

The Shrinking City as a Testing Ground for Urban Degrowth Practices

Maurice Hermans¹, Joop de Kraker^{1,2} , and Christian Scholl¹

¹ Maastricht Sustainability Institute, Maastricht University, The Netherlands

² Department of Environmental Sciences, Open Universiteit, The Netherlands

Correspondence: Joop de Kraker (j.dekraker@maastrichtuniversity.nl)

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Abstract

To inform and operationalize an urban degrowth agenda, more systematic and larger-scale experimentation with degrowth practices is needed. The aim of this study was to explore the suitability of shrinking cities as testing grounds for urban degrowth practices. To answer this question, we analyzed two cases, both urban greening initiatives, located in the shrinking urban region of Parkstad Limburg, in the Netherlands. The cases show that in a shrinking city, with a large surplus of urban land and long-term vacancy and demolishing of buildings, there is literally abundant “room” to experiment with alternative ways and types of urban land use. There is also interest on the side of the local government in alternatives to the conventional approaches to urban planning and development. As both cases can be interpreted as “experiments with urban degrowth practices,” it can be concluded that shrinking cities offer ample opportunities for urban degrowth experiments. The lessons learned from the two studied cases are not very positive concerning the wider feasibility of the tested degrowth practices, but as experiments, the cases can be considered successful. This is because they provided a better understanding of the conditions required for the implementation and upscaling of these practices, also in growing cities. To inform and operationalize an urban degrowth agenda, we, therefore, recommend more research on cases in shrinking cities that can be interpreted and analyzed as experiments with urban degrowth practices.

Keywords

degrowth; shrinking cities; urban experiments; urban greening; urban shrinkage

1. Introduction

To address the triple planetary crisis of climate change, pollution, and biodiversity loss, many cities around the world are currently embarking on multiple, interrelated sustainability transitions (Passarelli et al., 2021). Within the European Union, with its ambitious Green Deal, this concerns transitions towards climate-neutral, climate-resilient, circular, pollution-free, and biodiverse cities (European Commission, 2021). To discover what works, when, how, and for whom in these transitions, cities often resort to urban experiments (Hodson et al., 2017; Scholl & de Kraker, 2021b). Urban experiments can be defined as purposeful interventions in the city with the aim to innovate, learn, and/or gain experience (Bulkeley & Castán Broto, 2013). Whereas urban experimentation initially focused on real-life testing of technological innovations, it has nowadays broadened to novel products, services, as well as social and institutional innovations (Bulkeley et al., 2019).

Many of these innovations are based on a “green growth” approach to sustainable development, which does not fundamentally question the current growth-based production and consumption systems, but rather attempts to minimize their negative impacts on sustainability (Jacobs, 2013). The “degrowth” movement presents a radical alternative to this approach (D’Alessandro et al., 2020; Mastini et al., 2021) and makes a plea for drastically downscaling economic production and consumption to achieve environmental sustainability and social justice and well-being (Demaria et al., 2013). Until a few years ago, degrowth thinking was not systematically applied to urban planning and development (Ferreira & von Schönfeld, 2020; Kaika et al., 2023). In the words of Xue and Kębłowski (2022, p. 397), degrowth “proponents are yet to reflect on the role of urban development and planning in the transformations they envision, outlining where, how and for whom the principles of degrowth could be applied in urban contexts.” However, more recently, several publications, including two special issues, focused precisely on the application of degrowth thinking to urban planning and development (Kaika et al., 2023; Savini, 2021; Savini et al., 2022; Xue, 2022; Xue & Kębłowski, 2022). After reviewing these contributions, Kaika et al. (2023) made an urgent call for a transformative urban degrowth agenda that can be translated into spatial practices and tangible methods to address the current urban sustainability challenges. To inform and operationalize such an agenda, real-life experimentation is required to discover what works and under which conditions urban degrowth practices can be scaled up (Kaika et al., 2023). Currently, urban degrowth practices, such as urban gardening, squatting, and co-housing (Demaria et al., 2013; Xue, 2022), are self-contained, localized and small-scale (Kaika et al., 2023), and scaling up seems problematic (Lloveras et al., 2018). Although various publications refer to these practices as “experiments” (Demaria et al., 2019; Jarvis, 2019), they have thus far not been studied as experiments in the sense of practices that could inform a transformative urban development agenda or provide insights into their success factors or potential for upscaling (De Castro Mazarro et al., 2023; Kaika et al., 2023). Rather, these practices have been presented by researchers as “nowtopias,” alternatives outside present institutions, or “pre-figurations” of a post-growth future (Demaria et al., 2013, 2019). The term “experimental” is used for these practices in the sense of “not tried and tested” (Jarvis, 2019).

To operationalize an urban degrowth agenda, more systematic and larger-scale implementation of urban degrowth practices as experiments is thus needed, but in growing, booming cities this is problematic. Here, the competition for urban space is very high, leaving very few opportunities to experiment with practices that aspire to improve the sustainability and quality of urban living by enhancing social and ecological value while reducing traditional economic value. Along the same lines, degrowth thinkers have stated that within

the current, growth-based system, it is impossible to effectively make the necessary changes (Lloveras et al., 2018). This raises the question of whether shrinking cities are not a much more suitable place for degrowth experiments. In Europe alone, there are more than 500 cities with continuous demographic shrinkage, which in many cases concern small- to medium-sized, peripherally situated, former industrial cities (Wolff & Wiechmann, 2018). The surplus of space (land, buildings) in these cities and the diminished role of market parties might create favorable conditions for experimentation with alternative types and ways of urban development and land use (Mallach et al., 2017; Ryan, 2013). Moreover, in shrinking cities, there is also a need for urban development solutions that improve the quality of life in the absence of economic growth (Hospers, 2014; Ryan, 2017; Schindler, 2016; Wiechmann & Bontje, 2015), and therefore there may also be more interest in the outcomes or lessons of urban degrowth experiments and a higher probability for larger-scale uptake and implementation (Reverda et al., 2018).

This study aimed to explore this issue further and answer the question of how suitable the shrinking city is as a testing ground for urban degrowth practices. To this end, two contrasting cases were analyzed, both urban greening initiatives, located in the shrinking urban region of Parkstad Limburg, in the Netherlands. The main research question was operationalized in four subquestions, which were answered for both cases: (a) To what extent did the wider urban planning and development context offer “room for experimentation”? (b) To what extent can the case be interpreted as an experiment with urban degrowth practices? (c) What were the outcomes of the case, and what were the barriers or enablers for these outcomes? (4) What can be learned from this case about urban degrowth practices? In the next section, the methodology of the study is presented in more detail, whereas in Section 3, the findings are presented per case. In Section 4, the subquestions are answered based on the key findings combined for both cases, followed by a conclusion with respect to the main question, and a discussion of the lessons, limitations, and further prospects of this research.

2. Methodology

2.1. Research Approach

To achieve the aim of the study and address the research questions, a comparative case study approach was followed. Two cases were selected that on the one hand are sufficiently similar to allow for a meaningful comparison and on the other hand represent the wide variation in urban development contexts that can be found in shrinking cities. Both cases are located in Heerlen, the central city of Parkstad Limburg, a former coal mining area and the largest shrinking urban region of the Netherlands, with currently approximately 250,000 inhabitants (Figure 1). The cases both represent citizen-driven urban greening initiatives, targeting vacant sites of similar size (2–3 ha) and aiming at the creation of social and ecological value.

The first case is Schurenbergerpark, located in Heerlen-Noord, a peripheral district with many long-term vacant sites. The second case is Stadstuin (“City Garden”), located in Heerlen-Centrum, the inner city district of Heerlen, with many long-term vacant shops and offices. In both cases, the abundant and long-term vacancy is a consequence of the closing of the mines, the ensuing loss of welfare and employment, and, ultimately, the decline in population, which has resulted in a large surplus of land and buildings in Heerlen. Both cases, including their wider urban planning and development context, will be described in detail in Section 3.



Figure 1. Location of Schurenbergerpark (Case 1) and Stadstuin (Case 2) within Heerlen.

2.2. Methods

The main method of data collection was interviewing: 10 one-hour long, semi-structured interviews were held with key actors of the cases (Table 1). All interviews were recorded and transcribed with Amberscript (<https://www.amberscript.com>). In the contact mail sent to the interviewees, the purpose of the interviews was explained as well as the way privacy regulations were respected in the handling of the data. At the start of each interview, explicit consent to recording and use of the interviews for research purposes was obtained.

Table 1. Interviewed key actors.

Case	Code	Interviewee	Date
Schurenbergerpark	KA1	Independent intermediary (broker), between citizen initiatives and municipality	19 April 2021
Schurenbergerpark	KA2	Citizen, initiator, and chair of the foundation Schurenbergerpark	21 April 2021
Schurenbergerpark	KA3	Municipal employee, manager of urban development project Gebrookerbos	23 April 2021
Schurenbergerpark	KA4	Researchers (two), responsible for monitoring and evaluation of project Gebrookerbos	2 July 2023
Stadstuin	KA5	Local entrepreneur, bookshop in Schinkelkwadrant	18 April 2021
Stadstuin	KA6	Citizen, active member of the association Stadstuin Heerlen	19 April 2021
Stadstuin	KA7	Citizen, chair of the association Stadstuin Heerlen	19 April 2021
Stadstuin	KA8	Municipal employee, manager of external relations for Schinkelkwadrant	23 April 2021
Stadstuin	KA9	Alderman, responsible for inner city development Heerlen	23 April 2021
Stadstuin	KA10	Project developer, director, responsible for real-estate development Schinkelkwadrant	23 April 2021

In the interviews, the following topics were addressed for each case: (a) wider urban planning and development context, (b) case history (when, who, why, what, and how), and (c) outcomes (substantive results, lessons and insights, and wider impacts). The information on these topics obtained from the interviews was cross-checked and supplemented with publicly available information about the cases (websites, news items, and documents). In Section 3, the outcomes of both cases are illustrated with relevant quotes from the interviews (Boxes 1 and 2).

To answer the second subquestion—To what extent can the case be interpreted as an experiment with urban degrowth practices?—a list of features of degrowth practices was used as an analytical framework to interpret the collected data. The development of this analytical framework is described in the next section.

2.3. Features of Urban Degrowth Practices

A list of features of urban degrowth practices was compiled from the literature (Table 2). Features are understood here as the general characteristics of practices, based on underlying principles. For example, a concrete degrowth practice is “co-housing,” which has as an economic feature the “non-market-based, non-capitalist approach” to housing, based on the degrowth principle to “prioritize social use values and collective creation over exchange values and commodification” (Varvarousis & Koutrolidou, 2018). We defined urban degrowth practices as spatial practices, i.e., practices concerning the use of urban space, and thus ignored more socio-economic practices, related to work, consumption, and lifestyle, without a dominant spatial component, e.g., “voluntary simplicity, living better with less, downshifting and slowing down life’s pace” (Demaria et al., 2013, p. 202). We also excluded conflicting features in the urban degrowth literature, notably “compact urban development” versus an “urban village” type of development with a high percentage of open space (Xue & Kęłowski, 2022). Most of the features are derived from two recent publications that aimed to identify degrowth principles that could be translated into urban spatial practices; for the original sources, we refer to these two papers: De Castro Mazarro et al. (2023) and Ruiz-Alejos and Prats (2022).

Table 2. Features of urban degrowth practices.

Dimension	Features
Economic	Reduction in production and consumption Shift to local production and consumption Non-market-based, non-capitalist approach Cooperation instead of competition Other types of ownership than private property
Social	Promotion of social interaction Socially inclusive
Ecological	Greening (replacing man-made artefacts with nature/green) Promotion of ecological value and biodiversity Reuse and repurposing of (abandoned) buildings and areas Reducing consumption of non-renewable energy and materials
Governance	Non-hierarchical relations between urban actors, including more equal relations between governments and citizens Self-organization and empowerment of citizens

2.3.1. Economic Dimension

In the economic dimension, five features are distinguished. The first, reduction in production and consumption, is based on the related core principle of degrowth (Demaria et al., 2013). A shift to local production and consumption (Ruiz-Alejos & Prats, 2022) is a feature of the frequently mentioned practice of urban farming or gardening (De Castro Mazarro et al., 2023; Ruiz-Alejos & Prats, 2022; Varvarousis & Koutrolikou, 2018). The non-market-based, non-capitalist approach (Lloveras et al., 2018) is reflected in practices such as freely sharing private space (De Castro Mazarro et al., 2023; Varvarousis & Koutrolikou, 2018), co-housing (Jarvis, 2019; Ruiz-Alejos & Prats, 2022), collective use of buildings (De Castro Mazarro et al., 2023), and communal or collaborative housing (Xue & Kębłowski, 2022). It is closely related to the features cooperation instead of competition, reflected in the practice of housing cooperatives (Ferreira & von Schönfeld, 2020), and other types of ownership and use than private or public, reflected in commoning practices (Ruiz-Alejos & Prats, 2022; Varvarousis & Koutrolikou, 2018), community gardens and other community-based facilities (Lloveras et al., 2018; Wächter, 2013), and, at the extreme end of the spectrum, the practice of squatting (Lloveras et al., 2018; Ruiz-Alejos & Prats, 2022).

2.3.2. Social Dimension

The feature promotion of social interaction is based on the degrowth principle of conviviality (D'Alisa et al., 2014; Lloveras et al., 2018) and reflected in various practices, also mentioned under the economic dimension, that involve living together, working together, or other forms of collective use of urban space. The same applies to the second feature, socially inclusive, which is reflected in the inclusive approach of these practices (Varvarousis & Koutrolikou, 2018).

2.3.3. Ecological Dimension

The ecological dimension encompasses both nature- and environmentally-oriented features. The first, greening (De Castro Mazarro et al., 2023), is often found in combination with the promotion of ecological value and biodiversity, e.g., by implementing a green infrastructure for pollinators (Ruiz-Alejos & Prats, 2022). Greening can also take the form of urban gardening, a practice already mentioned under the economic dimension. The environmentally oriented features of reuse and repurposing of (abandoned) buildings and areas (De Castro Mazarro et al., 2023; Ruiz-Alejos & Prats, 2022; Wächter, 2013) and reducing consumption of non-renewable energy and materials both follow from the degrowth goal to reduce economic activities with harmful environmental impacts. The first feature is about saving resources such as energy, materials and open, "virgin" land, e.g., by redeveloping brownfield areas (Xue & Kębłowski, 2022). The second feature is reflected in practices that involve the generation of renewable energy (Wächter, 2013) and the implementation of low-tech, low-carbon innovations in construction (De Castro Mazarro et al., 2023), but also in social innovations that reduce footprints, such as co-housing and co-working (De Castro Mazarro et al., 2023).

2.3.4. Governance Dimension

Finally, for the governance dimension, two features could be identified in the degrowth literature. The first, non-hierarchical relations between urban actors, including more equal relations between governments and citizens, is reflected in the phenomenon of citizens' initiatives in urban planning (Ruiz-Alejos & Prats, 2022),

but also in more horizontal decision-making processes and governing of urban space through assemblies and direct democracy (Lloveras et al., 2018; Varvarousis & Koutrolikou, 2018). The same applies to the second feature, self-organization and empowerment of citizens, which, in addition to self-organizing initiatives of urban residents (Lloveras et al., 2018), also refers to their enhanced participation in urban decision-making (Xue & Kębtowski, 2022).

3. Results

3.1. Case 1: Schurenbergerpark

3.1.1. Context

The wider urban planning and development context of the Schurenbergerpark case is the restructuring of Heerlen-Noord, aimed to address the loss of spatial structure and cohesion in this district. After the closing of the coal mines, former mining sites were converted into green areas, often without a clear function. In the following decades, the population and economic activity declined, and after long-term vacancy, many buildings were demolished, leaving a great number of vacant sites in Heerlen-Noord, mostly owned by the municipality or social housing corporations. The municipality decided to follow a two-track approach to restructuring. At the macro-level, spatial structure and cohesion were addressed by converting a former mining railway track, running through the district and connecting it with the other parts of the Parkstad urban region, into an attractive “highway” for slow traffic. Another major intervention at the macro-level was the restructuring of the stream valleys running through the district, with nature development and the construction of walking and cycling lanes. Due to a lack of public funds and interest from market parties, the municipality decided to follow a very different approach at the micro-level of the individual vacant sites in the district. Contrary to the usual approach to area (re)development with masterplans including well-defined goals and time horizons of 20–30 years, an open-ended bottom-up process was started as part of the Gebrookerbos project (see also Louali et al., 2022; Matoga, 2022). In this project, an independent intermediary or “broker” was appointed to coach residents of Heerlen-Noord who had ideas about new purposes for vacant sites in their neighborhood. The only prerequisite was that an idea should fit within one of three broad themes: urban food production, nature, and green leisure and recreation. The broker supported the residents in realizing their ideas by bringing them in contact with the municipality and helping them to build a network and acquire subsidies, recruit volunteers, get media exposure, and, more generally, become self-supporting through “empowerment” workshops. At the municipality, 10 civil servants were tasked with the role of “account manager.” These account managers were responsible for the internal handling and guiding of citizens’ ideas through the municipal bureaucracy. Throughout the duration of Gebrookerbos (2014–2020), the broker collected more than 70 concrete ideas for repurposing vacant sites in Heerlen-Noord of which 32 were realized at the time of the interview, representing a total area of 35 ha.

3.1.2. Case History

The case of Schurenbergerpark started with a citizen’s idea in 2014 and was one of the first initiatives to be realized. The site of about 3 ha, owned by the municipality, concerned former soccer fields that were abandoned when the local club had merged with a neighboring one in 2008. The new purpose for the area involved a “life-cycle forest,” where trees could be planted and adopted by local residents to commemorate

life events, such as births, deaths, and anniversaries. The area was divided into three parts: a natural forest, a park with walking lanes, and an open area where large community events could be organized. The initiator was a former IT specialist, who had lost his job after a reorganization and since then had become active in volunteer work. With the help of the local neighborhood association and the broker, a foundation (Schurenbergerpark) was established with a small core group of active volunteers, and with the initiator and his wife forming the board. In a formal agreement, the municipality granted the foundation the right of use of the area for an initial period of 15 years. The municipality also supported the development of the “life-cycle forest” by helping out with the design, constructing walking lanes, and donating greenery. From the start, the initiative attracted much attention, including regular coverage in the local news and even once on national television. There was also much interest in adopting trees. By the time of the interview, 130 trees had been planted and adopted, with another 50 on the waiting list. In addition, 200 “paper trees” were planted by the municipality as part of a project to compensate for its paper consumption. Moreover, a large number of fruit trees was donated by another organization, the fruits of which could be picked for free by park visitors. The initiators are successful in the occasional recruitment of large numbers of volunteers, for example on tree-planting days, but it has turned out to be difficult to mobilize sufficient volunteers on a regular basis for the maintenance of the Schurenbergerpark. The municipality therefore formally agreed to continue regular mowing of the grassy parts of the area, but for maintenance of the trees (watering, pruning) no structural solution has been found yet, resulting in a heavy burden for the small core group of volunteers. As a consequence, they also lack the time and energy to elaborate new ideas for the further development of the social and ecological value of the Schurenbergerpark.

3.1.3. Outcomes

3.1.3.1. Economic Outcomes

The sites in Heerlen-Noord targeted in the Gebrookerbos project had become vacant as a consequence of a large-scale decrease in population, economic activity, and welfare. Given the lack of interest from market parties to redevelop these sites, the municipality turned to a bottom-up approach based on citizen initiatives. Logically, only a few of these initiatives were of an entrepreneurial nature and are generating enough income to be financially independent. The large majority of the ideas that are realized aim at the development of social and/or ecological values. An overall societal cost–benefit analysis of the Gebrookerbos initiatives conducted by Louali et al. (2022), showed that for the municipality the financial balance in terms of expenses (mainly time invested by municipal and project employees) and cost savings (mainly tasks conducted by citizen-volunteers) was negative. The Schurenbergerpark is no exception in this respect. The initiator indicated that maintenance and development of the park is very time-consuming for the volunteers, despite that part of the structural maintenance is still conducted by the municipality. Furthermore, the initiative is financially still 100% dependent on incidental external subsidies and donations, because there is a lack of interest from the wider community to organize events in the part of the park that can be hired at low cost for social activities, probably because the area lacks facilities such as toilets.

3.1.3.2. Social Outcomes

The wide interest in adopting trees in the Schurenbergerpark to commemorate life events demonstrates that it fulfils an important social need of the community. The park also promotes social interaction and cohesion

in the neighborhood and the wider district of Heerlen-Noord. It attracts many visitors each week, who also frequently make conversation with one another. On tree-planting days a large group of residents joins to work on a collective challenge. The core group of volunteers have considerably expanded their social network in the neighborhood, and for example nowadays often make conversation with other residents when taking a stroll. Finally, the core group also has become part of the Gebrookerbos network of citizen's initiatives in Heerlen-Noord.

3.1.3.3. Ecological Outcomes

The biodiversity of the area has greatly increased after the single-species soccer fields were allowed to develop into natural and herb-rich grassland. The planting of a large number and variety of indigenous trees and shrubs has further increased the species richness of the area and provided a habitat for many other species, such as butterflies and birds. The fruit trees, which are only partly harvested by park visitors, provide a rich source of food for even more species. Interestingly, the initiator indicated that he himself was not entirely happy with the ecologically motivated focus on indigenous tree species. He thought that the attractiveness of the Schurenbergerpark to visitors could be further enhanced by planting also exotic trees with more spectacular

Box 1. Relevant quotes from the interviews, illustrating the outcomes of Case 1.

Social Outcomes

KA2: "As initiators, our social contacts have increased by 1,000%. When we're in the park, we always have a chat with people. I'm not sure whether that applies also to others who just come for a stroll. But I guess it does, I think that there is more interaction between people now."

KA3: "We did not really expect this, but it turned out that most initiators of the various citizen's initiatives were interested in connecting with each other, sharing knowledge, and exchanging experiences."

Economic Outcomes

KA2: "One part of the park is an area for activities. The idea was that everyone could hire it for an event, and the revenues would cover the maintenance of the park. But that was a little too optimistic because there are no further facilities there. So that was not a success."

KA2: "At a given moment we discovered that maintaining an area of 3 ha with just volunteers is not possible. Or, let's say, it is in any case a big challenge. We had a lot of talks about this with the municipality, and now they come a few times a year to mow the grass."

Ecological Outcomes

KA2: "We have been advised by the municipality about the choice of tree species. The choice has been for indigenous species. The idea is: make sure that these indigenous species, and also the insects and the like that are associated with these trees, can develop in the park."

Governance Outcomes

KA1: "Perhaps the most important outcome was that the relationship between the municipality and the citizens has grown, that the mutual trust has grown. Each with their own role, but with trust and respect towards each other that both are contributing to the revitalization of the area."

KA4: "In the case of Schurenbergerpark, the broker has played a role there in accelerating certain processes. For example, one of the account managers was notified by the broker like, hey, can you get these departments going, where the request has been lying around already for so long now?"

colors and blossoms. Finally, another type of ecological value is created by the planting of a large number of trees that compensate in part for the resource use and carbon emissions of the municipality.

3.1.3.4. Governance Outcomes

Among the outcomes of the Gebrookerbos project from an urban governance perspective, two are often mentioned, both by the interviewees and in the literature (e.g., Matoga, 2022). The first concerns empowered networks of residents that run a large number of greening initiatives throughout Heerlen-Noord and a (restored) sense of pride, self-confidence, and ownership in the district. The second outcome concerns the insight that bottom-up development of urban areas is a real option. The interviewees stressed, however, that the success of this approach is critically dependent on a more equal relationship between the local government and the citizens and on the roles of the independent broker and open-minded, dedicated account managers at the municipality. The specific case of Schurenbergerpark is in line with these general findings. The initiator indicated that he felt taken seriously and supported by the municipality and that his self-confidence in dealing with authorities has strongly increased. For example, when he would meet an alderman in the streets nowadays he would greet and start a conversation, something which he previously would not have dared. Also the crucial help of the broker and the account manager at the municipality in realizing the initial idea was mentioned.

3.2. Case 2: Stadstuin

3.2.1. Context

The planning and development process for Heerlen-Centrum has followed more or less the traditional top-down approach, with the plans and visions being developed by urban planners and designers, followed by one or more rounds of public response to the presented plans, after which the (modified) plans are adopted by the city council. For the inner city district of Heerlen-Centrum, a development plan was published in 2016, called *Bidboek Urban Heerlen* (Gemeente Heerlen, 2016). The main problem identified and addressed in this plan is the large surplus of office and retail space in Heerlen-Centrum, resulting in long-term vacancy of many buildings, with negative impacts on social safety and attractiveness to visitors. The causes of this surplus are the economic and demographic decline described earlier, as well as the more recent shift towards online shopping. In response, the municipality aims to strengthen functions of the district other than office and retail, notably the residential function, as well as education (schools), sports and culture (swimming pool, events), and hospitality (hotels, restaurants, bars). This is to be achieved by demolishing or repurposing vacant buildings and concentrating retail in a smaller core area in the city center. For the neighborhood where the Stadstuin case is located, the Schinkelkwadrant, a more specific plan was presented in 2017, called “Central Park” (IBA Parkstad, 2017). This plan involved demolishing all long-term vacant office and retail buildings, except those with monumental status, and replacing these with residential buildings (including 50% social housing) in a green setting. The green space was originally mainly meant to make the area more visually attractive for residents and visitors and as a pleasant place for social interaction and activities. More recently, with the increasing need for urban climate adaptation, also the functions of water retention and shading are included in the plans.

3.2.2. Case History

In 2018, a large multi-story, long-term vacant office block and shopping center in the Schinkelkwadrant was demolished, after the municipality had acquired it for €4.2 million. This left a large, open area of about 2 ha in the inner city (called Schinkel-Zuid), while for the envisioned next step, residential buildings in a green setting, no approved design and construction plan was yet available. Residents living opposite the site feared that for years to come they would be confronted with this bare, vacant area. They therefore joined forces with a couple of interested citizens from the wider Parkstad area, elaborated their initial idea for an urban garden (*stadstuin*) together with some 40 other residents in a neighbourhood meeting, and then asked the municipality for permission to establish such an urban garden at the vacant site. The municipality granted them the temporary right of use in a formal agreement with the newly established association Stadstuin Heerlen. At the time of the interviews, the association had about 20 active members, a mix of “thinkers and doers” representing a variety of backgrounds, with a large social and professional network and excellent connections within the municipality. The Stadstuin actively used the area for three years (2019–2021), not only for urban gardening by its members, but also to promote education by involving schools, social interaction by placing benches and picnic tables, and playing, games, and sports by providing equipment (e.g., climbing trees, skating ramp, break dance floor, and soccer balls and nets). Stadstuin also offered the area for free to other parties for non-commercial activities. Especially during Heerlen’s large, annual *Cultura Nova* festival, many cultural activities were organized in the Stadstuin.

In the second half of 2019, the first version of the detailed development plan for the site (Schinkel-Zuid) was published, which involved multi-story residential buildings including 158 homes. The publication of the plan was followed by a round of public response, in which 13 critical viewpoints were submitted, including one by Stadstuin. The criticism mostly concerned building height and density and the limited area reserved for green space (Gemeente Heerlen, 2020). Stadstuin made a plea to maintain the area as an urban garden with only minimal new buildings. In the first half of 2020, a second, revised version of the development plan was published, involving a strong reduction in the number of homes (98), lower building heights, and much more green space. In the round of public response that followed only a few critical viewpoints were submitted, and the design was approved by the city council (Gemeente Heerlen, 2020). All interviewees, including those of Stadstuin, were positive about the quality of the revised plan, while the chair of the association added: “If we would also have tried to stop the second version of the plan, then they probably would have reverted to the first, whereas the second is much better.”

It turned out that there was a very large interest from buyers in the new housing development at Schinkel-Zuid, and as a consequence, construction activities could start already in mid-2022. This also meant the end of the Stadstuin at that site, but Stadstuin was allowed to move part of its (temporary) activities to an adjacent site (Promenade) until the construction of the new residential buildings was completed. In the final design for the green space of Schinkel-Zuid, indicated by the municipality as “preferred but not yet approved,” part of the area is allocated to the Stadstuin (Buro Lubbers, 2022; Gemeente Heerlen, n.d.).

3.2.3. Outcomes

3.2.3.1. Economic Outcomes

By creating a pleasant, green environment, where one could stay and meet other people without the need for expensive consumption, the Stadstuin attracted people to the neighborhood and also made visitors linger longer in the area. One of the interviewees indicated that this made her decide to start a bookshop opposite the Stadstuin. She also started to develop ideas for a terrace in front of her shop to organize events and attract more potential customers. In return for creating a more pleasant atmosphere in the neighborhood, she helped Stadstuin with small jobs, such as taking care of the pieces of the large open-air chess game.

The insight that greening of public space in the city center is (also economically) more effective when it is not only visually attractive but also offers a non-commercial place to stay, relax, and meet other people was acknowledged by the external relations manager of the Schinkel-Zuid project. According to him, this would be taken into account in the final greening design for the area.

The municipality did not agree with the plea made by Stadstuin to replace the former, purely economic function of the area—offices and shops—with social and ecological functions, and not largely by a commercial housing project. According to the alderman, the municipality could not afford to grow a couple of vegetables at a cost of €4.2 million. The strong reduction in the number of homes in the final plan (98) as compared to the original plan (158) and the larger open green space was claimed by both the alderman and the project developer to be their own idea. Nevertheless, the plan was only adapted after Stadstuin and others expressed their critical views in the first round of public response. Hence, it is likely that the alderman and the project developer were at least to some extent inspired by the views and demonstrated success of Stadstuin.

3.2.3.2. Social Outcomes

During the period that Stadstuin used the area, it was effective in activating people in gardening, sports and play, and cultural events and in promoting social interaction. According to the chair of Stadstuin Heerlen, the area always quickly filled up with people, as soon as the weather allowed. Contrary to a park-like area, designed by architects and “passively consumed,” Stadstuin actively involved citizens in the use and development of the area. A garden with fruits and vegetables is something that is never finished and continues to require active attention and collaboration. In the words of an active member of the association: “We grow much more than tomatoes, we grow togetherness.” Also by leaving a large part of the area open to plans and activities by others, novel types of use could be discovered, such as urban sports.

The concept of an urban garden was quickly embraced by the municipality. Although it was repeatedly emphasized that the Stadstuin’s current use of the area would only be temporary, the municipality offered Stadstuin to literally move along with the implementation of the Central Park plan, from site to site, and to “land” in the final greening design of the area. Moreover, the municipality asked Stadstuin to collaborate with them in the development of urban gardens in other parts of the city center.

Another new function included in the greening design for the area is room for kids’ play and sports. According to the alderman and the project developer, this is to also attract families to come and live in the city center. However, it is likely that they have been inspired by the success of the Stadstuin in this respect.

Finally, the external relations manager of the Schinkel-Zuid project acknowledged the importance of a more open-ended, socially activating greening design, leaving space for ideas and initiatives of residents. According to him, the architects adopted this idea in the final greening design for the area.

3.2.3.3. Ecological Outcomes

For the urban gardening activities, containers with clean soil were used, as the quality of the soil of the site itself could not be guaranteed. Hence, by its gardening activities, the Stadstuin did not add much ecological value to the area. Yet, Stadstuin also offered space for a large indigenous wildflower garden as a habitat for butterflies. The provision of a sequence of temporary habitats can be an effective measure to promote biodiversity. However, this function was not integrated into the final greening design for the area, nor for other areas in the city center. Although the final design includes a range of ecological functions, such as green roofs, areas for rainwater storage and retention, and bird nesting boxes, these are not inspired by the Stadstuin but follow current policies on climate adaptation and nature-inclusive urban design.

3.2.3.4. Governance Outcomes

Contrary to the bottom-up approach in Heerlen-Noord, the municipality followed a classic top-down planning approach for Heerlen-Centrum. Nevertheless, the initiators of Stadstuin managed to convince the

Box 2. Relevant quotes from the interviews, illustrating the outcomes of Case 2.

Social Outcomes

KA 7: "There is always something to do here. When the weather is nice, we place the playing materials outside and then it is being used. Kids have discovered that they are allowed to run around here, and parents can just sit down here without the need to order a cup of coffee."

KA9: "If you have an outdoor area where kids can play, yes, that's by any means more attractive for a family to live than a stony square. So yes, the greening of the area is part of this. The area should become more attractive, also for families."

Economic Outcomes

KA5: "I think, before you have the right environment for shopping or living, before that is successful, first the public space should be attractive. Well, if I can contribute to that by just cleaning these public chess tables or taking care of the chess pieces, why not?"

KA10: "There's just a lot of interest in living in the city center. So there never really was a discussion about not rebuilding here anything at all. Yet, we kept always in the back of our heads that the area should be greener. Green is important, but it should not only be green."

Governance Outcomes

KA5: "What I see happening now is that the different parties talk to each other. What I also see is that one is not excluding another in advance. It even looks like they are listening to each other to achieve the desired result, that is, an improvement of this area."

KA6: "What happened is that we were invited to contribute to the development of plans for the wider area, and then they forgot to hear us about the redesign of the square! The municipality has admitted their mistake, and said, listen, next time you're invited to sit with us at the drawing table."

municipality to grant them an unplanned right of temporary use of the vacant area in the Schinkelkwadrant. The municipality also promised to involve them in the development of the greening designs for other parts of the Central Park planning area. Although Stadstuin was not always involved from the beginning, the relationship with the municipality became gradually more equal, and the municipality also sought their involvement in urban gardening plans in other parts of the city center. It is likely that the Stadstuin experience has made the municipality more aware of the need to always involve the residents in urban planning and development, also in Heerlen-Centrum. In the words of the external relations manager of the Schinkel-Zuid project: “As a municipality, we prefer to lay the groundwork, but after that, we should just let go a bit more.”

4. Discussion

4.1. Key Findings Across the Cases

This section summarizes the key findings from the two cases in response to the four subquestions, as presented in Section 1.

4.1.1. Wider Urban Planning and Development Context

The typical situation of a shrinking city, with a large surplus of land and buildings and long-term vacancy and demolishing of buildings, offered in both cases literally abundant “room for experimentation” by citizens with alternative ways and types of use of this urban space. However, the position of the municipality in this respect differed greatly between the two cases. In the case of Schurenbergerpark, the municipality followed a strict bottom-up approach and invited the citizens to come up with ideas for new types of use of vacant sites with the prospect of long-term implementation, as there was no interest from market parties to develop these sites. In the case of Stadstuin, the municipality followed the traditional top-down approach, with the plan to leave the development of the site to market parties. Citizens came with their ideas uninvited and were granted only temporary use of the vacant site.

4.1.2. Cases as Degrowth Experiments

Both cases experimented with new ways and types of urban land use, but not from an explicit degrowth perspective. However, when comparing what was done, achieved, and learned in these cases, with the features of urban degrowth practices (Table 2), many similarities can be identified. In both cases, economic values are de-emphasized and management is done by not-for-profit citizen collectives (foundation, association). The focus in both cases was on the development of social values by addressing social needs, promoting social interaction, and opening up to a diversity of social groups. Although both cases concern greening initiatives, the creation of social value was more important than ecological value. Nevertheless, in both cases, there was explicit and successful attention to the promotion of biodiversity. Finally, in terms of urban governance, both cases are successful examples of the self-organization of citizens and more equal relations between citizens and the local government.

4.1.3. Outcomes, Barriers, and Enablers

Both cases were successful in achieving a wide range of outcomes but of a different kind. In the case of Schurenbergerpark, where the ideas for a different way and type of urban land use could be implemented for a more or less indefinite period, the economic, social, ecological, and governance outcomes are of a substantive nature. In contrast, due to the temporary character of Stadstuin, the outcomes here concern mostly lessons and insights and their integration into urban planning, design, and development of the city center. For Schurenbergerpark, the outcomes were greatly enabled by the bottom-up approach followed by the municipality and the lack of competing interests from market parties. However, the lack of sufficient volunteers in Heerlen-Noord willing to take care of regular maintenance tasks is currently a barrier to the further development of the Schurenbergerpark, and in the long-term, it could become even a threat to its continuation. For Stadstuin, important enablers of successful outcomes were the competencies and networks of the initiators and active members, and the openness on the side of the municipality to the insights generated by the Stadstuin “experiment.” This openness is probably due to the need for the municipality to find alternatives to the conventional approach of urban development, in the context of urban shrinkage. Barriers to uptake of all the ideas that Stadstuin successfully experimented with were the tendency of the municipality to revert to a top-down approach throughout the process and the conviction of the municipality and others (project developer, local entrepreneur) that redevelopment of the site for housing is more beneficial for the flourishing of the city center than maintaining it as a large urban garden. Of course, also the fact that the municipality had invested €4.2 million in the site played a role here.

4.1.4. Lessons About Degrowth

The cases have demonstrated that urban degrowth practices are feasible. These practices are understood here as ways of urban planning and development characterized by citizen self-organization and more equal relations between citizens and governments, and concern types of urban land use that de-emphasize economic value creation in favor of social and ecological value creation. The extent to which social and ecological value creation can be prioritized and a bottom-up approach can be followed, depends mainly on the interest of market parties in competing, economic functions of urban land. The long-term feasibility of management of urban land by self-organized citizens as an alternative to market parties depends on the local availability of volunteers and their human and social capital.

4.2. Conclusion

In this study, we aimed to explore how suitable shrinking cities are as testing grounds for urban degrowth practices. To answer this question, we analyzed two cases, both urban greening initiatives, located in the shrinking urban region of Parkstad Limburg, in the Netherlands. The cases show that in shrinking cities with a large surplus of land and buildings and long-term vacancy and demolishing of buildings, there is often literally abundant “room” for citizens to experiment with alternative ways and types of use of urban space. There is also relatively much interest on the side of the local government in alternatives to the conventional approaches to urban planning and development. As both cases could be interpreted as “experiments with urban degrowth practices,” despite not being framed that way, it can be concluded that shrinking cities offer ample opportunities for urban degrowth experiments. However, despite successful outcomes in both cases, shrinking cities do not by definition provide favorable conditions for large-scale and long-term

implementation of degrowth practices. In the case of Schurenbergerpark, long-term feasibility appears constrained by the local availability of volunteers and their human and social capital, whereas in the case of Stadstuin the extent to which the tested degrowth practices could be implemented was limited by the interest of market parties in a competing, economic function (development of a housing project).

4.3. *Lessons and Limitations*

The main lesson concerning urban degrowth practices that can be derived from the two cases is that their successful implementation critically relies on two conditions that in reality are commonly mutually exclusive. The first condition is a lack of interest from market parties in urban land use for economic purposes, as is the case in large parts of shrinking cities. The second condition is the availability of large numbers of volunteers with ample social and human capital, as is often the case in large, economically booming cities. As of now, the flow of this human capital from shrinking cities that are in demographic and economic decline to growing, bustling, and booming cities with strong competition for urban space, is much larger than the reverse flow from growing cities to shrinking cities that offer ample opportunity to experiment with and implement urban degrowth practices.

This study involves only two cases in one shrinking urban region. Therefore, caution must be exercised in generalizing the conclusions and lessons. However, by taking the cases from two contrasting contexts and, in that way, covering a wide range of conditions within shrinking cities, the conclusions and lessons seem relatively robust. Furthermore, the two case studies cover a relatively long period and, in the case of Schurenbergerpark, also a relatively large scale, considering that it was one out of many similar cases in the entire district of Heerlen-Noord. These larger time and spatial scales resulted in findings that otherwise could have been missed, such as the integration of insights from the Stadstuin in the final greening design for the area and the increasing difficulty in the case of Schurenbergerpark to recruit sufficient volunteers when there are many similar initiatives in an area. Finally, the conclusions and lessons are based on an understanding of the factors that underlie the different findings for the cases, which further contributes to their robustness.

4.4. *Outlook*

Even though the lessons learned from the two studied cases are not very positive concerning the feasibility of urban degrowth practices, the cases can be considered successful experiments, because they provided a better understanding of the conditions required for the implementation of these practices, also in growing cities. Given the current lack of empirical studies on urban degrowth practices, the opportunities provided by shrinking cities are interesting from a degrowth research perspective. However, as urban experiments are mostly opportunity-driven (Scholl & de Kraker, 2021a), a large research program with planned and targeted urban degrowth experiments in shrinking cities to inform and operationalize an urban degrowth agenda (sensu Kaika et al., 2023) will be difficult to realize. A more promising and recommended alternative is therefore to look for cases in shrinking cities that can be interpreted and analyzed as experiments with urban degrowth practices, as was done in this study. To identify relevant cases, the presented list of features of urban degrowth practices should be applied across its full range, as, for example, certainly not every greening initiative in a shrinking city can be understood as an urban degrowth practice (Akers et al., 2020; Safransky, 2014).

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Conflict of Interests

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About the Authors



Maurice Hermans (MA) is an independent Dutch artist and researcher. His work focuses on processes or experiences of loss, decline, and transition. He has worked for Maastricht University, Zuyd University of Applied Sciences, and Hochschule Rhein-Main and lectures regularly, including at the invitation of the International Federation of Housing and Planning (IFHP), University Siegen (GE), and the Netherlands Embassy in Berlin. He has published for established publishers such as nai010, Lit Verlag, and OECD. Currently, he serves as the director of Intro in Situ, a workspace for contemporary music.



Joop de Kraker (PhD) is a professor of sustainability assessment at Maastricht University and UNESCO professor of technology-enhanced learning for sustainable development at the Dutch Open University. His research focuses on healthy and sustainable urban development, with particular attention to urban greening, multi-actor experimentation, urban living labs, and joint learning. See also: <https://www.maastrichtuniversity.nl/j.dekraker>



Christian Scholl (PhD) is an assistant professor at Maastricht University and principal investigator of the Scaling Urban Regenerative Food Systems in Transition (SURFIT) project. His research focuses on collaborative forms of urban planning and governance, social learning, urban commons, and social movements. He has coordinated several transdisciplinary research projects on Urban Living Labs delivering interactive and reflexive support tools for practitioners and their experimental learning processes. These tools have been widely disseminated and well-received by a wide range of governance actors. See also: <https://www.maastrichtuniversity.nl/christian-scholl>