educating people about cleaner agriculture processes, creating a sense of community and increase their self-sufficiency. Combining it with the stage, run by the Region

who runs the Opera, provides an anchor for the CSA as well as for stakeholders that could make use of a cultural space like this. Increasing the access to local cultural arenas for both action and spectating might be important if arguing for decreased consumption and travel. The building in scene one shows how an interior can respond to transition through reuse, a combination of technology intensive and extensive solutions and surprising program combinations. In providing space for agriculture alongside culture in the city it can be seen as a way of making transition more easy to imagine and more compelling.

Scene two aiming to mitigate biodiversity loss mainly requires a changed mindset. Programmatically the building shows a potential way to both preserve plant species currently under threat, educate the population in growing plants themselves and circulate seeds in the community. If this changed mindset starts with the state, region, municipality or a private actor might be of less importance than the fact that its operations could raise an awareness within the rest of the population regarding the fragility of different species in the planetary ecosystem. Without awareness it is unlikely that the devastating trend of decreasing biodiversity would stop. As built environment scene two explores ways to use the facade and the terraced green roofs to communicate the program, celebrate biodiversity and invite people as well as pollinators to inhabit it. In employing reuse, creating habitats and being built for dismantlement one can argue that the architecture shows some first steps towards a future built on values beyond monetary ones. The scene does not elaborate on how the architecture works on the interior, but rather focuses on its material origin, acoustic aspects for the square and what actions it enables. As a scenography using vegetation its appearance will shift over the year, this aspect has not been studied further but could prove an intriguing further study of the circle of life on a building.

For the third scene the design strives to mitigate land system change and minimizing landuse through turning Nordstan parking garage into a large-scale productive unit of aquaponic farming, and a swap shop for decreased consumption, circulation and refinement of existing materials, goods and services. In giving bikes, walking and micro vehicles a prominent role in the future infrastructure of Kanaltorget the domination of car can be evened out. In not building new

roads, farms or malls, but favoring other options and refurbishing existing built environment, it shows a shift not just in mindset but in practice. This presents a path for an organization like Nordstan, dependent on growth and increased sales, to engage in a transition to a future independent of growth. If this scene represents the heart in a new circular economy, then organizations like Nordstan could play an important role in a transition should they choose to. Closer connections to Nordstan have not been made apart from the interview (Appendix 2C). This could be something to explore further.

In the final scene the square shows a society adapting to the changes of nature while simultaneously adapting its internal logic to mitigate climate change and reach its sustainability goals. The square largely unprogrammed to fit different purposes, but still provides various micro environments and experiences that can inspire action in the public space. The canals can be seen as a practical response to expected sealevel rise, as well as a symbol for the transition of lifestyles from working, buying, sleeping to have time to sit by the water and watch the currents. The canal systems require studies of impact during high and low water, which is lacking in this investigation.

Risks

This study has covered a broad spectrum of theories and fields, a risk is that the result subsequently carry very broad strokes lacking in depth and detail in some areas like the performer and the spectator in public space. Further more the work could have benefited from focusing on one building adjacent to the square and addressing all seven scenographic work fields more in depth within this configuration. A lot of effort has gone into balancing theoretical research with design research, and while the use of a scenographic method has resulted in an inspiring and fruitful work process, the development of the method itself took some precious time. There is a risk that this has resulted in that the design not entirely responds to some of the questions in my thesis, for example more focus on the performers and spectators in public space would have been desirable.

A general concern is also the timespan. Since the issues in this thesis are urgent, the forty year transition could either be seen as too long in relation to the design suggestions, and on the other hand if we keep the timespan the designs risk not being radical enough.

Discussion

Why is it important for architects to visualize a future beyond economic growth and why bring scenography into the mix? It can seem far from the core of the profession of the architect who is in service of the built environment. As might scenographic methods to explore it. But the question of GDP growth might play a key role in the unraveling future and in reaching sustainability goals.

Economic growth affects the Swedish society profoundly, from political vision, financial system and building industry to values, logics and actions. Understanding the field of architecture, and public space, as something that intersects through all of these elements turns the notion of growth into an architectural parameter. As is sustainability. Starting from these statements, the question arise how the architect relates to economic growth. Special interest lies with how the architect responds when this parameter counteracts, or even makes impossible, other parameters like sustainability in relation to the environment or to social aspects.

Regarding the space of interest for this work, Kanaltorget, the plans are ongoing and big. Local political visions show significant densification ambitions for the high-value central area of Älvstaden. Thousands of new housing and offices will be built. And while Poseidon raises his fish to the air on Götaplatsen, Kanaltorget will face the potential rising sea levels. The arguments presented in this thesis that economic growth in Sweden presents a threat to sustainable development globally, and locally, presents the architect with a dilemma. How does the profession respond to these conflicting architectural parameters? The architect profession, in its nature occupied with both the past, the present and the near and far future, needs to work with physical, structural and mental conditions that have not yet appeared. Like future energy sources, raising seawater levels, population trends etc. Much of what the architect creates is confined by the unknown, and will be in place for a long time after societal conditions, political leadership and the environment have changed, or been torn down together with the values it was built on.

What is realistic?

Since the UN defines economic growth as vital to eradicate slave-like working conditions in countries beyond the Swedish borders, we are faced with another question. Is economic growth in Sweden defensible in the name of sustainable development? It becomes

a matter of what is regarded as realistic. Is realism a capitalist economy built on growth that has put the world at its ecological edge? Is realism the market, approached like an uncontrollable weather phenomenon, that has created great inequity between nations and continents? Is realism the consumer's will to consume us out of an environmental crisis through green products? In a way the structuring financial system confining architecture, public space and its inhabitants as well as the architect, can be considered an unrealistic option seen to the survival of ecosystems and the stability of our climate. In the current financial system, dependent on growth, what can be regarded as realistic in reality suddenly turns unrealistic. And what is claimed to be sustainable with a financial logic is counter proved by science to be fatal for millions of species, our planet and in extension to humanity. The question arises whether it is realistic to have growth and consumption as a focus for our common narrative in thirty, or even ten years. Even now.

Public space, scenography & the role of architecture

There are multiple connections between different variables of sustainability and public space, due to its economical, ecological and social character. In its realm lies part of the self-image of a society both in regards of social values and visions of the future. The common space in the city is a platform for building a collective identity. There lies a subversive undertone in common space and its potential as an arena to make or break the norms and values of a society. What public space permits or prohibits reflects these values. And if public space reflects society, then changing public space in turn changes the society.

This interaction between public space and the inhabitant bears similarities to the interaction between a scenography and an audience. In a more subtle way even between a scenographer and the actors. A ground surface with an uneven texture creates conditions for the user affecting accessibility, tempo, experiences of sound, light and potential use. To consider where we walk barefoot provides an image of the impact of the stage floor. Physical manifestations frame and conditions the use of space.

If theater is the meeting between performers and an audience, then public space could be seen as the meeting between public programs and inhabitants. Public space often relies on programs of consumption, but

consumption is not likely to take the world out of the environmental crisis human civilization has created. Architecture, however, could play an important role in manifesting other values. If the architecture helps putting consumption in focus on the urban stage, then it is likely that the spectators move from watching to acting and follow this lead. If architecture on the other hand turns the spotlight to collaborative programs, it is likely that spectators observing this might develop a curiosity of this and even act. Like in theater the interpretation of a message might occur in the subconsciousness which makes what public space communicates even more powerful. The receiver might not be aware of the transmission of a message and might not have their guard up to question what is being implied.

Architecture beyond economic growth

The relevance of bringing a subject of economists and politicians into a thesis on architecture and sustainability lies in the conditional character of economic theory and practice. In architecture in general, and public space especially, the notion of economic growth frames the entire workspace. As we have discovered, clients of architecture services, on which the architect depend, express a lacking understanding of the economic business that architecture is to them. In order to better understand the role of architecture as a business one could argue that the architect needs to approach economic theory. Especially if the logics of economy proves to counteract societal visions of sustainability, like this thesis claims.

One could further argue that the architect could be a potent assistant in the redesign of economic models through architecture and visualizations of physical concepts reaching beyond those of growth. If the only potential futures that we plan, explore and design for are ones building on economic growth, then society will have a built environment poorly prepared should future growth decline. The perspective of the architect, used to handling complexity, overall direction and uncertain future conditions, can provide valuable perspectives into a discussion on sustainability. The profession can help explore different visions, for a Swedish society that will be better prepared should economic growth decrease or prove to be incompatible with sustainable development.

Conclusion

Architecture and economic systems are intertwined and when research says economic growth might, or is even likely to, decline, what does that mean for public space? It is hard to imagine what the Swedish society and its common spaces would look like in a system not requiring economic growth.

I argue that one of the reasons for it being very hard to imagine a city without economic growth is because we have not visualized viable options. If neoliberal reason has limited our minds, then maybe architecture and scenographic approaches can open them up again. To promote a transition of lifestyles visualizations of programs and architecture engaging the population have been proposed with shared maintenance, development and use of Kanaltorget. The urban scenography is a physical manifestation of another societal vision where consumption is playing a supporting act to collaborative main programs. Kanaltorget revolves around self-sufficiency, circulation of material goods and free programs using architecture as a tool and public space as a resource in a transition. This is a way for the architect to transfer learnings and supply inhabitants with information regarding their options.

All parameters guiding the design of public space are not controlled by the architect, but the architect can define scenographic focal points, raise questions through the design or suggest new uses and programs. What is being built and what the architecture is programmed to do is a matter of political vision, funding and the client, but it lies in the interest of the architect, as well as of the society in large, to promote that different options are explored. To create sustainable urban scenographies requires the architect to have a deep understanding of the underlying vision. It is clear to me that this endeavor, like the scenographic endeavor, is not a solo show. Transition towards a sustainable framework requires a collaborative effort where the architect and the physical planner joins the economist, political and environmental scientist and even the scenographer to create an urban scenography where people thrive within the limits of the planet.

When the City transforms Gothenburg's urban core public spaces, like Kanaltorget, will manifest the values that the City aims to bring to the future. Whether it is traffic, densification and commerce or something beyond the notion of growth, it will send a message to the audience. The question is what will it be?

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Appendix I - Translation

My original translation of the four scenarios in: Framtider bortom BNP-tillväxt – Slutrapport från forskningsprogrammet 'Bortom BNP-tillväxt: Scenarier för hållbart samhällsbyggande'

The four scenarios from the report (Hagbert, 2018) have been translated from Swedish to English. I also call the report 'Futures beyond GDP growth' for short in English throughout this thesis.

Collaborative economy (p.19)

Digitalization creates opportunities to share resources

In Sweden people have become aware of the back-sides of the consumption society in the form of environmental pollution and low-salary workforce in faraway countries. At the same time digitalization has created very good opportunities to share existing resources already circulating through sharing, renting, borrowing and trading with each other rather than owning and buying. The benefits with sharing existing resources are increased resource efficiency, that it is good for the private economy and that it, in many cases, is stimulating through interactions with other people. The economy has to a larger extent started to be characterized by cooperation rather than competition. The access to resources and services is more important than private ownership and the means for production and material resources have been transferred from private and public management into shared ownership.

Collaborative solutions on different levels

Citizen power, informal economic activity and collaborative solutions have grown more important and are enabled by digitalization, open source and digital commons. Collaborative solutions does not need to be local but there are both small-scale local as well as broad national and international digital platforms. Much of the paid labor has been replaced by unpaid and non-profit work in the shape of efforts for different kinds of collectives or collaborations (for example housing associations). The total workhours of people (payed and un-payd) is governed by their life situation and through timebanks they can create a buffer for periods of less work. The consumption of goods has decreased and is guided by needs, and there is a justice-ethics where people do not want

to, through their consumption choices, outperform others in their surroundings. Many production units work as an extended family that provides services such as childcare etc. New business models have been developed enabling sharing of companies and coordination of large-scale investments. IT is one of the prerequisites for circulating and sharing, but otherwise technology is comprehensible, easy to use and managed by the users

Creative clusters and polycentricity enables cooperation

People are digitally interconnected and the physical location is of less importance for the inhabitants ability to participate in the production of goods and services or to access education. People live more scattered across the country but gather in clusters and medium-sized cities in order to swop services and borrow from each other easily. Creative centers surrounding production and consumption generates a polycentricity in the built environment, but the geographic location is no longer depending on large scale infrastructure but is enabled by digital networks. Detached housing areas as well as multi-family housing have been densified and the heated living area per person has significantly shrunk. In response the households have access to larger communal spaces in the same building, block or neighborhood leading to a more efficient and flexible use of built environment.

The power and the production are spread between multiple actors/stakeholders

The border between private and public has in large been erased, and governing from the public is focused on further enabling the collaborative economy through legislation and promoting sharing solutions. The power is spread between many stakeholders, bottom-up initiatives and shared maintenance built on mutuality and active engagement are important principles

Many stakeholders are engaged in production which creates a diversity in what is being produced, and the goods are generally for the local network, rather than for export. Some production still goes to export in exchange for goods that are hard to produce in the local or national networks. Many are prosumers, both producers and consumers of goods and services, and the economy is based on both large-scale and small-scale production units.

Local self-sufficiency (p.21)

Local resources and prerequisites are in focus

Supply security and sustainable solutions based on local resources are the focus of the local communities. Globalization and urbanization that were regarded as inevitable up until 2020 has halted. Export, import and consumption of goods have decreased significantly, but with flourishing local markets. The municipalities and citizens have increasingly gained power and influence over local resources and their own development. Many functions earlier managed centrally are now governed on a local level. Energy supply is for example often local and independent of national infrastructure.

Sweden has succeeded well in taking care of its resources and has a clean environment, resulting in people being able to lead good lives in spite of decreased imports and consumption. The transition into local self-sufficiency is rooted in that people willingly have chosen self-sufficiency and less consumption in order to live within the confinements of our ecosystems ability to sustain us and absorb and clean up pollution. The transition also builds on a wish to be freed from centralized business models and modes for decision-making. Society is characterized by an open exchange of knowledge, DIY solutions and self-organization. Local knowledge regarding local resources is considered to render better conditions for resource maintenance. All citizens in working age are expected to contribute to the production of food and supplies, but also in the maintenance of technical infrastructure as well as in care for children and elderly, education etc. The work effort is considerable, however, more than half of the workhours are un-paid and the hours vary to a large extent throughout the year.

The proximity to countryside or urban farmland is of importance

Close family or friends often share a household in extended family constellations in rather large housing spaces, or with shared functions or housing units gathered in clusters. Many live on the countryside and in smaller or sparse cities where the opportunities for cultivation or other kinds of production are good. The pressure on the urban areas has eased. Most people do not travel but lead their lives in the local community. There are significant regional and

local variations due to varying regional prerequisites leading to diverse land use and local diets. Transport of goods happen only to a small extent since the local self-sufficiency is high.

Earlier infrastructure investments in broadband and mobile networks are maintained for continued means for communication, but new investments are not coordinated nationally but made according to local needs for example within the food production. Technology is simple, small-scale and comprehensible predominantly from reused materials.

Direct democracy within local arenas for decision making

Local arenas for decision making has a prominent role and the influence from the state is diminished. The local communities, which in most cases are smaller than to the surface that present day's municipalities, are responsible for provision of basic technological infrastructure and organization of welfare services. The ideal for governing is direct democracy, leading to local referendums according to the principle one person – one vote.

Adapted production and less import

The economic activities are adapted to the conditions in the local communities, which vary in different regions. Production is mainly targeting local consumption. Some trade occurs between regions, especially of goods differing between regions due to local variations such as timber and agricultural products. The amount of imported goods is small, resulting in a low to none dependency on foreign land.

Automation for quality of life (p.23)

Robotization has enabled fewer workhours

The economic profits are to a large extent invested in enabling working less. A swift technological development has resulted in robots and digital technology largely replacing human workforce which is perceived as an opportunity to work less rather than as a threat to our jobs. Work is no longer the focus of public debate, but rather freedom, meaningful occupation and the right to do what you please. Increased disposable time leads to many spending more time with family and friends.

Health care is to a large extent automated as is the education sector and parts of public care. Practically all manual labor and routine driven administration tasks are conducted by robots or computers. Human labor is mainly needed in advanced administrative tasks, knowledge production and sharing, creative work tasks and in stimulating social connections. Since the workload is shared by the population, there is a new radically shorter average work week of 10 h.

Automation and digitalization generates a relatively high economic activity in spite of lowered amounts of paid workhours. Simultaneously sustainability goals have led to heavily increased resource efficiency and decreased resource use. Income and production is being distributed equally to avoid increased wealth and income gaps.

Everyday life is online and filled with experiences

Household work is also digitalized and automated leading to even bigger increases to disposable free time. Technology is increasingly more integrated in people's everyday lives and even bodies. Digital communication occurs not just between people and organizations but between things – everything, and almost everyone, are online.

The decreased workhours leads to people scattering more across the country, but still predominantly in larger cities. Still some people settle outside the automated city complexes in search for other values. Brand new, highly exploited, urban city cores with high efficiency and smart systems fully incorporated are built. Automated, track bound public transport constitutes the backbone in the transport systems complemented by walking and cycling (including electric bikes).

Increased free time leads to people spending a lot of time close to home, in green and appealing surroundings with many parks and playgrounds within the otherwise dense environments. Physical meeting places such as public squares are central and the differences between housing and spaces for community life and recreation are blurred with a flexible use of space for common activities.

Digitalization has increased the possibilities for direct democracy

Political decision making on several levels. The state collaborates closely with market stakeholders (es-

pecially innovators and technology developers) and researchers in order to develop and to design tools for continued automation within planetary boundaries. Digitalization has led to increased possibilities for direct democracy but there is a high level of trust in politicians and the technocratic elite developing and managing the digital control systems

Sufficiency characterizes people's lives rather than a chase for material status and consumption is low. Production in Sweden is automated, digitalized and specialized – therefore trade with other countries occurs through import of consumption goods and resources for the industry as well as export of goods and services produced nationally.

Circular economy in the welfare state (p.25)

Waste no longer exist as a concept

The realization regarding the limits to ecosystems have driven a stringent legislation promoting a circular economy built on reuse and circulation of materials. This means waste no longer exist as a concept – products used in Sweden are designed and optimized for dismantlement and reuse. Recycling only ever happens when reuse is impossible. Consumables are exclusively made from biological ingredients or nutrients able to return to the circular system. The economy is mainly based in the service sector of eg. Welfare, culture and nature experiences.

A strong state guarantees circular systems as well as welfare services

The state has a strong position as a guarantee for the supply of prerequisites and incitements for an efficient use of resources and to ensure a basic access to classic welfare services. Politics are aimed at large-scale solutions to promote sustainable design and innovation, and to reduce the resource withdrawal and use of materials as well as influence people's consumption patterns and lifestyles. A large share of the economic activity is focused on the production of welfare services meaning this sector is a big employer.

The amount of time put into paid labor is large with the 40 h work week as norm. Social status and consumption are no longer linked – instead exclusive services or leisure activities combined with the demonstration of knowledge regarding how to consume the

“right” and most sustainable products/services/activities for any given occasion. Cultural capital are the main means to manifest status. Many appreciate the possibility spend time in nature without electricity or being online. A strong welfare state and its institutions provides all citizen’s with access to services ensuring basic security. The principle for distribution has clear strokes of classic welfare politics where the state has a central role and all citizens has the right to general welfare systems.

The population is centralized and concentrated to big city regions

Most people live in the city regions of Stockholm, Gothenburg and Malmö, but also in some larger regional towns with Universities and Colleges. Ecosystem services are important to circulate carbon and nitrogen therefor these services are being actively promoted and maintained. In the cities land is intensely used and ecosystems involved in the circulation process might be located far from the inhabitants. The countryside is scarcely populated but intensely cultivated supplying the urban population with goods and ecosystem services. Well-connected railroad nodes are maintained with development of built environment surrounding them. Population density guarantees a large supply of activities, private and public services and good connections through walk and bikability and public transport. Many people dismiss destinations only accessible by car and car ownership has drastically decreased – in return carpools are common. Building additions are made through strategic densification in locations well provided with public transport. Many live alone in small, efficient apartments.

Govern with both carrot and whip

The state makes the majority of the decisions concerning the govern of society and uses both incitements and punishments towards resource efficiency in all parts of the society. Both state and corporate power is strengthened in relation to the citizens in the wake of a harder control of resources. The development has moved from a “buyer’s market” to a “producer’s market” since enterprises own and control resources used in production. There is a representative democracy, but citizens are not particularly active politically.

The economy is a mixed economy (blandekonomi) where some tasks are organized by the public and

some by private, cooperative or social enterprises. Govern towards a resource efficient circular economy has resulted in a relatively good access to material resources in spite of a heavily reduced resource withdrawals. Forest related export is the main source of international trade.

Appendix 2A - Interview I

190204

A meeting with Simon Wallquist, at the City building counsel in Gothenburg

Planning architect at the City building counsel (SBK) who is the former acting project manager involved with the overall planning of the area called 'Centralenområdet' linked to Kanaltorget

For the first interview of this thesis investigation I try to gain an overview of the prerequisites, visions and plans for Kanaltorget. I read up on the information that I can find online and try to pin-point who might be able to help me from the city. I find Wallquist and he agrees to meet and provide me with information. When I arrive at SBK I have to get inscribed in the reception and he receives me in a meeting room.

Kanaltorget at present & in the future

The square, currently used as a parking space, is situated on municipal land surrounded by an area where land use is set to traffic. The Västlänken tunnel underneath is owned by the state/Transport agency (3D-fastighetsbildning). The surrounding area is currently fenced off being a building site for Västlänken. Torsten Henriksson's walking bridge, situated on municipal land, overarches one end of the square but is planned to be taken down and sold in the development process of the Västlänken train tunnel but Wallquist says it is unclear when. He tells me that there is a protection for the quays that needs to be considered and that the Park and nature management office (PoNF) is in charge of these while the old storehouses along the harbour are under the care of Högab municipal company. Wallquist describes the desired character for the future square as informal, youthful, alternative and be permitting for use such as urban picnics. In 2016 SBK and the Opera discussed wishes regarding a building extension for dance and conferences, and Packhuskajen was investigated. A detail plan for this was made and got acceptance from the building committee. However, the plan has not been adopted by the city council, in parts due to the question of financing. The Nordstan association has been in contact with SBK regarding potential introduction of housing on top of the Nordstan parking garage. And as a Västlänken station exit is planned in the vicinity, Nordstan wants to investigate to combine it with a hotel in an extension of the garage. As the surrounding areas are transformed, Kanaltorget will get a new context.

Challenges

There has been a history of social issues with violence, drug trade, burglaries and prostitution in the area according to Wallquist. In 2015-2016 there was an increased social tension on the site, in part due to young refugees appropriating the square. The police, the Social Resource Management office and Älvstranden Utveckling AB among others made arrangements for increased safety. These included introducing activities such as world food events, dance clubs and flea markets.

Physically, the Göta tunnel provides restrictions for the development of the east end of the square. A building (I presume calculated on a concrete structure) of three floors with an empty basement is possible to erect here without interference with the tunnel construction. In general there is a need for schools in the area when it develops, which has been proven hard to provide space for.

Visions & detail plans

Wallquist shows me a lot of material regarding the development plans for Kanaltorget and the detail plans surrounding it included in what is called 'Centralenområdet'. Kanaltorget is adjacent to the detail plan called 'Norr om Nordstan' which involves the intersection where the new Hisingen bridge is currently being developed. The detail plans 'Detaljplan Västlänken station Centralen' and 'Detaljplan Norr om Centralstationen' are the development areas around the train station which are being planned for Västlänken and new office development in a group of highrise buildings in what is called 'Region City.' Closer to the square the ramp system from the new Hisingen bridge (detail plan 'Ny bro över Göta Älv') will land and a new tram stop at Kanaltorget will be put in place, replacing Lilla Bommen. The detail plan 'Överdäckning av Götaleden' is occupied with covering parts of the E45 to be able to bridge this barrier and develop new buildings.

Future programs

Wallquist says that contributions regarding programs for the future square and reflections on what needs the square will cater are welcomed as well as potential stakeholders to involve. Facilities for the Opera and the future use of the storehouses are questions that are unsolved at the time, and could benefit from input. The planned boulevard aligned with present day's Kanaltorgsgatan is also something that he says could be of interest to discuss further along with other transport and pedestrian connections.

Appendix 2B - Interview II

190204

A meeting with Pernilla Hagbert, at Chalmers University of Technology in Gothenburg

PhD in architecture & currently a researcher at the Dept. of Urban Planning & Environment at KTH & was part of the research project 'Futures beyond GDP growth'

The final report for 'Futures beyond GDP growth' was presented at a research event that I attended in Stockholm in December 2018. Hagbert was present and told the audience about the work with the report and the background for the research project, where Kate Raworth was one of the references. The researchers from many different disciplines had a short introduction about their respective contributions. They then moderated discussions regarding their themes in smaller groups. I participated in three different conversations: 'Scenarios for sustainable built environment' with Åsa Svenfeldt, 'Socio-economic aspects on working' with Tina Ringenson and 'Work and welfare – Horror vacui' with Paul Fuehrer. When I meet Hagbert at Chalmers it is to discuss the four different scenarios of the report and how to work with them in a gradual transition.

The report scenarios

I explain my work and that I intend to use the future scenarios of their report as a framework in my thesis, but that I consider to either use one scenario to investigate or to combine the four into one new scenario. Hagbert is positive towards exploring the scenarios spatially, and tells me there are a couple of other thesis students that are also using the report. She describes the purpose of the scenarios of the report, and says that they are intentionally very different to explore a variation of possible futures. They build on different assumptions regarding governance and economy as well as different degrees of participation from the inhabitants. For example the 'Circular economy in the welfare state' scenario the state plays a dominant role in legislating for sustainability and providing welfare services, while in the 'Local self-sufficiency' scenario, the citizens are in charge of production, taking care of each other and have influence over their own lives to a large extent. The 'Collaborative economy' scenario is also built on active engagement, and raises questions of what happens to those who cannot partake in production or care

for children or elderly, while 'Automation for quality of life' relies on a swift green technology development where robotics have led to efficiency gains used in for example healthcare and production. The four scenarios are all aimed at fulfilling the same quantifiable sustainability goals of ecological and social character, in a future development regardless of economic growth.

Turn four scenarios into one

When discussing whether or not to combine the four different scenarios of the report into one new scenario for the thesis, I express concerns regarding the usability and credibility of a new mixed scenario. Hagbert seems to understand, but does not see a problem with this and says a combination of them would likely be a more probable scenario and that this would be interesting to investigate.

Appendix 2C - Interview III

190218

A meeting with Ingela Brylde, at Pagoden in Gullbergsvass

*Former employee at Älvrummet visitor center
Worked there for several years when it was situated at
Kanalторget and she was part of a task force to address
social issues on the square*

I meet Brylde at her current employer in Pagoden to talk about her knowledge from her time at Älvrummet and Kanalторget as a public space. We have been put in contact by Wallquist at the City building counsel (SBK), who has had contact with her in relation to his work at the planning office. Älvrummet is a visitor center and showroom for city planning that was originally erected as a temporary building project at Kanalторget in 2008. In 2017 Älvrummets operation* was moved to a temporary location at Lindholmen on Hisingen due to the expired land permit. Further on the exhibition will get a permanent location somewhere in Gothenburg. Back to Pagoden, where Brylde sits down and takes her time with me. It is a talkative and social person that tells me her story of how she ended up leaving building earth round houses in Cyprus, started working as a guide and facility manager at Älvrummet and her experiences during her time there.

Älvrummet & Kanalторget

Brylde tells me that she started working as a guide at Älvrummet, managed by the Gothenburg City, the Park and nature management office (PoNF) and the municipal company Älvstranden Utveckling AB. Her role was to hold lectures and guide visitor groups through historic and future Gothenburg. The huge city-model and various maps were the central parts of the center, but public debates regarding planning were also reoccurring. Brylde was one of the people in charge of the facilities and maintained contact with both Älvstranden Utveckling and the municipality offices. She talks with energy, and it is easy to imagine her in a position

**Älvrummet shows the development plans for what is called Älvstaden – a part of 'Växtsvenska paketet' where the areas on the river shores of Götaälv in the city center is planned to double in size. On Älvrummet's homepage it says "Älvrummet also serves as a natural arena for debates in urban development issues, and the model over central Gothenburg in the middle of the room shows the city now and in the future" (Älvrummet, n.d.).*

where she holds lectures, initiates various activities and meets with different people.

Social challenges at Kanalторget

Brylde says that the area has been a site where social challenges have existed for a long time, but she tells me about a peak during 2015. There was a large amount of refugees seeking asylum then, mainly due to the continuous Syrian war. She experienced a sudden concentration of young immigrant boys and men around Älvrummet with a lot of people circulating. Many of the men were Afghan refugees with no home. She often interacted with them, but some employees and visitors around the square started to feel insecure, and sometimes threatened, to the degree they avoided places and took detours. She remembers that there was more frequent incidents of violence, hold ups and drug dealing. Rivaling groups on site sometimes started arguments and at the beginning of every workday Brylde recalls taking a tour around the building, that had a double layered facade, to recover various homemade weapons and pikes that had been hidden there during the day.

Initial responses & a pilot project

The police started making rounds to check Kanalторget, Torsten Henrikssons walking bridge and the area behind Nordstan. Brylde says that the escalating situation resulted in a LOV 3 permit (Lagen om Ordningsvakt) where the guardians (väktare) on site who handle material things were supported by security guards (säkerhetsvakter) who handle people related incidents. The staff at Älvrummet was, already since earlier, carrying security alarms and some time before the public toilet was shut down due to security and safety issues. To try and avert the violence and security issues a larger collective action was initiated. It was a pilot project to enhance safety on site through a collaboration between the Police, municipal offices such as the Social resources administration (Social resursförvaltning, SRF), PoNF, SBK, the Traffic administration (Trafikkontoret), the Real estate office (Fastighetskontoret) and Kultur i Centrum with Business Region Göteborg AB, Göteborg & Co and Brylde were to participate from Älvstranden Utveckling AB. Together they formed a sort of social task force that met about once a month to discuss the current situation and take decisions for immediate action to resolve an "explo-

sive situation”. Brylde explains that they were to work with different approaches and responses to address the issue without making the space less inviting by removing seating etc. outside Älvrummet. They wanted to fill Kanaltorget with activity and more people. As a person who was very familiar with the site, the people and the challenges, Brylde says she got a key position in the task force.

Actions & activities

To face the social challenges through activities, Brylde received the authorization to issue permits for activities and initiatives on site. She explains that the goal was that activity – dance, music, parkour, sports etc. would help activate the square, build security and attract more people so that the atmosphere would be less violent and threatening. Brylde says that the Traffic office put up lighting on site, installed a boule court and a space for parkour. During the summer of 2017 they received money from Älvstranden Utveckling and other departments to fund activities. There were linedancing, security walks, handball/netball club activities for two months, a photo club advertised through social media, military fitness events and flea markets. A music event during two weeks was set up by Brylde and a local DJ who sound engineered the event. Musical interactions with the young men started to happen, with spontaneous dance and people wishing for certain songs, and people from all over Gothenburg participated. Permits for food trucks, an icecream truck and a coffee trailer were prolonged. Brylde talks warmly about these activities, and seems passionate about it. The pilot project was described as the ‘Gothenburg method’ and Brylde says Lotta Rosander (SRF) & Helena Ramsmo (former superintendent at the Gothenburg police) got to present the work for a socially sustainable environment to the Crime Prevention Counsel (BRÅ). The same method was later introduced in the work with Nordstan shopping mall, but at this point Brylde tells me that she was not included in the work and that she changed employer. But she stresses the need for an enthusiast to coordinate and execute this kind of social action.

Appendix 2D - Interview IV

190220

A meeting with Vladimir Rizev, at Nordstan Association office

Developer at Nordstan Association with responsibilities for future plans & building development

The Nordstan Association office is situated inside the Nordstan shopping mall, a couple of floors up. Its entrance is next to the big pharmacy. It is very busy in the mall and it feels strange to divert from the crowds and walk into a quiet stairwell to the office instead of to a store. I wait for a while in the lobby, there is a large photo book called 'Perspektiv på Göteborg' on the coffee table. It is about historic Gothenburg and its development. I find old photos of Kanaltorget, but it never really looks like a square, rather an intersection. Rizev meets me and invites me into a conference room with a long table and a projector that he gets running. We are going to talk about the future plans for Nordstan and the parking garage facing Kanaltorget.

Nordstan parking garage

Rizev gives me some background information on the building and the development plans in the area. The garage houses 2700 parking lots on nine floors at the moment servicing the mall, the offices and the surroundings. They are not fully occupied at most times and the association is looking into future redevelopment of the building. An issue in general with development of the parking garage, he argues, is the low height of the floors – only 2,40 meters. One solution could be to merge the three bottom floors into two and gain volume to introduce new programs. In the basement he describes a small city with "miljörum" and logistics. Rizev states that no decisions have been made about the future of the garage building, and all plans are very much in a discussion phase. For Nordstan the access to the parking garage is one key question for the future. The ramp to the first floor is a re-occurring issue in the plans for the area in front where building blocks have been investigated. Rizev argues that traffic separation where cars are elevated instead of pedestrians is reasonable, and claims it is important for them that it is a good solution for the building as well as for the public space outside. Another option could be to locate the car entry/exit on the northwest facade on groundfloor with indoor ramping.

Västlänken exit

The underground public transport link is under development, and Rizev talks about different locations for its western exit adjacent to the garage building. One option is to make a building addition to the garage and incorporate the new station exit there. Hotel rooms could be a way to exploit an added building mass, he speculates, and says it would be a quite long and narrow volume of maybe four stories in top of the station exit to fit the plot.

The future

Visions of rooftop development have also been discussed, but remains undecided. One idea would be to create a small city on the roof, as in the basement, but involving housing units or public programs such as a cinema, or both. But again, he says it is discussions and nothing is decided. When I ask what he thinks about the future for malls in general in the face of web retail and sustainability challenges, Rizev speculates that stores in malls might change into exhibiting spaces for clothes provided with dressingrooms where people can try on clothes in order to then buy them from a web shop, maybe even on-demand. This could also be a place for returning clothes that customers do not want to keep. He envisions pop-up shops with smaller businesses surrounding a potential anchor stakeholder like a big chain like a furniture reseller or similar. What the future of the mall is, only time will tell.

Appendix 2E - Interview V

190307

A meeting with Rolf Allan Håkanson at his office at Lorensbergsteatern

Scenographer & co-owner of the private theater behind the City Library – Lorensbergsteatern, that celebrated 100 years in 2016

On the back of the theater is a small anonymous door with an intercom. I press some buttons and wait for a voice. A voice asks for my purpose and lets me in, and another voice calls for me to come up the stairs. A winding stairway leads up to a curved corridor behind the stage area. Håkanson greets me and takes me towards his office. The area behind stage feels smaller on the inside than it looks on the outside. I take a seat in the rather long but creatively filled up office. There are binders, folders, models, posters, drawings and books everywhere. I take a seat by one of the two desks. We drink some water, and I gather my thoughts to try and explain why I am here. I ask about the relation between scenography and architecture, for parallels between public space and the theater and his relation to the audience.

Layers of the invisible scenography

Håkanson sees the scenography as part of the build up of the characters on stage and a support for the performers. It should give an ambience, a feeling about the play, without taking over the story. We discuss layers in scenography, from the more obvious and direct aspects to more subtle information about the characters and the plot. He argues the scenography should be invisible, but that does not mean it should be empty. On the contrary Håkanson marks anything in the script that carries information about the site or physical objects that could help build it up and then fills his scenographies with lots of artefacts helping him to set the time period, the atmosphere and the character. He often finds his inspiration in the real world, with everyday objects, furniture and spaces. There is a literal feeling to his scenic works, rather like a photography from somewhere or close to a movie scenography. But he also talks about choosing the limits of your “frame”, being “credible enough” and leaving things out.

Scale & odd angles

The scale is an important factor for Håkanson, where the proportions of the scenography must correspond to the real scale of that object, unless there is a point that it does not. Working with the vertical space is another aspect that he has used to create a dynamic to the set and for the performers to use. He enjoys odd angles and niches that might find a purpose after being put in place, or might help solve or hide constructive aspects of the scenography.

Building cooperation

The cooperation with the writer/director, often the same person in his experience, are key in the beginning, when defining the space and finding a site or building a stage set. To that cooperation stage technicians, builders and performers are then added. He enjoys the interaction with the technicians and stage builders and states that a good cooperation with motivated and engaged builders is of great importance.

The audience's points of reference

In relation to the spectators Håkanson says he enjoys interaction. But he states that he has mainly worked with the aspect of recognition, where the audience can find familiar points of reference, rather than integrating the spectators in the scenography in an immersive way.

Appendix 2F - Interview VI

190318

A meeting with Åsa Jansson, at the Gothenburg Opera canteen

Head of the Technical Dept. at the Gothenburg Opera & responsible for the maintenance & development of the facilities

Jansson meets me at the staff entrance on the west side of the Opera, after I have walked around in the windy area outside for a while looking for the right door. People waiting carry instruments and some are engaged in lively conversations with the reception staff. I sign in and get a visitor's card in order to be allowed inside. Me and Jansson head for the canteen to have a meeting over lunch. There are a lot of people in groups eating and talking in the canteen. I present myself a bit more and what I am trying to do in my thesis, and Jansson tells me about her job as head of the real estate, manufacturing and scenic machinery as well as her role in the opera organization. And we sit down.

The Opera

We start to talk about how this meeting can be useful in the work with my thesis. And Jansson provides me with background information about the Opera. The building was inaugurated in 1994 and was designed by architect Jan Izikowitz. They also have a branch in Skövde with another opera stage. The Opera is run and financed by the Västra Götaland Region (VGR) but the building in Gothenburg is rented from the municipality. Their activities are guided by 'Vision Västra Götaland – det goda livet' which is VGR's and the 49 municipalities common vision stating that culture is important for the wellbeing of a society. The Opera's mission is both local, regional, national and international and they are supposed to provide opera, dance and musical relevant to a broad audience of old and young with different backgrounds. Their events range from operas and musicals to dance performances and concerts, and the restaurant is also part of their public functions. The artistic leader colors the operations a lot and should provide both a broad and narrow selection of artistic works. Except for this the opera houses ateliers and workshops for fabrication of decors, props and costumes as well as other servicing functions for their creative work. And of course the big stage, which is the heart of their operations.

The Opera & the city

The house is supposed to be accessible to the public and Jansson argues that they strive to be an open and welcoming organization. In relation to the city she says there is a balance between being inviting and being exclusive. Through Södra Älvstrandens Näringssliv, which the Opera is part of, Jansson states that questions regarding infrastructure, perception of safety in the area as well as orientation are being discussed which relates to their perceived openness. The openness of their activities is manifested for example in one of their operational legs, 'SKAPA', through which they aim to work inclusively with new opera material to reach audiences who rarely visits the this kind of establishment. Through this they have amongst other events set up 'The river of light' torch manifestation with an international choir in a collaboration with the Red Cross and put up shows with soloists of different function variations.

The future of the Opera

The Opera is cramped and the guidelines for their activities have changed after 25 years in the building. It is in need of more space, for example a smaller stage for experimental and modern scenic works servicing an audience of 350-500 spectators. Since the plan for an extension of the building has not passed the city council these discussions are put on hold. But when Jansson can dream freely about the future she talks about a strengthened relation to the city life maybe with an outdoor stage. She mentions the London Royal Opera in Covent Garden and finds inspiration in how its foyer works as a smaller venue and a meeting place. People come to eat and socialize both in relation to plays and at other hours.

Appendix 2G - Interview VII

190412

A meeting with Lars-Åke Thessman, at the Gothenburg Opera canteen

Scenographer active in opera set design educated in furniture design at HDK, Gothenburg & in Scenography at the Dramatic Institute, Stockholm

Once more I am at the staff entrance to the Opera, this time I am waiting for the scenographer, Lars-Åke Thessman to meet me. A tall man in his 70's greets me and we walk to the canteen where he offers me a cup of tea. Who am I and why am I here? We start a conversation about our backgrounds, education choices, ambitions and views of the world. It is surprising how much we have in common, both in experiences and in our ways of thinking. Thessman talks about how culture is the foundation for building a good society, and how he has seen the Swedish society move in a direction of administration, bureaucracy and public relations. He claims there is a need for a fertile soil for culture to grow out of. Something that he misses a lot in the contemporary Swedish cultural context, where the ever important aspect of financing tends to be eaten up by the theater's organization rather than to support the cultural process.

Scenography vs. architecture

I ask what relation he sees between scenography and architecture. His book on scenography is written with plenty of architectural references and vocabulary, and I am curious about what links he can see. He seems to be a person who looks into many different artistic fields for inspiration, knowledge and references for his work; architecture, art and not least music. But also history. That they relate and have connections is not at all questioned. A reference that he brings up is Leonardo DaVinci, who dug into numerous seemingly different fields. He revolutionized areas ranging from anatomy, science & engineering to the arts through his way of moving across these disciplines. Today's human society has a complexity, and Thessman puts his finger on this complexity where one field of expertise can rarely comprehend or respond to all aspects of an issue. We continue to the aspect of time which he sees as an important distinguishment, that a scenography is temporary and architecture has a much longer timespan.

Space & time

This relation between time and space reoccurs in our conversation, and is also reflected in the title of his book 'Time here becomes space - scenography'. The scenography is a moment in time, that disappears when the show is over and the audience has left. It only remains in the minds of those who shared that moment in time and space. Thessman stresses that on stage you might have only one minute to frame something with the space. This means it is of great importance what is communicated in that scene - every object carries meaning in order not to distract from the story. The longer the scene, the more details are possible to integrate in the scenery. He also talks about a scenography of layers, a direct and easy to access layer, but also layers of references and a deepened understanding that sink in over time. We also talk about how there has been a movement away from the physical experience of space, in digitalization, image driven experiences and social media. Thessman sees examples of this further back, for example to the conversion from foot to the metric system where the former took its origin in the dimensions of the body and the latter had been abstracted. I ponder whether public space always shows the same empathy for the human body as scenographies regarding scale sensitivity, visual focus, direction of light, the planned action space or experience of the urban soundscape. Thessman further relates to the time and space perspective in architecture by the rhythms that it directs people to and the time it takes to get from point A to point B depending on the planned distances. But the often long lifespan of architecture and the temporality of the theatrical scenography, which is here and now according to Thessman, drives them apart.

Public space - a theater?

The temporality vs. permanence brings questions regarding the meticulous planning and care that the scenographers take of the minutes and hours that their scenographies live, studying every scene. Public space, addressing more people and having a very long lifespan, should be even more meticulous since its consequences are much more far-reaching. I ponder whether public space always shows the same empathy for the human body regarding visual focus, direction of light, the planned action space or experience of the urban soundscape. I ask if Thessman can see a relation between public space and the theater, in terms of spatiality, time or discourses. The connections he sees to public space are

for example the directed movements and sequences that architecture suggests. We talk about the staircase up towards the old entrance to Konstmuseet, how it was supposed to take time to approach this elevated and heavy institution for art (I recall that the bricks of the facade were made smaller to give an illusion of a larger building). He mentions churches that in a similar way were made to frame a religious narrative and to remind the congregation of the smallness of the single person and the greatness of God. The whole building is there to tell and enforce the biblical message. We also touch upon the narratives a public space allows for, commercial, collective or personal. In relation to the literary character, the scenographer is also responsible for bringing to life their fictive universe. Thessman talks about a character in 'Shout across the river' ('Skriv för livet') where a great uncertainty within the main character, and a feeling of being unseen, pushes her to leave imprints in the form of for example graffiti. She questions whether she is really part of society or not. Her spatial traces gradually fill the scenography, in a way that Thessman describes as dissolving the border between public and private. One could argue that graffiti in the urban space is a sign of people who want to reclaim a space they do not feel like they are a part of, and make it theirs.

Roles & collaborations

Thessman dives into the collaborations of the process of a scenic endeavor. After he has read the text his work together with the director starts, defining and drawing up the dramatic vision. Models are produced and when the final iteration is made it is being presented to the larger workgroup. From here on he works closely with stage technicians, light designers, acoustics engineers, safety consultants etc. But also with the performers with whom he likes to engage closely. In theater, he sees the scenographer as the link between the performer and the spectator, the one who sees the performance from the point of view of the audience and helps to guide the performer's actions together with the director. Thessman puts a lot of effort into preparing the performers to what they can expect when they enter the scenography and security and comfort are important factors. Maybe this is similar to the way the architect tries to relate to and care for the user of the public space. I consider whether this preparation and empathy for the end-user is something that the architects are allowed to work with as extensively as scenographers might.

A meeting with Ulla Kassius, at a café on the Central station in Gothenburg

Scenographer with a long history of work with for example the Backa Theater in Gothenburg.

I have booked a meeting with Kassius via email, and she has agreed to meet me after a work visit in Gothenburg before returning to Stockholm. She has texted me that she will be at a coffee place wearing an orange jacket at 17 o'clock. I texted back that I would wear a hat. I spot her in a sofa with her laptop. There is a lot of noise in the arrival hall where the café is, so she proposes to transfer to a quieter place. We find a spot and start a conversation about scenography and the possible links to architecture.

Scenography & time

Kassius is an energetic woman, she talks in an initiated and passionate manner about scenography. Scenography to her differs from let's say an exhibition or a staging in a shopping window. She argues the scenography carries a history, that the latter two lacks, that also architecture lacks. They also have an inversed relation to the spectator, who is the one moving while the "play" is fixed. Further more there is not a transformation as in scenography. Kassius argues that scenography is closely connected to time, that it has a time axis with the narrative unfolding. In a more literal way time specific props and objects give a notion of when the play occurs, but it is the costume of the actor that finally decides what time the spectator perceives the story to be set in. This might provide a dramatic glitch with anachronisms bringing relevance or making the content resonate with a contemporary audience. We joke about if a public space where 18th century buildings or squares would subsequently have people come dressed in historical clothing. But time is layered, in scenography as in architecture.

A striptease & a tool box

The story can be conveyed with or without words or text, but there is always a time axis and a performer in a space. To take the narrative forward Kassius mentions a tool box that she uses, made up of different instruments like in an orchestra. It consists of light, sound, imagery, text, movement etc. composing harmonies, pauses and crescendos. She seldom

uses all at once, stating that if a morning scene is conveyed both through a bleak light, the sound of an alarm, the actor in pyjamas and a big bed on stage you leave nothing for the audience to add, the work becomes closed. Kassius wants to open up for their imagination and wake them up. She calls herself obsessed with the interaction with the audience, to provide a new experience and something they can react to. And all of them will give different testimonies as to what they have experienced, and like that they become co-creators of the narrative in a way, building and completing the images within them. Or even through physical participation as in the end of the play 'Utopia', where one actor took a paving stone and put it on stage, then another, and another and the audience helped create some kind of collective experience, a sense of community. (Which was criticized in some reviews as political, hippie romanticization of the collective.) But it would be interesting to hear what spectators thought of this experience. And what is not seen is equally important as what you do see for Kassius. She talks about a spatial striptease, where what is only hinted or suggested and gradually revealed provides the tension. In one play the move was to surprise the audience, the whole theater space was to give the atmosphere of a cityscape that they walked in to. By putting an industrial container by the entrance, blocking the view of their seats, their expectations of the experience were reset.

The unintended show

In scenography the challenge is to plan ahead, to study viewpoints and organize. But Kassius is fascinated by how public space is anecdoted by people in a rough way, like what is referred to as Emotrappan (a staircase in Nordstan mall where subculture youngsters hang out), to which people come from far and near to meet. They have created their own space. I bring up the public toilet at Kanaltorget that turned into a drug kiosk according to another interviewee, as a more extreme example of unintended use linked to what authorities might fear when talking about letting people anecdote places. Unintended combinations is another of Kassius' observations, and she is intrigued by the effect when people using sprigs to avoid slipping on ice, when entering another stage, for example glossy mall floors, in fact suddenly experience the opposite effect. There is almost a comedic touch to it.

Rhythm & the physical experience of space

The length and size of the stage or performance place helps create the rhythm for the play – like streetscapes have a rhythm and incites a tempo. Kassius talks about obstacles on the way influencing the pace, traffic, an object or a wall, causing or directing the bypasser to move a certain way in a specific tempo. The paving, as well as footwear, matters for the physical experience and accessibility of a place, what happens if you are barefoot on a gravel path for example or on a city street? To use the stage as a platform for directing a body to experience or explore space can be exemplified by introducing fan winds, sloping planes, travelator or simply the placing of a door or an object. Physical objects conditions the space. In another of Kassius' works at the Backa Theater one way of imposing a spatial problem was to cover the stage with rocks, this causing the different actors to have to respond, provided with a choice on how to act. Either walking very carefully, maybe touching the rocks to feel their way, or dare to explore them or to remove high heels or in other ways approach the setting. What she puts on stage becomes a direction of its own in a way.

Power, a distorted perspective & to be seen

Translating the notion of direction to public space we question whether its scenographer, the architect, should actually direct the inhabitants. It becomes a question of power. We talk about the different stages on a theater. The old horse shoe Operas for example, where it was equally important to be seen as to see, if not more. And being a place to be seen, we agree, is arguably a huge part of what the public space is about too. To portray what is commonly called the culture of a place. But what is being shown is also linked to power. Kassius talks about the image that a city might want to transmit in order to attract business, where the city's culture, architecture and public spaces become selling points. The power imposed through architecture is equally fascinating as terrifying and Kassius and I talk about Pinochet and the coup in Chile and how the stadium, a venue for sports, became an arena for power. How it turned into an abusive performance place to incite fear. And we spin on and talk about architecture on a psychological level, and how fascists and nazis, through architects like Albert Spier, wanted to impose subordination on the people calculating their emotional response to sequences of spaces, or

scenographies of power if you will. But returning to the stage Kassius, in her theatric context, sees her kind of spatial direction as giving the performer a choice in how to respond to a spatial obstacle – to inspire their interpretations, working with what feels natural, safe or challenging in a space.

The empty space

She talks about her inspirations and the magic in Peter Brooks' version of Carmen set in a circus like arena with only sand on the floor – the empty space. She says nothing is more powerful than the actor coming out to this empty space with which to interact. And there is a long history of the empty scenic space, starting from the greek theater being filled only with the masked actors, possible props and the choir bringing the story forward. The architecture itself provided the setting. Kassius says it was similar for Shakespeare's plays where the setting was not built up, only costumes as well as the occasional skull. The actors carried out the act within the, often confined spaces of the theater, with the Romeo and Juliet balcony being a result of acting with the height difference between the theater balconies.

And time is up. Her train is at the platform, and we finish up. I wave her goodbye and she wishes me good luck. Thank you!

Appendix 3A - Theater & performer



Scenic work and the performer

*'Bosch Dreams' by Les 7 Doigts + Republique, Stora Teatern, Gothenburg, 2019
Direction by Samuel Têtreault & scenography by Ange Potier*



Scenic work and the performer

*'Om Tyranni' inspired by Timothy Snyder, Stadsteatern, 2018-19
Direction by Caronlina Frände & scenography by Carolina Frände, Karl Svensson
& Tora Kirchmeier*

Appendix 3B - Exhibition & performer



Photo: Riksarkivet Göteborg



Movie stills: Lars Ulvenstam

Exhibition and the performer

Där ingen ska bo (Where no one will live)

Riksarkivet + HDK, Gothenburg

Background

“A group of participants of eleven archive users and a class of design students have together created the exposition “Där ingen ska bo”. Starting from the movie “Dom spränger i min stad i mitt hjärta”, a depiction of the life in Östra Nordstan facing massive demolition during the 1960s, the group of participants has chosen traces and events to research further.”

(Riksarkivet, 2019)

Appendix 3C - Exhibition & performer



Exhibition and the performer

Unmaking democratic design: Fredrik Paulsen

Röhsska Museum, Gothenburg

Background

“The Röhsska Museum commissioned Fredrik Paulsen to interpret the notion of Democratic Design. He chose to design a chair for the purpose. This exhibition invites visitors to make their own chairs and to reflect on various aspects of democratic design.”

(Röhsska Museum, 2019)



Scenic work

*'Ringaren i Notre Dame' after Victor Hugo, adaptation & music by Disney, Gothenburg
Opera in collaboration with Fredericia Teater, Denmark, 2018-19
Direction by Thomas Agerholm, scenography/light design by Benjamin la Cour & video
design by Thomas Agerholm, Benjamin la Cour & Jakob Bønsdorff Eriksen*



Scenic work

*'Flickan med svavelstickorna' after HC Andersen, open rehearsal, Backa Teater, 2019
Direction by Rikard Lekander & scenography by Kajsa Hilton-Brown*

Appendix 4B - Exhibition & spectator



Exhibition

Human nature

Museum of World Culture, Gothenburg

Background

“The Museum of World Culture in Gothenburg will be filled with both messages of big threats, and messages with strong hope. Based on objects from the vast collections of the Museums of World Culture, as well as several ongoing scientific projects, the exhibition takes on the most burning question of our time.”

(Museum of World Culture, 2019)

Appendix 4C - Exhibition & spectator



Exhibition

Here – Phoebe Boswell

Konsthall, Gothenburg

Background

“Boswell’s multidisciplinary art practice is anchored to a restless state of diasporic consciousness and engages in questions of collective memory, personal identity and what it means to be “home”. She creates layered, deeply immersive multimedia installations which center and amplify histories that – like her own – are often systemically marginalized.”

(Göteborgs Konsthall, 2019)

