

AALBORG UNIVERSITY

The Jevons Paradox in Urbanization and its Counter Movements

The Value of Common and Green Urban Spaces in Respect of the Corona Crisis



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The front picture is drawn inspired by the contrast between idealized western living standards and the accessibility to realize such standards on a global scale. While affluent European countries still grow in their resource and space consumption, privatization and capital accumulation are essentially exploiting the earth' eco-capacity. The corona pandemic increasingly emphasizes solidarity, while the slogan 'stay home' thereby gains a sarcastic ambiguity regarding housing inequalities and the simultaneous situations of refugees in overcrowded camps (*own depiction by the author*).

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Abstract

Urbanization is a global phenomenon. As cities are dependent on a high amount of eco-system support, urban growth and accompanied loss of land, together with the high resource consumption of urban lifestyles, severely threaten the earth' eco-capacity. Despite already high living standards in affluent European countries, further growth is noted especially for economically strong regions. On basis of the ontology of the laminated totality, this thesis investigates on the relation of urbanization, economic growth and ecological consequences resulting from it on a macro perspective. Further engaged in urban planning sufficiency perspectives by the concept of urban green commons, the interrelation of top-down and bottom-up movements is evaluated in their potential to enhance ecological awareness and a reconnection of human society and nature. As the perception of urban space is greatly impacted by the sudden rise of the corona crisis, the learnings of this crisis for urban planners are of special interest in this paper; supported by literature review, document analysis, statistical European data as well as qualitative interviews. Overall, the role of accessible, shared and green urban spaces is crucial for future urban planning, while this finding is underlined by the ongoing pandemic. Urban green commons thereby support community building and ecological learning and with that, the resilience of urban society for future crisis.

Preface

This Master thesis was written in the study program Urban, Energy & Environmental Planning within the specialisation Cities & Sustainability at Aalborg University in spring 2020.

Housing is an essential social experience of living prospects. As urban lifestyles are often recognized to fail in their connection to the natural environment, this thesis finds its motivation in inviting the readers to imagine a different story for the city than the one told in favour of market interests and capital accumulations.

I myself have been growing up in a society of steady economic growth and, as part of a German middle class family, increasing access to goods, services and mobility. Facing climate crisis, this form of affluent lifestyle seems not only impossible to be carried into the future, but moreover inequitable on a global and inter-generational scale. Thus, the degrowth paradigm, posing an alternative approach to the current market oriented system, inspired my thesis with its counter position to contemporary growth dominance, inviting different perspectives. While sufficiency and individual reductions are often connoted to limitations, this thesis is further influenced by Ivan Illich's concept of conviviality and the willingness of people to participate. Together, this thesis investigates these concepts within the setting of urbanization.

The unexpected and exponential spread of the corona crisis – disregarded in the end of 2019 – developed simultaneously with this thesis in January before resulting in a pandemic in the following months, provoking sharp societal reactions worldwide. Strongly interrupted, the previous societal 'normality' in economical, social, as well as ecological dimensions changed and with that, populations habits and perceptions. Hence, the exceptional circumstances influenced the progress of this work, asking to further continue my effort in a story of a future city in respect of the corona crisis.

Acknowledgements

I want to thank my supervisor Rasmus Nedergård Steffansen for staying available and supporting my work with theoretical input even during the busy times of home-office. Special thanks go to my interview partners Jin Xue, Ekhart Hahn, Ragnhild Sørensen and Andreas Schütz for providing insights into their professional as well as personal observations of the corona crisis in an urban context. Further, I thank my Mum for reviewing the very first – and definitely confusing – versions of this thesis.

One notable aspect of the corona crisis is its various dimensions of experiences, effecting private and professional life besides social and cultural activities. In regards of the intense time of quarantine and lock-down, a big 'thank you' goes to my roommate Monika Reddemann and our joint roller coaster experience of handling studying, working and living situations.

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List of Abbreviations

FFF Fridays for Future. 51, 54, 55, 78, 79

GDP Gross domestic product. 3, 18, 19, 22, 36, 37, 59

OECD Organisation for Economic Co-operation and Development. 20, 36

UGC Urban green common. 25, 26, 43, 45, 61, 63

WHO World Health Organisation. 29, 47

1 | Introduction

Most of us reading this live in cities, while about almost all have already lived in a city. We work in cities, we go to cities for shopping and sightseeing attractions, for universities, lectures, theaters. We visit cities, searching for a parking lot with the car, catching the train last minute or wait to finally get some air after a stuffed metro ride. We get the sense of a place, its atmosphere: the intensity of urban movement, growing with the size and publicity of the city. Full squares and the constant noise of motors, a compilation of voices in a crowded cafe and the laughter of children playing in the park.

The change that urban space undergoes with the corona crisis is significant: our previous perception finds itself replaced by empty squares. Warning tape gets familiar in busses and on playgrounds, the sidewalk becomes a slalom course. We cringe when hearing a gentle cough. We increasingly think about soap and disinfection, about who already touched what. We withdraw into our private space, thankful for every more square meter it offers us, while only leaving the house for grocery shopping or a walk in the park. If there is a park. If we are still allowed to enter it.

Talking increasingly about solidarity, the virus severely underlines the inequalities of our system. While private land allows recreation in the hinterlands for some, restrictions on public spaces and free movement are embracing others not only physically, but psychologically. At the same time, we also notice a growing relevance of neighborhood support. We feel the helpfulness of strong communities and realise the growing importance of local products and services.

There is an unpredictable outcome of this crisis in economic, social, and environmental dimensions. Simultaneously, we note an extreme drought in Europe and one of the warmest springs since weather records began, posing a great challenge for this years agriculture and the increasing risk of forest fires (Rosenberger 2020) – a tender reminder of climate change.

As this thesis is written in times of a crisis, the investigation on the perception of shared urban spaces becomes directly influenced by the sudden change of societal restrictions. Not only possibilities but also perceptions change together with urban life. Correlating, the approach of this thesis adapted to the current situation, dedicated to the following brought question:

How much [space] do we have and how much [space] do we want to share?

2 | Problem Formulation

Urban Growth and Urbanization

Cities (and related urban regions) are “*large spatial concentrations of dwellings, other buildings, and infrastructure*” (Næss et al. 2019, p.2). Cities offer housing, bring access to work, health, education, culture and sport, as well as leisure facilities. All together, they offer a strong societal network and with that, may also generate communities (United Nations 2015).

While the term ‘urban transition’ refers to the shift from rural population moving to urban areas, ‘urbanization’ is referring to the growing share of population living in urban settlements. Latter can also be influenced by population growth (McGranahan 2015). Along with Urbanization, ‘household explosion’ can be noted as a global phenomenon. Structural changes such as more small households, urban lifestyles and gender equality increase the popularity of one- or two-person households (Vestbro 2013). In addition to growing living standards, this puts a heavy burden on the existing urban infrastructure, demanding a growing number of square meters for housing.

Economic Growth & Planetary Boundaries

There is general consensus regarding the building sector as one of the most important contributors to environmental impacts in Europe. Generating an enormous flow of material, the building (and infrastructure) sector is consuming scarce resources while also counting responsible for a large share of the total European energy consumption (Schneider et al. 2013). According to Ruuska (2013), European buildings account for about 40% of societal energy consumption, significantly contributing to greenhouse gas emissions. Further along go the loss of land, related loss of farmland and/or habitat for species, traffic generated due to housing location and the additional problem of waste generation – especially toxic matters from building industry (Næss et al. 2019).

Contemporary economic growth is strongly associated with growth in dwellings and construction, including higher housing standards, general standards of buildings (in form of technical performance and floor space) and an increase in their availability as well as individuals purchase power. Accordingly, the building sector is representing a major sector of the European economy (Schneider et al. 2013). However, materialistic growth is accompanied by undesirable ecological traces – in the building sector, these can be summarized by ‘construction impacts’ and

'operational impacts'. In order to improve eco-efficiency in this sector, negative environmental impacts in terms of construction and use of buildings and infrastructure need to be reduced (Næss et al. 2019).

The vision of decoupling economic growth from negative environmental impacts is carried by the belief in ecological modernization and eco-efficiency improvements, implying that growth in GDP and environmental degradation are in no direct correlation (furthermore, projecting that the costs for the reduction of environmental impacts by technical innovations is lower in the long-run than the follow-up costs arising by climate change, thus economically viable). However, efficiency improvements have to grow faster than resource demand in order to perform a 'technological fix' (Petschow et al. 2018). Meanwhile, ecological modernization is one of the "*most pronounce examples [...] as a strategy for urban spatial development*" (Næss et al. 2019, p.1) – following the vision of decoupling.

Nevertheless, with an increase of energy efficiency in the household sector during 1990-2009, final energy consumption of households was still increasing due to much faster growing energy consumption. The rise of personal incomes and aim for higher living standards regarding space and domestic appliances offset gained efficiency improvements (Schneider et al. 2013), noting the Jevons Paradox in the building sector.

The Jevons Paradox

The Jevons paradox finds its name in the industrial revolution. With the efficiency improvements of about 50% in energy making by coal industry, the overall consumption of coal could have been expected to decline. However, as William Jevons projected, the very opposite occurred and coal consumption rose roughly by a factor of 2000 (Schneider 2012). The efficiency improvements evolved coal as an even cheaper energy source and thus backfired its incentive.

With the awareness of limits to growth in the built environment due to resource shortages, ecological limits are clearly set, and so is the current path of economic (green) growth, as it currently has its base in material consumption – if decoupling cannot be achieved. Picturing the case of the housing sector Xue (2013) states that "*the economic system's need for continuous capital accumulation and absorbing surplus capital results in urbanization and construction of residential buildings*" (Xue 2013, p.152). This raises the question on how much urbanization is the effect of growth, investment and speculation, or how much is it actually the development of living space?

Urban Planning Perspectives

Urbanization is noted as one of the biggest threats to biodiversity worldwide (European Commission 2018). "*Loss of habitats is a main cause of extinction of species, and habitat loss and fragmentation are to an increasing extent caused by urban development*" (Næss et al. 2019, p.6). As cities account for ecosystem support about 500-1000 times the size of their own area (Colding & Barthel 2012), the prevention of further urbanization of open land is highly important concerning our eco-capacity. Subsequently, the existence of green spaces within cities has

become essential for biodiversity conservation. Including the relevance of citizens to reconnect to local ecosystems, the representation of spaces by its users and inhabitants results in the need of green spaces within the urban area that are inclusive for both, biodiversity and social relations.

Reduction without Regrets

Regarding the needed reduction of built up area per capita for environmental protection, top-down policy regulations of small dwellings trouble individual freedom of choice and are thus likely to meet great opponents, especially in relatively affluent western communities. As explained by Xue, “... *implementing a policy of small dwellings is challenging, not the least in relatively wealthy Western communities. Small dwellings are often seen as lacking adequate quality and as a temporary solution, say for young people in dwelling sizes and smaller floor areas associated with, for example, less flexibility*” (Xue 2013, P.171/172).

However, the concept of sufficiency¹ in the urban planning context is tackling an economical as well as societal transformation in form of behaviour change towards the current growth orientated system. Correlating, Xue continues her observations: “*A dwelling’s quality in terms of livability may depend on how it relates to its surroundings and opportunities in the neighborhood. Urban densification could be better managed with more focus on the quality aspects of dwellings and their surroundings that support perceived living quality. In light of degrowth debates, living in a smaller space should not reduce possibilities for experiencing happiness*” (Xue 2013, P.171/172).

Laying my point of interest on the transition towards a downscaling of built up area per capita by the willingness of the citizens, I consider the term ‘conviviality’ formed by Illich (1973) of great importance. Conviviality refers to the the celebration of the present by using as less as possible, regardless of modern consumption ideology. Further, Illich sees the potential of overcoming the growth paradigm in the investigation of shared projects (Krüger 2019). Formed by users and inhabitants, grassroots participation presents the alternative action within the city’s area and therewith, its transformation potential (Beebeejaun 2016). Acknowledging the importance of participation as well as the relevance of centralized planning for a fair distribution of space (Xue 2019, P.191), this thesis will focus on the two opposite perspectives of citizens (bottom up) and planners (top down).

As this thesis is written in times of a crisis, both perspectives are interrupted by the sudden appearance of societal restrictions – behaviours change in shared urban space, and likely does the perception of it. Developing with the unpredictability of ongoing happenings, the progress of the thesis formed the following research question:

Is the relevance of green and common spaces in affluent European countries influenced by ongoing corona crisis and what can urban planners learn from it to enhance a sufficiency perspective in urbanization?

¹Concerning the building sector, sufficiency is elaborated here as an understanding of basic needs, simplicity and a reduction of scale: together, a reduction of physical input.

3 | Research Design & Methodology

3.1 Research Question and Sub-questions

The following research question is investigated by this thesis:

Is the relevance of green and common spaces in affluent European countries influenced by ongoing corona crisis and what can urban planners learn from it to enhance a sufficiency perspective in urbanization?

In order to answer the research question, three sub-questions are investigated chronologically to lay the base for the discussion:

- 1. How can urbanization be understood in relation to economic growth and resulting concerns of the ecosystem's capacity?*
- 2. What does a sufficiency planning approach contribute to counteract current resource intensive urban lifestyles and how are urban green commons positioned in it?*
- 3. How is the corona virus influencing the perspective of shared urban space?*

3.2 Research Design

Before further elaborating storytelling as research methodology, this section will present the thesis underlying meta-theories and their understanding. Elaborating the position of critical realism and laying a base for including qualitative methods related to hermeneutics – especially relevant for the storytelling approach –, the ontological understanding of the laminated totality will further guide the overall approach of the thesis.

3.2.1 Meta-Theories

Critical Realism

Critical realism is a distinct form of realism. Realism acknowledges that there is a reality parallel to our understanding of it, while critical realism further recognizes the reality of the natural order and complexity of the social world. *"We will only be able to understand—and so change—the social world if we identify the structures at work that generate those events and discourses"* (Bryman 2012, p.29). Thus, critical realism rejects the empirical limitation of knowledge to those of explicit measurement and quantification, criticizing positivism in science. So do multi-mechanism situations portray both, society and nature, underlining their interrelation (Bhaskar 2014). Considering human attitudes, cultural and social circumstances as share of such causal mechanisms, qualitative methods related to hermeneutics are encouraged (Xue 2013).

Laminated Totality

Economy, human society and nature are three unavoidably interrelated elements. Depicting human society as part of the Earth's ecosphere, the ontological position of a laminated totality acknowledges their interaction as being mutually influenced. As illustrated in figure 3.1, nature, society and economy consist of distinctive rules and properties, but are interrelated and further hierarchically structured. With that, I see nature as a necessity of both the existence of human society and the economic system (Xue 2013).

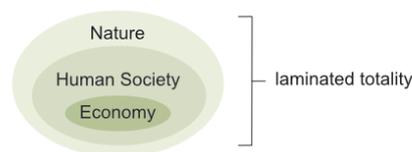


Figure 3.1: Economic, social and ecological dimensions in a laminated totality; *own depiction based on Xue (2013, p.18).*

Deductive Theory

Deductive theory is often found relating to social research. On basis of so far knowledge, a hypothesis and related concepts are deduced. The collection of data in context of this hypothesis precedes the evaluation of their findings (Bryman 2012). In case of this thesis, the deductive approach poses the hypothesis within the first and second sub-questions. Incorporating qualitative data in the third sub-question with unpredictable findings, the hypothesis is set in the unexpectedness of the current situation and opens its findings for explorative supplementation by the help of storytelling as research methodology.

3.2.2 Storytelling as Research Methodology

‘Once Upon a Time’ invites our imagination to infinite possibilities. Stories have always infused human society and captured its mysteries – consisting of symbolism and significance – seeking to elaborate human existence. As stated by Rooney et al. (2016), storytelling can contribute to the investigation on the complexity of human interactions and individual experiences (Rooney et al. 2016, P.147). Further highlighting the power of storytelling, Rice & Mündel (2018) note *"the power of the arts, especially story, to positively influence decision makers in diverse sectors"* (Rice & Mündel 2018, P.211).

Rooney et al. (2016) investigate on storytelling as methodological approach concerning consumer relationship, noting it especially relevant in consumer context in form of involvement, complexity and social dimension. As it will be further elaborated in section 4.7, contemporary urban space is more and more considered as "exchange value" rather than living space; putting citizens in the role of consumers, adjusting their social relations accordingly to the market performance. Thus, I see the methodological approach of storytelling fitting into the urban context, as contemporary consumer relationship between citizens and their city need to be investigated both socially and individually in order to understand urban complexity, citizen involvement, and social dimensions.

In 1893, the German-novelist Gustav Freytag analysed common patterns of narrative structures. Using a pyramid to depict his findings, Freytag names five dramatic elements drawing a story-line, this being exposition, rising action to the climax, and falling action bringing the resolution. Establishing the setting, the ‘exposition’ presents places, characters and historical background. Introducing various problems will lead to complications, straining the curve to a ‘Climax Point’ of final suspense (Harun et al. 2013). Hence, figure 3.2 depicts a storytelling curve as it commonly forms a narrative arc, including exposition, complication, climax, compensation and resolution.

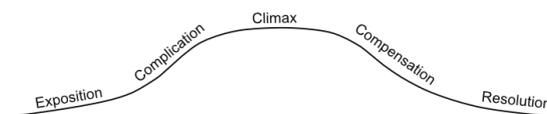


Figure 3.2: Storytelling curve, *own depiction*

Imagining the city in a collective process retrieves the potential to gather daily-life perspectives, individual experiences and urban conditions. Further, Healey (2002) highlights the political dimension connected to it, as she proclaims that *"articulating a conception of ‘city’ in public policy is not so much a work of analysis, but of imagination, of ‘calling up’ the city into consciousness. Only through some kind of collective mental work can ‘the city’ as such become an active force with the power to have an influence, as the mental imagery motivates and shapes what people do"* (Healey 2002, P.1782).

Taking a look on the development of cities, history has clearly shaped their form and function. From the first permanent human settlements, population grew with the discovery of agriculture. Establishing a food surplus, commerce and its networks gained a new importance, growing political power in its surroundings. Obviously, the industrial revolution – resulting in uncontrolled urbanization – carried a major change for cities. One change to be mentioned here is the dispense of the traditional city wall, expanding the city to its surrounding and with that, preventing the dangerous effects of crowding on public health (Pardo & Echavarren 2004).

As stated in an article by Klaus (2020) concerning urban futures during the corona pandemic, "*there are valid reasons to look at historic crises as moments for dramatic urban change*". Without such perceptions, looking out of the window, gazing media images around the globe and experiencing urban life during lock-down is definitely changing the perception of urban space. Investigating on urban commons and Levèbvre's concept of spaces of representation (cf. 4.7) in this thesis, I see the corona virus pandemic and related restrictions on public spaces as an urban story affecting my thesis. With the help of a storytelling methodology, I aim to incorporate the ongoing process of current change into the findings on the Jevons Paradox in urbanization.

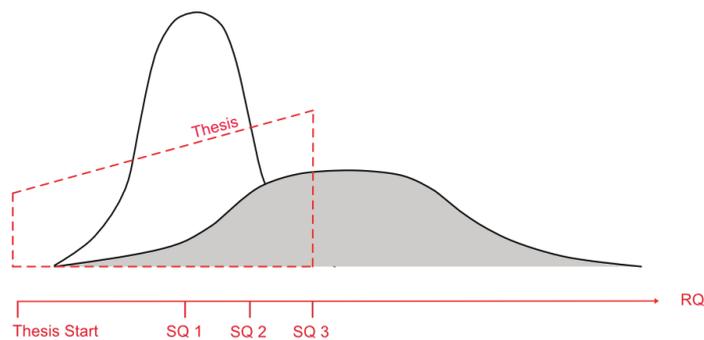


Figure 3.3: The allover represented graphic 'flatten the curve', depicting the strategy to prevent an accelerated outburst scenario of the corona virus in spring 2020, and its overlapping time with the development of this thesis, *own depiction*

Drawing similarities to the storytelling curve, figure 3.3 depicts the commonly spread approach 'flatten the curve'. To reduce the punctual pressure on the health system, the shutdown of every-day life and social distancing shall spread the distribution of the virus, while further giving scientists the time to develop vaccines and treatments (McMurry 2020). Further, the red lines in the graphic present the time-span of this thesis, overlapping utterly with the pandemic.

3.2.3 Research Design Overview

To answer the research question, I investigate on three sub-questions in chronological order during the research process. The first sub-question investigates the interrelations of urbanization, economic growth and ecosystem constraints. The second sub-question discusses the concept of sufficiency in urban planning, highlighting the two different perspectives of planners (top-down) and citizens (bottom-up) in their engagement with urban space. Continuing the story with rising action of infections heavily in Italy and alpine regions, reactions all over Europe drastically limit the social and thus urban life. Social distancing as the new agenda, urban planning is dealing with new challenges concerning density, centralization, and resilience. The third sub-question thus intervenes the topic of the change in urban perceptions during the corona crisis – specifically on focusing shared and public spaces – its risks and potential. This will be done by collecting voices from both, top-down and bottom-up perspective on current situation in form of qualitative interviews.

Figure 3.4 presents the all-over research design, approaching a reconnection of nature and human society within the setting of urbanization – laying its core in the ontological understanding of the laminated totality and investigating its connections in the first two sub-questions, before further incorporating the parallel happenings of the corona crisis.

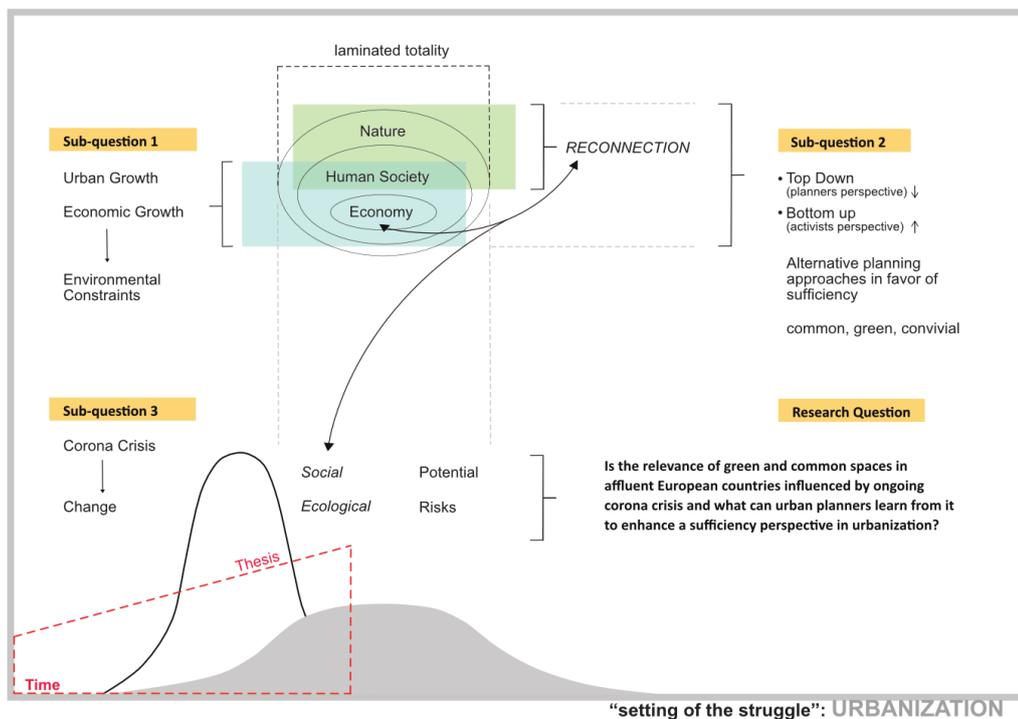


Figure 3.4: Research design

3.3 Limitations of the Research

Addressing the limitations of the thesis is essential to acknowledge the complexity of urban structures and the ongoing uncertainty connected to the present unpredictability of a crisis.

Focusing on the wide topic of urbanization, an overall holistic approach is kept to this thesis. Not scaling down to a specific case, I join the understanding of "*urbanisation [as] a process over which any single city has little influence*" (Samuelsson et al. 2019, P.71), but a phenomenon in an increasingly interconnected and globalized world, supported by international trade, division of labour, mobility, etc.. Therefore, I see the importance of an understanding of wider connections and entanglements in a macro perspective. Taking global inequalities and resulting environmental responsibilities into account, I argue for a sufficiency concept in respect of relatively affluent western communities, limiting my investigations to a European focus.

Informed by the degrowth paradigm, this thesis highlights the need of a sufficiency perspective in urban planning strategies. Evaluating degrowth as an alternative answer to the estimated limits of decoupling, this thesis only briefly elaborates on the growth debate. More regards are given to the term 'conviviality' as an approach to leave modern consumption ideology behind while highlighting the importance of the investigation in shared projects.

Acknowledging the subjective position of myself as the author of this thesis, my personal impressions and experiences likely effect my constraints with the thesis topic and its relevance in consideration of the corona crisis. Since the crisis is disrupting our every-day as well as social life, there are interconnected consequences on several scales, including work related, private and public dimensions.

I am experiencing the corona crisis in Linz, Austria. The reactions in Austria limit the movement in public space strictly to four exemptions of work related commuting, grocery shopping, community support, and walks – exclusively with members from the same household – the 16th of March 2020 (Bundesamt für Gesundheit BAG 2020); soon followed by mandatory use of face masks. Sharply communicated by Austrian politicians, I experience a severe change of the atmosphere in public spaces and an alienate relation of the previously 'normality' of how to use and understanding the public space. Impressed by uncertainty and the constantly present question: Is it it okay to use the urban space, and how?

3.4 Philosophy of Science

The philosophical foundation of this research finds itself within the spectrum of critical realism. Conducting research concerning sustainability approaches – widely recognized to include economic, social and ecological dimensions –, an ontological position on the interplay of these constituent elements needs to be observed. The three elements are unavoidably interrelated to one another, and so are occurring environmental problems (such as climate change and increasing loss of biodiversity) consequences of their interaction. Recognizing this interaction as

being commonly influenced and hierarchically structured, the ontological position of a laminated totality is depicting human society as part of the Earth's ecosphere (Xue 2013). Further, the ontology of a stratified reality is carried by critical realism. In opposition to the positivist perspective of a quantifiable and empirically describable world, I acknowledge the limitations of humanity's knowledge as well as its fallibility (Bhaskar 2014).

As the impacts of a particular causal factor are often of various nature and tangled (Bhaskar 2014), urban systems hold a complexity within themselves – so is the planning approach of urbanistics embracing a holistic perspective: the physical perspective of the building sector, the social societal perspective, and the ecological perspective; fundamentally carried by the whole society. "*Many have to do it – actually, all have to do it*" (Eckardt 2019, Min.10, *free translation*).

Instead of the positivist assumption of predictable casual reaction within the complexity of urban development, I believe in the possibility of several plausible pathways for the same intention. Considering human attitudes, social and cultural factors as part of these causal mechanisms, I seek to tackle the complexity of social reality using qualitative methods related to hermeneutics. Basing my analysis on the experiences and expectations of both the perspectives of top-down and bottom-up movements, I aim to provide an inclusive understanding of the drivers of urban green commons and their potential to provide core tools for sufficiency intended urban planning.

Acknowledging parallel pathways, I aim to present the common intention of a shift in the system towards 'conviviality' within these causal relation and within the movements. The term 'conviviality' is coined by Illich, referring to an "*autonomous and creative intercourse among persons, and the intercourse of persons with their environment*" (Illich 1973, P.12). Here, Illich includes the necessity to recognize natural scales and limits and with that, the society's responsibility to acknowledge limitation. Accordingly, the pathways framed by this thesis aim for a downscaling of built up area per capita in dense urban area and thus a reduction of the privatization of space.

3.5 Methodology applied

The following table (3.1) presents the three sub-questions and applied methods to answer them. Further, this section will elaborate each sub-question in terms of the procedure and methodological approach, critically reflecting its reliability and validity.

Sub-questions	Methods
1. How can urbanization be understood in relation to economic growth and resulting concerns of the ecosystem's capacity?	European statistical data & Literature review
2. What does a sufficiency planning approach contribute to counteract current resource intensive urban lifestyles and how are urban green commons positioned in it?	Document analysis & Literature review
3. How is the corona virus influencing the perspective of shared urban space?	Qualitative interviews

Table 3.1: Relation between sub-questions and methods

3.5.1 How can urbanization be understood in relation to economic growth and resulting concerns of the ecosystem's capacity?

This sub-question is approached in an interplay of statistical data analysis and explaining literature review. The clear language of numbers and their visual layout in graphics allow an insight into statistical trends (in this case mainly related to built-up area) and to further compare different countries. To scope the extensive sub-question, three steps of investigation are applied, focusing first on urbanization in concepts and statistics, second the interrelation of urbanization and economic growth, and third evolving environmental consequences.

While Urbanization is surely not only about built-up area per capita but a complex entanglement of elements, built-up area is regarded as a physical – thus resource depended – dimension, triggered by its investment potential, representing one major conjunction of urbanization, economic growth and environmental consequences. I further acknowledge the extensiveness of the question and with that occurring limitations in its approach.

3.5.2 What does a sufficiency planning approach contribute to counteract current resource intensive urban lifestyles and how are urban green commons positioned in it?

The second sub-question finds its methodological approach in form of a document analysis based on three scripts and complemented by additional literature review. A general evaluation of sufficiency strategies in urban planning precedes the approach of the same from a planners (top-down) and a citizens (bottom-up) perspective. The two perspectives are considered to be important due to their reciprocal fortification ability: supportive services and frameworks enable the common mindset and individual connection to it.

The selection of documents for this analysis was selected with the intent to investigate on a greener and more common urban landscape. I thus acknowledge the focus on the named subject and related limitations of omitted extended contexts outside this scope.

3.5.3 How is the corona virus influencing the perspective of shared urban space?

This sub-question relies on semi-structured interviews. The aim of the interviews is to gain an understanding of different perspectives on the ongoing change in cities, especially regarding shared urban spaces and commons. Building on the division of the previous sub-question, personal insight from first a planners, and second a citizens perspective are collected and explored.

4 | Theoretical Framework

4.1 Urbanization

Cities (and related urban regions) are “*large spatial concentrations of dwellings, other buildings, and infrastructure*” (Næss et al. 2019, p.2). While the term ‘urban transition’ refers to the shift from rural population moving to urban areas, ‘urbanization’ is referring to the growing share of population living in urban settlements. The later can also be influenced by population growth. Further, urbanization can be referring to land use, economic activity, and the spread of urban culture. Despite the try of the United Nations to cluster the character of settlements labeled ‘urban’, there is no common size criteria that defines a city. While as many as 200 households can form a city in Sweden, Mali starts from about 40.000 households onward (McGranahan 2015).

In the following section, I will elaborate on the interrelation of urbanization with the three elements of the laminated totality based on literature review.

4.1.1 Urbanization and Economic Development

According to McGranahan (2015), “*Cross-country data show that higher levels of urbanization are associated with higher per capita incomes*” (McGranahan 2015, p.962), supporting the strong interconnection of urbanization and economic growth. Contemporary urban economic growth is closely related to growth in the volume of dwellings, other buildings, and infrastructure. In the urban economist language, the share of agglomeration facilities, the match of employment and the level of productivity all favor industry and services and thus, urban clustering. Low transport and communication costs are additionally economically beneficial (Næss et al. 2019).

However, the benefits of agglomeration may as well create urban overcrowd and congestion. The creation of economic benefits gives rise to various conflicting private and collective interests in cities, making people in urban areas peculiarly dependent on good governance (i.e. property rights) (McGranahan 2015). So is “*the shift to private property rights (...) so pervasive in cities*

today that institutional scholars regard it is a global phenomenon" (Colding & Barthel 2012, p.157). Rarely surprising, these shifts in property-rights regimes also depict the current land-use dynamics occurring in cities, such as the increase of privately enclosed land. Consequently, "many cities have shown themselves capable of contributing to economic growth despite creating serious social and environmental problems" (McGranahan 2015, p.962).

4.1.2 Urbanization and Social Development

Cities offer housing, bring access to work, health, education, culture and sports as well as leisure facilities. All together, they offer a strong societal network and with that may also generate communities (United Nations 2015). Described as "*loci of cultural diversity par excellence*" (Colding & Barthel 2012, p.157), a fundamental characteristic of a city is the presence of cultural diversity, so called 'diversity of proximity'. Proximity of various groups of people in urban spaces offer social networks and face-to-face relationships, an integral for social life. Further, many other attainments in our society like research institutes, universities, stadiums, hospitals, theaters, libraries and museums are feasible thanks to the formation of a city (Xue 2014).

Along with urbanization, 'household explosion' can be noted as a global phenomenon. Structural changes such as more small households, urban lifestyles and gender equality increase the popularity of one- or two-person households (Vestbro 2013). Additionally to growing living standards, this puts a heavy burden on the existing housing infrastructure, demanding a growing number of square meters - while stimulating economic growth.

Supporting urbanization as a promise of economic growth means to accept the rising inequalities implied by it (Kanbur & Venables 2005). A paragraph in the 'Report of the Special Rapporteur on adequate housing' by UN Human Rights Council, titled as "*Dehumanized housing: from social use to commodity value*" (UN Human Rights Council 2017, p.9), claims the value of housing to not be based on its social use. Instead, investor-owned homes are simply left empty, forming a significant proportion and giving rise to housing speculation. Likewise does the replacement of affordable housing with luxury homes. With that, the public value for private wealth thrives on gentrification, claiming whole neighborhoods and attractive city districts. So become improved services, schools or green walkways and parks mainly benefits for wealthy neighborhoods (UN Human Rights Council 2017). Moreover, noise and air pollution as well as heat islands affect above average the poorer population. Urban governance is often oriented on economic growth and business and thus a central cause of environmental injustice (Sander 2019). As commented by McGranahan (2015), "*in recent centuries, economic development has shifted the principal locus of urban environmental burdens from local to city-regional and eventually toward global scales...*". In different urban centres worldwide, the "*...poorest [...] population in the poorest countries tend to have the worst environmental health conditions in and around their homes*" (McGranahan 2015, p.963).

4.1.3 Urbanization and Ecological Development

Affecting not only economic development and health, education and socialization of the population, urbanization has a strong impact on environmental degradation and the exploitation of natural resources (Li & Ma 2014). Underlining the importance of the environmental justice movement, the wealthiest cities and their population are producing the largest environmental footprints per capita globally, and thus form the biggest contributors to climate change (McGranahan 2015).

Overall, urban areas cover approximately 3% of the earth's terrestrial surface. Despite this small number, about 78% of carbon emissions, 76% industrially used wood and 60% of residential water use is consumed by cities. Furthermore, trade and consumption in favour of urban population affect distant ecosystems – accordingly, cities account for ecosystem support about 500-1000 times the size of their own area (Colding & Barthel 2012). With respect to that, between one-third and one-half of the earth's terrestrial surface has been transformed by human action already in 1997 (Pincetl & Zeman 2012).

Summarizing issues created by urban growth, urbanization goes along with loss of (farm)land, greater air pollution, reduced diversity of species, increased risk of flooding directly linked to the increased runoff of storm-water and excessive removal of native vegetation (Xue 2013). This carries serious negative effects on not only food security, but also for the ecosystem and biodiversity: *"Loss of habitats is a main cause of extinction of species, and habitat loss and fragmentation are to an increasing extent caused by urban development* (Næss et al. 2019, p.6). Notably, this is most severe if the construction happens outside the city, resulting in urban sprawl. As mentioned before, large cities are dependent on ecosystem support and further *"usually over consume resources that overshoot their biological capacity, (...) make[ing] employment of local renewables difficult and hence [are relying] largely on immense quantities of fossil fuels"* (Xue 2014, p.131). Not surprisingly, urbanization is noted as one of the biggest threats to biodiversity worldwide (European Commission & Joint Research Centre 2018).

4.2 The Building Sector

4.2.1 Economic impacts of the Building Sector

As mentioned in section 4.1.1, contemporary urban economic growth is closely related to growth in the volume of dwellings, other buildings and infrastructure (Næss et al. 2019, p.962).

Together, the demand and supply side determine the building sector, underlining the aspects of market performance. Its macroeconomic performance is thereby reflected in such as employment, income and investment. *"Seen from this perspective, ..."*, as noted by Xue (2013), *"...dwellings are viewed as a type of commodity transacted in the market, which contributes to the overall economic growth"* (Xue 2013, p.5). Thereby, the wish for spacious homes allowed

by increased purchasing power is triggering housing demand, as are speculative investments aiming for capital accumulation and profit (Xue 2013, p.4).

Investigating on the relation of economic growth and sustainable housing, Xue (2013) refers with her research to two types of growth: the physical growth of dwellings, and the growth in economic value of the same. Physical type of growth is measured in floor area (visibility, durability and physical persistence), while economic value is represented in the monetary sense and thus directly illustrates its contribution to economic growth. Transferring Xue's observations of the housing stock to the overall building stock, an increase of building stock is the main contributor to increased economic value of itself, and thus directly effecting economic growth (Xue 2013, p.6).

4.2.2 Societal impacts of the Building Sector

Social thinkers and philosophers – such as Henri Lefèbvre and Pierre Bourdieu, to name those referred to in this thesis – have been dealing with theories of (urban) space. In this section, I'll highlight the relations of physical and social space as addressed by Bourdieu (1993).

Materially, space is defined by parameter as dimensions, volume, surfaces, etc. (Bourdieu 1993). This being the physical space provided by the building sector, Bourdieu directly takes reference to human society: Through their body, human position themselves within their surrounding, while further placing social relation bound to them in the space. Humans effect the physical spaces as the spaces effect social interaction – noting this interplay as social space.

Further, Bourdieu notes that power embodies itself within the occupancy of (physical) space (Bourdieu 1993, p.163). Certain goods and with that, their possession, are tied to physical spaces. Thus, more capital allows settlement in specific physical spaces, while less capital finds its position elsewhere. According to Bourdieu, capital in its various forms implies power over space, allowing the appropriation of limited goods. Hence, holding capital allows to rule over space, and further allows to determine the distance (or proximity) towards certain objects or people (Bourdieu 1993, p.164).

Physical possessions can be more or less spacious, "*space consuming*" (Bourdieu 1993, p.161), demonstrating power and influence. Emerging hierarchies not only determine societal order (here, Bourdieu refers to gender-roles and their physical expression in churches or household design (Bourdieu 1993, p.160)), but go as far as to the total exclusion of unpropertied people such as homeless.

On this point I would like to refer to a current urban design phenomenon called defensive or hostile design (Novotny 2020). Concerning benches, curves and additional armrest aim to prevent people from sleeping on it (i.e. in London, L.A., Vienna), spikes on walls prevent the sitting on top – arrangements like this dispel marginal groups and youth from public spaces (Novotny 2020). Accordingly, I consider physical space – and thus the building sector – as crucially interrelated with societal order and contemporary urban patterns.

4.2.3 Environmental impacts of the Building Sector

Regarding environmental impacts in Europe, the building sector is generally seen as one of the main contributors to it. The enormous flow of material, dwellings and infrastructure is consuming limited resources, meanwhile also claiming for a great amount of total European energy consumption (Schneider et al. 2013).

In a life-cycle perspective, the environmental impacts of the building sector can be analysed through its stages, from construction over operation to demolition.

Construction is requiring a substantial amount of environmental resources, such as land, sand, stone, metal, water and energy. Raw materials need to be processed, produced and transported, additionally increasing energy and material input and further discharging pollutants such as gas or waste water (Xue 2013), if not even toxic matters (Næss et al. 2019). Occupied land, sealed surfaces and the density of dwellings strongly influences the landscape and biodiversity. Operation encounters the "*highest share of lifetime energy use*" in the housing sector (Xue 2013, p.7). This is influenced by physical dimensions and mainly involves heating, cooling, and domestic appliances – simultaneously in office and industrial buildings. Transportation is additionally affecting strongly with its impacts, relative to travelling behaviour (distance, frequency and type of transport). Not left aside should be the stage of Demolition, creating a considerable amount of solid waste where only parts can be reused, while the rest is discarded (challenging landfill management) or burnt (generating greenhouse gases) (Xue 2013).

Grouped in three categories (Xue 2013, p.8), major environmental impacts related to the building sector are material consumption, energy consumption & energy related emissions, and land-use & associated impacts.

Regarding the growing number of built up area per capita, I see the ecological impacts of the building sector as important to be considered in the process of urbanization.

4.3 Economic (Green) Growth

This section seeks to elaborate the growth ideology, the acknowledgement of planetary boundaries and the response in form of the green growth paradigm.

With contemporary economy, humans interventions in various ecosystems are so extensive and profound, that drastic and irreversible harm of it can be suspected, carrying disadvantages for future generations and other forms of life (Petschow et al. 2018, p.15). Hence, ecological modernization strategies acknowledge the need of institutional change, while this change shall not necessarily be fundamental, but the pathway of a more sustainable development driven by technological innovation and efficiency of market forces (Næss et al. 2019).

Economic growth is captured as gross domestic product (GDP) by the rate of change in economic output. It provides measurement of the market value concerning services and produced

goods of the economy of a specific region (country or city) per year. However, the measure of GDP does not imply physical resources but market value, so that on a conceptual level, while physical input is reducing, value and services are still able to grow (Hepburn & Bowen 2012). With that, materialistic and non-materialistic growth can be considered differently.

This distinction carries the idea of decoupling. Generally, decoupling aims to maintain economic growth while also reducing environmental impact resulting from it. Investigation in green economy strategies shall generate 'clean' growth in the green sector, claiming less resources (Petschow et al. 2018) – an 'efficiency revolution', generating green growth (Le Monde diplomatique 2015).

However, critiques question the ability of decoupling. Geogescu-Roegen's (1971) basic assumption implies that economic output always depends on energy input (Petschow et al. 2018). According to the second law of thermodynamics, energy-input cannot grow endlessly (implying environmental degradation mechanisms). As a consequence, economy cannot grow endlessly – supporting the position of degrowth proponents (see section 4.5). Likewise, as it is bound to economic growth, the growing resource consumption for the built environment is exhausting ecological limits (Næss et al. 2019). The following statement conclusively underlines the entanglement of economic growth and growth of building stock: "*If there were no population growth, urban population density could not increase unless parts of the built-up areas at the urban fringe were demolished to be replaced with new buildings within the new, narrower urban area demarcation. And if population growth were not accompanied by growth in the building stock, per capita consumption of floor area would have to decline. Moreover, high population growth in affluent European cities is in itself often conditioned on high economic growth, which creates an increased demand for labour power and thus attracts in-migration*" (Næss et al. 2019, p.2-3).

A green growth strategy for the urban version is the compact city model. Development in areas outside the city usually results in more built-up areas than by densification. Further, construction in natural areas particularly result in habitat loss and fragmentation. Arguing that densification alone is not a sufficient urban planning strategy, Næss et al. (2019) highlight the strong association of economic growth with increased housing standards, naming floor space and technical performance. In order to successfully apply ecological modernization strategy to the urban version and to decouple from negative environmental impacts, 'construction impacts' and 'operational impacts' of the building sector need to be reduced.

A central counter argument for the reduction of environmental impacts while up-keeping the growth paradigm and investing in eco-efficiency solutions is the Jevons Paradox. I'll further elaborate it in the following section.

4.4 The Jevons Paradox in Urbanization

The Jevons paradox finds its name in the industrial revolution. With the efficiency improvements of about 50% in energy making by coal industry, the overall consumption of coal could have been expected to decline. However, as William Jevons projected, the very opposite occurred and coal consumption rose roughly by a factor of 2000 (Schneider 2012). The efficiency improvements evolved coal as an even cheaper energy source and thus backfired its incentive. This rebound effect can be of direct or indirect nature. 'Direct' is referring to the increase of the amount of i.e. energy used due increased use of now affordable, electrical appliances, while 'indirect' rebound effects mean the energy savings spend in other sectors, i.e. holiday flights. 'Backfire' describes a rebound that exceeds 100%: an overall increase in energy consumption – confirming Jevons (Sorrell 2009).

As noted by OECD (1998, p.11) and cited by Xue (2013,p.3), *"the number of households, household energy consumption, the ownership of consumer goods, and ownership and use of private cars are all projected to continue growing, and such trends in consumer demand have generally overwhelmed improvements in the efficiency of energy and resource use in the manufacture and use of products."*

The concept of ecological modernization is similar to the hypothesis of the 'Environmental Kuznets Curve' defined within neoclassical environmental economics. Accordingly, growth in affluent societies will improve environmental quality, using the argument that more money can be spent on innovation and environmentally friendly technologies (Næss et al. 2019). In contrast, from 1990-2009, energy efficiency increased by 24% in the European household sector, while final energy consumption increased by approx. 8% parallel, still increasing the demand despite efficiency improvements – portraying a rebound effect in the building sector (Schneider 2012).

Rising living standards due to increasing purchasing power and further pushed by advertisements and investors go along with a rising consumption of domestic appliances and further, and increased amount of square meters used for individual housing (Schneider et al. 2013). Thus, with rising living standards, the same amount of persons require more built environment. This is underlined by an urban settlement study from 1990-2000, observing that urban land cover grew about twice the rate of urban population (McGranahan 2015).

Claiming that efficiency measures mainly promote growth of their sector, Schneider (2012) provokingly argues that *"efficient energy bulbs create a new market for energy bulb production; house insulation create a new boom in housing construction; ecological houses create new urbanization areas and new growth dynamics"* (Schneider 2012, p.5). Comparably, Guastella et al. (2019) argue that driven by agglomeration factors, urban economies stimulate productivity growth leading to higher wages, while higher income results in the demand for larger houses. So is the modernisation of the transportation infrastructure an incentive to live further away from the city centre – conclusively stating *"the spatial expansion of cities [as] the result of market dynamics"* (Guastella et al. 2019, p.4).

Besides this appearance of the Jevons Paradox in urbanization – notably having been part of modern economic growth and thus, the generation of urban growth – *"it is important, however, to distinguish the effects of urbanization from those of economic growth"* (McGranahan 2015, p.963). Leading to a higher productivity, this productivity is often going along with a larger ecological footprint. Nevertheless, when changing the paradigm away from being (economic) growth driven, this higher productivity may also be key in reducing global environmental burdens (McGranahan 2015).

Consequentially, I interpret the Jevons Paradox as a metaphor of the current path of urbanization. Projecting the environmental consequences of a further increase of land consumption by urbanization on cost of our ecosystem's capacity, I'll further dedicate my thesis to a paradigm shift towards a non-growth ideology.

4.5 The Degrowth Paradigm

An alternative answer to the estimated limits of decoupling – and a critique on the ever-increasing societal consumerism and materialism – is the degrowth paradigm. This section will shortly introduce the degrowth argumentation and its positioning in an urban landscape, leading to the concept of conviviality and a sufficiency perspective.

4.5.1 Why Degrowth?

Always having its base in some kind of material consumption, economic growth is depending on steadily increasing volumes of products (Næss et al. 2019, p.14). Having been a leading ideology across the world in the latest six decades, the environmental and social consequences of economic growth have been critically discussed at least since the 1950s (Xue et al. 2012). The well-known report from the club of Rome, *'The Limits to Growth'* (Meadows et al. 1972) was published in 1972, enhanced by the economic crisis of the 70s, but played down again when the economy regained its momentum; gently replaced by the idea of 'decoupling', aiming for a technical fix by ecological modernization (Xue et al. 2012).

Meanwhile, as Biggs et al. point out, *"there is growing evidence that the massive scale and extent of human activities such as agriculture, transport and release of novel chemicals are undermining the capacity of nature to generate key ecosystem services on which we depend"* (Biggs et al. 2015, p.3). Questioning the possibility of absolute decoupling, degrowth proponents consider the approach of ecological modernization to be insufficient, as the economies in wealthy countries have already exceeded sustainable levels. Exceeding planetary boundaries forms the need to incorporate sufficiency approaches.

The common definition of sustainable degrowth refers to *"an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions"* (Kallis

2017, p.10). Following the slogan 'smaller can be beautiful', degrowth aims to reduce society's metabolism in terms of energy and raw materials, emphasising not only less, but different. As depicted in a metaphor used by Kallis et al., *"the point is not how to make an elephant leaner, but how to turn an elephant into a snail"* (Kallis et al. 2015, p.24).

While a reduction of GDP is presumably an outcome of it, degrowth should not be taken as a negative GDP growth. Instead, it is enhancing a green, communal and caring economy that is socially and ecologically sustainable (Kallis et al. 2015). In the degrowth argumentation, GDP is not a representation of societal preferences, but a measuring tool for market activities. Therefore, GDP leaves out considerable aspect of social and natural conditions and should not be associated with societal progress (Petschow et al. 2018), as it is focusing on one sole element out of the three sustainability dimensions. However, it must be said that the discourse on degrowth is critically addressed by various scientists, due to lacking scientifically proven facts in its argumentation (Petschow et al. 2018).

4.5.2 Degrowth and Urbanism

Especially communal and municipal institutions are in various ways underlying the logic of growth (i.e. in terms of site competition and business locations). Thereunto, 'shrinking' and the idea of degrowth is seen as a omnipresent nightmare of our society. Our everyday life internalized the vision of endless growth, creating mental structures now influencing our wishes and standards of urban imaginings (Brokow-Loga 2019). These imaginings are strongly inter-vened with associating economic growth with societal progress (Xue 2013). However, following the degrowth argumentation, not all activities counted in GDP are increasing societal well-being, while others (such as household, family, care, ...), are societal beneficial, but mainly not counted in the GDP (Petschow et al. 2018). With that goes the high disparity in livings standards claiming massive resources for a few individuals in contrast to basic human needs. 'Sustainable welfare' is therefore asking for an objective understanding of human-needs. In affluent countries, this does affect in average floor area per capita, urban infrastructure (related to individual transportation) as well as business and industry pursuing private interests, doubtfully contributing to common good (Xue 2013).

So claims Prádanos provocatively, *"it is unfair that a citizen who cannot afford or does not want a car is unable to use 62% of the city"* (Prádanos 2018, p.106), and that, in modern cities, more time is spend in transit corridors than in squares – spaces for people to meet and interact. *"To be able to fully access the urban space [...], fossil fuel needs to be bought and burned"* (Prádanos 2018, p.106) – a bio-physically impossible model to be carried into the future.

Cities are generally considered as inappropriate to be self-sufficient, dependent on large quantities of fossil fuels and over-shooting their ecological footprint. Instead, localism is a widely accepted strategy for degrowth, and so is the idea of decentralised, self-contained and small-scale human settlements. However, not reaching the state of autarky, such villages will still depend on the exchange of products and with that, transport. Moreover, services and infras-

structure (i.e. public services) are unlikely to be represented for small populations. As a main point, the development towards this 'ideal' of residential decentralisation on a universal scale will require immense demolition and rebuilding, thus crating an intensive environmental impact. Further factors such as employment and mobility capability impact people's activities (Xue 2019), leaving the proximity of a village. All this, the existing building and infrastructure, healthcare systems, cultural and leisure activities, and job offers can be found on an urban scale, framing cities as contributors to human well-being by diffusion of knowledge and public goods (Guastella et al. 2019). Consequentially, cities regain their attractiveness and need being part in a degrowth transition.

4.5.3 The Compact City

The strategy of densification is acknowledged to bring relevant benefits in urban planning perspectives. Implying the protection of natural landscapes, biodiversity as well as farmland, these benefits are especially effective if conveyed to such as derelict (industrial) areas and parking spaces (accompanying the aim to reduce car traffic). Carrying the approach of multifamily houses, such require – among other factors – less energy for heating and cooling per square meter compared to single-family homes (Næss et al. 2019). Accordingly, less energy is required per capita.

Urban sprawl is defined as a dispersed expansion of urban areas and further named to threaten not only the environment, but also social equity and attractiveness (i.e. "*poor access to services or unfair burden sharing in creating and maintaining public infrastructure and services*" (European Commission 2018, P.3)).

The compact city model, rooting in the motive to fight against urban sprawl, is supported by various studies on different opportunities of increased efficiency in energy use and reduction of greenhouse gas emissions. However, it has also been recognized that the positive effect of denser urban structures is not necessarily occurring, due to counter acting lifestyle and behaviour changes (Kurvinen & Saari 2020). Further critique is stating that even strongly pursued strategies of densification cannot absolutely decouple negative environmental impacts of growth in building and infrastructure, also considering resulting difficulties to avoid an increase of built-up area accompanying the increase of building stock volume.

Altogether, I refer to the conclusion by Næss et al. (2019), raising the question if densification is sufficient for urban sustainability: "*From a sustainability perspective, we should give priority to accommodating needs for social housing and qualitative improvements of the built environment, instead of a general, quantitative per capita growth*" (Næss et al. 2019, p.16).

4.5.4 Conviviality

In his book 'Tools of Conviviality', Illich expresses that beyond a particular threshold modern tools grow in importance and efficiency, they may become counterproductive to their intended social purpose: not longer enhancing human autonomy, they further become *"impossible to control democratically"* (Prádanos 2018, p.103), creating a dependency on these tools and their experts. An example gives the individual vehicle and its claim for urban space – the dispersion of parking lots and roads instead of green public areas, reducing non-commodified spaces for social gathering (Prádanos 2018). Underlining the term 'autonomy', *"to critique tools in the name of convivial autonomy implies consideration of the conditions which allow relations of interpersonal friendship to arise"* (Krüger 2019, p.18). Conviviality refers to the celebration of the present by using as less as possible, *"because it's beautiful, not because it's useful"* (Krüger 2019, p.21) – regardless of modern consumption ideology. According to Illich's concept of conviviality, overcoming the growth paradigm relies on an investigation of shared projects (Krüger 2019).

4.5.5 Sufficiency

To understand the concept of sufficiency, the two terms of scarcity and abundance are of interest to highlight. According to the summary by Daoud (2018), the relationship between a resource and the need or want for it let scarcity emerge – if exceeding the availability in a given system. The reversed situation spawns abundance representing an overflow. Letting go of these two poles, the balance between requirements and goods is then called sufficiency.

Here, I'd like to refer to a metaphor illustrating abundance and sufficiency by Chase: *"Two men are lost on a great desert. One has a full bottle of water, the other a bottle quarter filled. As they move wearily onward, hoping for an oasis, justice demands that they pool the water supply and share it equally. Failure to do so will undoubtedly result in a fight. Now let us transport these two men to a row-boat on Lake Superior. Again they are lost, and again one has a full bottle of water, and one a bottle a quarter full. The full bottle man refuses to share and a battle ensues. Maniacs! There is plenty of fresh water over the side of the boat. The desert is the Economy of Scarcity; the lake, the Economy of Abundance. The choice between sharing or fighting is chronic in the former, pointless in the latter. Today, throughout western civilization, men in boats are fighting, or preparing to fight, for fresh water. They do not know they are in boats; they think they are still on camels. The lake, as we have seen in the foregoing chapter, is not limitless, but nobody needs go thirsty"* (Chase 1934, p.51).

Illustrations like this challenge the pervasive assumptions of scarcity. While contemporary abundance of material goods in affluent western societies promote economic growth, simultaneous clear limitations and thus scarcity are set by planetary boundaries (Daoud 2018). Respecting not only the mean of sharing a bottle of water, but further the depiction of the lake, I see the potential of rethinking current economic patterns for a balanced and (more) fair distribution

in a sufficiency perspective.

In the housing sector, Schneider & Nelson (2018) exemplifies sufficiency as an understanding of basic needs, simplicity and a reduction of scale: together, a reduction of physical input. This transformation needs to be supported institutionally, taking a counter position to current advertisements of the 'ideal home' (see section 4.4) (Schneider et al. 2013).

What does that mean for sufficiency in the urban context? What incorporates a sufficient urban planning? These questions pose challenges to answer when aiming for a degrowth transition in urbanization. As 'urban sustainability' is taking the aspects of urban land use and built environment into account (Næss et al. 2019), both are representatives of urban resource consumption. Considering urban densification as an effective strategy for reducing the pressure on the ecosystem's capacity, Næss et al. (2019) regards it as being an insufficient strategy for affluent countries if not accompanied by a shift away from the growth driven assumption of ecological modernization. Sufficiency in the urban planning context is therefore tackling an economical as well as societal transformation in form of behaviour change towards the current growth orientated system.

4.6 Urban Green Commons

The biodiversity loss on local, regional and global scales due to urbanization is also affecting urban population. For human well-being, urban living correlates to environmental, social, and health-related stresses. This can range from a lack of safe, recreational and accessible spaces over stress and pollution all the way to climate change impacts and food security (Dennis & James 2016).

Colding et al. define urban green commons (UGC's) as *"physical green spaces in urban settings of diverse ownership that depend on collective organization and management and to which individuals and interest groups participating in management hold a rich set of bundles of rights, including rights to craft their own institutions and to decide whom they want to include in management schemes"* (Colding et al. 2013, P.1042).

Urban green has been noted as a key gain for physical health and mental well-being. Offering stress and pain relief, biodiverse spaces can provide a general benefit to the well-being of citizens (Dennis & James 2016). Additionally, sense of place has been noted as a key driver of community identity. Reconnection of community and nature is essential here: *"As people in cities fail to reconnect to local ecosystems they fail to understand their dependency upon them"* (Colding & Barthel 2012, p.162). How shall urban population then understand the necessity of ecological and biodiversity protection, while it is not directly relevant for their every-day life? However, based on the current pressures on ecosystem functioning set by urbanization, the existence of green spaces within cities have become essential for biodiversity conservation (Dennis & James 2016).

Thereby, the aspect of 'ownership' plays a crucial role. As urbanization results in scarcity of land, a following increase in land prices drives the privatization of public urban land "*currently so pervasive that property-right scholars regard it as a global phenomenon*" (Colding et al. 2013, p.1042) – establishing ownership over land as a commodity.

The right to organize and shape land for a collective is the main distinctive of UGC's. As property-rights regimes may be reasons for contemporary urban land-use dynamics, property rights also hold the potential to link people with nature. Having the right to act and shape, urban green commons may represent spaces of cultural integration, participation and social interaction, while it further enables a direct engagement with ecosystems in citizens surrounding (Colding et al. 2013).

Conjointly, UGC's counteract on three prevalent trends in the city, namely the privatization of land, the alienation between people and nature, and the scarcity of ecological habitats and functions (Colding et al. 2013). Thus, UGC's carry the potential of biological diversity while connecting the achievement of "*a sense of place, individual well-being and social cohesion*" (Dennis & James 2016, P.24).

4.7 Urbanization and the Perception of Space

On basis of Lefèbvre's theory of space, this section elaborates on the perception of urban space and resulting effect of contemporary urbanization. Addressing first the production of (urban) space, further regards will be given to the aspects of urban participation and resilience.

4.7.1 The Production of (Urban) Space

Lefèbvre examines the concept of urbanization as the process towards an urbanised, post-industrial society, marking the annulment of the distinction between urban and rural areas. Following its dominance, the entirety of the city encroaches on the countryside – depicted in such as secondary homes, highways, and rural discount markets (Lefèbvre 1970).

Problems created by urbanization especially confront the **perception of space**. Engaging this understanding, 'The production of space' (Lefebvre 1991) highlights the distinction between 'exchange value' (monetary price on the market) and 'utility value' (objective or subjective use of a material) of central importance – following Marxist thinking. In "*Capital. A Critique of Political Economy*" Marx announces the relation between these two forms of value as logical oppositions: two different poles of a commodity.

In modern society, present conflicts appear with space being more and more considered as 'exchange value' rather than living space. Contemporary urban growth underlines space as a societal product, subordinated by speculation and investigation of capital – while at the same time displaying the medium of urban utility (and living) spaces (Elden & Gottdiener 2002). A

capitalistic economy oriented on short-term and private maximization of profit is not representing common welfare, but a dynamism of social injustice, benefiting the already privileged part of society (Brokow-Loga et al. 2020). Further, Brokow-Loga et al. (2020) note the relations between cause and various crisis especially distinct in the cities: if we distance our perceptions of the development and progress of cities being represented in physical growth of the same, they hold a great potential of transition towards a shift away from contemporary growth paradigm (Brokow-Loga et al. 2020).

This potential of urban spaces will be further explored on basis of Lefèbvre: In his theory of space, Lefèbvre conceptualizes three positions of space taking effect, this being spatial practice (perceived space), representation of space (conceived space), and spaces of representation (lived space). I believe latter perception of space to be highly important for a sustainable transformation of urbanization, referring to spaces of expression: of resistance and occupancy, retrieving the strong motivation of Utopian change (Elden & Gottdiener 2002).

The three concepts by Lefèbvre in 'The Production of Space' will be elaborated closer and can be summarized as follows (Lefebvre 1991, Elden & Gottdiener 2002):

- **spatial practice** is referring to the perceived association between daily reality and urban reality. Based on non-reflexive, everyday occurrences, it adapts to societal settings without questioning them – providing societal continuity. In order to gain further understanding on specific spatial practice, empirical effort is needed for evaluation.
- **representation of space** is the space of science, planning and theory, conceptualized by the discourse about the same – closely intervened with contemporary societal praxis. Aiming to identify conceived space in what is lived and perceived, approaching the representation of space tends to verbal (intellectual) methods for further exploration.
- **spaces of representation** are – just in contrast to above – the discourse with, not about, space. They are lived spaces and spaces of expression. Unfolding their meaning only when used, they overlay physical space with symbolic character, by inhabitants, users, and artists. With that, spaces of representation also hold the potential of resistance and rebellion, carrying transformation processes and utopian change.

Widening the elaboration including considerations on 'conviviality' as addressed in section 4.5.4, Illich critically addresses the process of commodification and the growing importance of 'exchange value': "*As the power of machines increases, the role of persons more and more decreases to that of mere consumers*" (Illich 1973, p.12). Proportionately, I see the perception of urban space in the perceived and conceived space, with citizens in the role of consumers, adjusting their social relations accordingly to the market performance. So to speak, current urban theory is widely including the term of neoliberalism as representative of the axiomatic privatisation of public resources (Calvet & Broto 2016), leaving less for the majority of the people and carrying an inherent risk of social disruption.

Hahn & Simonis (1991) refer to cities as both, a product and a reproduction modality between natural and societal metabolism. Representing *"the most materialized form of society's interaction with the natural environment"* (Hahn & Simonis 1991, p.200), cities set the central place of society's appropriation of natural resources, but also of transformation and cultural change. Accordingly, urbanization finds itself as the **'setting of the struggle'**: *"The city and the urban sphere are thus the setting of struggle; they are also, however, the stakes of that struggle. How could one aim for power without reaching for the places where power resides, without planning to occupy that space and to create a new political morphology - something which implies a critique in acts of the old one, and hence too of the status of the political sphere itself (as of specific political orientations)?"* (Lefebvre 1991, P.386/387).

4.7.2 Urban Participation

A more sustainable and more progressive society holds a re-imagination of space. *"There is a critical difference"*, so Arnstein, *"between going through the empty ritual of participation and having the real power needed to affect the outcome of the process"* (Arnstein 2019, p.24). Arnstein states that in most cases of shifts towards shared power, this power was taken by the citizens rather than given by the city. Grassroots participation presents the alternative action within the city's area and therewith, its transformation potential (Beebejaun 2016). Thus, I join the understanding of Prádanos with my work: *"if people are granted the time to see, reflect, and make connections about the irrationality of neoliberal urbanization, they will do so on their own, without the need for complex technical explanations by self-proclaimed experts"* (Prádanos 2018, p.107).

Hence, participation shapes the representation of space by expressing its inhabitants and users and with that, their living prospects: offering a response to urban life limitations and privatization; displaying need, desire and ideology. However, this goes along with the right to remake spaces in opposition to current institutional and legal barriers of participation in placemaking (Felstead et al. 2019). Referring to Arnstein's ladder of participation (Arnstein 2019), represented in figure 4.1, the degrees of citizen power determine the first three rungs (citizen control, delegated power and partnership) and with that the participative relationship with professions, institutions and organisations, highlighting the importance of regaining territorial rights for citizens (Felstead et al. 2019). Subsequent rungs note the degrees of tokenism (placation, consultation, informing) and lastly non-participation (therapy, manipulation).

4.7.3 Urban Resilience

Resilience is about the ability of living and developing with change. It welcomes improvement and innovation on the current path of development, sustaining its development (and change) capacity. Further, in relation to uncertainty, diversity in form of various pathways allows to deal with uncertain futures (Biggs et al. 2015).

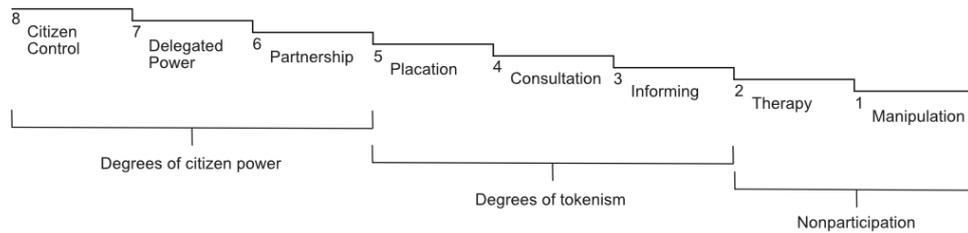


Figure 4.1: Arnstein's ladder of participation, depicting eight rungs of citizen participation, *own depiction based on Arnstein (2019, p.26)*.

Speaking of a laminated totality (nature, society, and economy, cf. 3.4), the resilience approach interprets humans as share of the biosphere. Contemporary urban lifestyles of the world's increasingly wealthy population strongly challenge an adequate flow and consumption of natural resources, (Biggs et al. 2015) exhausting our ecosystems. To enhance social-ecological resilience, Biggs et al. (2015) enumerate seven generic principles, concerning how systems are governed as well as systemic processes of resilience. These include the management of connectivity and to broaden participation, naming key attributes concerning the intention of my thesis. Thus, I will include the concept of resilience in my further work, aiming to increase the capacity of social-ecological systems to support a transformation of urban spaces to lower levels of metabolism (Colding & Barthel 2012) and independence from economic growth.

4.8 The Coronavirus (COVID-19)

On 11th of March 2020, the world health organisation (WHO) declared the global spread of COVID-19 as a pandemic (Robert Koch Institut 2020). The virus-infection is a respiratory disease, mainly passed from human to human by droplet infection (Vögtli 2020). First noticed in the Chinese megacity Wuhan in December 2019, it spread rapidly on a global scale. Reporting the first two infections in Europe the end of January in France, the number of cases exploded in Italy and alpine regions – expanding all over Europe (www.tagesschau.de 2020).

Although noted to be a mild progression for many human, it is extremely infectious, leading to an exponential increase of cases, reminding that also a small percentage can result in a great number. Consequentially, with only symptomatic treatment and no vaccination, the threat of an overload of the health care systems capacity implies severe restrictions on daily life.

Joining 9/11 and the global financial crisis of 2008, the coronavirus pandemic is resulting in the "third and greatest economic, financial and social shock of the 21st century" (OECD 2020, p.3). A halt in production, a break down of global supply chains and a heavy decline of consumption brings severe economical consequences on international scale. Furthermore, lock-downs and social distancing limit services and leisure facilities, social contact and severely irrupt everyday life, especially in urban settings.

City actions to fight the virus crisis are closed schools, home-office in all jobs that allow such and cancellation of events. Shops close down, gatherings with more than two participants or another household become prohibited. With that, public spaces suddenly appear dangerous and unwelcoming – opposing their actual intention – and present alien images of emptiness. Other side effects are recognized almost sarcastically by climate advocates: urban air pollution has never been so low the past years, streets never offered so much space for pedestrians and cyclists (while keeping 1,5 m distance to others is also increasing needed sidewalk space).

As the German Fridays-for-future activist Luisa Neubauer claims, the absurdity of yesterday passiveness grows with every new announcement today (Pinzler 2020). Apparently, we – in the sense of a society – are always and very strongly capable of political action. The cancellation of events and the halt in production was not the virus itself, but the societal response to it (Rosa & Baum 2020).

Entering a major economic crisis, "*international co-operation has become even more relevant than ever and, in this regard, cities have an important role to play*" (OECD 2020, p.3).

5 | Analysis

5.1 The Setting of the Urban Stage

How can urbanization be understood in relation to economic growth and resulting concerns of the ecosystem's capacity?

To answer the first sub-question, I'll further structure this section into three subsections dedicated to first urbanization, second the interrelation of urbanization and economic growth, and last the environmental consequences resulting from this interrelation. Each of the subsections will investigate on a conceptual level as well as taking reference to statistical data. This procedure shall provide an overview specifically on built-up area in its role as a major conjunction of urbanization, economic growth and environmental consequences.

Urbanization is not only about built-up area per capita, but encompasses various dimensions. To break urban complexity down and gain an understanding of its interconnection, this thesis regards built-up area per capita as a physical – thus resource depended – dimension, triggered by its investment potential and noted to grow unsustainable in affluent countries. Leaving aside global and inter-generational justice, further growth of built-up area per capita in already affluent countries is concluded to bypass sustainability goals.

5.1.1 Urbanization in Concepts and Statistics

'Urbanization' is referring to the growing share of population living in urban settlements, including resulting effect on land use, economic activity, and the spread of urban culture (see section 4.1). There are various statistics collecting data on urbanization, providing insights into city population, population density, share of people living in urban or rural areas, urban land area, etc. (Ritchie & Roser 2020). Graphics based on statistical data, as presented in figure 5.1 (presenting the share of population living in rural and urban areas in Europe), depict clear visual impressions of this development.

Urban area, in particular urban sprawl, can be measured by three metrics – this being the total built-up area, built-up area discontinuity, and population density. Density thereby refers to the

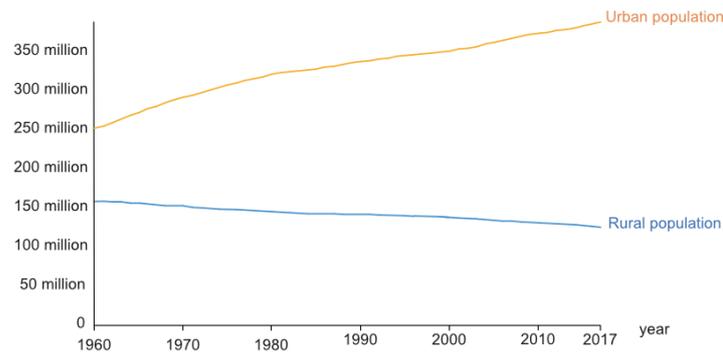


Figure 5.1: Share of population living in rural and urban areas in Europe 1960-2017, *own depiction based on Ritchie & Roser (2020)*.

urbanised area and its population distribution, while discontinuity describes the distribution of urbanised area over the city space. Guastella et al. (2019) note a correlation between density and discontinuity change of built up area in cities where total built-up area increased without population growth, posing the evidence of urbanization despite an absence of population growth. Stating that the overall growth of built-up area "*cannot be justified by the increasing housing demand*" (Guastella et al. 2019, p.13), expanding population however asks for urban planning reactions without social costs and negative externalities in form of unfair distribution (locally and globally) and ecosystem depletion.

Envisioning cities as spaces of ongoing societal (re-)production, Brokow-Loga (2019) emphasizes the relevance of perspectives and strategies on socio-ecological urban change as leverage points for a global societal transformation. Recognizing small shifts that can cause relevant changes, Meadows (1999) notes 'growth' as such leverage point. "*Not only population growth, but economic growth*" (Meadows 1999, p.1).

5.1.2 Urbanization and Economic Growth

Cities, especially mega cities, have had an essential role the last years in boosting competitiveness and with that, economic growth. Seeing housing as one main element of the building sector, rising housing stock is a dominant contributor to increased economic value of related dwellings and thus economic growth (cf. 4.2.1). According to Healey, "*economic development policy-makers in recent years have given a great deal of attention to identifying and producing city environments which are rich in economically useful assets. In this conception of the city as a container of economically exploitable assets, the ambition of some policy-makers is to position 'their city' in a wider landscape of competing cities*" (Healey 2002, p.1782).

In this section, I'll use statistical data to illustrate the trend of built up area per capita in

Europe. Further, for the sake of clarity, I'll highlight the statistical reference of three countries, this being Germany, Austria and Denmark – all of them representing comparably wealthy European countries and thus depicting contemporary urbanization and the need to shift the growth paradigm as elaborated in chapter 4. However, it is important to mention that the selection is not exclusive, but only for representative purpose.

In Europe, the built-up area per capita is steadily growing. Having a look at the total square metres per capita rise, square metres of built-up area per capita in the 28 countries of the European union¹ increased from 151,22 m²/p in 1975 to 284,44 m²/p in 2014, as captured in figure 5.2². Noticeable, the world average of built-up area per capita growth is clearly under most European standard. 'Built-up area' is defined as the presence of all roofed structures (buildings) and excludes other elements of urban environments and human related ecological footprint, such as paved surfaces including roads, parking lots as well as commercial and industrial open sites in form of ports, landfills, or runways (OECD 2018).

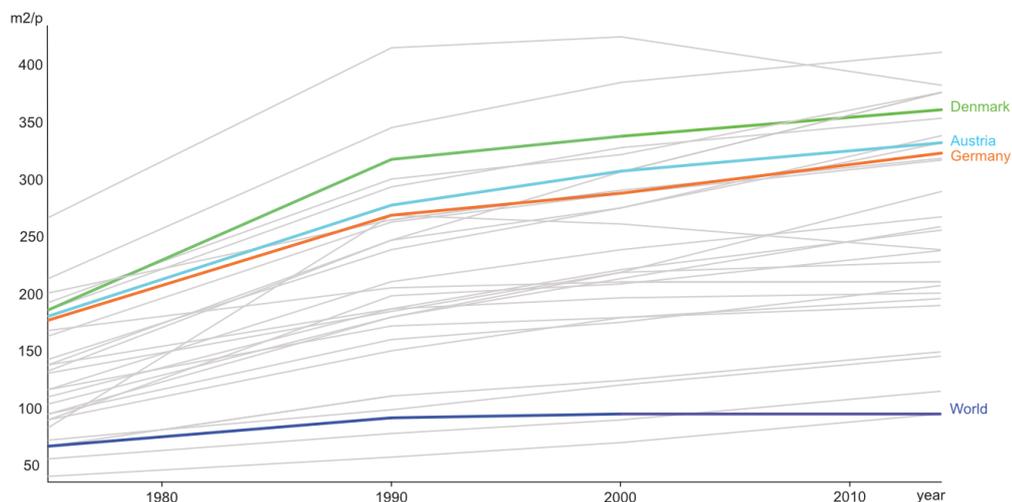


Figure 5.2: Total built-up area per capita growth, highlighting the specific cases of Germany, Austria and Denmark, as well as world average, *own depiction based on OECD (2018)*.

While European average housing currently counts 43 m²/p, it reaches notably higher in some specific countries. Since built-up area per capita is interrelated with economic growth as elaborated in 4.1.1, especially relatively wealthy countries claim a high average of built-up area for themselves. Notably, the average floor area per capita is the highest in Denmark, reaching as much as 77 m²/p. Following on 6th position is Austria with 55 m²/p and shortly after Germany, counting 53 m²/p (Enerdata 2020).

Having a closer look on the breakdown of average floor area per capita, the main percentage of it is for residential purpose, as represented in figure 5.3. The figure shows an overall predominance

¹the data up to 2014 is before the Brexit in 2020, hence still including the UK.

²The two decreasing lines depict Cyprus and Luxembourg, both comparably small countries and thus limited in terms of land resource.

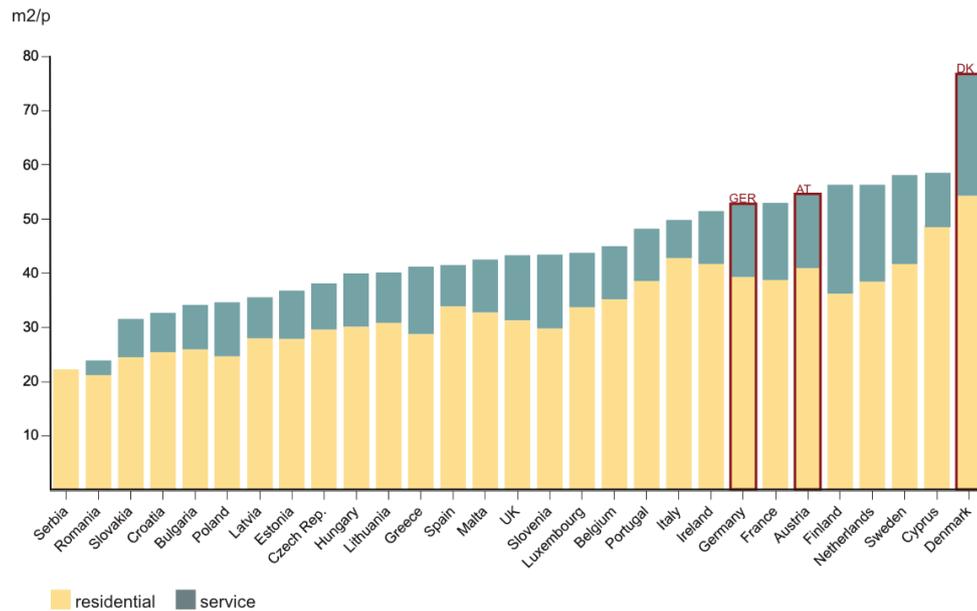


Figure 5.3: Average floor area per capita, *own depiction based on Enerdata (2020)*.

of the residential floor area compared to average floor area for the service sector, counting 74,6% in AT, 73,6% in GER, and 70,1% in DK of the floor area for residential purpose. Thus, the housing sector is a relevant variable for dense urban planning. Further, the three exemplary countries underline the inequality of affluent countries counting a high amount of built-up area, implying environmental impacts effecting not only themselves, but on a global scale. As stated by Xue, *"Degrowth, or at least no further growth, in average floor area per capita in affluent countries is necessary to accomplish the sustainability proviso"* (Xue 2019, p.186).

Further interesting is a closer look on the breakdown of floor area by non-residential sub-sector, as depicted in figure 5.4. From the service, it is notable that overall only a few share of the area is for general public interest such as health and education, while the main share of it supports economic purposes (trade, wholesale and offices). Brokow-Loga (2019) refers to cities as sites of expansion, accumulation and stabilisation of growth imperatives. So are positive production gains commonly associated with economies of agglomeration. Further, also counted as a beneficial effect for citizens, is the emerging job market and its opportunities for employment (Kurvinen & Saari 2020). Urbanisation economies directed by agglomeration factors yet adapt to higher wages, a phenomenon particularly noted in metropolitan areas. Higher income thereupon raises the demand for larger houses, while simultaneous investment in infrastructure for individual mobility and frequent commuting attract to live further away from the city centre (Guastella et al. 2019). Conclusively, the spatial expansion of cities can be noted as a product of market dynamics.

As elaborated in section 4.4, it has been noted that despite efficiency gains in the European household sector, final energy consumption increased simultaneously, as i.e. house insulation

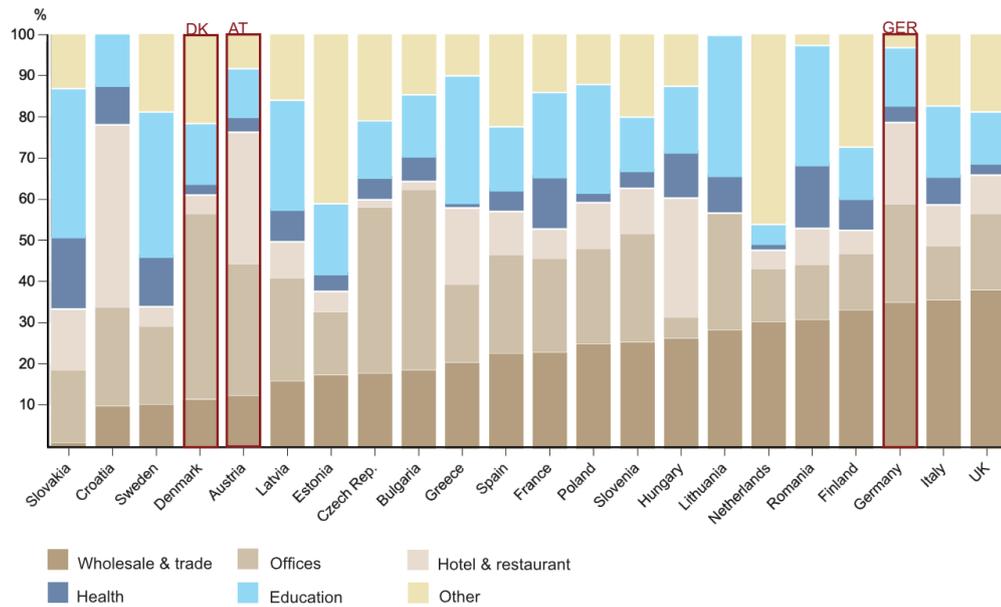


Figure 5.4: Breakdown of floor areas by non-residential sub-sector, *own depiction based on Enerdata (2020)*

for efficiency improvements further promote housing construction. With rising living standards driven by economic growth, the same amount of persons require more built environment, claiming an increasing amount of square meters for individual housing. Accordingly, new ecological houses may result in new urbanized areas (Schneider et al. 2013) – depicting the Jevons Paradox in urbanization and with that, raising doubts on ecological modernization strategies, as it is based on the idea of decoupling (cf. 4.3).

5.1.3 Environmental Consequences

As noted before (cf. 4.1.3), contemporary urbanization is accompanied by the exploitation of natural resources and noted as one of the biggest threats to biodiversity worldwide (European Commission & Joint Research Centre 2018), as cities account for ecosystem support about 500-1000 times the size of their own area (Colding & Barthel 2012).

The building sector as economic driver than carries the three major environmental impacts of material consumption, energy consumption & energy related emissions, and land-use & associated impacts (cf. 4.2.3) (Xue 2013).

Approaching and exceeding planetary boundaries (as land is undoubtedly a limited resource), contemporary urbanization stands for an immense conversion of natural areas and agricultural land into urban space, resulting in negative impacts on ecosystems and biodiversity (Næss et al. 2019). According to Uhel (2008), *"available evidence demonstrates conclusively that urban sprawl has accompanied the development of towns and cities across Europe over the past 50*

years: *European cities have expanded on average by 78 %, whereas the population has grown by only 33 %.*" Further, Uhel (2008) predicts that *"on a straight extrapolation of current practices, a 0.6 % annual increase in urban areas, although apparently small, would lead to a doubling of the total amount of urban area in a little over a century."* Consequentially, preventing the further urbanization of land is of relevant significance for our ecosystems capacity.

Gazing on environmental consequences statistically, the Happy Planet Index based on OECD data collects national information on four aspects (well-being, life expectancy, inequality of outcomes and ecological footprint), *"to show how efficiently residents of different countries are using environmental resources to lead long, happy lives"* (New Economics Foundation 2020). Thereby, ecological Footprint presents the average environmental impact of each resident of a country in global hectares (gha) per capita. To live within planetary boundaries, the world's ecological footprint would need to be in balance with available bio-capacity per capita on earth. This presently counting 1.7 gha, a nation's Ecological Footprint per capita about 6.8 gha means that residents demand four times the amount of resources and wastes our planet is capable to regenerate (Global Footprint Network 2019).



Figure 5.5: The environmental impact of each resident in global hectares 2016, comparing Denmark, Austria, Germany, Europe and world average in orange, contrasting the Earth's eco-capacity in green; *own depiction based on Global Footprint Network (2019)*

Figure 5.5 presents an overview of the previous exemplary references: Again, Denmark ranks the highest, accounting for an ecological footprint of 6,8 gha/p. Austria counts 6,03 gha/p, while the comparably dense population of Germany follows with 4,84 gha/p. All three countries are above European average (4,56 gha/p) and distinctly above World average (2,75 gha/p) – clearly overshooting our ecosystem's capacity.

As for the other aspects based on their findings, the Happy Planet Index argues that *"GDP growth on its own does not mean a better life for everyone, particularly in countries that are already wealthy"* (New Economics Foundation 2020), since it does not include social relations, health, or leisure time. Ever increasing economic growth, however, is incompatible with our ecosystem's capacity. *"The stubborn prioritisation of economic growth as the central objective of government"* (New Economics Foundation 2020) is not only provoking climate crisis, but also rising inequalities.

5.1.4 Summary

Figure 5.6 depicts the findings on the first sub-question. The investigation on European statistical data reveals a clear growth of built-up area per capita in Europe. Urban growth and relating growth of the building sector are stimulating economic growth, thus resulting in GDP growth and with that, growth in purchasing power. Rising living standards (spacious homes and growing amount of appliances) driven by higher income further demand increasing resource input, while again tackling economic growth. However, material consumption, energy consumption and energy related emissions are closely entangled with such growth, retrieving severe environmental consequences. Ever increasing living standards accompanied by economic growth is depending on resource input and with that, constraining our ecosystems capacity.

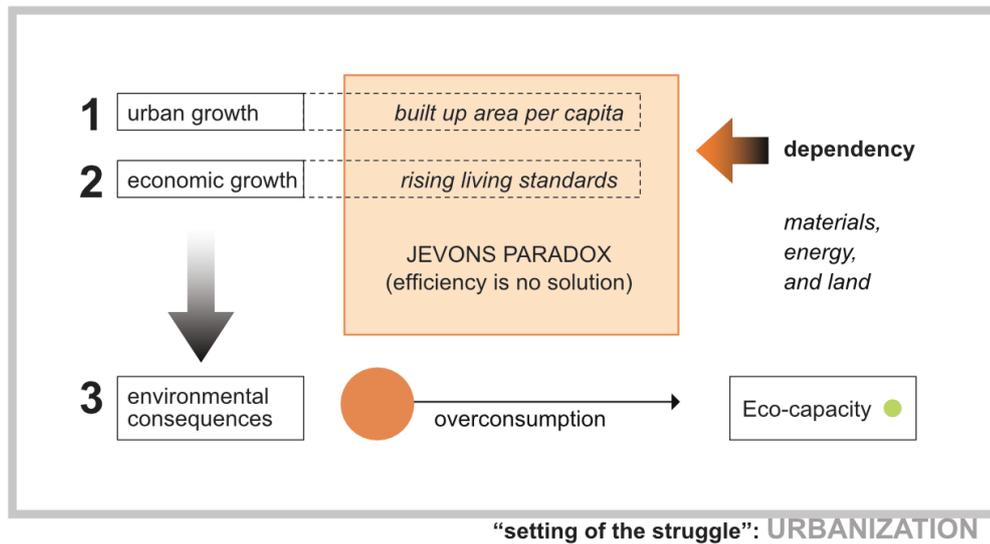


Figure 5.6: The interrelation of urban growth, economic growth and resulting concerns of the ecosystems capacity within the 'setting of the struggle' of urbanization, as investigated in this section, *own depiction*.

Over-consuming the world's natural resources, the current growth paradigm is additionally comprising strong social inequalities on local as well as global scale. Thus, preventing further urbanization of land is especially relevant in affluent countries, implying a decline or at least no further growth of built-up area per capita.

Is there an answer for socially desirable levels of urban density? With the help of the second sub-question, I'll further intervene on alternative pathways to resource intensive urban lifestyles in the following section.

5.2 The Urban Perspective

What does a sufficiency planning approach contribute to counteract current resource intensive urban lifestyles and how are urban green commons positioned in it?

After evaluating sufficiency strategies in the urban planning based on literature review, I aim to answer the second sub-question from first a planners (top-down), and second a citizens (bottom-up) perspective.

5.2.1 Sufficiency & Urban Space

As noted in section 4.5.5, 'urban sustainability' applies the two aspects of urban land use and the built environment. 'Sustainable' is about to neither exceed the capacity of our supporting ecosystem nor to diminish biological diversity – global and inter-generational needs are to be taken into account (Næss et al. 2019), acknowledging the impact of our actions today on the living quality of future generations. Applying the term 'sustainable welfare', an objective and human-needs based understanding of well-being is tackling the question of individual needs and wants, and their satisfaction within the Earth carrying capacity – a balance between requirements and goods. Aiming for spacious and/or luxury homes as promoted by advertisements implies aiming for housing standards that seem environmentally implausible if generalized on a global scale (Xue 2019). Thus, sufficiency is breaking down on individual behaviour, affecting personal perceptions and prospects.

Sufficiency in the urban context deals with a reduction of physical input, decreasing urban resource consumption in form of urban land use and built environment (cf. 4.5.5). Tackling an economical as well as societal transformation in form of behaviour change towards the current growth orientated system in the sufficiency approach, 'conviviality' refers to the the celebration of the present by using as less as possible (cf. 4.5.4), supporting the claim to overcome contemporary growth paradigm.

Following Illich's concept of conviviality, this change lies within the investigation of shared projects. Instead of challenging consumer practices, the logic behind this consumption shall be questioned: Rooted in the image of desire, the change shall not be about abandonment, but about friendship and social life (Krüger 2019). Identifying the perception of urban space predominantly in the perceived and conceived space on basis of Lefèbvre's theory of space (cf. 4.7), it is highly important to encourage spaces of representation – the expression of inhabitants and users. Not only for a sustainable transformation of urbanization, but further for retrieving the shift away from the growth paradigm in urban context, carried by the motivation of citizens – supporting Illich's concept of conviviality by demonstrating reduction without regrets within urban spaces of expression.

Underlining the need of investigation of shared projects, Krüger names it to be only *"...possible*

to do within a vertical top-down regime of collective sovereignty" (Krüger 2019, p.14). Comparably, Xue argues that *"degrowth should be pursued at multiple scales; local participation and deliberation should be incorporated and combined with centralisation and hierarchical forms of planning"* (Xue 2019, p.191). Only in this way can national and urban levels be considered holistically and regulations about housing standards determined to secure a fair distribution of i.e. floor area.

Considering this importance of a top-down regime, Felstead et al. (2019) describes the emerge of urban commons rooting in a *"collective, and often political, movement [that] takes ownership of them"* (Felstead et al. 2019, p.5). Above, with a detachment of natural spaces, ecological knowledge is noted to decrease among citizens, underlining the importance of individual reconnection to regain ecological awareness – opposing the question why to protect something that is not considered directly relevant on an individual level (Colding & Barthel 2012).

Recognizing emerging commons and enabling the common mindset and group goals is essential to provide supportive services and frameworks. Urban professionals thus hold the relevant role of identifying the barriers for commons to establish themselves within the institutional regulative framework. However, the two approaches of top-down and bottom-up tend to be recognized as two polarized approaches (Felstead et al. 2019).

To depict the position on a top-down versus a bottom-up regime more clearly, I'll investigate on planning approaches incorporating a reduction of built-up area per capita in form of a document analysis. Seeking to gain an understanding of how the story of urban space – in particular urban commons – is told in literature, I'll investigate this sub-question from a planners (top-down) and a citizen (bottom-up) perspective.

Doing so, I again return the the ontological position of a laminated totality (3.4), considering the interplay of economic, social and ecological dimensions as essential. Further, I'll develop the discourse analysis mainly on three documents already cited in this section, each underlining one of the three dimensions in relevance to my position elaborated in chapter 4.

1. A Conceptual Framework for Urban Commoning in Shared Residential Landscapes in the UK (Felstead et al. 2019): Arguing that shared residential landscape is essential for daily social interaction, the paper investigates on the concept of urban commons and the opportunities they offer. Underlining the participatory and thus social aspects *"through their collective actions, commoners can manifest their common mindset, rules and norms into something physical"* [p.8].

2. The potential of 'Urban Green Commons' in the resilience building of cities (Colding & Barthel 2012): Pointing on the cities dependency on ecosystem services, resilience is of particular importance in this paper: merging the role of cultural diversity for urban resilience and biodiversity for ecological resilience in cities, urban green commons are concluded to hold such potential. Further, the reconnection between citizens and nature is considered valuable to support ecological learning and awareness: *"One may therefore ask whether the majority of the population will be willing to invest in protecting something they no longer regard as directly relevant to their lives?"* [p.162].

3. Housing for Degrowth: Space, planning and distribution (Xue 2019): Investigating on degrowth as an overall societal paradigm, Xue discusses the understanding on sustainable welfare and the three housing related topics of "*residential decentralisation, localisation of politics and principles of distributive justice*" [p.185]. Accordingly, current urban planning strategies need to be reconsidered, highlighting the need of redistribution in order to safeguard housing consumption on an adequate ecological and social scale – naming this discussion relevant to "*affluent, and soon-to-be affluent, countries*" [p.185].

5.2.2 Planners Perspective

Urban planning is an interdisciplinary field, as it involves engineering, architectural as well as societal and political concerns. Thus, it deals with political will and public participation as an academic discipline. Tackling the outcome of overall planning goals, sustainable development became widespread in the late 20th century, promoted by the World Commission on Environment and Development in *Our Common Future* (1987) (Fainstein 2020).

Making decisions on urban design, the urban planner's decisions on the build environment takes influences on societal behavior (see section 4.2.2). Planners thus hold hierarchical power on social development of urban space.

Economic

As elaborated in section 4.1.1 and 4.2.1, there is a strong interconnection between the built urban environment and economic growth. Stimulated by modern consumption ideology (cf. 4.5.4), the desire to consume "*is created by the growth policy including advertising and built-in obsolescence of commodities*" (Xue 2013, p.62). Policies shape the guidelines and practices in urban planning (Felstead et al. 2019), making people in urban areas peculiarly dependent on good governance, such as property rights (cf. 4.1.1).

Arguing from a resilience perspective, "*policy makers and planners need to increasingly plan cities in relation to **energy deficiencies and collapses of supply lines***" (Colding & Barthel 2012, p.162). As resource consumption is depended on supply of the same, economic growth created by cities has also been noted to create severe social and environmental problems (cf. 4.1.1). Accordingly, Xue (2019) notes the growth of inequality and injustice in residential concerns as caused by privatization and marketisation of the buildings sector. In order to guarantee a fair distribution in urban environments, "*urban planner's expert knowledge based on **scientific knowledge of relationships between goals and means** is very necessary and important*" (Xue 2019, p.190).

Social

Raising the question on what is required for a sustainable as well as socially just city, Xue (2019) refers to the term '**sustainable welfare**' (4.5.2), claiming an "*objective, human needs-based understanding of welfare*" as essential for reaching sustainability goals (Xue 2019, p.186). Considering restrictions on individual welfare for the sake of a fair distribution, such regulations are in danger to limit freedom of choice – conclusively, while policies should benefit people in disadvantaged living situations, "*certain degrees of inequality should be considered acceptable in order for people to choose the levels of housing consumption according to their preferences*" (Xue 2019, p.193).

As elaborated in section 4.7.2, participation shapes the representation of space by expressing its inhabitants and users and with that, their living prospects. Holding the right to built the spaces according to needs and desires, ownership rights define "*what is mine, what is someone else's and what is shared*" (Felstead et al. 2019, p.8) – strongly relating to an individuals position in society and a common mindset. Sharing **the right to use and shape** "*can facilitate cultural integration in cities through civic participation in urban land-management by offering an institutional base for groups and individuals to meet and interact*" (Colding & Barthel 2012, p.157). Accordingly, removing barriers to participation in placemaking on an institutional and legal scale is essential to enable a shift toward localism, identity and cultural diversity. "*The role of the urban professional needs to shift to reflect this new relationship, from client-profession to one of supporter, facilitator and partner*" (Felstead et al. 2019, p.11).

Ecological

Ecological knowledge and environmental awareness is noted to decrease among citizens (Colding & Barthel 2012). Simultaneously, property rights in cities are increasingly shifting towards privatization, taking the accessibility of the majority of urban space from the public for the benefit of the few (cf. 4.1.1). Align with the adaptation of modern lifestyles, "*it has been suggested that rapid urbanization is removing perceived and experienced links between people and nature. (...) As people in cities fail to reconnect to local ecosystems they fail to understand their dependency upon them*" (Colding & Barthel 2012, p.162).

The importance of a positive **relationship between people and nature** is also recognized by degrowth advocates, seeking to encourage this link in local contexts (Xue 2019). Widening the role of urban green may serve urban agriculture as local food supply and further holds the potential of supporting **ecosystem conservation**, which is currently declining in urban areas (Colding & Barthel 2012). Opening the discussion to urban planning solutions, "*green roofs, green walls, and park management could be created in densely built urban settings*" (Colding & Barthel 2012, p.162), creating green and common urban spaces.

5.2.3 Citizen Perspective

As elaborated in section 4.7.2, grassroots participation presents the alternative action within the city's area and therewith, its transformation potential. Further, building on Lefèbvre's theory of space, lived spaces and spaces of expression are essential for a sustainable transformation of urbanization, carrying the potential of resistance and occupancy and the strong motivation of utopian change (cf. 4.7.1). Therefore, I'll further investigate on urban design from a citizen perspective.

Economic

With citizens in the role of consumers (cf. 4.7.1), they depend on the supply of urban spaces. Leaving behind traditional social ties of giving, receiving and sharing, market relations are generally noted as impersonal (Xue 2014). When picturing the city as a collection of elements (buildings, shops, signs, sidewalks, ...), not only the interconnection between these elements is of interest – their alternating dynamic, relationships and unpredictable outcomes –, but also the city as a provider of sharing culture. Sharing culture is considered as the common goal to co-produce and manage resources collectively on basis of **reciprocity and solidarity** – not economic profit. If understanding the common mindset "*as a form of self-organised and informal adaption in response to shifts within the urban assemblage*" (Felstead et al. 2019, p.7), underlining the collective actions of common spaces may counter issues of privatisation, housing affordability and vacant land (Felstead et al. 2019). Together with the sufficiency approach, a **sharing economy** and the aspect of voluntary simplicity accompanies the counter movement to current consumption patterns, redefining the contemporary societal expression of societal process in from of "*working more and consuming more*" (Xue 2014, p.131).

Social

As a mutual resource in form of land and its objects is forming the physical part of a common, this resource cannot be maintained as such without a **community of users, their participation and control**. Humans effect the physical spaces as the spaces effect social interaction (cf. 4.2.2), hence the interplay of social space depicts societal power hierarchies. Occupying a physical urban space for common use is not only a representation of space by citizens, claiming their **need and desire** (cf. 4.7.1), but further a self-organized way for using resources, as well as a **political action**. So does i.e. the squatting movement represent a bottom-up approach concerning unused urban space, inspired by societal injustice in the housing sector and environmental constraints of demolition in favour of economic growth (Cattaneo & Gavaldà 2010). As summarized by (Felstead et al. 2019, p.4), "*maintaining a bottom-up approach in the governance of commons is, therefore, a key aspect to their existence*".

Ecological

Putting the **reconnection** of nature and people into foreground, the motivation to participate in urban green is based in various interests, such as gardening, recreation, social relations and environmental concerns. It is recognized that community gardening offers a multitude of learning to a society, educating **environmental awareness and responsible behaviour**, including the correlation of global and local food security (Colding & Barthel 2012, p.160). Taking the aspect of **resilience** into account, biodiversity in cities brings biological resilience into cities, while social resilience is gained by cultural exchange of the people collectively working in it. Accordingly, "*landscape stewards in urban settings can play an important role in the resilience making of cities since it contributes in helping renew and reorganize such systems in times of crises*" (Colding & Barthel 2012, P.161).

5.2.4 Common, Green & Convivial

	Economic	Social	Ecological
Top-Down	<ul style="list-style-type: none"> - energy deficiencies and collapses of supply lines - scientific knowledge of relationships between goals and means 	<ul style="list-style-type: none"> - sustainable welfare - the right to use & shape - supporter, facilitator, partner 	<ul style="list-style-type: none"> - relationship between people and nature - ecosystem conservation
Bottom-Up	<ul style="list-style-type: none"> - reciprocity and solidarity - sharing economy 	<ul style="list-style-type: none"> - a community of users; participation and control - need and desire - political action 	<ul style="list-style-type: none"> - reconnection - environmental awareness and responsible behaviour - resilience
	Conviviality	Common	Green

Table 5.1: The three dimensions of the laminated totality in a top-down and bottom-up perspective concerning urban space (summarizing section 5.2.2 & 5.2.3).

Table 5.1 summarizes the results of the previous document analysis in the equivalent structure. Further, the last row presents the relevant aspect on each of the laminated totality's elements for the following discussion (conviviality, common, green)³.

³The concept of 'conviviality' is not only about economic aspects, but the overall totality. Same applies to 'common' and 'green'. This comparison, however, is used here to present the reconnection of nature and urban population in form of UGC's and its potential to support the citizens shift away from the single story that economic growth is equal to societal progress.

As I acknowledge the hierarchical order of the laminated totality – nature, society, economy – I see nature as a necessity of both the existence of human society and economic system (cf. 3.4). If current growth-driven economy is recognized to have severe consequences for the ecosystem (cf. 4.1.1), while decoupling is not yet to be reached and the occur of rebound-effects is seriously taken into account (cf. 4.4), this consequentially means that the inner cycle of the laminated totality is about to permanently constrain our ecosystem, and with that, the necessity for human society.

Breaking it down on the urban environment, the reconnection of citizen and nature is pointed out to be relevant from a citizen as well as a planners perspective. However, an essential barrier for doing so is the ongoing process of privatization: limitations of accessibility of urban space (Xue 2019). As open land becomes scarce in dense urban patterns, it's monetary exchange value rises, increasingly supporting economic interest (cf. 4.7.1). And as the building sector is interconnected with economic growth (cf. 4.2.1), built-up area stimulates economic growth rather than open land. With that goes the question of ownership: the right to use and shape, and the possibility of civic participation with the actual power to effect the outcome of a process (cf. 4.7.2). Further underlining the importance of property rights is the engagement of people, as "*community residents are more willing to invest in gardens with longer leaseholds*" (Colding & Barthel 2012, P.160).

Green spaces within the city offer spaces of recreation for the human mind, ecological learning and awareness, while enhancing biodiversity and strengthen ecological resilience (Colding & Barthel 2012).

Common spaces root in the idea of giving right to a community in form of a collective governance over a physical shared resource, enhancing solidarity, reciprocity and sharing (Felstead et al. 2019).

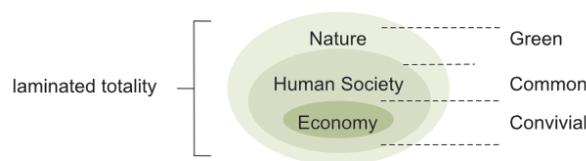


Figure 5.7: The laminated totality as this discussion pictures their elements relate to the aspects 'conviviality', 'common' and 'green', *own depiction*

Taking further reference to the ontology of the laminated totality, figure 5.7 presents the relation of the three elements. Nature in its ecological position connects to more greenery in the cities – including green roofs, facades, parks, urban gardens, etc.. Human society as the social stand holds interactive and collective ownership of a common. Economy, then, is provocatively nourished by Illich's concept of conviviality.

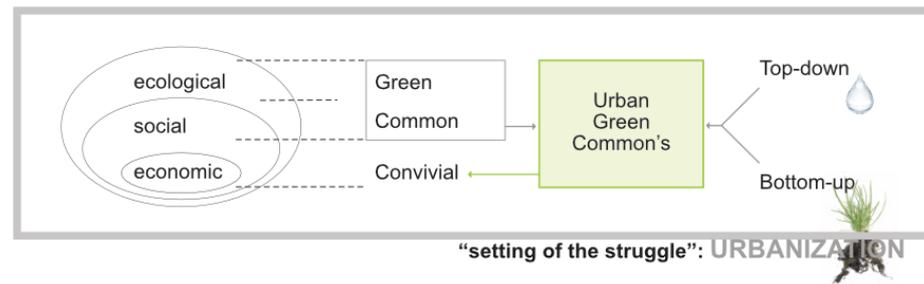


Figure 5.8: The laminated totality and its connection to urban green commons as discussed in this section, *own depiction*

Together, I see the connection between the common (human society) and the green (nature) as a strong bond, having the potential to influence the current conceived perception of urban space and offering a non-commodified alternative sense of place. Figure 5.8 depicts this understanding in the form of UGC's, having their base in bottom-up as well as top-down support. Combining these elements with the ecological and social dimension of the laminated totality, UGC's may carry the potential of offering a stage for the concept of conviviality for the urban perception of space and with that, influence the current understanding that economic growth is equal to societal progress.

Having their intention in the reconnection of people and nature, UGC's offer socio-ecological learning to their users, providing physical green spaces of interaction and expression. As elaborated in section 4.7.2, a more sustainable and more progressive society holds a re-imagination of space. Revealing the metaphor of the city as a story: if urban planners define the setting of the scene, citizens are the performers of the play and capable of changing the act by raising their voices and expressing their needs and wants.

6 | Corona and Shared Urban Spaces

How is the corona virus influencing the perspective of shared urban space?

Starting in the first month of this year (2020), the world has been experiencing sudden and unpredictable changes due to the corona crisis (cf. 4.8). Noticing the happenings in the Chinese mega-city Wuhan, Europe did not expect to be hit as hard before the number of infections started to explode in Italy and alpine regions. Thereupon, different political reactions and societal consequences among European countries carry public restrictions on several scales: while leaving the house is almost impossible in southern Europe, Scandinavian countries – especially Sweden – follow a more loose strategy to prevent further spread of the virus (Bundesamt für Gesundheit BAG 2020).

The slogan 'stay home' comes along with the pandemic, asking society to withdraw into their private spaces. However, this conception is based on the middle-class prospect of having a place for it. Obviously, if having strong family or community support, a comfortable house – or even a garden, a terrace, or a balcony – staying home is a possible reaction to the pandemic. But our system reveals its inequalities severely in this crisis. So live people i.e. in Paris, dependent on day labourer, in houses that thus not provide the ease of staying home, but run-down and cramped accommodations (Hummel 2020). To prevent crowding, closure of several popular urban parks reduces to ability to go outside and enjoy greenery in different European cities. As noted by the urban researcher and journalist Surico (2020), "*the multiplicity of benefits parks have always offered us – physical and mental health relief, community building, and free public open space in tight, increasingly privatized urban quarters – seem not only like an added bonus right now, but rather, a critical lifeline for cities and their residents*". Talking increasingly about the 'new normality' (Hermsmeier 2020), the pandemic clearly challenges our understanding of public urban spaces: what was the previous normality, and for whom? What does the city offer us and what can we learn from current interruptions?

Before analysing the qualitative data gained with the help of semi-structured interviews, I'll elaborate on the corona virus from an urban planning perspective, concerning its influence on previously imposed concepts of density as well as the politically caused economic shutdown in regards of its ecological footprint.

6.1 Corona and Urban Space

The urban and the pandemic

Globalization affects the appearance and reappearance of infections (Bermudez-Tamayo et al. 2016), while urban regions and travel hubs lead to an increasingly fast spread of the virus. Already previously noted as “*gateways for the worldwide spread of infections*” (Alirol et al. 2011, p.132), cities play a major role in the ongoing pandemic.

Generally, urban life is considered to provide better life quality for its population in several aspects, including access to health services and education. In contrast, urbanization also poses extensive public health challenges – especially in low- and middle-income countries, but also worldwide – as various health issues correspond with urbanization processes. Besides associated factors of poverty and population mobility, the ecology of urban environments is playing a role in emerging and re-emerging communicable diseases in urban regions (Bermudez-Tamayo et al. 2016). Today’s environmental challenges are not only putting pressure on our eco-capacity, but also the health and livelihoods of inhabitants. One primary example is air pollution: in several European countries, population exposure to fine particulates (PM2.5) is above the air quality guideline announced by the WHO (including the three exemplary countries Denmark, Germany, and Austria in section 5.1, and further Spain, France, Netherlands, Belgium, Latvia, Hungary, Czech Republic, Slovenia, Greece, Slovak Republic and Italy). In regards of the ongoing pandemic as a respiratory disease, population affected by health preconditions caused by air pollution face greater risk of a SARS-CoV-2¹ infection (Cox & Piccolo 2020). Conclusively, improving environmental aspects such as air quality “*can help increase resilience against acute respiratory illnesses as well as generate wider societal benefits*” (Cox & Piccolo 2020, p.132) – highlighting the urgent need of sustainable urban planning.

What about urban density?

As elaborated in section 4.5.3, the strategy of densification is acknowledged to bring relevant benefits in urban planning perspectives. However, considering density concerning infection prevention, we solicitously observe virus outbursts in especially dense cities like New York. With that, the virus seems to set back environmentalists goals of land use by dense urban planning, pushing people back into their cars and out to the suburbs – for health reasons?

Reading on the discussion about urban density as an boosting factor of the virus’ outburst, as it is widely spread among the crowd, there are counter voices on planners side, naming it “*not an issue of density as much as [...] an issue of design*” (Alter 2020). Noticing New York as a collection of districts separated by water bodies, “*the parts of New York City with the lowest density have the highest rate of COVID-19 infection*” (Alter 2020). Furthermore, statistical data does not reveal a consistent relation of big-city density and infection impacts. After all, factors of inequality noticeably intensify the risk of an infection – to create resilient cities, it is not just a matter of spacial, but also structural reform (Kling 2020). Density still combines

¹The virus is referred to as SARS-CoV-2, while COVID-19 indicates the disease.

greater resources of social services, including quicker access to health care facilities. Other 'social infrastructure' (such as libraries, community centers, public parks, ...) hold the potential of social ties to counteract isolation, generating supportive networks. Together, "*building on these strengths can make cities more humane and resilient in the pandemic's aftermath. (...) [The] problem is the virus, not urban life*" (Kling 2020). Conclusively, it is a matter of neighborhood scale and the reclaim of living prospects over those of private interests. Reflecting on the compact city model (cf. 4.5.3), it is about the right amount of density: supporting local needs and services, bike and transit infrastructure, and to create a sense of community (Alter 2020).

Is this economic shutdown finally good for the environment, giving the earth time to breath?

Taking a look back, economic downturns have never been good for environmental protection. During the global financial crisis of 2008, the carbon footprint declined drastically: subsequently, the need for climate policy lost its attention and money was already spend to support banks and businesses. With the regain of economic power, increasing car production and air-travel consumption, the short pause of environmental exploitation turned into and CO2-explosion (Pinzler 2020), further approaching climate crisis and experiencing a similar phenomenon that Jevons observed as a rebound effect (cf. 4.4) – backfiring the previous gains by reduction.

However, there are shifts in our perception of urban space in this crisis, carrying the sense of long-term changes. So is for example the importance of bicycle infrastructure growing among European cities. The city of Milan (Italy) introduced the plan to transform 35km of streets to cycling and walking space to protect residents after lifted lockdown-restrictions. "*If everybody drives a car, there is no space for people, there is no space to move*", so Marco Granelli, a deputy mayor of Milan (Laker 2020). In Denmark, where trust and civic responsibility majorly shape the strategy to handle the pandemic, public spaces experienced new forms of public life. Urban data proves that "*vehicular traffic has decreased while walking and cycling are the most resilient*" (Laker 2020, p.46). Interestingly, more kids and elderly people can be found in public spaces during the pandemic than before. All together, the Danish urban study highlights the importance of accessibility of fresh air, water, and sunlight for citizens: "*Despite the pandemic, humans are still humans: places that invite for sensory experiences and good climatic conditions continue to be the most sought after*" (Laker 2020, p.35).

Building the bridge to Lefèbvre's urban theories, is not about regarding the city as a threat, but as the potential of creative collectivity. Not only the accessibility, but the co-design, debate and utopian imaginings of urban spaces are essential to overcome inequalities and shortcomings that become apparent in this crisis (Hermsmeier 2020).

To gain a further understanding of the perspective on the ongoing chance, the investigation of the third sub-question will build up on the division of the previous chapter. The following interviews provide personal insight from first a planners and second a citizens perspective.

6.2 Qualitative Interviews

6.2.1 Interview Design

To answer the overall research question, the third sub-question approaches the ongoing situation of the corona-crisis by the help of qualitative interviews. Gaining personal and contemporary insights in the previously investigated interrelations, the interview design is structured based on the particular considerations of the sub-questions. Figure 6.1 presents the relation of the interview design to each sub-question: first, the connection of urban growth and economic growth with its resulting environmental constraints (investigated in section 5.1); second, the need of a reconnection between nature and human society and the concluded relevance of green and common urban spaces (investigated in section 5.2); third, the change occurring due to the ongoing crisis will sub-sequentially be put into perspective.

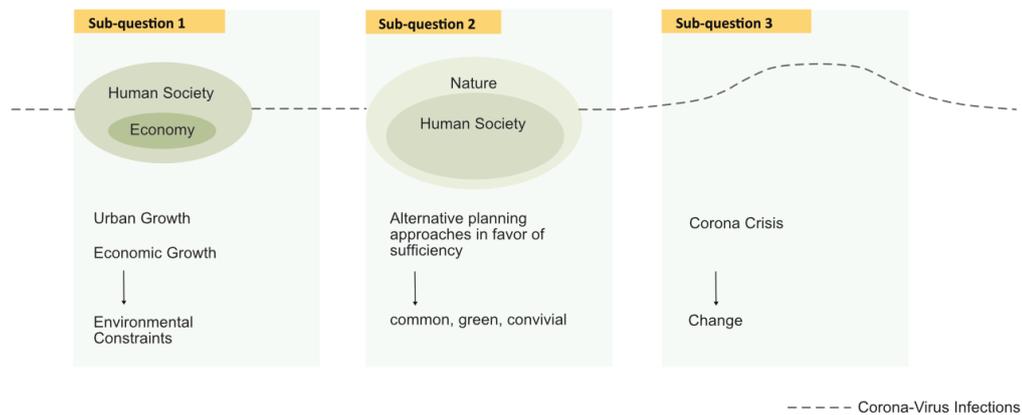


Figure 6.1: Foundation of the Interview Design: the green ovals represent the in the sub-question mainly addressed elements of the laminated totality, summarizing its core themes underneath. The dotted line depicts the registration of corona infections, representing the previous 'normality' of the system, suddenly interrupted by the corona crisis and its societal reactions to 'flatten the curve' – and with that, carrying a change; *own depiction*

Based on this structure, the overall focus of the interviews is set on social-ecological concerns with its expected risks and potentials resulting from the ongoing crisis. As I argue for a reconnection of human society and nature, I give less attention to the economic perspective in this investigation.

Guided by interview and follow-up questions, the semi-structured interviews were oriented on the following set of interrogations collected in table 6.1. These questions have been used as a guide and slightly varied in the course of the interviews.

	Interview questions	Follow-up questions
SQ 1	How do you perceive the relation of urban growth and economic growth?	How do you see the corona crisis and its aftereffect in an ecological perspective? (Risk & Potential)
SQ 2	Do you see a way to reduce contemporary resource intensive urban lifestyles?	If considering public, semi-public and private space – what role do you see in each currently? How do you consider the role of neighborhood communities in times of corona?
SQ 3	Where do you notice the strongest change in the city due to societal reactions on the pandemic?	What are your social concerns on urban life in (and after) the corona crisis? (Risk & Potential)

Table 6.1: Interview Guide

Both perspectives (top-down ↓, bottom-up ↑) are represented twice in the interviews by the following interviewees:

- **Jin Xue** (↓) is Associate Professor at the Norwegian University of Life Sciences. Having her research interests in sustainable urban and housing development, her work concerning environmental and social sustainability has been a large input to the theoretical background of this thesis, sharing the position on degrowth and the understanding of urban futures on basis of critical realism (NMBU 2020).
- **Ekhart Hahn** (↓) is a German architect, urban ecologist and professor. Inspired by the 'Limits to growth' published in 1972, he investigated on urban structures and futuristic strategies, forming the research field of ecological settlement. Since 2015, he is Author and Project Manager of Eco City - International Campus Wünsdorf, model and research city for the post-fossil life and an urban transformation into networked circulatory systems (Hahn 2020).
- **Ragnhild Sørensen** (↑) is working for the organisation Changing Cities e.V., an independent initiative for a better city. Located in Berlin, their nationwide campaigns and projects aim for a traffic turnaround – a livable city not dominated by traffic noise, but with fresh air and public spaces that invite to stay. 'We are loud and creative, unpredictable and pragmatic'². Politically independent, Changing Cities e.V. is a platform for all, giving a voice to civil society (Changing Cities 2020).

²"Wir sind laut und kreativ, unberechenbar und pragmatisch."

- **Andreas Schütz** (↑) is student, programmer and Fridays for Future (FFF) activist in Linz, Austria. FFF is a global movement that went viral after Greta Thunberg and other young activists started a school strike for the climate, soon mobilizing youth worldwide. The climate strike is an international, nonparty, independent and decentralized movement of all protesting for the climate in the streets (Fridays for Future 2020).

Before coming to a discussion, the following section summarizes the answers of each interviewee to the main question. All the interviews are completely documented in the appendice. To include quotes from the interviews conducted in German language, these quotes have been translated and linked to the original in footnotes.

6.2.2 Interviews: Top-down Perspective

Jin Xue (cf. appendice .0.1)

Acknowledging the close relation of urban and economic growth, Xue notes cities as drivers of global economic growth. "*The urban becomes the competitive center of global, mobile capital*", playing a more important role than the state to attract investment. Further, the increasing wealth generated by this growth brings higher living standards and more mobility. With that, contemporary cities are more about consumption than production, claiming a massive amount of resources.

The lock-down of the corona crisis and its reduction of our consumption level has strong impacts on previous implicitness. "*Of course, it is a disaster, this virus, people lose their lives. But environmentally speaking, we see some benefits*" – as a reduction of the amount of oil consumption and better air quality.

Referring to the degrowth debate, "*what we experience now is not degrowth, but the strategies have some similarities with degrowth, and this is an evidence that these strategies are quite effective in solving environmental problems, particularly climate change*". Consequentially, this crisis provides a particular potential for a re-boost of the society and economy. "*Many degrowth proponents discuss the crisis as an opportunity to restructure the society into a more sustainable and just future*" – i.e. less encouraged to take a flight; and a reduction of commuting distance and frequency due to home office possibilities.

However, a particular and severe risk is the inequality created – as degrowth is strongly concerned on the social dimension, we currently see a lot of social problems related to the virus containment strategies, and burdens are not equally distributed. This might further effect the divide between poor and rich. Also, "*after the crisis, people will still be afraid to take public transportation. Increasing car use can be expected, which will be negative for the environment*".

Considering the corona virus and its impacts on the urban, "*we have to think about public health as another dimension when we think about urban sustainability*". To include sufficiency in the planning, Xue names the political willingness as crucial. "*If the government has the strong willingness to reduce per capita consumption in terms of built-up area, it will be possible*".

to do so". The corona virus shows that very radical strategies by the government are widely supported by the population when regarded as life saving. *"Therefore, I don't think the people are aware of the future disasters we face; we need a change in how people perceive the climate problem.* Relating sufficiency to cultural norms and their understandings as barriers, there is also the dimension of ownership and security. *"How we relate ownership of housing to the security of our living. This is also related to culture. (...) If you have this kind of ideology, it is very hard to develop alternative tenures, e.g.co-housing, schemes that can reduce consumption of space."*

Regarding learnings of the ongoing situation, *"I think as urban planners, we need to learn a lot in this crisis, because we see the importance of open and green public spaces. (...) If we are going to use the local spaces more than before – localize our activities – then this kind of spaces should be emphasized more by planners (...), by creating spaces that can tighten the ties on the neighborhood and community level"*.

Ekhart Hahn (cf. appendice .0.1)

Evaluating the relation of economic growth and the global phenomenon of urbanization, Hahn does not see economy in the primary role, but technological development. Without digitalization, mega-cities as today would not be possible – internet, division of labour, mobility, etc. ... modern technology is used for economic purposes and drives urban development.

Focusing the economic and ecological urban perspective in the context of the corona crisis, Hahn quotes a paragraph from the report by Ellis Huber, a German Preventologist, concerning social health and living environment: Huber states that a major problem is not respected in current discussions. Robert Koch and Louis Pasteur, two famous infectiologists, both acknowledged the importance of the role of the host over the role of the bacterium – meaning that the living environment of the human is decisive for its health. Infection diseases have not been vanquished by medicine, but by societal changes and better living conditions – by 'cleaner cities' and a new balance between bacteria, humans and commonwealth (Huber 2020, cf. p.7).

*"As every virus, corona is an environmental problem."*³ Pathogens always appeared at certain moments in history, as i.e. the Spanish influenza during the disastrous living conditions right after the Second World War. The virus is attracted by the weak points of an unhealthy setting. Arguing for a more healthy (urban) environment, Hahn emphasizes the need *"to regain a different, more conscious connection to nature – beauty and aesthetics – and a livable surrounding."*⁴ The more we respect that, the more difficult it becomes for a virus to spread, and the more difficult it also becomes for climate change, as we take care to keep a balance with nature. Referring to the corona crisis and the climate crisis together, *"these are all results of human ignorance of nature insight and around us."*⁵

Nature in the public spaces, in the apartments, in the neighborhood – all this is very essential

³"Corona ist ein Umweltproblem – wie alle Viren."

⁴"Wir müssen wieder eine andere Beziehung zur Natur – zu Schönheit und Ästhetik – und einem gesunden und Lebenswerten Umfeld schaffen."

⁵"Das sind alles Folgen von Ignoranz gegenüber der Natur in uns und der Natur um uns."

for a sustainable future. Hahn sees the primary task in a reconnection of humans and nature, not only passively, but active, shaping more natural spaces with the hands in the earth.

The theory that Hahn already has been standing in for 40 years is that the future of cities, including mega-cities, is cellular. Urban commons, local energy supply, water cycles, bicycle cities – all this is on a neighborhood scale. Noting enormous changes in the city currently, Hahn sees the current chance of rethinking our future as an alternative instead of going back to the previous normality as quick as possible. With the reduced range of movement during the crisis, the importance of the neighborhood has been realized by a lot of the inhabitants. Considering its influence on the urban planning, corona highlights the importance of fresh air and with that, the need of an accessible 'outside'. "*It needs enough public and preferably green urban spaces for all people.*"⁶

6.2.3 Interviews: Bottom-up Perspective

Ragnhild Sørensen (cf. appendice .0.2)

For Changing Cities e.V., the main focus concerning public space is on motorized, individual traffic. Public space is not directly perceived as economic object, as it does not have a fixed price connected to it. However, by taking a look on subsidies and similar facilitation's, a concrete price can be calculated to it. Especially supports of the automobile provides insights into hidden costs as i.e. parking lots. These are costs not noted by the citizens, while public space seems to be offered free of charge to the people. Alongside, with subsidies for road construction, commuter tax reliefs and similar supports, this public space is construed for the purpose of the car industry. This did not happen naturally in the beginning, but was pushed by investment, shaping the quite optimal road system that we have today – this is making it so convenient and persistent nowadays. "*I think, the public space is primarily noted as not economic – and this is a problem.*"⁷

In big cities, about 60% of the public space is taken for parking and traveling with the automobile. That means that only 40% are left over for all other practices, including not only mobility, but also parks to offer space for recreation, sports, and leisure activities. Naming Berlin as an example, it is known that 70% of the population does not use the car for transit – those 70% now need to arrange on 40% of the actual space. This is a massive imbalance.

Cities will grow and most likely also become more dense. With more people having to share a limited amount of space, public space will gain more importance. And there is another layer to this: we also need to consider climate adaptations. "*In all probability, we need to plant thousands of trees to prevent urban heat islands – for the sake of health in the cities.*"⁸ This

⁶"Es muss genügend öffentlicher und auch möglichst grüner Raum da sein."

⁷"Ich glaube, der öffentliche Raum wird vor allem – und das ist ein Problem – als nicht wirtschaftlich wahrgenommen."

⁸"Wahrscheinlich müssen wir tausende Bäume pflanzen, damit es nicht so heiß ist – einfach wegen der

will demand additional space, projects Sørensen, as we have not considered the space for the climate in our urban surrounding yet. "*And this will be another big challenge.*"⁹

Sørensen notes the corona crisis as a moment of pause. Due to limited mobility, many people suddenly have more time, normally used for commuting. "*With this limitation of mobility, we perceive the public space differently.*"¹⁰ The distance regulations, of course, lead to a different perception of one's own being. But people also change their habits and start to connect to their local surroundings. "*The people plant flowers in the street next to the trees, to have a bit of a garden*"¹¹ It is a return to the local, and further, people start reflecting about its distribution and which parts are meant for them. In this reflection and perception of the city, Sørensen sees a great potential of change.

There are opportunities within this crisis, as the municipality and the politics realize that something needs to be done. A certain pressure in decision-making suddenly brings additional bicycle lanes and play streets – asking for years before the crisis. And as little as these changes may seem, Sørensen recognizes their importance for her effort: "*It is majorly difficult to envision people how it could be. But when it happens – even if only temporarily – the citizens have the chance to experience a difference. You can argue as much as you want, this experience is unique.*"¹²

Andreas Schütz (cf. appendice .0.2)

Becoming active with FFF, Andreas feels a responsibility for demonstrating and acting for the climate. Considering individual responsibilities as well, there is a great political dimension to climate protection: "*We shall not tolerate to continue like it is. (...) If something is to be changed now, and if we want to do something for more justice in the world, than this is a very relevant topic.*"¹³

Considering his hometown Linz, there are a few big industries linked to the city, i.e. voestalpine (steel industry), strongly related (among others) the automotive industry. Without being connected to, or observing, urban economic relations, Andreas notes the attention attracted by these industries, including real estate projects – clearly creating dependencies of the city to its economic power.

Another infrastructure mega-project in Linz is the highway 'Westring' – carrying severe environmental consequences. Organizing protest movements, FFF supports the importance "...

Gesundheit in den Städten."

⁹"Und das wird nochmal eine riesige Herausforderung sein."

¹⁰"...dadurch, dass unser Bewegungsumfeld so klein geworden ist, nehmen wir den öffentlichen Raum ganz anders war."

¹¹"Die Menschen pflanzen Blumen, draußen auf der Straße neben den Bäumen, um etwas Garten zu haben."

¹²"Es ist wahnsinnig schwer, den Leuten klar zu machen wie es aussehen kann. Und wenn es jetzt plötzlich gemacht wird – auch, wenn es nur temporär ist – haben die Bürger*innen die Chance, es zu erleben. Man kann argumentieren so viel man will, dieses Erlebnis ist einmalig."

¹³"Man darf nicht zulassen, dass alles einfach weitergeht wie jetzt. (...) Wenn man was ändern möchte, in der Welt, und etwas für Gerechtigkeit tun möchte, ist es schon ein sehr heißes Thema."

that people see what happens in the public space."¹⁴ With the mobility restrictions of the pandemic, less people passed by these mega-projects – implying that these big projects devolve out of sight.

Meanwhile, the long fight for a car-free 'Hauptplatz' suddenly gained back its momentum, appearing increasingly in the media. With the present traffic decrease, it seems easier to implement the previous claims, and this willingness to act carries a great potential for further changes. Holding a potential and risk simultaneously is the current flow of enormous sums and investment in the economy. Andreas underlines the need of these investments to enhance climate justice, instead of supporting the automotive industry. *"I think for this it needs a movement; and it needs actions in the streets."*¹⁵

Andreas refers to the street as *"... a very important space for activism."*¹⁶ Being present in the communal spaces is the main communication used by the FFF movement, reaching out to the general public while using it for encounters and creating a community. The moment of collective and united protests retrieves a strong motivation for continuing actions. Further, there is the symbolic power to being present in the public space, i.e. in front of the city hall. *"It is a form of self-empowerment, being able to stand on the street and protest."*¹⁷ – taking individual action for environmental and societal goals, such as greener and car-free public spaces.

Regarding the public spaces, the corona crisis highlights its importance for i.e. housing inequalities. It is an important quality to have the possibility to go outside and use nearby parks and green spaces – especially for people in smaller apartments without balcony or garden access. In addition, considering psychological consequences of loneliness, the public space is a meeting place – *"I think this is socially important."*¹⁸ Accordingly, Andreas notes the major change in the city during the crisis in the decrease of users of the shared spaces. Further, there is the change of imagery connected to wearing face masks – interesting also for the imagery of demonstrations and previous prohibition to cover up.

Reflecting on the effect of the corona crisis, Andreas notes the potential of the current situation and the various economically influential decisions it brings. For the FFF movement, activists are already aware of the importance of this moment. *"I hope it will become even louder in the future."*¹⁹

6.2.4 Interview Discussion

As elaborated in section 3.2.2, imagining the city in a collective process retrieves the potential to gather daily-life perspectives, individual experiences and urban conditions. Gaining individually

¹⁴"...es ist wichtig, dass die Leute sehen was im öffentlichen Raum passiert."

¹⁵"Ich glaube, dass es dafür schon eine Bewegung und Aktionen auf der Straße braucht."

¹⁶"Ich glaube, dass die Straße für einen aktivistischen Einsatz sehr wichtig ist."

¹⁷"Es ist eine Selbstermächtigung, wenn man tatsächlich auf der Straße stehen und protestieren kann."

¹⁸"Ich glaube das ist sozial wichtig."

¹⁹"Ich hoffe, dass es noch lauter wird."

reflected, personal (professional) experiences, the interviews open the discussion on the risks and potentials carried in the ongoing crisis to achieve an environmental conscious urban society.

Taking a look to the previously introduced storytelling curve, the unexpectedness of the changes carried by complications and thus rising action during the corona crisis shaped this thesis and the design of the interviews. It is important to note that none of the interviews only considers the corona crisis, but all of them refer to the expected climate crisis. Therefore, the interviewees tell not only the story of corona in the urban context, but acknowledge the complexity and entanglement of this crisis in a multitude of stories, especially the story of climate change. This relation is captured in figure 6.2. The exposition of the virus finds itself in the first registered cases in China, before the unexpected severely rising numbers in Italy and alpine regions soon lead to complications and rising actions not only in Europe, but globally. With societal restrictions and uncertainties, the story of corona is still on its climax in times of this thesis, while regional openings start giving the feeling of compensation of the situation (i.e. reopening of shops and restaurants).

As the rise of infections is exponential without intervention (cf. 4.8), natural systems rarely develop linear in case of disruption. Instead, first signs of an imbalance ask for direct actions to prevent an uncontrolled outburst. Likewise, the melt of glaciers and decreasing snowfall will reduce the surface on earth that naturally reflects light. The defrosting of arctic perma-frost soil (an area about twice the size of Europe) could further release great amounts of greenhouse gases (Descamps & Lebel 2020). It is unlikely to expect the climate crisis to be linear.

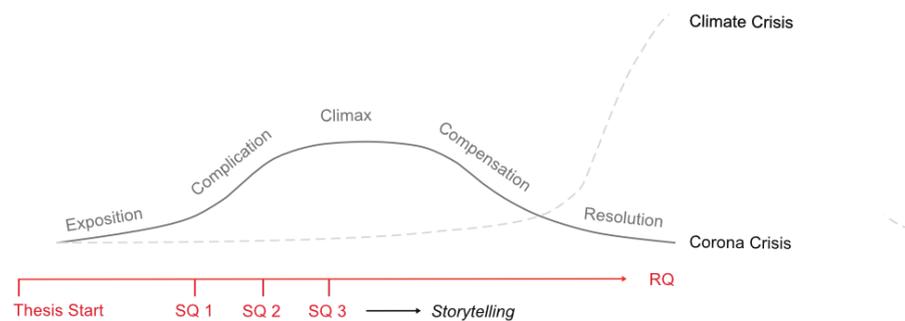


Figure 6.2: The storytelling curve of ongoing corona crisis and the rising story of a, from today's point of view, likely expected climate crisis, *own depiction*

Taking a point of departure in the economic relation of urban development, the profit oriented economic purpose of the cities and the detachment of urban population to the nature are noted negatively in all the interviews.

Xue refers to economic growth as a general driver of urban growth. Cities and the urban lifestyle are noted to play a more important role than the state to attract investment – especially in quite developed countries – implying a major (materially) consumption orientation. In particular, economic dependencies on industries in or around the city, such as the automotive industry, are recognized by Andreas and climate activists. Determining the economic power of the urban, their influence is often suppressing concerns about ecological consequences of resulting mega-

projects.

Besides privately driven projects, Sørensen mentions the public space as not noticed in its full potential, partly because of the economic link to it: "*there are hidden costs not noticed by the citizens, since the public space is provided apparently free of charge*"²⁰ (.0.2) – these hidden costs, however, are primarily taken for the benefit of the automotive industry (in form of subventions) – defining about 60% of the space in big cities by the dispersion of parking lots and roads. Thus, the understanding of its real price is lacking in the perception of the inhabitants. Further, Sørensen notes that in growing and higher dense cities, public spaces gain more importance, offering accessible space to all. But besides human activities, another space consuming aspect is faced in the rising need for urban climate adaption: to prevent heat islands in the heavily sealed built environment, a lot of trees and greenery need to be added for the sake of urban health.

The importance of health consideration is obviously highlighted during this pandemic. Xue notes its consequence for the urban planning: "*We have to think about the public health as another dimension when we think about urban sustainability*" (.0.1). In this regard, Hahn critically addresses the aspects mainly determining contemporary (urban) development: the rate of return and the function, pushing economic growth while depleting ecosystem services. "*With that comes climate change, viruses, that all.*"²¹ (.0.1). Accordingly, he notes corona as an environmental problem.

All interviewees note that the societal restriction during the pandemic and related behaviour changes of inhabitants transform the use and perception of urban spaces.

Sørensen firstly names the perception of the own body, related to the distance rules of 1,5m. Also, with limited mobility, the neighborhood retrieves new attention, offering spaces which can be reached by foot or bicycle. With that comes new user patterns as running and bicycling – followed by the realization that there might not be enough space for such besides the danger connected to the dominating automobile.

Andreas observes a reduction of not only traffic, but also pedestrians in the public spaces. While this allows the experience of car-free streets and spaces, less inhabitants observe the ongoing progress of critical mega-projects continuing in times of the lock-down – implying that the dominating presence of the virus should not let society forget about other political happenings. He notes the importance of the constitutional dimensions in the actual situation, underlining the need of civil protests in favour of climate needs also in times of the pandemic.

As fresh air is important for a healthy being, Hahn regards the outside as very important in times of the corona crisis. Thus, it needs accessible and green space for all inhabitants in their close urban surrounding. Envisioning the future of the urban as cellular (in form of almost independent districts), corona supports his observation of the relevance of functioning and preferably close to self-sufficient neighborhoods. Primarily, Hahn sees the main task in regaining a closer connection of human and nature to fight the current environmental imbalance, resulting in climate crisis.

²⁰"... verdeckte Kosten, die kein Bürger wahrnimmt, weil der öffentliche Raum quasi als kostenlos zur Verfügung gestellt wird"

²¹"Die Rendite muss stimmen, und die Funktion muss stimmen. Ende. Damit produziert man Klimawandel, Viren, alles Mögliche"

Xue is especially concerned about the inequalities related to the virus containment strategies. "*If the housing prices keep very high, probably in the long run this will lead to new kinds of segregation or exclusion because of (...) a high unemployment level*" (.0.1) – while noting that the dimension of this development depends on the responses of local public authorities' to it. Moreover, she recognizes that "*as urban planners, we need to learn a lot in this crisis, because we see the importance of open and green public spaces. (...) If we consider the future, the community level should be further reinforced*" (.0.1).

On basis of the different perspectives in the four interviews with their recognition of the urban surrounding and the spaces it offers as influential for the experience of the crisis, it can be concluded that urban planning strategies play a role for societal resilience in following pandemics.

The risks of widening inequalities is severely carried by not only the virus itself – especially hitting elderly, fragile and socially deprived people – but also its containment strategies (especially referred to by Xue and Andreas). Another risk, while simultaneously carrying a great potential, is connected to current investments for recovering the economy. Will these supports lead to a rebound of carbon emissions, or help approaching climate goals? The chance of this crisis as a turning point is thus complemented by the question whether everything shall go back to the previous normality as quick as possible, or whether society can take the time to rethink the future, setting priority on ecological and social aspects.²²

The interviews all follow an optimistic story-line, observing positive side effects and potentials carried in the corona crisis. Less mobility – as taking less flights, the most climate polluting activity –, reduced oil demand and generally reduced consumption level result in i.e. better air quality. Directly tangible by inhabitants, advantages of such a reduction might reach common realization and the claim for long-term change. While Andreas highlights the need for louder protests by the people, Xue underlines the power of the government concerning influential actions. "*We see that in the corona virus, the government takes very drastic strategies, and it actually gets a high level of support from the population*" (.0.1). The government can thus play a crucial role to introduce strategies for greater environmental protection – if society gains awareness of the prospective climate crisis comparably to the threat by the corona virus.

Regardless of which side is evaluating the ongoing corona crisis, there is an existing and further deepened societal inequality (locally and globally) connected to the severity of the impact of the crisis. Besides, the governments reaction reveals the effect of actual political willingness for direct actions. Together with ongoing exceptional circumstances and related release of habits, corona offers possibilities to further include environmental conditions into political decision making. Additionally, the virus underlines the need of ecological learning of citizens and a reconnection to nature – as the preservation of global health also implies environmental protection. Convincingly, if top-down and bottom-up now pull the same direction, the crisis offers "*... an opportunity to restructure the society into a more sustainable and just future*" (.0.1).

²²In times the interviews are conducted (mid of May 2020), great sums of money in form of state subsidy already started to flow in economic support within Europe, while most of the financial decisions are still to come.

7 | Discussion

In her TED talk in 2009 – translated in 49 languages –, the Nigerian writer Chimamanda Adichie talks about 'the danger of the single story'. Concerned about stereotypes created by single stories, it is the incompleteness that makes one story the only story. Based on her own experience as an African writer, strongly impressed by western literature as a child, Adichie highlights the impressionability and vulnerability humans face by listening to stories: that dominating stories have an immense influence on our perceptions.

"It is impossible to talk about the single story without talking about power. There is a word, an Igbo word, that I think about whenever I think about the power structures of the world, and it is 'nkali'. It's a noun that loosely translates to 'to be greater than another.' Like our economic and political worlds, stories too are defined by the principle of nkali. How they are told, who tells them, when they're told, how many stories are told, are really dependent on power" (Adichie 2009).

The single story of growth as societal progress

The story of growth is commonly perceived as the story of societal progress (cf. 4.5). Taking reference to Adichie's TED talk, there is an incompleteness connected to the recognition of GDP as indicator of societal well-being. As measuring method of market activities, GDP leaves aside various goods, services and social conditions not operating on the market. Further, greater individual purchasing power is not implying the completion of individual preferences (Petschow et al. 2018), but rather increasing inequalities while resultant rising living standards exploit the earth's eco-capacity. Moreover, this over-consumption of natural resources constrains the living prospects of future generations (cf. 5.1).

Cities are recognized as a major point of economic concentration, closely connected to production and international trade. Promising jobs and higher income, cities attract population and urban growth, while further simulating purchasing power. With that, the market value of urban space attracts investment and speculation: a commercialization of urban space dominated by the growth ideology (cf. 4.1). Ownership rights are recognized to play an essential role for the willingness of participation and community solidarity. Hence, common spaces offer a non-commodified alternative sense of place, enhancing users and inhabitants expressions of needs and wants, while this representation of spaces (cf. 4.7) carries the potential of societal transformation, offering the stage for additional urban stories (5.2).

There are more stories for quality living prospects than GDP growth or growth connected to

material consumption, including diversity, community and friendship (cf. 4.5.4) and – in times of a pandemic –, the health aspect of people’s surroundings. Comparably, and also likewise to the story-line of the interviews in section 6.2.4, Adichie ends her talk with a positive thought: "*...when we reject the single story, when we realize that there is never a single story about any place, we regain a kind of paradise*" (Adichie 2009).

The story of corona and climate change

The great danger of the virus spread is its exponential rise. A sudden great number threatens to overload the health care capacity, as dramatically experienced in Italy. Thus, the approach of 'flatten the curve', implying societal restrictions, is taken to slow down the infection rate of the corona virus (cf. 4.8). Challenging the mind, it is not easy for humans to imagine exponential growth. For a long time in history the experiences during one lifetime have been local and linear for the individual – however, with rapid growth of technology the last decades, unexpected degrees of change are nowadays occurring even within generations. These accelerated changes may exceed societal imaginations of the future (Berman et al. 2020), as acutely experienced by the corona crisis. If we think about the story of corona, the investigation in chapter 6 highlights the fact that this virus is not a single story, but accompanied by the story of climate change: we cannot fight current and future pandemics without protecting our natural environment.

Fighting the virus is based in a great societal awareness of the urgency and seriousness of the situation. Opposed to this acceptance of direct and severe actions in case of the virus, the scientifically knowledge of climate change has been proven for years now and reached great media presence lately, but not led to a direct and drastic response to it (cf. 4.8). However, as discussed in the interviews (cf. 6), the cut in everyday life provoked by the corona virus carries a great potential for societal transformation. Economical support can be bound to climate goals, commuting reduced by digital communication and home-office options, and the appreciation of the neighborhood scale followed by re-localisation and self-sufficiency approaches of (city) districts carry the potential to enhance urban resilience.

However, as to be noticed in various European governmental decisions, to reboost the economy, the support of fossil fuel dependent sectors (as airtravel and automobiles) is predominant and sparsely accompanied by green growth strategies. The alleged easiness of going back to the previous system sets barriers to the actual transformation potential of the exceptional circumstances. Yet, harmful effects of societal dependency on economic growth are clearly revealed by this crisis in form of inequalities in the 'stay home' concept, corona outbreaks in slaughterhouses, the work situation in healthcare and nursing jobs and many more (Pinzler & Göpel 2020). Leaving everything to the market is not a solution to solve a crisis in solidarity, whereas the virus containment strategies are widely accompanied by the appeal of societal solidarity.

The Cambridge dictionary defines 'solidarity' as an "*agreement between and support for the members of a group*" (Cambridge Dictionary 2020). This raises the question of the interpretation of 'the group'. Is it nations, believes – or all human beings? The virus shows that wherever it is in the world and whichever person carries it, it will spread. Accordingly, it can only be fought if everybody is included in the group. The rich, the homeless, the middle class, elderly and children. The virus might be affected, but not stopped by hierarchies.

From a global perspective, this solidarity might ask more from humanity than staying home for a few weeks. There is a great inequality in how the ecosystem is exploited. So do Europeans on average account responsible for consuming 2,7 times of the earth's eco-capacity, ranking way higher in specific countries (cf. 5.1). The western lifestyle implies consequences on a global scale already today and likely exponentially in the future. Hence, responding to the virus outbreak in solidarity includes global and inter-generational justice, and with that a shift away of contemporary consumption habits.

A future story for the city

The typical picture of a city is shaped by the experience of it. It includes cars, squares, traffic, stone facades and concrete walls. There is usually a clear distinction between the urban and nature, considering biodiversity outside, and industries and culture within the city. However, with increasing percentages of humans living in cities, urban growth and landscape transformation is overusing ecosystem services, while also reducing diversity of species (cf. 5.1). Additionally, ecological awareness is noted to decrease among citizens: a disconnection of natural surroundings and the understanding of human's dependence on it – since it seems not directly relevant for daily, individual urban life (cf. 5.2).

Meanwhile, climate change and rising temperatures – creating heat islands in the city – underline the need of additional urban green (in form of trees, green roofs and facades) for the cooling benefits of shadow and transpiration. Further, accessible greenery and especially inhabitants involvement in layout and maintenance (as i.e. in urban gardening projects) enhance ecological learning and with that, the considerations of environmental protection. As a learning of the corona crisis, collective understanding of the seriousness of a situation is greatly increasing the willingness to act, including the acceptance of limitations or the change of daily habits (cf. 6). The concept of commons thereby comprise collective governance of urban spaces, enhancing solidarity, reciprocity and sharing; three fundamental aspects of (urban) sufficiency. Moreover, if connected to revegetation, inhabitants may regain a closer connection to nature by its increasing offer and (optionally) more active intercourse with it. UGC's thereby offer various motivations for it, including gardening, community, culture or leisure activities.

Another learning of the corona crisis is the importance of decentralisation and well-functioning neighborhoods. Decentralisation allows a distribution of offers for errands, management or activities, avoiding single hot-spots of crowding. Socially, a well connected neighborhood community supports each other in times of crisis, enhancing collective action. Further, local access of food supply and renewable energy systems strengthen neighborhood resilience. This is attended by bicycling and pedestrian friendly distances within the urban district and should be further supported by the design of transit infrastructure. Besides, additional trees in the streets ask for a redistribution of space: a reduction of car traffic and the high percentage of public spaces claimed by it is important to regain the space needed for bicycle lanes, pedestrians and urban green (cf. 6).

Taking together, the corona crisis underlines the need of a more sustainable and less profit oriented urban planning. Counteracting privatization by increasing collective governance for urban green spaces – enhancing participation, personal expression and ecological learning – UGC's carry the potential to offer more inclusive and greener urban surroundings.

8 | Conclusion

In October 2018, the 15-year old activist Greta Thunberg, giving rise to the worldwide climate protests 'Fridays for Future', stated in an interview with 'The New Yorker':

"The climate is not going to collapse because some party got the most votes. The politics that's needed to prevent the climate catastrophe – it doesn't exist today. We need to change the system, as if we were in crisis, as if there were a war going on" (Gessen 2018).

Now we have a crisis. So what can we learn from it?

Summarizing the findings of this thesis, the first sub-question reveals a clear growth of built-up area per capita in Europe. Closely entangled, growth of the building sector and economic growth result in higher purchasing power and rising living standards. Despite eco-efficiency approaches, this entanglement further drives the desire for spacious homes, implying increased resource input. Even with efficiency gains and ecological construction techniques, new and more appliances, increasing amount of square meters and new urbanized areas demonstrate the Jevons Paradox in urbanization.

Provoking material consumption, energy consumption and energy related emissions, affluent European countries are clearly over-consuming the world's natural resources. Dependent on a high amount of ecosystem support, further growth of cities and related urbanization of land is increasingly exhausting the earth's eco-capacity. Accordingly, built-up area per capita in affluent European countries needs to stop its rise (cf. 5.1).

Taking the two counter positions of top-down and bottom-up into account, the second sub-question investigates on sufficiency perspectives in urban planning and captures the relevance of a reconnection of human society and nature. Urban green spaces offer recreation, ecological learning and awareness, while enhancing biodiversity and strengthen ecological resilience. The privatization of urban space, however, and related commercialization of public space, pose barriers within urban patterns, supporting economic interests rather than inhabitants experience of participation. The role of ownership is thereby a crucial one, evoking user engagement. With that, the idea of common spaces lies in collective governance over them, enhancing solidarity, reciprocity and sharing. Conclusively, merging the components of green and common, urban green commons offer the potential to influence the current conceived perception of urban space towards spaces of representation (cf. 5.2).

The more urban population is limited to their private apartments and nearby surroundings – as currently experienced with the restrictions of the corona crisis – the more importance gain accessible and green spaces in the urban districts. Europe experiences a unique crisis implying individual limitations and changes of daily habits with the containment strategies of the virus spread. Correlating changes of societal perception of urban space offer a unique moment of urban transformation. As some European cities already show, mobility transition can be a side effect of the exceptional circumstances provoked by the virus and a first approach to flatten the curve of the to be expected climate crisis (cf. 6).

Most notably, environmental conscious urban planning is recognized to be essential for urban health. Thus, it is not only socially and ecologically, but also economically beneficial to prevent severe (and expensive) dimensions of a crisis. Earlier reactions to the danger of COVID-19 could have prevented the strict lock-downs by softer methods. Likewise, the monetary (besides ecological) costs of climate crisis rise with the less it is taken seriously and the later society reacts on it (Descamps & Lebel 2020). Conclusively, an essential learning of corona might be the crucial role of international solidarity and the urge of response to an approaching crisis.

For urban planners, the pandemic features the more resilient aspects of urban systems. Bicycle and pedestrian friendly neighborhoods, offering daily needs on a local scale, reduce the need of fossil fuel dependent mobility. Enough and accessible green spaces within the district allow recreation and leisure activities for inhabitants, strengthening physical as well as mental health. Additionally, supporting the possibility and willingness of participation by collective projects enhances a connection between urban space, nature and its users. In their top-down position, urban planners hold the possibility to support bottom-up movements with their transformation potential. Related to urban space, this potential can be transferred to ownership and governance rights for inhabitants, as the great potential of UGC's is underlined by the ongoing corona crisis (cf. 6).

Overall, the corona virus displayed the vulnerability of contemporary urban and societal systems, increasing already existing inequalities. While the global lock-down is interim decreasing carbon emission, the reboost of the economy is likely to create a rebound effect of previously accounted environmental benefits (cf. 6). However, urbanization and its entanglement with globalization and capital accumulation is accompanied by land consumption, growing more profit driven than to offer adequate housing in a fair distribution. In affluent European countries, a redistribution of space and a sufficiency approach to urban planning is essential to reach climate goals (cf. 5.1). Environmentally entangled, the danger of further pandemics cannot be fought without fighting the danger of climate crisis. Thus, urban planning strategies need to fortify green, social inclusive and sufficiency oriented urban planning strategies in the very moment of ongoing transformation.

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Appendices

Appendix: Interviews

.0.1 Top-down

Jin Xue

12.05.2020 (41:16 min.)

How do you you perceive the relation of urban growth and economic growth?

These two types of growth are quite closely related to each other. Urban growth – if we interpret it as a kind of population growth, but also growth in the physical dimension – is a driver of the (inter)national / global economic growth. In many countries, urbanization is considered as an important force to boost economic growth. The urban becomes the competitive center of global, mobile capital. It plays a more important role than the state to attract investment – in that sense it shows the competitiveness of a country as a driving force of growth. Also, the urban lifestyle is quite consumption /materially oriented. The living standard in the urban is quite high (here in the Nordic countries) – this also contributes to economic growth. Generally, economic growth also drives urban growth. Nowadays, especially in quite developed countries, cities are mainly about consumption, not about production – people get higher income and therefore higher living standards, and this will lead to more growth in the living standard in terms of spacious housing. People are more mobile; this also needs infrastructure. Overall international economic growth also drives urban growth.

How do you see the corona crisis and its aftereffect in an ecological perspective?

Of course, it is a disaster, this virus, people lose their lives. But environmentally speaking, we see some benefits: because people are less mobile, they don't take a flight and that is the most climate polluting activity. We also reduced the demand in oil and generally reduced our consumption level, resulting in better air quality for example. The degrowth movement: The lockdown / slowdown overlaps with some of the degrowth strategies. But of course, they are different. Degrowth also takes a very strong concern on the social dimension. What we see now is that we have a lot of social problems related to this virus containment strategies. What we experience now is not degrowth, but the strategies have some similarities with degrowth, and this is an evidence that these strategies are quite effective in solving environmental problems, particularly climate change.

- Potential: when we think about re-boost the society/economy, we can direct it to a more sustainable future – to not further invest in airplane companies, but to reform them, benefiting the environment. The crisis provides a particular potential for that. Many degrowth proponents discuss the crisis as an opportunity to restructure the society into a more sustainable and just future. We are not encouraged to take flights, and maybe some of these strategies can be continued, or at least that we can reduce our mobility. Working from home also reduces the commuting distance and frequency: having the option to work from home must last longer than the virus.

- Risks: There is a great risk in how the burdens are distributed. In Nordic countries we see a very widespread crisis package to keep certain living standards – but that is not the case in other countries. Some people cannot pay their rent. This crisis and its strategies are not equally distributed and do not equally affect the population. For the future, if we keep the mobility containment, the very super rich people can still keep their mobility, but poor people will likely face difficulties to keep necessary mobility. After the crisis, people will still be afraid to take public transportation. Increasing car use can be expected, which will be negative for the environment. Here is a risk, and additionally, some people cannot afford a car. Acting on it, mayors may take the initiative to improve bike lanes to not see a rebound in environmental pollution because of an increase of car use. So there can be a risk, but you can also convert this risk into a potential.

How do you see the possibility of reduction in terms of space (built-up area per capita) consumption?

This corona virus may provide a good argument for not building more. You can see a conflict between high density development and the virus containment strategy. The continuation of densification strategy can put even more pressure for the virus containment. We have to think about the public health as another dimension when we think about urban sustainability. Therefore, if we further build more buildings, that will make the protection of public health difficult in the future. In terms of possibilities, it very much depends on the political willingness. We see that in the corona virus, the government takes very drastic/ radical strategies, and

it actually gets a high level of support from the population. So I think if the government has the strong willingness to reduce per capita consumption in terms of built-up area, it will be possible to do so. But right now, I don't see that the policy is oriented towards it – they are still aiming for the decoupling or green growth idea. I think if we are going to explore possibility, first of all the politics need to have a strong willingness to do so. And I think it is about changes in the culture: why do people support these very dramatic virus containment strategies. I think that is because that is life threatening if we don't follow these rules – but when it comes to climate change problems and environmental problems, people don't feel this kind of threat. Therefore, I don't think people are aware of the future disasters we face; we need a change in how people perceive the climate problem and really take it seriously. Also, the culture relates to how we see our housing/our mobility on the social stages: these are also cultural dimension. How we relate ownership of housing to the security of our living. This is also related to culture. Here in Norway, ownership is a norm. If you have this kind of ideology, it is very hard to develop alternative tenures, e.g.co-housing, schemes that can reduce consumption of space. Possibilities also lie in the law, regulations and the larger political landscape that defines the power and role played by the private sector, the local + national state. If we are going to explore possibilities, we need to think about all these different spheres and dimensions.

If considering public, semi-public and private space – what role do you see in each currently?

Based on my own experience, we put different values on different types of public spaces. In my personal experience, I do appreciate very open and green spaces. We explore a lot of the nearby spaces in our neighborhood that we have never explored or discovered before. We see a special value in this. We increased the use of our private space, the backyard and the front yard. People living in the dense urban areas, they appreciate a lot the city parks. I think as urban planners, we need to learn a lot in this crisis, because we see the importance of open and green public spaces in whatever forms. And I also think that in the future, if we are going to use the local spaces more than before – localize our activities – then this kind of spaces should be emphasized more by planners. In the future, that is quite important.

How do you consider the role of neighborhood communities in times of corona?

I think the corona virus exposed some problems of our lifestyles and the whole economy, but it also shows some nice things: one of them is this community belonging and ties and the neighborhood support. I think that is also the direction of future reform and restructure. In the Nordic countries, lifestyles are quite individualistic. You take care of you own life, when you have holidays you go for your holidays or abroad. But the corona virus shows that the neighborhood level, the community level, plays a very important role in providing the care and the feeling of belonging. If we consider the future, this community level should be further reinforced by planners – by creating spaces that can tighten the ties on the neighborhood and community level.

Where do you notice the strongest change in the city due to societal reactions on the pandemic?

What is meant by change? It can be the spatial dimension and the management dimension of a city. The change is probably about how people use the space. The parks and the open spaces are much more used than before, but other public or cultural institutes are used much less. Also, the use of public transport is very much effected. I think how people use space is very much a change. It also reminds me to think about how public life is defined or redefined by the corona. Some of the traditional public life – sport events or festivals – this might very much change in the future. And we need to find a replacement for that. A big change in terms of city management: People are hit very differently during the corona virus. I'm afraid that most people they lose their jobs and stay outside the market for a while, effecting their life standards and having difficulties in affording a decent life standard. They probably have to sell their house to make the life go on. I think this kind of change is not on a spatial level, but how the local authority will deal with the long-lasting consequences of the crisis. If the housing prices keep very high, probably in the long run this will lead to new kind of segregation or exclusion because of some unemployed people and a high unemployment level. The inequality because of the income and generated by the corona virus will in the end effect the spatial dynamics, if the housing market is still very market dominated and oriented. What is very difficult, the municipalities also lose a lot of money and income during the crisis, therefore they probably have to cut down some of the municipal services – such as health care or social housing. And that will again effect people. Perhaps we generate urban austerity strategy – what we experienced after the economic crisis 2009 – and that austerity strategy will of course hit the urban poor and vulnerable even more than others. In the end that will be reflected on the space. But how this dynamic go on very much depends on the local public authorities' responses.

Extra comments

I'm more concerned about the inequality produced by this strategy. Denmark, Norway and Island have very good social welfare schemes to deal with the inequality generated by the corona virus. But even with this very good social welfare, you can still see the very many inequalities caused by the strategies. For example, homeschooling, some parents are more capable in supporting, but others are not, and some students don't have access to internet or laptops. The educational performance is quite different after a period of homeschooling. I think it is problematic that we will go back to the normal. We should be very careful of how to deal with the kind of industries that they are very climate problematic and how we can restructure them, so we don't go back to the 'normal'. Another risk of urban space is the surveillance. Many people say that the success of South Korea in coping with the crisis is that they have widespread camera and surveillance in the city. Everything will be recorded and it's quite easy to trace back. But that can be a byproduct of the crisis. It is about privacy in the urban areas and public space. One strong argument for working from home is that you can choose wherever you want to live. People want to live in the city because the workplaces are in the city. If you can work from home, you don't have to squeeze into the urban center.

Ekhart Hahn

12.05.2020 (33:42 min.)

Wie bewerten Sie den Zusammenhang zwischen städtischem und ökonomischem Wachstum?

Urbanisierung als globales Phänomen. Bei uns findet auch eine Reurbanisierung statt: die großen Städte wachsen. Es gibt auch einen neuen Trend, der das Land, das ‚Dorf der Zukunft‘ sucht. Megastädte, der globale Urbanisierungsprozess schreitet mit ungebremster Geschwindigkeit fort.

Die Ökonomie spielt nicht die primäre Rolle — die primäre Rolle spielt die technologische Entwicklung. Die Megastädte wären überhaupt nicht möglich ohne Digitalisierung, ohne Internet, basierte globale Arbeitsteilung und auch regionale Arbeitsteilung, Container Schifffahrt, die ganze Mobilität (...) ist die Grundlage dieser Mega-Cities — allein ökonomisch wäre das gar nicht möglich. Damit verändert sich natürlich die Ökonomie. Die Entscheidungen können jetzt alle in London, NY oder Peking gefällt werden, die Arbeiter sitzen in Indien. Die Basis dafür ist die Technologie, die Ökonomie nutzt das dann aber.

Wie sehen Sie die Corona Krise und ihre Folgen aus ökologischer Perspektive?

Für die Bedeutung des Freiraums, des öffentlichen Raums, folgendes Zitat: Überschrift: Soziale Gesundheit und Lebenswelten „[Ein gravierendes Problem wird] in der gegenwärtigen Diskussion nicht berücksichtigt: Robert Koch, der Namensgeber des RKI, sagte bei seinem Nobelpreis Vortrag zum Beziehungsverhältnis von Krankheitserreger [das heißt auch Viren] und Menschen: „Das Bakterium ist nichts, der Wirt ist Alles.“ Der Arzt und Infektiologe Louis Pasteur [der etwa parallel zu Robert Koch an ähnlichen Themen gearbeitet hat] war der gleichen Meinung: „Das Bakterium ist nichts, das Milieu ist alles.“ Der Sozial- und Umweltmediziner Max von Pettenkofer trank im Jahr 1892 öffentlich eine Flüssigkeit voller Cholerabazillen und blieb gesund. Er wollte zeigen, dass die Lebenswelt der Menschen für die Cholerakrankheit entscheidend sei [— die Lebenswelt, und das ist unsere urbane Umwelt]. Und tatsächlich: Die Infektionskrankheiten wurden nicht durch die Segnungen der Medizin, sondern durch die gesellschaftliche Entwicklung gesunder Lebensverhältnisse besiegt. Pasteur, Virchow, Pettenkofer und Koch, die Helden der naturwissenschaftlichen Medizin, sorgten mit politischer und medizinischer Courage für ‚saubere Städte‘ und gesündere Lebensräume und damit für ein neues Gleichgewicht zwischen Bakterien, Menschen und ihrem Gemeinwesen.“

Corona ist ein Umweltproblem — wie alle Viren. Obwohl es diese Viren natürlich immer gegeben hat. Aber sie sind immer zu bestimmten Zeiten aufgetreten, z.B. diese Spanische Grippe nach dem zweiten Weltkrieg, als alle fast verhungert waren und katastrophale Lebensbedingungen waren, da konnte der Virus wie wild rumfuhrwerken. Diesmal sucht er sich auch die Alten und Kranken, die Vorgeschiedigten — er sucht sich Schwachstellen, wo er eingreifen kann (sterben müssen wir alle und an Lungenkrebs sterben sowieso viele Leute). Darum geht es auch in dem Eco-City Projekt, wir müssen unsere Lebensverhältnisse ändern, und wir müssen wieder eine andere Beziehung zur Natur — zu Schönheit und Ästhetik — und einem gesunden und Lebenswerten Umfeld schaffen. Je mehr wir das berücksichtigen, um so schwerer machen wir es irgendwelchen Viren, es würde dann auch der Klimawandel nicht so greifen können, weil wir vorher aufpassen würden, dass wir das Gleichgewicht zur Natur aufrechterhalten. Das sind alles Folgen von Ignoranz gegenüber der Natur in uns und der Natur um uns. Damit ist das völlig richtig, ob das jetzt Prinzessingärten sind oder der öffentliche Raum, ob das die Natur in der Stadt ist oder der Wohnung oder der Nachbarschaft, all diese Dinge sind ganz entscheidend, wenn wir eine nachhaltige Zukunft gestalten wollen. (...) ... da haben sie sehr schnell einen Bezug zwischen Corona und unserer städtischen Umwelt.

In dem Zusammenspiel von Menschen und Natur, von grün und gemeinschaftlichen Räumen, wo sehen sie da die Potentiale und Anknüpfungspunkte?

Die Primäraufgabe ist, dass der Mensch wieder einen engeren Bezug zur Natur hat. Denn in der Natur besteht Gleichgewicht. Das Erfolgsrezept der Natur ist Schönheit — schauen sie sich eine Blume an, ein Gänseblümchen oder ein Blatt oder ein Grashalm. Der ist schön. Und in dem Moment, in dem er nicht mehr schön ist, stirbt er ab, dann ist sein Lebenszyklus beendet. Und das ist beim Menschen auch so. Wenn man sich die Kulturgeschichte anschaut, findet man das beim Bau von Häusern, von Städten, von Kirchen, ... und wenn es nur ein Geräteschuppen ist. Eine Waffe, ein Schwert, musste nicht nur scharf sein, es musste auch schön sein. Das ist eine ganz neue Entwicklung, die wir eigentlich erst nach dem zweiten Weltkrieg hatten, da hat sich das verselbständigt. Die Rendite muss stimmen, und die Funktion muss stimmen. Ende. Damit produziert man Klimawandel, Viren, alles Mögliche. Das macht die Natur nicht mit, die wehrt sich. Die Menschen haben das Gefühl fürs Gleichgewicht verloren. Und je mehr sie Natur auch in ihrem täglichen Leben erfahren, da ist das Gleichgewicht. Wenn man sich eine Blume anguckt, ein Blatt oder ein Baum, wenn man sich das anguckt, ist das eine, aber wenn man das auch mitgestalten, mit seinen Händen in der Erde arbeitet, sich damit aktiv auseinandersetzt, umso besser. Dass die Menschen wieder ein Bedürfnis haben nicht nur passiv, sondern auch aktiv eine Beziehung mit der Natur herzustellen.

Wie entwickeln sich denn unsere Sinne? Wenn wir geboren werden, können wir da schon gucken? Ne, da sind die Augen verklebt. Und der Goethe hat so schön gesagt: Das Auge ist am Licht gemacht. Unsere Sinne entwickeln sich erst mit dem Austausch mit der Umwelt, Schritt für Schritt, wenn wir größer werden. Und da gibt es jetzt mehrere Möglichkeiten: Wenn ich aufwache in einem Plattenbau und da unten die Autos stehen und Motorgeräusche, Fabriken und schlechte Luft, dann können sich weder meine Seh-, Geruchs-, noch Gehörsinn richtig entwickeln. (..) Deshalb ist es so wichtig. Erstmal wieder Natur zurück in die Stadt und dann je aktiver das dann noch wahrgenommen wird, umso mehr erfährt man von Gleichgewicht. Von Harmonie. Da gehört auch Fressen und Gefressen werden dazu. Dieses Gefühl und diese Sensibilität sind im Menschen verloren gegangen. Und dann geht alles kaputt.

Welche aktuelle Rolle schreiben Sie privaten, halb-öffentlichen und öffentlichen Räumen in der Stadt zu?

Sehr wichtig für Corona ist viel frische Lust: Die hat man nur draußen. Also draußen ist ganz wichtig. Das zweite ist: Abstandsregeln einhalten. 1,5 m Abstand. Wenn man genügend Raum hat — und die europäischen Städte haben genug Raum (es gibt bestimmte Stadtteile, wo das ein bisschen eng ist) — aber das muss eben deshalb gewährleistet sein. Es muss genügend öffentlicher und auch möglichst grüner Raum da sein. Für jeden zugänglich ist nur der öffentliche Raum. Der halb-öffentliche ist die Frage wie das

gestaltet ist, wer Zugang hat und wer nicht -- im Bezug zu Corona, es müssen viele die Möglichkeit haben, draußen zu sein, in der Natur zu sein, ob das dann nun ganz öffentlich oder halb-öffentlich ist, ist eher nebensächlich. Privat ist natürlich sehr privilegiert -- aber wir wissen auch, dass gerade die Kleingärtner (hier in Berlin haben wir ja ganz viele Kleingärtner), die gehen natürlich alle in ihre Gärten in Corona Zeiten. Das ist voll da. Und es tut den Leuten auch gut. Also insofern spielt der Freiraum eine ganz große Rolle, und das Verhältnis von öffentlich, halb-öffentlich und privat ist eine schwierige Frage, denn jedes hat seine Berechtigung. Und wenn wir uns die moderne Entwicklung heute angucken, nehmen wir urban gardening, das ist ja ein ganz wichtiger Ansatz um diese Trennung zwischen privat, halb-öffentlich und öffentlich zumindest teilweise aufzuheben. Also wenn sie die Essbare Stadt Andernach, dort sind die öffentlichen Parks öffentliche Gärten geworden, das jeder mitmachen kann. Dass nicht nur die Gärtner, sondern die Bürger dort ihre Tomaten anpflanzen dürfen. Da gibt es im Moment aus vielen Gründen viele Bewegungen, diese Grenze mehr verschwimmen zu lassen. Das hängt natürlich auch mit den Arbeitsverhältnissen zusammen, dass die Menschen (und bisher gingen sie ja viel in Urlaub, wer hat dann in meinem privatgarten gegossen? Da war dann keiner. Im urban gardening, da sät man gemeinsam, da düngt und gießt man gemeinsam und erntet man gemeinsam. Wenn einer mal nicht da ist, spielt das keine Rolle. (...)

Wie sehen Sie die Relevanz von Nachbarschaftsverhältnissen und Gemeinschaft in Zeiten von Corona?

Damit verändern sich natürlich auch Nachbarschaften, und gerade in Corona Zeiten erleben wir, wie wichtig Nachbarschaften sind. (...) Die ganz klare Theorie, die ich schon seit 40 Jahren vertrete: Die Zukunft der Städte, einschließlich der Megastädte, ist zellular. Nachbarschaftlich. Die Städte werden immer größer, aber sie werden zellular organisiert, aus vielen Gründen: das sein einmal urban gardening und gemeinschaftliche Freiraumnutzung, das ist aber auch lokale Energie, wenn ich Sonnenenergie ist lokal / ein Wasserkreislauf mit Regenwasser und Grauwasser-Reinigung, das ist nachbarschaftlich, das sind Quartiere. Genauso Elektromobilität, oder eine Fahrradstadt, das ist zellular. Und da kommen dann die Autos raus und es muss umorganisiert werden. Die Zukunft, das ist meine feste Überzeugung, das wird so kommen, und Corona hilft sogar, dass es schneller geht: Die Mega-Städte und Großstädte der Zukunft sind zellular, genauso wie die Dörfer.

Sehen Sie die Möglichkeit einer Reduktion in Bezug auf Raum / Flaschenverbrauch pro Kopf?

Ja. Einen ganz natürlichen. Die Preise werden so hoch, dass sie keiner mehr bezahlen kann und deshalb seine Fläche reduziert. Ökonomisches Prinzip. Wenn ich die Miete nicht mehr zahlen kann, muss meine Fläche kleiner werden, und das erleben wir im Moment.

Aber führt das nicht zu noch mehr Gentrifizierung und noch mehr Ungleichheit?

Ja, das ist richtig. Aber das geht natürlich bis in die Mittelklasse hinein. Selbst Professoren, Lehrer, die Flächen sind in der Stadt so teuer -- ein Lehrer kann kaum noch die Miete bezahlen. Also entweder muss er sich verkleinern, oder er geht eben aufs Dorf. Und beides erleben wir im Moment. Die ökonomische Frage, und das ist wieder Ihre erste Frage, die Schere geht immer weiter auseinander. Es gibt immer mehr Reichtum für Wenige, und immer weniger auf der anderen Seite. Aber da nun auch die Mittelklasse schon relativ stark von betroffen ist, gehe ich fest davon aus, die Flächen werden kleiner pro Einwohner. Als ganz ökonomisches Prinzip. Es sei denn, so viele Leute verlassen die Stadt, dass die Preise runtergehen -- dann ändert sich das natürlich wieder.

Wobei das ja Nebeneffekte hat

Ja, das ist durchaus eine interessante Frage, von der ich nicht mehr so überzeugt bin, wie ich es vor einem halben Jahr noch war. Ich lebe hier nun mitten in der Stadt, aber verlasse vergleichsweise wenig das Haus. Ich verreise auch nicht mehr. Es findet alles über Zoom und ähnliche Dinge Stadt, ich könnte jetzt auch auf dem Dorf sein. (...) das ist eine Frage, die sich jetzt -- und das ist sehr aktuell -- da entwickeln sich ganz neue Perspektive, dass ich jetzt sehr viel vorsichtiger wäre, wie sich die Zukunft entwickelt.

Wo bemerken Sie die stärkste Veränderung in der Stadt während der aktuellen Corona-Maßnahmen?

Ja, die stärkste sehe ich, dass Kommunikation erstaunlich viel besser digital geht, als ich das gedacht habe. Und selbst mit meinem Sohn, Freunden, Mitarbeitern -- wir machen keine Arbeitssitzungen mehr, das machen wir jetzt alles über Zoom. Und das geht, die Straßen sind leer, der Himmel ist blau, da sind keine Flugzeuge und auf den Straßen sind viel weniger Autos, und die Fahrradwege sind zum Teil viel breiter geworden, jetzt aus akut Geschichten. Die Stadt -- ja -- es sind gewaltige Veränderungen, und es ist noch nicht klar, deshalb bin ich vorsichtig mit der Beantwortung der Frage, weil sich immer mehr Menschen die Frage stellen: Geht es jetzt so schnell wie möglich, das Rad zurückzudrehen, wie das vor drei Monaten war, oder müssen wir unsere Zukunft doch ein bisschen neu denken. Und ich bin eigentlich erstaunt -- in der Politik ist es noch wenig angekommen, aber ansonsten kommt da vielleicht -- das weiß man noch nicht. (...)

Ich habe den Vorteil, dass ich seit 50 Jahren an dem Thema arbeite. Und dass ich daher sehr gut sehen kann, dieses rauf und runter, diese Welle -- aber insgesamt, geht sie schon nach oben. Ich bin auch ein großer Anhänger -- ich weiß nicht, ob sie die Bibel kennen -- da wird viel von der Apokalypse gesprochen. Und der Sintflut. Und der Arche Noah. Die Sintflut oder die Apokalypse wird es geben. Die kommt. Aber z.B. Eco-City Projekt ist ein Teil der Arche Noah. Und das gibt es an vielen Stellen -- überall wird an kleinen Arche Noah's gebaut. Aber der Kollaps, der ist, glaube ich, nicht zu verhindern, der wird kommen. Aber das ist auch gut so. Ich sag mal, das ist Katharsis Phase -- Corona ist ein kleines, erstes Vorzeichen davon. Ein kleines -- da kommt noch mehr. Bauen sie mit an den Arche Noahs!

.0.2 Bottom-up

Ragnhild Sørensen

13.05.2020 (28:21 min.)

Wie nehmen Sie die Stadt in ihrer ökonomischen Bedeutung wahr?

Das ist eine sehr breite Frage. (...) Für den öffentlichen Raum geht es in erster Linie für uns um motorisierten Individualverkehr. Der öffentliche Raum ist zwar nicht direkt in dem Sinne wirtschaftlich – (er wird nicht so genutzt, ist nicht wie Miete, die einen festen Preis hat und sich mit dem Markt ändert) – aber über Subventionen und Ähnliches kann trotzdem einen Preis errechnet werden. Vor allem mit den Subventionen des Autoverkehrs lässt sich das berechnen. In Dresden an der Uni wurde ein Parkplatzpreis für 3500 Jahrespreis festgelegt. Das sind verdeckte Kosten, die kein Bürger wahrnimmt, weil der öffentliche Raum quasi als kostenlos zur Verfügung gestellt wird durch die ganze Subventionierung (durch den Autoverkehr, in erster Linie: Straßenbau, Pendlerpauschale, usw.) wird dieser öffentliche Raum im Sinne des Autoverkehrs ausgelegt. Wir wissen, dass in den großen Städten um die 60% von Autos belegt sind, durch den ruhenden und fahrenden Verkehr. Es bleiben dadurch nur 40% übrig für alle anderen Tätigkeiten, also nicht nur Mobilität, sondern auch Parks usw... In einer Stadt wie Berlin wissen wir das etwa 70% der Menschen nicht mit dem Auto unterwegs sind – und die müssen sich also auf 40% des Raumes zusammenknubbeln, und da sich fortbewegen, aber auch Sport machen oder auf der Parkbank sitzen... Da ist ein totales Ungleichgewicht, das aber normalerweise nicht als wirtschaftlich wahrgenommen wird. Es wird als gegeben wahrgenommen. Denn die Autos sind nun mal da. Dahinter steht natürlich eine lange Förderung der Autoindustrie, über 70 Jahre. Am Anfang war es total schwer, es gab echte Probleme, das Auto unter die Leute zu bringen – denn sie haben es nicht eingesehen, warum soll ich mein Fahrrad lassen, oder warum soll ich nicht zu Fuß gehen? Aber dann wurde ordentlich viel gebaut, ein Straßennetz angelegt, das wirklich sehr optimal ist (das muss man wirklich sagen, das macht es so einfach heute). Ich glaube, der öffentliche Raum wird vor allem – und das ist ein Problem – als nicht wirtschaftlich wahrgenommen. Wenn man den Preis draufsetzen würde, dann sieht das plötzlich ganz anders aus.

Welche ökologischen Konsequenzen sehen Sie darin?

(...) Die Städte wachsen, davon müssen wir ausgehen. Sie werden sich wahrscheinlich auch verdichten, auf Grund dessen. Das heißt, dadurch wird der öffentliche Raum wichtiger und wichtiger. Denn es sind immer mehr Menschen, die in kleinen, begrenzten Raum teilen müssen. Und das ist immer die Ebene, auf die man gucken muss: wir wissen, wir müssen auch Klimaanpassungen machen. Wahrscheinlich müssen wir tausende Bäume pflanzen, damit es nicht so heiß ist – einfach wegen der Gesundheit in den Städten. Das ist auch Anspruch des öffentlichen Raumes. Es sind also nicht nur die Menschen, die das nutzen, um irgendwo hin und her zu kommen oder sich zu erholen, wir haben durch den Klimawandel auch noch einen zweiten, oder dritten, fünften,... Grund, der auch Platz beansprucht. Den wir bisher nicht so richtig hatten – mit Platzanspruch. Und das wird nochmal eine riesige Herausforderung sein.

Welche Risiken und Potentiale bringt die aktuelle Corona Krise dahingehend mit?

Zum Ersten: Corona ist ein Innehalten (...). Dadurch, dass wir gezwungen sind, uns drinnen zu bewegen und unser Bewegungsraum ganz klein geworden ist, haben viele Menschen plötzlich mehr Zeit, weil sie sich weniger fortbewegen – diese Zeit haben wir für andere Sachen. Und ich glaube wahrzunehmen, dass es eine Art Nachdenken gegeben hat. Die Leute – nicht alle, klar – viele merken: es gibt Sachen, die wichtig sind und andere, die weniger wichtig sind. Und auch dadurch, dass unser Bewegungsumfeld so klein geworden ist, nehmen wir den öffentlichen Raum ganz anders wahr. Das liegt natürlich an den Abstandsregeln, das macht einen riesen Unterschied – man nimmt seinen Körper ganz anders wahr, als bisher – aber auch wenn man nur spazieren geht, weil man muss ja irgendwas machen, um sich zu bewegen, oder wenn man joggen geht, in den Straßen – was man früher vielleicht nicht gemacht hat – dann merken die Menschen: wow, dieser Raum ist auch Teil von meinem Leben. Und die Leute fangen an sich dazu Gedanken zu machen, wie er aufgeteilt ist, und welcher Teil gehört mir. Und Fußgänger und Radfahrende haben da ganz deutlich gemerkt: puh, das ist ganz schön eng. Wenn wir die Abstandsregeln einhalten müssen, das geht zum Teil gar nicht. Man läuft dann plötzlich auf der Straße – und weiß, das ist viel zu gefährlich, da muss dringend was passieren (...). Dann eben auch die Tatsache, dass sich niemand traut, den öffentlichen Nahverkehr zu nehmen, dass sie dann das Fahrrad nehmen. Da merkst du die Menschen, die nie Fahrrad gefahren sind. Und die merken natürlich auch, das geht überhaupt nicht, wo sollen sie hin, das ist viel zu gefährlich. Du kannst dein 10jähriges Kind auch nicht einfach auf das Fahrrad setzten, das ist lebensgefährlich. Das hat wahnsinnig viel Bedeutung. Dieses Nachdenken darüber, diese neue Wahrnehmung der Stadt, die durch die Corona Krise entstanden ist. Da stecken wahnsinnig große Potentiale drin für Veränderung.

Wo bemerken Sie die stärkste Veränderung in der Stadt während der aktuellen Corona-Maßnahmen?

Also am Anfang war das die Stille. Das ist leider nicht mehr so. Aber als die Autos plötzlich weg waren, der Flugverkehr nicht mehr da war, und man nach ein paar Wochen gemerkt hat, wie gut die Luft sein kann. Meine Schwester ist Asthmatikerin, die hat seit acht Wochen kein Asthma – sie hat keine Probleme. Wie die Luft dermaßen viel besser geworden ist. Ich glaube das führt zu einem großen Umdenken. In Berlin sind es vor allem die pop-up bike-lanes – ich hab heute eine Zahl gesehen, das sind fast 35km – das sind temporäre Spielstraßen, die eingerichtet wurden – jeden Sonntag und an Feiertagen – in einer beispiellosen Kooperation von Zivilgesellschaft und Verwaltung, das funktioniert nur, wenn die Zivilgesellschaft (als Kiezlotsen) da teilnimmt. Man sieht da schon irrsinnig viele Veränderungen. Ich merke allerdings auch, wir fahren langsam zurück zum Normalen – bzw., dass es wahnsinnig eng wird, weil die Menschen nicht mehr ÖPNV benutzen. Es sind momentan etwa 80% der regulären Autonutzung hier, aber es ist jetzt schon eng und wahnsinnig aggressiv (auch durch Corona, glaube ich, alle Menschen sind irgendwie ein bisschen verrückt geworden – die Nerven liegen blank). Das merkt man in der Stadt. In Berlin hatten wir auch – nun nicht mehr so, weil es voller

geworden ist -- viele Autorennen in der Stadt. Die Polizei hat die Leute da rausgeholt, es waren 5-10 am Tag, die mit 100kmh / 120kmh durch die Straßen gerast sind.

Wie sehen sie die Situation aus sozialer Sicht?

Es ist immer sehr gespalten. Manche Menschen tun gar nichts, aber andere setzen sich ein und helfen z.B. Älteren — da ist ein Rückbezug zu dem lokalen, denn das ist alles, was wir haben im Moment. Das man da auch was machen kann. Die Menschen pflanzen Blumen, draußen auf der Straße neben den Bäumen, um etwas Garten zu haben. Es ist eine große Rückbesinnung auf das, was wirklich vor der Tür liegt. Und eben auch eine große Solidarität. Aber das ist die eine Seite, denn die andere gibt es eben auch -- die das sowieso für lächerlich und eine Verschwörung halten.

Um auf den Suffizienz Gedanken zu kommen — Wie sehen sie die Möglichkeit einer Umnutzung des öffentlichen Raums?

Es gibt eine Art Möglichkeitsfenster, gerade, wo die Verwaltung spürt — oder die Politik — wir müssen irgendetwas unternehmen. Wir können es nicht so weiter gehen lassen. Und das gibt plötzlich einen Spielraum, was davor Jahre gedauert hat und diskutiert wurde (und wieder ein Gutachten), dieser Entscheidungsdruck, der plötzlich entstanden ist, der ist wahnsinnig wertvoll. Und insofern spüre ich schon, dass da an manchen Stellen (nicht überall) etwas passiert. z.B. hier in Kreuzberg-Friedrichshain wurden an einem Sonntag 19 Spielstraßen eröffnet. Weil der Leiter des Straßen-Grünamtes (wie auch immer) dafür zuständig ist. Er ist eigentlich Förster und versteht sich selbst als Stadtförster. Und er hat nicht nur die Spielstraßen organisiert und die Zivilgesellschaft mit eingebunden, sondern er hat auch Wassertankstationen hingestellt, sodass die Nachbarn gemeinsam die Bäume gießen können — hier ist alles extrem trocken im Moment. Diese Bäume haben sehr schlechte Aussichten, dass sie es noch schaffen. Und ich glaube das ist genau das, konkrete Punkte zu finden, wo die Bürger*innen mit einbezogen werden können in einen Transformationsprozess, dann nehmen sie es auch an. Und das ist sehr spannend. Das gab es vor zwei Monaten nicht, diese Art in der die Verwaltung, die Politik, ganz gezielt in diesen Prozess reingeht, um Sachen zu bewirken. Und man kann sagen, temporäre Spielstraßen an einem Sonntag -- ein paar Stunden -- ist nicht die große Weltgeschichte, aber jeder kleine Schritt zählt letztendlich doch. Weil die Menschen erleben, dass es auch anders geht. Und das ist was für uns immer sehr schwierig war, und wo Corona ein Geschenk ist -- es ist wahnsinnig schwer, den Leuten klar zu machen wie es aussehen kann. Und wenn es jetzt plötzlich gemacht wird -- auch, wenn es nur temporär ist -- haben die Bürger*innen die Chance, das zu erleben. Man kann argumentieren so viel man will, dieses Erlebnis ist einmalig. Und deswegen glaube ich auch, dass da was passiert. Wenn die Menschen erst anfangen zu sagen „ich kann eigentlich auch mit dem Rad fahren“ und sie merken: hier ist Platz, es geht. Dann werden sie es vielleicht auch weiterhin tun. Und dieses Erlebnis ist glaube ich wahnsinnig wichtig gerade.

Wie arbeitet ihr bei Changing-Cities, was sind eure Strategien und Vorgehensweisen?

Viele. Erstens arbeiten wir in sehr engem Kontakt mit der Verwaltung -- auch vor Corona -- und versuchen da, Druck auszuüben und Sachen zu ermöglichen. Wir haben z.B. ein komplettes Radnetz für Berlin erarbeitet (was der Senat auch hätte tun sollen), das haben wir ihnen geschenkt (es arbeiten bei uns viele Verkehrsplaner). Wir arbeiten auch eng mit ihnen zusammen und schlagen Paragraphen/ Verkehrszeichen vor, weil sie Schwierigkeiten haben, solche Ideen zu bekommen. Sie sind nicht gewohnt so zu arbeiten, sondern von oben Anweisungen zu bekommen (...) Es fehlt das Gesamtverantwortungsgefühl. Dann machen wir natürlich Straßenaktionen -- was im Moment sehr schwierig ist -- aber wir versuchen da immer wieder was zu machen. Und Öffentlichkeitsarbeit, social media, ... Wir arbeiten bundesweit, nicht nur in Berlin, und haben mittlerweile 35 Radentscheide in Deutschland, mit denen wir eben auch kooperieren. Wir waren bei den Beratungen zur STVO-Novelle auch mit drin und versuchen quasi, auf allen Partys dabei zu sein und unsere Haltung zu vertreten.

Wir sind ein ganz kleiner Verein, haben drei Teilzeitangestellte und sonst nur Ehrenamtliche. Es ist unglaublich, was die Leute alles leisten in ihrer Freizeit. Das sind natürlich viele Radfahrer*innen dabei, das ist unser Ursprung: dieses Freiheitsvehikel, das wahnsinnig gut ist, um eine Stadt zu drehen. Gemeinschaftsgärten sind auch so ein Ding, mit dem man gut drehen kann -- das Fahrrad hat halt dieses Potenzial, weil es emissionsfrei ist, du kannst dich damit bewegen, es ist leicht und jede*r kann das. Es ist sozial gut einzubinden in vielen Kontexten. Und das macht es optimal als politisches Vehikel für eine Stadtveränderung.

Extra Kommentare

Was total spannend ist, ist diese weltweite Bewegung gerade. Man sieht es ja in so vielen Städte, Brüssel -- wo auf einmal das ganze Stadtzentrum verkehrsberuhigt wird -- das ist ein bisschen auch unserer Hoffnung, dass ein Wettbewerb der Städte in diese Richtung entsteht. Was macht eine Stadt wie Berlin ohne Clubleben -- denn die sind alle zu -- wo können sich die Städte international positionieren? Meine Hoffnung ist, dass genau auf dieser Ebene -- Klimawandel und öffentlicher Raum -- das da unglaublich viel passieren kann. Wenn das der Punkt wäre, um den die Städte konkurrieren wollen, dann würde sehr viel passieren. Das hätte ich nie gedacht, dass wir da hinkommen.

Das wollte ich noch sagen: wir haben ein ganz neues Projekt, das auch nicht spruchreif ist, es heißt im Moment 'freie Straßenprämie'. Wir haben vor, Menschen, die kein Auto haben, Geld zu geben. Eine andere Art Prämie einzuführen, die man für andere Arten der Mobilität nutzen kann. Eine Jahreskarte für die Öffentlichen, quasi. Das ist eine komplett neue Weise, da ran zu gehen, und wir arbeiten gerade daran. Wir diskutieren sehr viel die Stadt der kurzen Wege, ob wir auch Wohnen mit reinnehmen sollen -- dass die Leute nicht nur das Geld bekommen, um nachhaltige Mobilität nutzen zu können, sondern auch für ihre Miete. Das ist eine sehr spannende Diskussion -- wir haben uns nicht entschieden, wie wir das Ausarbeiten wollen -- aber da steckt unglaublich viel Musik drin. Es ist nicht einfach damit zu arbeiten, denn es ist ein Push-Faktor, und das kommt meistens nicht so an. Aber wir versuchen, die Gedanken einzuführen und sie auch Sprechfähig zu machen -- auf die politische Agenda zu setzen. Nicht nur die Parkplatzgebühren erhöhen, sondern andersherum angeht und den Menschen Geld in die Hand drücken, wenn sie kein Auto haben.

Andreas Schütz

18.05.2020 (27:37 min.)

Wie nimmst du die Stadt in ihrer ökonomischen Bedeutung wahr?

Die Stadt hat ein paar große Industrien, für die sie bekannt ist. Wenn man an Linz denkt, denkt man sehr schnell an die ‚Voest‘, als größte Industrie in Linz. Was verschiedene Implikationen hat, da gibt es dann die Abhängigkeit zur Automobilindustrie. Für mich relevant ist natürlich auch die Informatik, dafür ist Linz zumindest in Oberösterreich (aber wahrscheinlich auch darüber hinaus) ein zentraler Punkt. Ansonsten bin ich mit der Wirtschaft in der Stadt nicht so sehr bewandert. Aber die Immobilienprojekte, dieser Turm z.B. in Urfahr, der Bruckner Tower, der jetzt in die Höhe schießt — ein paar große Branchen fallen schon sehr in den Blick, wenn man auf Linz schaut. Und die Brücken und Straßen. Am Westring anschließend, diese wirklich große Autobahn jetzt geplant, die dann Richtung Hauptbahnhof gehen soll. Das ist natürlich ein Mega-Projekt. Das hat auch ökologische Folgen dann, das ist klar. Das spannende ist, gewissermaßen haben wir gegen ein paar der großen Projekte protestiert, im März wäre die Automesse/der Autofrühling geplant gewesen und da haben wir in Vorfeld von FFF und anderen Protestbewegungen Aktionen geplant gehabt, von denen dann die allermeisten abgesagt worden sind, da die Automesse selbst abgesagt worden ist. Auch gegen den Straßenbau hat es immer Aktionen gegeben — im Februar war eine kritische Wanderung zur Westringbaustelle, wo wir hingegangen sind — mit Leuten, die mitkommen wollten — und uns die Baustelle angeschaut haben, welche Dimensionen das Projekt auch hat.

Wie siehst du die Corona Krise und ihre Folgen aus ökologischer Perspektive?

Ich glaube, das Potential für's Homeoffice steigt vielleicht. Zumindest waren jetzt sehr viel mehr Leute im Homeoffice — das macht es als Arbeitnehmer*in leichter zu argumentieren, dass Homeoffice schon gemacht werden kann. Dass es an sich möglich ist. Also eventuell gibt es damit mehr Chance auf Homeoffice und vielleicht auch weniger Verkehr — das wäre die positive Sicht darauf. Jetzt ist ja spannenderweise in den Medien der Hauptplatz wieder viel Thema, das der Hauptplatz autofrei werden soll. Da schwingt mit, dass es jetzt schon weniger Verkehr am Hauptplatz gibt, jetzt ist es quasi einfacher umzusetzen, dass er autofrei wird. Das waren die Signale, die ich da politisch herausgehört habe. Das seh' ich schon als Chance — es ist aber auch die Frage, ob das so bleibt. Der Verkehr nimmt spürbar wieder zu. Das Risiko, das ich sehe: Man muss bei den Investitionen für die Wirtschaft nun genau hinsehen, inwiefern sie klimafreundlich oder klimagerecht sind, als dass jetzt in die Automobilindustrie Geld gesteckt wird. Ich glaube, dass es dafür schon eine Bewegung und Aktionen auf der Straße braucht — sowie FFF in Wien jetzt vor dem Bundeskanzleramt campiert und darauf aufmerksam macht.

FFF ist eine Bewegung der Straße. Welche Bedeutung siehst du gerade im öffentlichen Raum?

Ich glaube, dass die Straße für einen aktivistischen Einsatz sehr wichtig ist. Ich glaube es sind ein paar Perspektiven wichtig: Es ist wichtig, dass Menschen auf der Straße sind und sich ein Bild davon machen, was passiert. Ich glaube das gerade weniger Menschen am Westring und an der Baustelle vorbeigekommen sind, dadurch dass einfach weniger Leute unterwegs waren. Das heißt, dass diese großen Projekte aus dem Blick rücken. Und ich glaube es ist wichtig, dass die Leute sehen, was im öffentlichen Raum passiert. Für die Bewegung selbst ist der Moment sicherlich wichtig, dass man auf der Straße steht, und dort gemeinsam und vereint protestiert. Das schafft Motivation und den Drive in der Bewegung. Und es hat eine Symbolkraft, wenn man im öffentlichen Raum, z.B. vor dem Rathaus steht. Und es ist eine Selbstermächtigung, wenn man tatsächlich auf der Straße stehen und protestieren kann, und sich dafür einsetzen kann, dass die Straße autofrei wird.

Am Freitag haben wir z.B. am Hauptplatz eine Aktion gemacht (leider am Abend, als nicht mehr so viele Leute unterwegs waren) — die Idee war, dass wir Pflanzen und Liegestühle auf die Fahrbahn stellen und praktisch selbst das Begrünen des Hauptplatzes in die Hand nehmen und zeigen, was man machen kann mit einem autofreien Hauptplatz. Und wie der Hauptplatz mehr zu einem Ort wird, an dem man sich auch treffen und sich begegnen kann. Selbstermächtigung ist, glaube ich, von Bedeutung. Die Bewegungen kommen vielleicht langsam wieder auf die Straße, aber das ist natürlich auch ein Prozess. Es ist nicht mehr so wie vorher, momentan. Ich glaube, der öffentliche Raum ist sozial wichtig. Ich hab' mir das während der Corona Maßnahmen gedacht, für manche, die eher weniger begütert sind, mit einer kleinen Wohnung — beim Wohnen ist es eine wichtige Qualität, dass man nach draußen gehen kann, in einen Park gehen kann oder woanders Grünflächen hat. Ich glaube, das ist sozial wichtig, weil es Begegnungs-Fläche ist, der öffentliche Raum (sofern man ihn dazu nutzt und Begegnungs-Fläche sein lässt).

Wo bemerkst du die stärkste Veränderung in der Stadt während der aktuellen Corona-Massnahmen?

Am Anfang hat man sehr stark gemerkt, dass viel weniger Verkehr ist und dass viel weniger Leute draußen sind. Jetzt dreht sich das glaube ich schon wieder um — am Hauptplatz und am Markt, da sind sehr viele Leute jetzt. Der Verkehr kommt auch wieder. Aber am Anfang, da war es für mich die größte Veränderung, so viel weniger Personen — und natürlich die Distanz, die alle sinnvollerweise gehalten haben. Und das Bild mit den Masken, natürlich. Jetzt bei Demonstrationen auch interessant — vorher sollte man sich nicht vermummen, und jetzt stehen viele mit Masken da, das hat sich umgedreht. Das sind jetzt ganz andere Bilder.

Siehst du einen Einfluss von der Corona-Situation auf die Bewegung, bzgl. der Dringlichkeit der Klimakrise?

Ich hoffe, dass es noch lauter wird. Ich glaube, einige sind in der Bewegung schon sensibilisiert, dass jetzt große wirtschaftliche Entscheidungen getroffen werden. Es gibt manche, die Leserbriefe und ähnliches schreiben. Vor einer guten Woche haben wir am Freitag am Hauptplatz — so ähnlich wie die Wiener — eine kleine Mahnwache für klimagerechte Investitionen gehalten. Aber was man sieht ist, dass jetzt langsam die Schülerinnen und Schüler wieder auf die Straße kommen. Vor drei, vier Wochen beim großen Klimastreik (wir haben eine kleine Aktion mit Straßenmalkreide am Hauptplatz gehabt), da waren hauptsächlich Erwachsene und da haben die Schüler*innen komplett gefehlt. Das war eine interessante Veränderung, dass man sieht, wer noch unterwegs ist: Die, die Einkaufen gehen, hauptsächlich Erwachsene. Ich glaube, es wird eine Zeit dauern, bis die Bewegung in Gang kommt, dass wieder mehr Junge wieder auf der Straße stehen. Online ist einiges passiert. Das habe ich nicht ganz so viel verfolgt. Das wird wahrscheinlich auch noch weitergehen.

Was sind deine sozialen Bedenken zu dem Leben in der Stadt während und nach der aktuellen Corona Krise?

Ich glaube, die Krise wird uns noch eine Zeit lang begleiten. Und es gibt soziale Unterschiede, wer größere Wohnungen hat, hat es sicher leichter – das ist eine soziale Ungerechtigkeit. Ein Potential bringen sicher die Aktionen des gegenseitigen Helfens, die es gegeben hat. Dass man sich gegenseitig beim Einkaufen hilft – es hat Initiativen gegeben, die relativ schnell entstanden sind. Das ist auch eine Art Verbundenheit, wenn Menschen zusammenfinden, wo der eine für den andere einkaufen geht.

Jetzt, wo man wieder raus kann und Menschen sich wieder treffen – auch da gibt es Unterschiede. Das ist der andere Kontext, ich mache ehrenamtliche Jugendarbeit in der Kirche und da sind die echten Treffen momentan noch nicht in Gang gekommen. Das wird vielleicht diese, oder nächste Woche passieren. Aber ich glaube, in der Zeit, in der man sich wieder hat treffen können, da hat sich ein Teil der Jugendlichen getroffen, und andere, die eher zurückhaltender und schüchterner sind, selbst das nicht organisiert haben – die haben nach wie vor keinen oder wenig Kontakt. Das ist auch für Jugendliche das Risiko, dass man vereinsamt. Da ist es wichtig, etwas zu machen. Das ist noch ein Prozess, bis das wieder in Gang kommt. Das Risiko für Ältere zu vereinsamen, das gibt es natürlich auch. Manche trauen sich noch nicht, rauszugehen – das Risiko ist groß, dass man da eher zurückgezogen ist.

Der Flächenverbrauch je Einwohner steigt immer weiter in wohlhabenden Europäischen Ländern. Wie siehst du die Möglichkeit einer Reduktion in Bezug auf Raum / Flächenverbrauch pro Kopf?

Ich glaube, das Thema kann man an zwei verschiedenen Punkten aufziehen. Man kann einerseits immer sagen, es gibt eine individuelle Verantwortung, seinen Flächenverbrauch zu reduzieren. Es gibt ja die großen Punkte Ernährung, Verkehr, Wohnen. Wohnen, konkret, ist zum mindestens für manche attraktiv, minimalistischer zu leben. Das ist natürlich kein Mehrheitsprogramm. Das ist der eine Punkt. Aber über das Individuelle hinaus muss es viel mehr Maßnahmen geben. Politisch kann man schon Anreize schaffen, dass man z.B. andere Wohnformen fördert. Es gibt Aktivist*innen, die in Bezug auf die geplante ‚Postcity‘ am HBF fordern, dass man dort ein Pilotprojekt für autofreies Wohnen. Weil es die beste Stelle in der ganzen Stadt dafür wäre – direkt am Bahnhof, mit Zug, Straßenbahn und Bus. Würden dort nun Wohnungen ohne Tiefgaragen entstehen und autofreies Wohnen gefördert werden, das hätte schon Potential. Oder die Möglichkeit, grüneres Wohnen zu fördern. Über das Wohnen hinaus, beim Verkehr könnte schon einiges gemacht werden. Leute aus der Verkehrswende sagen z.B., man sollte bewusster Nadelöhre in der Stadt zulassen. Man muss nicht immer, wenn das Verkehrsaufkommen groß ist, neue und bessere Straßen bauen, sondern kann auch Nadelöhre zulassen, die den Verkehr in der Stadt begrenzen. Das sind politische Entscheidungen: Wird eine neue Autobahn wie der Westring gebaut oder nicht. Gibt es neue Flächen für Radfahrer – da ist die Frage, was man fördern möchte. Es gibt andere Europäische Städte, die schon mehr machen. Politisch kann man das sicher machen, wenn man will.

Was ist deine persönliche Motivation, bei FFF aktiv zu sein?

Der Klimaschutz war mir vorher schon ein Anliegen. Gehört hat man ja verschiedenes dazu, in der Schule teilweise und in den Medien. Ich habe vorher sehr viel über die individuelle Verantwortung nachgedacht und irgendwann – wahrscheinlich auch durch Ethikseminare und Diskussionen auf der Uni – habe ich den Blick für die politische Dimension davon bekommen. Als FFF dann in die Gänge gekommen ist, habe ich es als eine Verantwortung gesehen, bei Demos dabei zu sein. So bin ich in die Bewegung hineingewachsen – es war nicht nur eine reflektierte Entscheidung, sondern ich habe Leute kennengelernt und bin dann hängengeblieben. Das Thema betrifft uns selbst wahrscheinlich schon zu einem gewissen Grad, und es betrifft alle nachfolgenden Generationen. Wenn man was ändern möchte in der Welt, und etwas für Gerechtigkeit tun möchte, ist es schon ein sehr heißes Thema. Da jetzt was zu machen, hat große Bedeutung und eine potentielle große Wirkung. Es ist einfach auch notwendig, man darf nicht zulassen, dass alles einfach weitergeht wie jetzt. Und es macht Spaß, gemeinsam auf der Straße zu stehen.

Extra Kommentare

Im Februar waren wir mit FFF am Freinberg oben, da ist eine Fläche, die vorher Minigolfanlage war und jetzt Platz für Luxuswohnungen werden soll. Da hat es auch von den Anwohnern eine Initiative gegeben, dass die Fläche Grünland bleibt. Es gibt noch mehr ähnliche Projekte.

Das mit den Bäumen ist auch spannend. Ende Jänner haben wir ein Gespräch mit dem Bürgermeister gehabt zu dem Grüngürtel, da hat er sich auf die Initiative bezogen, dass 1000 Bäume in der Stadt gepflanzt werden sollen. Acht davon sind schon gepflanzt worden. Er hat argumentiert, dass es schwierig ist, Anwohner*innen zu überzeugen, Bäume in die Straßen zu pflanzen. Aber alleine mit dem Bauvorhaben am Grüngürtel werden eine Reihe von Bäumen wieder vernichtet. Er war da aber sehr überzeugt davon, dass das Wohnprojekt trotzdem dorthin muss – er hat sogar wörtlich gesagt, es sei ihm ganz recht, wenn da Leute wohnen, die ein bisschen Geld haben. So hat er es gesagt: Er hat nichts dagegen, wenn reiche Leute in Linz wohnen. Immerhin ehrlich, aber trotzdem. Naja.