

Osnabrück's "Green Fingers" – Adjusting Priorities to Sustain and Develop Greenways and Landscapes in a Competitive Land-Use Environment

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Introduction

Osnabrück's so called "Green Fingers" – eleven landscape corridors reaching from the inner city into the region – structure the regional metropolis' urban pattern. They supply the city centre with fresh air, serve as recreational destinations for the city's inhabitants and provide space for close to the city agriculture and forestry. First defined in 1926, the Green Fingers have since been part of various planning documents and programs. However, these open spaces have been diminished bit by bit over time. The city's growing need for land to build on had its impact just like the development of major traffic routes. On the one hand a lively debate has emerged: the Green Finger's qualities, their ecological, aesthetical and cultural significance become increasingly important. Yet on the other hand decision makers still tend to put greenfield building activity first. A lot of efforts in striving for inner development are undermined by the ever growing demand for space. The urban sprawl continues, although various kinds of sanctuaries have been added to the urban and landscape planners' equipment. The growing urban framework with its semidetached and single family houses does not come to a halt.

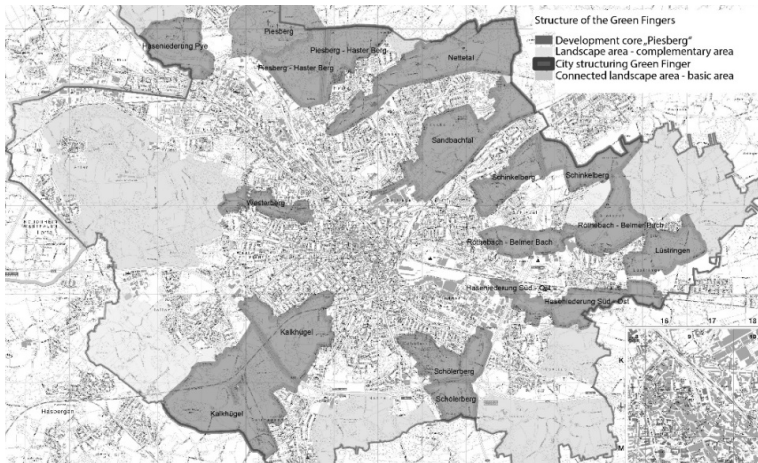


Figure 1. Osnabrück's Green Fingers: multifunctional areas structuring the urban pattern and demanding new solutions to develop the city's urban frames. (Stadt Osnabrück Fachbereich Grün und Umwelt)

Background / Literature Review

What do the decision making processes underlying these spatial developments look like? Which set of priorities is prevailing? And how can it be changed? Pursuing the goal of a genuinely sustainable urban and landscape development, Osnabrück University of Applied Sciences is undertaking various efforts in teaching and research. Although the multitude of instruments to protect open spaces has never been greater, their significance still seems to be at a low level. Therefore new perspectives need to be conveyed to decision makers and civil society.

Introducing the subjects “resilience” and “atmosphere” means leaving beaten paths and discussing topics unknown to many stakeholders in planning processes. Both topics can be referenced to planning processes and instruments alike – and, although originating in somewhat different spheres, identify deficiencies, question common ways of thinking and show new approaches.



Figure 2. “The Urban As A Resilient System Of Processes“, The Delta District, Vinge, Denmark: “a city that adapts, changes and optimizes“ – due to a specific set of priorities in the planning process, which puts ecological balance and sustainability first. (Andersson 2015)

The potential drive which the concept of resilience could bring to the weakened and overused idea of sustainability has been discussed within urban development debates in recent years. Increasing the capabilities of resistance, learning aptitude and adaptability in times of multiple crises is a much needed overall concept, providing orientation for many common planning concepts on

different levels of scale and action. While resilience has been around in psychology and ecology for decades and been referred to in urban development in English speaking communities, it has only reached the German debate in the past five years. It is difficult to put its systemic duct and universality into practice. That is why attempts to depict resilience in a planning context tend to remain rather complex (Kegler 2014) or tentative (Jakubowski 2013). The definitions of central characteristics of resilient cities and regions concentrate around the following: an open and positive public participation, flexible urban and organisational structures, diversity, modularity and process orientation (Gehle 2015). They aim at revealing feedback relations, breaking through the non-sustainable competition for growth and restoring local and regional supply chains, especially in energy and food production. While there are examples demonstrating resilient buildings and neighbourhoods (Figure 2), there is a gap in knowledge between the general theory and object-related implementation – this is where solutions on the level of spatial planning are sought, to integrate resilience into planning procedures and instruments.

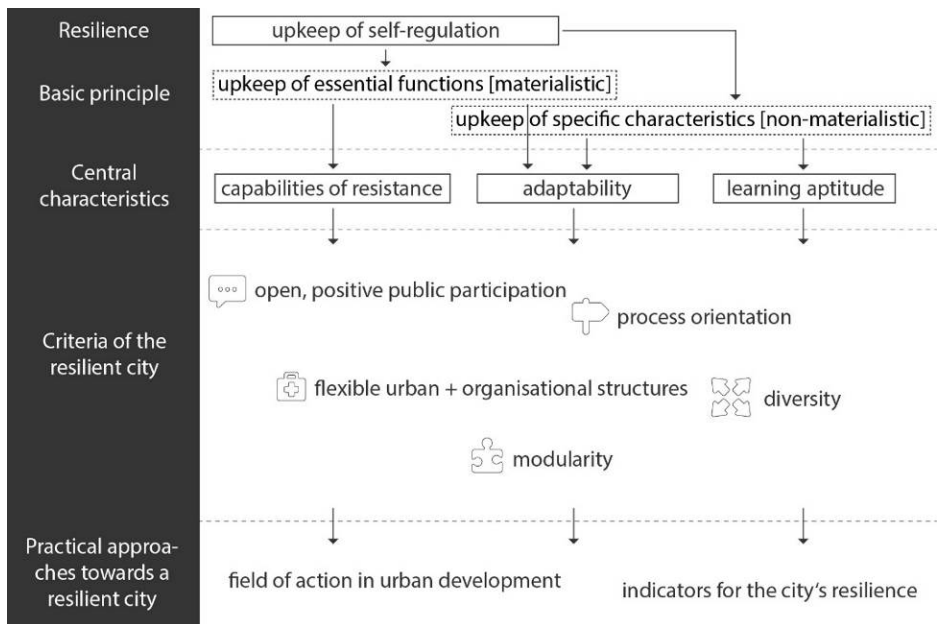


Figure 3. Adapting the principles of resilience to urban development; from theory to practice. Deducing the central characteristics and criteria of the resilient city as a new planning paradigm. (Gehle 2015)

Thoughts around atmosphere are placed in a long philosophical tradition, in which the being of man in body and mind is central. Conscious or unconsciously manmade spaces – urban environment, cultivated landscapes –

have an impact on atmosphere. This process has been characterised as the “felt presence in space” (Hofmann 2013, 26) and as “some kind of ‘performance’ of architectural attributes” (ibid.). Introducing this understanding of atmosphere into city and landscape planning comes along with considerate perception by exploiting and feeling human beings (Blum 2010). An impartial description of atmosphere in certain spaces and places must fail due to the dominant dependency on individual moods. Temper, sensation, individual experience and setting influence perception. Trained perspectives are being irritated by approaching planning designs and schemes with open senses, restructuring thinking patterns and adjusting priorities. This process demands to pause for a moment in fast moving times. Planning alongside atmospheric entities creates cities and landscapes not solely by functional or economic criteria, but provides a subtle approach in steering regional and social development.

This short introduction on resilience and atmosphere may give the impression that both topics stand apart. But thinking them together is where commonalities become obvious and resilience and atmosphere act complementary. Depicting this on a larger scale brings the Green Fingers in Osnabrück into focus. In an attempt to strengthen close to the city agriculture and local recreation in a competitive land use environment, these areas require special attention – which goes beyond the yes or no question of building or not building. Even the land use within open spaces should be questioned in terms of e.g. ecological or conventional farming. It is around the urban framework – thus the central assumption – where the sustainability of our cities will be determined.

Table 1. Land-use in Osnabrück in 2014

Land-use (2014)	ha	%
Building area	4.035	33.7
Public facilities	262	2.2
Traffic zones	574	4.8
Supply and disposal	69	0.6
Open spaces	1,241	10.4
Water area	134	1.1
Other	203	1.7

It is in Osnabrück’s Green Fingers where the three Fábos Conference topics “greenway planning”, “landscape planning” and “landscape design” come together, because they can be looked at on various levels of scale. Furthermore, relationships between the urban and free spaces can be established, while the Green Fingers also provide a growing number of functions. At the same time they differ in shape and design, accessibility and experience, character and nature.

Goals and Objectives

The research activities at Osnabrück University of Applied Sciences develop approaches to spatial planning which basically aim at nothing less than changing the growth orientated transformation currently in progress. There are multiple projects underway to gain various suggestions for the transition towards a sustainable transformation, which basically share the following goals and objectives:

- Find ways to change the ever growth orientated transformation in urban and landscape development,
- Draft and test a “new planning culture” as the basis of a sustainable spatial development,
- Adjust priorities of decision making processes in spatial development,
- Establish and enhance the Green Fingers (“urban frames”) as experimental areas to learn about sustainable development,
- Draft and test examples for designing urban frames (the transition zones between built environment and open spaces),
- Realize an pilot project for more flexible / variable land use planning,
- Suggest artistic interventions in urban open spaces and landscape corridors.

Methods

The field of research “Urban AgriCulture – Future Urban Environment” unites eleven professorships from the fields of “urban and free space development”, “resources and production system” and “stakeholders and value creation”. Across all levels of scale there is basic and applied research underway which refers to the Green Fingers. The department of Landscape and Open Space Planning focusses on the spatial planning approach. Many other stakeholders in economics, politics, administration and civil society become a part of the research union.

The cooperation between university and city council, for instance, explores the subjects of resilience, atmosphere and urban frames in a panel discussion hosted by the “building culture panel”. A similar partnership works on establishing a model project to try out the topics named above in a specific district in Osnabrück, working together with the inhabitants and creating publicity for the new planning ideals. This venture also fits into the context of the realignment of the land-use plan.

Results and Discussion

In addition to the just mentioned projects in progress a few other results from student projects will be presented and discussed in this section. In pursuit of finding suggestions for adapting formal planning instruments and processes, a master thesis examines the current land-use plan of Osnabrück and takes a look on resilience in practice (Gehle 2015). While the legal framework does not allow much alteration for the local administration, a resilient land-use policy demands fast, flexible planning – which means, that plans developed to regulate the city’s spatial planning for the next 10 to 15 years are outdated as soon as they are published. The need to adapt to a rapidly changing environment – economically, socially and ecologically alike – is still not represented sufficiently in the current planning system and its processes. The multilevel planning system in Germany is understood as an overall planning on different levels of scale, from local to nationwide (counter-current principle), and that makes it act slowly in day to day practice.

Moreover the traditional planning processes cannot compete with the younger, informal planning procedures in terms of participation. While civil commitment is often named the substantial basis of successful urban and landscape planning, it is hardly inspired by the rather reserved administrative planning. The master thesis suggests to use the process of realigning the land-use plan to start a new discourse on urban planning in Osnabrück and thereby making the first steps towards a resilient city, a sustainable urban and landscape development.

A bachelor thesis puts the EU’s green infrastructure into the context of resilient spatial development (Reetz 2016). The Green Fingers of Osnabrück could be developed as continuous productive urban landscapes (CPUL) and host urban and peri-urban agriculture. While the thesis values the structural sponsorship in the EU’s green infrastructure agenda and its respective programmes in the German administration system, it criticizes the lack of aesthetics in these schemes. This is where atmospheric perception enters the stage and fills the gap in an all too systemic view on greenway planning. Making landscapes and green corridors accessible and enriching them with close to the city farming also has an impact on the use of energy; the so-called embodied energy, which is of a special relevance in Osnabrück, since there has been an increase of biogas plants in the area alongside a massive loss in grassland. So instead of optimizing the Green Fingers the “conventional way” the thesis suggests to make these areas worth a visit, preserve the cultural landscape and connect separated sections.



Figure 4. Concept “LandEspace” – utilizing atmospheric perception to create connections, destinations and orientation (Blume et al. 2016)

Taking a closer look on atmosphere and referring it to the Green Fingers was yet another approach to Osnabrück’s major greenways (Blume et al. 2016). It has led to a differentiated view on the atmospheric and recreational character of the individual landscape sections. Getting there is only the first step – and can be seen as a rather pragmatic task looking for a pragmatic answer. But there is more to it once the importance of the subjective mood and attitude is being considered. Taking into account what people expect when they visit landscape areas and comparing it to what they find in situ reveals their inner motives. Flowing borders between the built environment and open spaces is what potentially mingles city and landscape with each other.

Conclusion

Bringing the above mentioned understanding of resilience and atmosphere together changes the view on how cities and landscapes should be developed, it questions one’s priorities and habits, demands to take a view from a different angle. And above all it refreshes the debate on sustainable development, economical land-use, renewable energy, and the human scale in overall

planning. While all parts of the human environment are potential reference areas for this mind-set, the urban frames are maybe the most exciting – and surely the most important areas to start on. Sealing ever more grassland and destroying greenways as well as recreational spaces and green infrastructures does not only make our cities less attractive to live in. It also denies future generations to evolve a sense of nature and self-consciousness in natural surroundings.

Implementing a new planning paradigm around resilience and atmosphere – with a spatial focus on urban frames – will take more time and research. But the results of the research at Osnabrück University of Applied Sciences so far have shown that it is a way worth pursuing. Yet there needs to be more practical implementation and feedback from decision makers, administrations and civil society. The Green Fingers are not only central in this scheme. Developing new concepts around these green structures – thereby underlining their importance for the future of the city itself – strengthens their importance for the local population and thus political decision makers.



Figure 5. „Urban Frame Culture“: adjusting priorities in a discourse on new planning approaches and providing space for experimental interventions (Manzke, von Dressler)

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