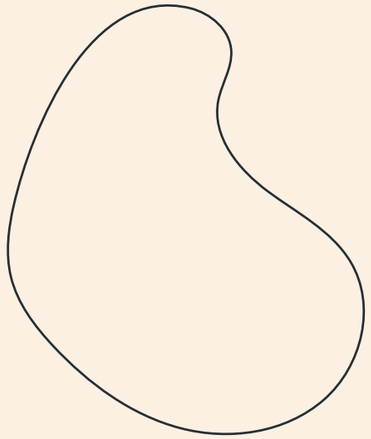
Lilian van Karnenbeek

CREATING THE CITY
STEP - BY - STEP



When Incremental Development
Strategies meet Institutions

LILIAN VAN KARNENBEEK

CREATING THE CITY

STEP
- BY -
STEP

Propositions

1. Urban planners must debate the normative meaning of rules and move beyond a mere discussion about the number of rules.
   (this thesis)

2. The sum of individual actions in urban development does not equal collective action.
   (this thesis)

3. The democratic constitutional state does not function when there is a concentration of power in one of the three branches of government: legislature, executive and judiciary.

4. Dutch universities must collectively formulate privacy and security policy about the use of video conferencing platforms such as Teams, Zoom and Skype for Business.

5. Citizen participation is not the solution to a non-representative local council.

6. The Netherlands needs a Ministry of Environment and Planning to adequately deal with the complexity and scale of spatial challenges.

Propositions belonging to the thesis, entitled

Creating the City Step-by-Step: When Incremental Development Strategies meet Institutions

Lilian van Karnenbeek
Wageningen, 15 December 2020

Creating the City Step-by-Step

When Incremental Development Strategies meet Institutions

Lilian J. van Karnenbeek

Thesis Committee

Promotors
Prof. Dr A. P. J. Mol
rector Magnificus
Wageningen University & Research

em. Prof. Dr W. G. M. Salet
professor Urban and Regional Planning
University of Amsterdam

Prof. Dr L. B. Janssen-Jansen † (2016-2018)
professor Land Use Planning
Wageningen University & Research

Co-promotor
Dr S. J. H. Majoor
professor (lector) Coordination of Urban Issues
Amsterdam University of Applied Sciences

Other members
Prof. Dr E. M. van Bueren, TU Delft
Dr R. Verhage, l'Institut d'Urbanisme de Lyon, France
Prof. Dr J. Grin, University of Amsterdam
Prof. Dr E. S. van Leeuwen, Wageningen University & Research

This research was conducted under the auspices of Wageningen School of Social Sciences (WASS).

Creating the City Step-by-Step

When Incremental Development Strategies meet Institutions

Lilian J. van Karnenbeek

Thesis

submitted in fulfilment of the requirements for the degree of doctor
at Wageningen University
by the authority of the Rector Magnificus,
Prof. Dr A.P.J. Mol,
in the presence of the
Thesis Committee appointed by the Academic Board
to be defended in public
on Tuesday 15 December 2020
at 4 p.m. in the Aula.

Lilian van Karnenbeek
Creating the City Step-by-Step: When Incremental Development Strategies meet Institutions, 250 pages.

PhD thesis, Wageningen University, Wageningen, the Netherlands (2020)
With references, with summary in English

ISBN: 978-94-6395-510-2
DOI: 10.18174/529692

Colophon

Cover and shapes: Studio Nijhoff
Lay-out: Lilian van Karnenbeek
Images: Lilian van Karnenbeek
Printed by proefschriftmaken.nl
ISBN: 978-94-6395-510-2

Copyright by 2020 Lilian van Karnenbeek (l.j.vankarnenbeek@gmail.com)

In memory of Leonie Janssen-Jansen

It was a hot summer day in 2015 when I walked down the stairs at Utrecht Central Station. I realised that in the summer of 2010, I stood at the exact same place. Back then, I looked nervously around me to find the bus to bring me to my first lecture at Utrecht University. Five years later, I walked with much more confidence to my destination near Utrecht Central Station: Starbucks at the headquarters of the Dutch Railway Company. I met Leonie Janssen-Jansen for a coffee. We shortly discussed the final version of my master thesis, and to my surprise, she tried to figure out if I had an interest in pursuing an academic career. For my part, I thanked her for the superb supervision and, even more importantly, I asked her how she was doing. Seeing as while I wrote my master thesis, Leonie got the terrible news that she had cancer. Fortunately, Leonie told me she was doing pretty well considering the circumstances. I left Starbucks with a sense of relief. Little did I know that a few months later I would apply for a PhD position in her research project.

It was a cold winter morning in 2016. I was sitting in my student room when the phone rang. Unknown number. I dismissed it. Again, it rang. I pressed the green button on my screen and was surprised by the person on the other side of the line. 'This is Leonie Janssen-Jansen', said a cheerful voice. That morning she told me that we, together with Stan Majoor, would work for four years on Leonie's recently granted research project. In the weeks that followed, Willem Salet joined our team. To me, the four of us were a good match. Stan's empirical focus, Willem's theoretical lens and Leonie's ingenuity and pragmatism were in perfect equilibrium. Leonie and I would often work at Starbucks, Leonie's favourite place. On a spring day in 2016, Leonie left the meeting earlier than expected. It was in that moment, I increasingly recognised the consequences of Leonie's health problems.

It was a bright autumn day in 2016. I wandered and got lost in the streets of Portland, USA. I was anxious and excited at the same time. In just a few days, my first conference was about to start, and I did not know what to expect. Wandering the streets gave me some peace of mind. At three in the afternoon, I was hungry and needed coffee. I sat down in the nearest coffee

place: Starbucks. I looked at my phone and froze. I was overwhelmed by the message on my phone that said: Leonie is terminally ill. I kept staring at my presentation notes. Starbucks felt (and still feels) strange to me. Our collaboration started, intensified and somehow ended there, I thought to myself.

I feel so lucky that we got to work together for another 1.5 years, before you passed away in April 2018. We wrote our first article at your home in Utrecht, with in-between visits to hospitals. Despite your illness, you were a fantastic daily supervisor and promotor. Your illness and passing touched me deeply, your ongoing spirit inspired me enormously.

This dissertation is dedicated to you.

Table of Contents

Acknowledgement

Writing this dissertation was the perfect opportunity to combine some of my primary interests: doing research, reading books, writing stories, living in France, and travelling the world. But I must say that the most valuable thing that this dissertation brought me are those people I met along the way. I smile when I think of all the memories of the last four years. In this acknowledgement, I thank the most important ones.

First, and foremost, Willem and Stan, my supervisors. Thinking about supervision, I see myself sitting in the metro, travelling to Weesperplein, Amsterdam. Our meetings regularly took place in Amsterdam, either at the University of Amsterdam or Amsterdam University of Applied Sciences. A little bit nervous, I always started discussions about research proposals, preliminary articles or other written content. At those meetings, you managed to take me two steps forwards or one step backwards (obviously, a very incremental process). More importantly, our meetings gave me the energy to keep going. Thanks for your enthusiasm, knowledge and time throughout the years. Willem, I have learned so much from the theoretical discussions we had. You have taught me to become an independent researcher. Even more importantly, I want to thank you for your ongoing support after Leonie's death. Thank you so much for being there for me. You gave me the strength and power to keep going. Stan, you have always reminded me to let a common thread run through the dissertation and to take account of the societal context. You have inspired me continuously. Your pieces of advice were very helpful and gave me many new insights. Also, I really liked the social activities we did. I will never forget the mini-golf adventure in Lage Vuursche. Stan, if doing research and teaching does not seem to make happy anymore, you might want to go for a career in mini-golf. Willem, you are better off as an academic.

Also, a big thank you to Michiel Stapper, Kim von Schönfeld, Fabi van Berkel, Daan Bossuyt and Jannes Willems. So many times, we listened to each other's presentations, read and discussed each other's work or helped by providing feedback. I also want to thank you for all the fun moments. Michiel, do you remember drinking a bottle of prosecco at CREA? Kim, do you remember the

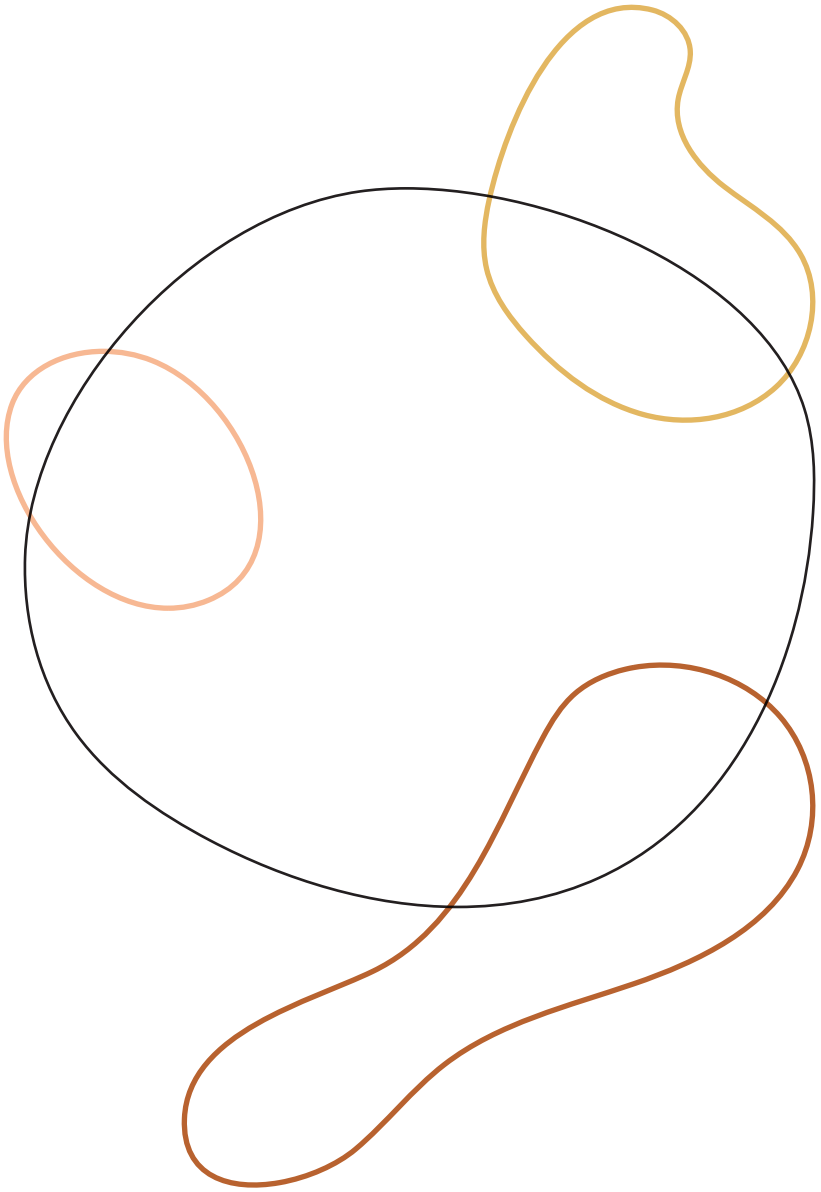
names of the goats in Portland? Fabi, do you remember the music in the lift we took to our hotel room in Hong Kong? Daan, do you remember playing the piano with fish in it in a bar in Lisbon? Jannes, do you remember getting lost in the streets of Venice and trying to be an Instagram-influencer? In case you have forgotten, I got the pictures. Thanks for the company, you made me laugh.

The R-LINK team definitively needs to be mentioned here. Wendy Tan, Melika Levelt, Kim von Schönfeld, Carina Wiekens, Menno van der Veen, Jan Willem Duvyendak, Michiel Stapper, Karin de Nijs, Fabi van Berkel, Lynette Germes, Annemiek Rijckenberg and Stan Majoor, I want to thank you for the fruitful discussions and the pleasant teamwork. I also want to thank all of my colleagues from the Landscape Architecture and Spatial Planning Group of Wageningen University & Research. It was a pleasure to have my office located around the corner of the coffee machine. Thanks for all times you said 'hi' or invited me to join your coffee breaks. Further, I want to thank Roelof Verhage. I truly appreciate it that you gave me a seat and table at *Institute d'Urbanisme de Lyon*. Thank you. Also, Anikka Fulop, Liesbeth Jansen and Thijs Meijer of Bureau Marineterrein deserve to be mentioned here. Thank you for hosting me so many times at your office. Thank you for your kind cooperation and the constructive criticisms of Chapters 1 and 2.

Last but not least, my special thanks go to my mom, dad, and brother. Thanks for your ongoing support and for lending your sympathetic ear. I would also like to say a special word of thanks to Sjors. Sorry for joking I would write your name down on the page 'people who delayed writing this dissertation'. You definitely deserve to be thanked. Lastly, I'm honoured to have my best friend Jennifer, and my brother Lennard, as my paranymphs.

Lilian van Karnenbeek

Introducing the Idea of Incrementalism to Urban Planning



I walked down Kattenburger Street in the historic city centre of Amsterdam on a spring day in 2016. Suddenly, out of nowhere, I saw an ancient wall on my left. Halfway up the wall, there was an entrance. I entered. I walked around and came to a pleasant café and brewery, named Pension Homeland. Sitting on the café's terrace, I discovered many 1970s buildings surrounded by public spaces. Except for the waiter and someone who maintained the grass, I did not see anyone. The waiter brought me a cup of coffee. 'What is this place?' I asked him. The waiter told me that I had just discovered the former Navy Yard. 'The café used to be the officers' shelters', he said. In detail, the waiter explained the maritime history to me. When I left the café, I noticed a fence on my right. In my eagerness, I walked towards the fence. I discovered an opening. When I tried to enter, a soldier stopped me. 'You are not allowed to enter', he said. I left. There is a confusing ambience to this place, I thought to myself. […] On 1 February 2020, I revisited the Navy Yard. I sat down at the same café and noticed many people, mainly students and start-up entrepreneurs. The waiter gave me a folder full of advertisements for events and living labs. I spotted the fence again but observed that it was moved. The Navy Yard looked somehow similar, yet much more vibrant.

I drove to Oosterwold, an area about 30 kilometres east of Amsterdam, on a rainy day in 2016. Sitting in my car, I typed my destination: Karl Max Road. The navigation panel displayed 'unknown street'. I switched to Google Maps. Google Maps was strangely not of any help either. I had no other option than to ask those who live there. I called. The woman on the phone laughed. 'The residents construct roads themselves and, for that reason, they are not displayed on Google Maps yet', she said. 'Hopefully, you wear rubber boots', she added. She instructed me how to drive and got off the phone. When I arrived and stepped out of the car, I understood her remark about the boots. I immediately got stuck in the mud. I looked around and observed that the place was almost empty except for a few owner-constructed houses. […] On a lovely day in 2020, I revisited Oosterwold. I discovered much more owner-constructed houses, ranging from earth ships, wooden blocks to granaries. I saw some asphalted roads, but I did not discover any pavements or biking lanes. There were no supermarkets, no coffee places, no schools, but I did find apple trees, currant bushes, chickens, and bees. With an eye for detail, I discovered multiple individual wastewater systems. In the distance, I heard

people building new houses. Suddenly, it came to me that I don't know where else to find such an experimental place in the Netherlands.

On a Friday morning in 2019, I hopped on the Rhônexpress at Gare Part Dieu in Lyon. The train was crowded. I tripped over a suitcase. A woman sitting on the aisle laughed. 'The final station of the train is Saint-Exupéry, Lyon's airport', she said. I smiled at her and looked outside the window. In nearly eight minutes the train took me to Carré de Soie. When I stepped out, I looked at many residential towers and offices. My curiosity took me to the residential towers. On my way, I found a large construction site. When I walked two streets further, I discovered an enormous building. A man was looking at the building with a gloomy face. 'What is this building?' I asked him. 'It is a former silk factory. I worked for over forty years in this factory', the man said. He continued talking, 'around ten years ago, after its bankruptcy, private developers and investors emerged. They have gradually changed this place, but with drastic consequences. Today, Carré de Soie is mostly made up of residential towers and offices.' Suddenly, his face had a smile, 'but you must know, many residents, including myself, saved the facade of the factory.'

The Navy Yard, Oosterwold and Carré de Soie are three existing urban development projects, located in the Netherlands and France, respectively. What these projects share is their distinctive strategy for urban development – multiple actors taking small steps that can be adapted or changed according to previous steps to achieve strategic goals. This stepwise process provides a good articulation of what political scientist Charles Lindblom in the 1950s meant when he referred to 'incrementalism' (Lindblom, 1959). For this reason, and in this dissertation, this development strategy is labelled as *incremental.* In recent years, this incremental logic has slowly built momentum in the discussion of strategy-making in urban development projects. Since the turn of the 21st century, it is increasingly being assumed that the logic of incrementalism offers a solution to the growing complexity of urban challenges (Mäntysalo et al., 2019). The perceived ability of incrementalism to feature adaptive responsiveness to changeable needs and circumstances is the main underlying justification behind this assumption (Rauws and de Roo, 2016).

For this reason alone, it is no surprise that the logic of incrementalism is actively being promoted in contemporary public policies as a development strategy for urban projects (see, for example, Dutch[1] and French policies, Gemeente Den Haag, 2011; Gemeente Almere, 2012; Ministerie van Defensie et al., 2013a; Gemeente Groningen, 2015; Gemeente Amersfoort, 2015; Grand Lyon et al., 2016, 2017; SAMOA, 2017). The logic of incrementalism outlined in these public policies is frequently presented as normative, i.e. as an ideal to strive for in urban development projects. But many questions need to be asked. When did the interest in incrementalism in planning practices emerge? What are the fundamental underlying principles of incrementalism? How is the idea of incrementalism articulated in strategy-making for urban development projects? And, even more importantly, is incrementalism an effective strategy for urban development projects? This dissertation is written in an attempt to answer these questions and to develop a critical reflexive analysis of this contemporary wave of interest in incrementalism as a strategy for urban development projects.

The fundamental principles of incrementalism

To fully understand the logic of incrementalism, this dissertation first sets out its fundamental principles. After World War Two, the theory of incrementalism opened up a new critical perspective to policymaking, with political scientist Charles Lindblom, with his seminal articles 'The Science of Muddling Through' (1959) and 'Still Muddling, Not Yet Through' (1979), as its foremost advocate (Atkinson, 2011; Hoppe, 2017). The broad outline of his theory originated in the context of the dominant political system of the United States (Pal, 2011). In this dissertation, I derive three fundamental principles of the theory from his seminal 1959 and 1979 articles: (1) the opposition to rational-comprehensive thinking, (2) the rationale of small steps and decisions, and (3) the involvement of multiple actors.

To begin with, Lindblom's theory of incrementalism arose out of his dissatisfaction with the rational-comprehensive model of policymaking, which in his eyes fails to take account of the discrepancy between the complexity of the world and the inability of humans to capture it (Lindblom, 1959, 1988;

Weiss and Woodhouse, 1992; Hoppe, 2017). At the basis of Lindblom's conception lies the notion that instrumental rationality and comprehensive knowledge do not provide a convenient basis for policymaking (Lindblom, 1959; Etzioni, 1967; Hoppe, 2017). Instead, policymakers must acknowledge their limited cognitive capacities and recognise that the policy problems are too complex to be fully understood (Pal, 2011; Hoppe, 2017). Based on this presupposition, it is much more convenient to base policymaking on a few policy alternatives that only differ incrementally from existing policies, rather than to comprehensively analyse all possible alternatives. Furthermore, Lindblom argues that policies change fast and are being continuously redefined, drawing the fundamental conclusion that there are no definitive answers or 'right' solutions (Lindblom, 1959, 1979; Hoppe 2017). Reasoning from this perspective, policymakers should not seek to solve policy problems but to 'attack' them by recognising the intertwined relationship between means and ends.

Second, Lindblom defines incrementalism as a never-ending sequence of small steps and decisions that continuously build out from the existing situation, also coined by Lindblom as 'muddling through' (Lindblom, 1959). These small steps and decisions continuously generate knowledge about the probable next steps and decisions and the likely consequences of similar steps and decisions. Hence, a succession of small steps and decisions can easily respond to changing situations without making long-lasting mistakes (Lindblom, 1959, 1979). According to this line of thought, incrementalism functions as an adaptive response to changing circumstances. Furthermore, as Lindblom notes, it is important to endlessly analyse these small steps and decisions. As rationality is limited, policymaking will likely result in adverse consequences; therefore, the idea of reversibility must apply – when incremental policymaking goes in a 'wrong' direction, the steps can be easily revised and the direction can be altered more quickly compared to policymaking compromised of big jumps (Dahl and Lindblom, 1953; Lindblom, 1959). By including the idea of reversibility, incrementalism entails a process of trial and error, including feedback loops of learning and adaptation. According to Hoppe (2017), by acknowledging the importance of trial and error, Lindblom demonstrates his affinity with Rivlin's idea (1971) of the 'experimental society'.

Third, Lindblom adopts a pluralistic view, recognising that policies are influenced by many relatively autonomous actors who debate, bargain, and negotiate in a decentralised process of policymaking (Lindblom, 1965). Lindblom put an emphasis on a particular meaning of pluralism, that is 'partisan mutual adjustment'[2]. By debating, bargaining and negotiating, actors (known as partisans) mutually affect one another, thereby reaching some degree of shared understanding and eventually consensus (Lindblom, 1965). These mutual adjustments coordinate the policymakers somewhat 'spontaneously', that is without hierarchical or centrally controlled coordination (Lindblom, 1979). Policy decisions are then the outcomes of a process of a sequence of trials and errors and consensus building – a policymaking process that continuously allows for adjustments of varying interests without reaching definitive answers. Lindblom acknowledges that the debate, bargaining, and negotiations take place in a political environment with potentially conflicting interests (Hoppe, 2017).

Critiques of Lindblom's theory

For Lindblom, the idea of incrementalism makes policymaking much more manageable and convenient for complex problem solving (Lindblom, 1959, 1979). But as with any well-known theory, incrementalism has faced many challenges as well as attempts to reformulate and refine it in the academic sphere. One of the most famous critiques was levelled by the sociologist Amitai Etzioni, who postulated the shortcomings of Lindblom in his well-read article 'A Mixed-Scanning: A 'Third' Approach to Decision-Making' (1967). Etzioni (1967: 387) critically argues that 'incrementalism would tend to neglect *basic* societal innovations, as it focuses on the short run and seeks no more than limited variations from past policies.' Also, he claims that incremental steps cannot be separated from non-incremental, more fundamental steps and decisions, even going as far as to argue that incrementalism arises out of these non-incremental actions. Finally, Etzioni argues that incrementalism tends to mirror the interests of a few powerful partisans. The alternative that he posits is the mixed-scanning method, which combines rational-comprehensive thoughts with the logic of incrementalism. His work and criticism have received much acclaim (his work is often quoted and used, also by urban

planners, such as Forester, 1984; Yiftachel, 1989; Hillier, 2007; Witte et al., 2012).

A little over a decade after Etzioni's writing, James Quinn updated Lindblom's account and showed how incrementalism could be applied to corporate strategies of large organisations (Quinn, 1977, 1978; Bailey and Johnson, 1997; Quinn and Voyer, 1998; Farjoun, 2002; Hoppe, 2017). Quinn coins his interpretation as 'logical incrementalism', which connects to Lindblom's idea of small steps and decisions but differs in one important aspect. These small steps and decision do not 'muddle through', but instead, move towards strategic goals. These goals are broadly defined at first but are reshaped and adapted as the process moves on and new information emerges (Quinn, 1980: 3). The word 'logical' derives from the idea of synoptic formalism and signifies the conscious and intentional guidance of the organisational process. The synoptic perspective gives broad directions to small steps and decisions that add up to particular goals, while at the same time keeping options open to allow for adaptivity and to stimulate learning (Quinn, 1978; Bailey and Johnson, 1997; Hoppe, 2017). In Quinn's and Voyer's (1998: 104) words, logical incrementalism is 'a purposeful, effective, active management technique for improving and integrating both the analytical and behavioural aspects of strategy formation.' Rather explicitly, Quinn outright rejects the non-directional character of Lindblom's incrementalism. According to Hoppe (2017), Quinn's logical incrementalism is a form of strategic policymaking.

Incrementalism in planning theory

Lindblom's theory of incrementalism did not go unnoticed in planning theory. Just like sociologists and public administration scholars, urban planning scholars have recognised and acknowledged the theory of incrementalism in urban planning (e.g., Forester, 1984; Sager, 1995; Mäntysalo et al., 2019). Forester (1984) was among the first to talk about incrementalism as a potential decision-making strategy in his article 'Bounded Rationality and the Politics of Muddling Through'. Forester admittedly recognises the potential of incrementalism as a strategy to decision-making in a situation that is characterised by multiple actors who have multiple interests but expectedly

can compromise via small adjustments. Despite its potential, Forester (1984: 23) also criticises the incremental logic. He argues that incrementalism holds the risk to become a strategy 'without knowing where we are going'. He importantly wanted to highlight that incrementalism is just another strategy among many; whether it is a good fit, depends heavily on the context and situation at hand (Forester, 1984).

Communicative and collaborative planning theory recognises a specific principle of Lindblom's work: the idea of mutual adjustment among partisans (Mäntysalo et al., 2011; Hoppe, 2017). The idea of various actors with multiple and potentially conflicting interests resonates with the ideas of the communicative and collaborative planning theorists. These theorists, however, also sharply criticises the vagueness and narrowness of partisan mutual adjustment, arguing that more often than not incremental steps and decisions tend to represent the ideas of a narrow elite already in power (Sager, 1995; Healey, 1997, 2008; Mäntysalo et al., 2019).[3] Also, Lindblom's idea is criticised for its inefficiency as the process of bargaining is again and again centred on similar issues (Healey, 1997: 29). In response to this criticism, Sager (1995) updated Lindblom's account with Habermas' idea of communicative action, known as 'dialogical incrementalism'. After Sager's writings, incrementalism did not enjoy a central spot in the planning theory debate for some time. Very recently, however, Mäntysalo et al. (2019) coined 'strategic incrementalism', combining strategic spatial planning with the logic of incrementalism (2019: 567), 'it is not just about making backward-looking incremental remediations to the existing planning policy based on feedback. It has the crucial forward-looking dimension, too, encouraging 'mixed-scanning' between incremental continuity and strategic (re-)scanning of longer-term horizons and themes.' Just like Quinn, Mäntysalo et al. (2019) broaden the spectrum of incrementalism with strategic thinking.

Incrementalism emerges in planning practice

Lindblom's theory was a topic among planning scholars some time. Although several scholars (e.g., Forester, 1984; Sager, 1995; Healey, 1997) had already recognised the potential of incrementalism for planning practice, it remained

limited to a scientifically informed epistemology (Hoppe, 2017). However, since the turn of the 21st century, the interest in the logic of incrementalism for planning practices seems to be on the rise in public policies (e.g., urban policies of Gemeente Den Haag, 2011; Gemeente Almere, 2012; Ministerie van Defensie et al., 2013a; Gemeente Amersfoort, 2015; Gemeente Groningen, 2015; Grand Lyon et al., 2016, 2017; SAMOA, 2017). Three dominant strands of thoughts that swept across the field of urban planning might have set a fertile ground for incrementalism to gather momentum in current planning practice. Over the years, these three strands of thought have evolved in urban planning, although at different speeds, and have built on each other. At the turn of the 21st century, the strands precisely coincided.

The first strand deals with the rollback of government. This thought grew out of dissatisfaction over the dominant interest of the government in rational-comprehensive planning. After World War Two, the welfare state expanded extensively in many European democracies, and the government took on a powerful role in urban planning. In the years that followed, urban planning as a governmental endeavour was frequently paired with rational-comprehensive thoughts (McLoughlin, 1969; Rittel and Webber, 1973). However, ever since the passing of its heydays of the 1960s and 1970s, rational-comprehensive planning has come under sharp criticism. James Scott elaborated the best-known and one of the most widely cited criticisms in the urban planning literature. In his seminal book *Seeing Like a State* (1998), Scott showed many negative consequences of rational-comprehensive planning (Scott, 1998). He even argued that rational-comprehensive planning created many more – and even worse – problems than it solved. He was certainly not alone in espousing this view (Hall, 1988). More than a decade earlier, Melvin Webber already called rationality a 'myth' peddled by governments under false pretences to claim that societies can be transformed into better and modern ones (Webber, 1983). Today, like Scott and Webber, many scholars and urban planners are dissatisfied with rational-comprehensive planning. One common dominator in these contemporary critiques is the call to reduce the role of the government in urban planning.

The second strand of thought is the shared belief that urban planning functions better through an interactive process of a varied constellation of actors. This strand of thought is often aligned with the first strand and moves beyond the idea that the government is the foremost, and only knowledgeable, actor in the act of urban planning. Over the last decades, this way of thinking has enriched urban planning with various participatory approaches of diverse (and complex) governance configurations of public, private, and civic actors. What all these approaches share is their effort to ask questions about 'appropriate modes of governance' (Healey, 1997: 201). The most well-known approaches from the 1980s and 1990s include deliberative planning (Forester, 1987), communicative planning (Sager, 1995) and collaborative planning (Healey, 1997; Innes and Booher, 1999). These approaches continue to receive much appreciation but also face critical evaluation. The frequently given critical judgements suggest that these approaches operate under governmental preconditions. Some of these critiques see these preconditions as the chief cause for the frequently disappointing outcomes of these participatory approaches (Boonstra and Boelens, 2011). Since the turn of the millennium, the new participatory approaches that emerged – in particular, co-creative planning (e.g., Voorberg et al., 2015; Von Schönfeld et al., 2019) and self-organisation (e.g., Hajer, 2011; Boonstra and Boelens, 2011; Partanen, 2015) – propose a further rollback of government and emphasise the growing importance of privatisation and 'wisdom of the crowd'.

The last strand of thought is concerned with the idea that urban planning must be adaptive. In other words, urban planning must be responsive to complex urban challenges and needs to co-evolve with new knowledge and changing contexts (Albrechts, 2015; Rauws and De Roo, 2016). Only then, at least according to its advocates, urban planning can survive under changing circumstances. This strand of thought gained particular importance in the aftermath of the 2008 economic crisis. Scholars and urban planners highlighted the inability and built-in resistance of urban planning to cope with the uncertainty, dynamics, and complexity brought on by the crisis (Hajer, 2011; Savini et al., 2014; Moroni, 2015; Rauws and De Roo, 2016). Ever since, adaptivity became much more prevalent and turned into a politically appealing idea (Savini, 2019). Advocates of adaptive planning propose a different vision of urban planning, based on small-scale and short-term investments (Savini, 2019), temporary

uses of space (Ferreri, 2015; Madanipour, 2018), or general planning rules (Cozzolino et al., 2017; Moroni et al., 2018) such as urban codes (Moroni, 2015). Increasingly, it is believed that this sort of interventions or regulations can quickly and easily adapt to changing circumstances and address urban problems as they emerge.

Towards incremental development strategies

In recognising the current importance of these three entangled strands, planning practitioners are searching for new strategies for urban development projects that deal effectively with these strands. A stepwise development strategy[4] has been increasingly heralded as a promising response (Savini, 2019; Dembski, 2020). This development strategy usually entails a stepwise progression in which multiple actors continuously debate and negotiate about probable steps and decisions that direct a particular urban development project, yet without reaching for pre-set spatial configurations (Van Karnenbeek and Janssen-Jansen, 2018). Clearly, the logic of incrementalism is at play here[5]. That the articulation of this development strategy bears a strong resemblance to the incremental logic may not come as a surprise as the contemporary strands of thought are aligned with the three fundamental principles of Lindblom's theory of incrementalism. The first strand of thought is in line with Lindblom's opinion about rational and comprehensive policymaking. This second strand of thoughts is in harmony with Lindblom's pluralistic view of actors. Lastly, the third strand speaks to Lindblom's idea that incrementalism functions adaptively due to its stepwise response to changing circumstances.

Because this type of strategy for urban development projects closely resembles the fundamental principles of Lindblom's theory, this dissertation labels this development strategy as 'incremental'. However, it differs from Lindblom's idea in one crucial aspect. Unlike Lindblom, but similar to the interpretation of Quinn (1978), the incremental development strategy is not non-directional but purposive. The strategy aims to develop a better future or to respond to urban challenges and thus is intentionally directional. Strategic goals often lay the foundation for direction setting in urban development projects. These goals are generally broadly defined[6] and adapted through time and as new

information and knowledge appear. They aim to intentionally trigger the urban development project toward a particular, broad direction but without reaching for a specific destination. By and large, this dissertation argues that an incremental development strategy can be defined according to four principles: (1) the opposition to rational-comprehensive planning (Lindblom's principle); (2) the rationale of small steps and decisions (Lindblom's principle); (3) the involvement of multiple actors (Lindblom's principle); and (4) the direction toward strategic goals (Quinn's principle).

An institutional perspective

A new, contemporary wave of interest in incrementalism is sweeping over the field of planning practice, as a wide range of planning practitioners is enticed by its core promises. It is no surprise then that incremental development strategies dominate various political agendas. While theoretically very appealing, it is important to explore whether this development strategy makes sense in practice, i.e. a critical reflexive perspective is required, which I adopt in this dissertation. There is a central critical reflexive question that needs to be asked: is an incremental development strategy effective? By effective, I mean whether the strategy has the capacity to build structures in which collective action can emerge. Many urban scholars have recognised that strategies demand collective action (Healey, 2007; Newman, 2008; Van Assche et al., 2020). The underlying meaning of collective action can be understood as a group of people who act together to achieve common interests. In the context of urban planning, collective action often refers to the coordinated action of an ensemble of actors with the collective purpose to improve future urban environments along with social, economic, and environmental values that benefit general welfare (Hillier, 2011; Moulaert et al., 2013).

Following the latter formulation, two important characteristics of collective action have to be explicitly mentioned. First, collection action is *purposeful*. This purposive action directs urban planning into improved futures and is centred on the achievement of strategic goals (such as broadly defined planning goals) by multiple actors. Obviously, this is no simple activity and there are various challenges and obstacles to collective action. Consider, for example,

the many and conflicting interests of the various actors (Healey, 2004) or the incompatibility of numerous strategic goals in a particular situational context (Needham et al., 2019). As a consequence, many challenges to the effective organisation of collective action emerge. Although collective action problems are inherently linked to collective action, a good deal of organisation can be realised by coordination. This brings me to the second important characteristic: collective action is *coordinated*. Coordination does not 'fall out of the sky' but arises from specific institutional arrangements. Institutions can be understood as conditions under which actors can appropriately achieve collective purposes in social interactions (March and Olsen, 1989). Institutions deliver appropriate conditions to direct the interaction of actors in the search for collective action. Institutions do not give instructions on how to achieve a collective purpose (such as strategic goals) but instead serve as the regulative and normative conditions that shape the actions taken in pursuit of this purpose.

The main assumption in this dissertation is that it is only possible to assess whether incremental development strategies can lead to collective action when we understand how its purposive action relates to institutional arrangements. While incremental development strategies are usually defining their purposive action with strategic goals (broadly defined planning goals) and guidance how to achieve these goals (small steps and decisions by multiple actors), the strategies themselves does not – and never will – execute a coordinating function. This is what institutions do. Therefore, to understand whether incremental development strategies can succeed in organising collective action requires an institutional perspective (Van Assche et al., 2020). It is assumed here that without an adequate understanding of the institutional context, I cannot say anything meaningful about incremental development strategies in the urban planning context. The central research aim of this dissertation is to offer this institutional perspective and to apply this perspective to concrete urban development projects. The working hypothesis here is that the effectiveness of incremental strategies for urban development projects greatly depends on the way its purposive action relates to institutional arrangements. The institutional perspective applied in this dissertation is elaborated below, first, by providing a general definition of institutions and, second, by presenting a specific institutional orientation that fits the research aim.

The institutional turn to incremental development strategies

The importance of institutions was already recognised very early in social sciences (Scott, 1995). Institutional theory dominated in particular sociology (e.g., Giddens, 1984; Bourdieu, 1991), political science (e.g., Thelen, 2004), and economics (e.g., Olson, 1965; Ostrom, 1990; North, 1990; Williamson, 2000), with social scientists defining institutions in various ways (for an overview of institutional approaches see Scott, 1995 or Salet, 2018). The institutional debate also found its way into urban planning theory and inspired many planning scholars (e.g., the work of Friedmann, 1987; Healey, 1997; Salet, 2002; Alexander, 2005; Buitelaar et al., 2007; Moroni, 2010; Savini et al., 2014; Sorensen, 2015; Janssen-Jansen, 2016a; Salet, 2018; Savini, 2019); however, it is yet to claim the similarly prominent place it enjoys in political science, sociology or economics (Salet, 2018).

As several social sciences use institutional theory, each discipline has its perspectives, interpretations and meanings of what institutions are, how institutions are designed, how institutions survive, evolve or perish, and the impacts of institutions. Indeed, there is neither a single nor a universal definition of institutions (Scott, 1995). However, irrespective of its definitive meaning, it is observable that all these scholars bring a common denominator to the definition of institutions – prescriptions that conditions human behaviour in a particular social situation (Savini, 2019). In this dissertation, I understand institutions as prescriptions that people use to structure social interactions by enabling or limiting actions (see also North, 1990; Alexander, 2005; Ostrom, 2005, 2013; Buitelaar et al., 2007; Janssen-Jansen, 2016a; Salet, 2018, Savini, 2019 and among others). In this sense institutions are both regulative and normative, i.e. they constrain and enable actors' behaviour (regulative) in line with what is considered 'appropriate' (normative) (March and Olsen, 1989).

Ostrom's institution–actor orientation

With this broad definition of institutions in mind, I argue that it is important to focus on a particular institutional way of thinking. In this dissertation, I subscribe to the work of Elinor Ostrom, embracing her ideas and developing

them further for planning theory. Grounded in reflections on new economic institutionalism, Ostrom theorised collective action (Forsyth and Johnson, 2014) from an *institution–actor orientation* (Salet, 2018), expanding economic theory beyond rational choice individualism. In her most famous book *Governing the Commons* (1990) she argued – as a sharp critique of Hardin's (1968) article on the 'Tragedy of the Commons' and Olson's (1965) book *the Logic of Collective Action* – that collective action could also emerge from communities of individuals that seek to achieve a common purpose, in addition to government and market forces. She disregards the idea of hierarchy, embracing polycentrism in collective action instead. To invigorate her argument, Ostrom provided a coherent method for studying the interaction of actors in producing collective action in diverse social settings, carefully explained in her book *Understanding Institutional Diversity* (2005).

Ostrom's work has received wide acclaim – she even received the 2009 Nobel Prize in Economic Sciences, as the first woman to be awarded this honour in economics – and many scholars from diverse scientific fields have applied her ideas. Her ideas provide valuable central insights that guide this dissertation. First, Ostrom recognises the necessity to explore the institutional conditions under which collective action is successful or unsuccessful. In her book *Governing the Commons* (1990), she draws lessons for effective collective action from examples of institutional success, failure, and fragility (Ostrom, 1990: 178). Second, she places a distinct focus on the behaviour of actors as crucial for understanding collective action. She explicitly recognises that various actors can appropriately organise collective action. This claim speaks to the second principle that defines incremental development strategies – the involvement of multiple actors. Third, Ostrom takes concerted efforts to define and classify institutions to understand how collective action is produced (Ostrom, 1990; 2005; 2010; 2013 and see also Crawford and Ostrom, 2005; Polski and Ostrom, 1999). She highlights the existence of different types of institutions that condition the behaviour of actors in collective action. To illustrate, Ostrom classified institutional rules into seven sets: position, demarcation, choice, decision-making, information, payoff, and scope. The significance of this classification is well-documented in her research on governing the commons (e.g., Ostrom, 1990) and in a broad range of policymaking contexts (Polski and Ostrom, 1999; Van den Hurk et al., 2014).

Van den Hurk et al. (2014), for example, used these sets of rules to compare the behaviour of actors concerning water safety in the Netherlands and the United Kingdom.

Fourth, Ostrom argues that the effectiveness of rules can only be discovered in application. According to her, this exemplifies the importance of institutional change. She provides an empirical examination of the changing process of rules in three groundwater basins in the Los Angeles metropolitan area, in her book *Governing the Commons* (1990: 137), 'the substantial investments that these groundwater pumpers made in providing new institutions occurred in an incremental and sequential process in the state of California, where many statewide institutional facilities are provided to reduce the costs of local institutional supply. The investment in institutional change was not made in a single step. Rather, the process of institutional in all basins involved many small steps that had low initial costs.' She not only recognises institutional change but also tries to understand institutional change through an incremental and sequential process. For Ostrom, institutions are not fixed determinants but variables that are subject to change. This claim is particularly important, as rule changes are likely to be proposed when small steps are taken, adapted, or reversed in incremental development strategies. Lastly, among a handful of scholars, Ostrom provides solid institutional grammar and a scientific language of rules (e.g., verbs such as 'permitted to', 'forbidden to' and 'required to') to develop a consistent method for analysing rules (Ostrom, 2005). Her work on institutions provides both conceptual as well as analytical insights into how actors behave and engage in collective action.

In order to correctly understand her work, Ostrom's scientific language needs to be briefly explained. Based on a game analogy, Ostrom (2005: 3) defined institutions as 'the prescriptions that humans use to organise all forms of repetitive and structured interactions including those within families, neighbourhoods, markets, firms, sports leagues, churches, private associations, and governments at all scales.' Institutions are prescriptions that enable and constrain the behaviour of actors. For Ostrom, rules are the principal statements in institutional analysis and, therefore, she emphasises institutions as rules. She defines rules as enforced prescriptions that either forbid, permit, or require specific actions or outcomes in a particular social

setting (Ostrom, 1990; 2005). Rules always arise through interaction and are maintained or changed through this same interaction. Rules are often formal, but can also have an informal aspect. Formal rules can be distinguished into enforceable laws and regulations, while the informal aspect refers to the regular actions, such as habits or routines, that define how rules are used, maintained, or changed (Ostrom, 2005).

Grounded in Ostrom's work, I provide an actor-oriented institutional analysis to urban planning and apply it to incremental development strategies. This dissertation does not presume to have uncovered the optimal rules for these strategies but rather explores the institutional conditions under which these incremental strategies operate. Therefore, I focus in particular on what sort of rules exists, what rules are devised, and how rules change in urban development projects that adopt an incremental development strategy.

A conceptual framework

Figure 1 presents the conceptual framework and identifies the key elements of this dissertation. In the conceptual framework, the Institutional Analysis and Development (IAD) framework of Elinor Ostrom[7] is combined with the logic of incrementalism[8] (Van Karnenbeek and Janssen-Jansen, 2018). Ostrom's IAD framework is concentrated on the action arena, which consists of (1) an *action situation* in which a particular activity takes places and (2) the *actors* who are involved in that activity. Actors interact in the action arena, labelled by Ostrom as *patterns of interactions* (Ostrom, 2005, 2013; see also Smajgl et al., 2009; McGinnis, 2011). I added the 'stairs' in the action arena visualisation for two reasons: first, to display the increments (small steps and decisions) and, second, to illustrate the directional character of incremental development strategies (strategic goals). The arrows in the action arena point to the non-linearity of small steps and decisions, highlighting the potentially reversible character of the steps and decisions through feedback loops of adaptation and learning.

Following Ostrom, the action arena is affected by rules (Ostrom, 2005, 2013) that structure and routinely order relationships of actors within a particular social setting. Again, to emphasise the incremental logic in the conceptual

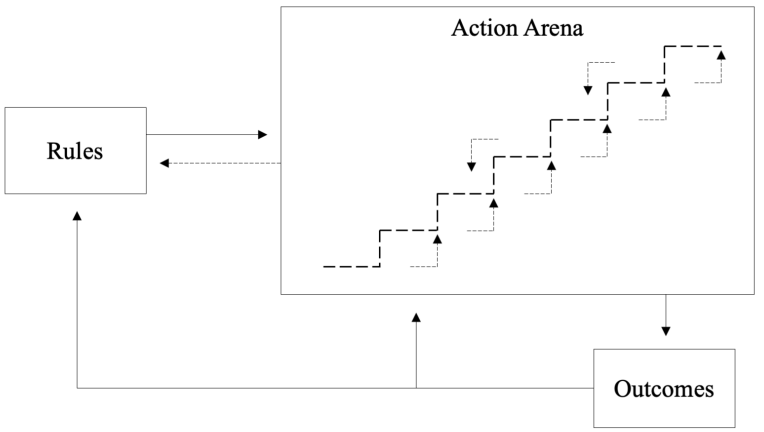


Figure 1. The conceptual framework. Source: Ostrom (2005), adapted by author

framework, it is acknowledged that rules change the action arena and that changes in the action area, in turn, affect rules. The reciprocal arrows evidence this mutual influence and emphasise institutional change. The outcomes refer to spatial configurations of urban development projects, which can potentially maintain or change rules as well as influence the action arena.

The framework presented above is, of course, a simplification and will be detailed and unpacked throughout the chapters of this dissertation. This dissertation attempts to apply the conceptual framework to different empirical settings of incremental development strategies. To analyse these empirical settings, the rules have been explicitly operationalised (see Table 1). The verbs (or equivalents) help to sort the types of rules, including both formal and informal. The linguistics statements provided by Ostrom served both as a basis and inspiration (Ostrom, 2005), and I further formulated verbs that display the purposive action of incremental development strategies. In line with Ostrom (2005), this dissertation does not assume that actors are aware of these verbs or that actors continuously and explicitly speak or write using verbs. However, it is a helpful tool for exploring purposive and institutional statements and, thus, for devising a more comprehensive analysis of collective action.

Table 1. Operationalisation of the conceptual framework

Purposive action	**Rules**	
	formal	*informal*
Want to	Required to	Should
Wish to	Authorised to	Used to
Aspire to	Permitted to	Holds on to
Aim to	Forbidden to	Ought
Pursue	Legalised to	
Long to	Allowed to	

Source: Author, 2020

Research questions

This dissertation develops a reflexive critical analysis of incremental development strategies and examines whether they allow for collective action. The central dissertation question is formulated as follows: *How do purposive actions in incremental development strategies relate to institutions?* Five dissertation research questions[9] underlie this central question:

1. How are incremental strategies applied to urban development projects?

As presented in this introduction, incremental development strategies are defined along four principles (derived from the work of Lindblom and Quinn), and this question queries how these principles are applied in the Navy Yard, Oosterwold and Carré de Soie developments. The analysis is presented in Chapter 2, 3, and 4, respectively, while the concluding chapter summarises these principles for all cases.

2. How can rules be conceptualised?

This question aims to further unpack the conceptual framework by providing a more detailed analytical conception of rules. In other words, what is the definition of rules and how can rules be classified? Chapter 1 addresses these questions; Chapter 2 applies a conceptual understanding of rules at the Navy Yard development, and the epilogue reflects on this conceptual lens.

3. *How are rules devised and changed according to incremental development strategies?*

This question focuses on institutional design and change in the Navy Yard, Oosterwold and Carré de Soie developments. In the concluding note, particular attention is directed to rules and change thereof.

4. *How can strategic goals of incremental urban development projects be achieved?*

This question centres on whether purposive actions in urban development projects are successful. Chapter 2 examines how to achieve temporary uses of spaces in Amsterdam. Chapter 3 focuses on the attempts to achieve self-organised wastewater management in Almere, and Chapter 4 details the efforts to realise a green space infrastructure in Lyon.

5. *How to empirically observe incremental development strategies?*

This question refers to the methodological aspect of this dissertation and seeks to steer the elaboration of a methodology for studying incremental strategies in practice. The methodological sections in all chapters partly answer this question. In the epilogue, I reflect on the methodological steps and the decision taken.

Research design and methods

Research design and units of analysis

To study incremental development strategies means exploring how rules are designed, used, and changed in the interactions that take place in urban development projects. Therefore, this dissertation follows an *explorative* research design. Further, and as argued by Labaree (2013), an explorative design is particularly useful under conditions of scant availability of knowledge or results about a specific topic. To date, the implementation of incremental

strategies in urban development projects has barely been empirically grounded. For example, the chosen examples in this dissertation were, before this dissertation, not scientifically analysed. By applying an explorative research design, this dissertation aims to deliver a better and more detailed understanding of incremental development strategies and hopes to provide new theoretical insights that enlighten both planning theory and practice. The explorative research design is guided by the conceptual framework as presented above.

To address the research questions, the dissertation covers three individual cases in a *multiple case study* design (Yin, 2003). Yin (2009: 188) defines the case study as 'an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.' For this dissertation, the phenomena (incremental development strategies) are studied in their real-life context. A case study design is an appropriate approach as it allows for a holistic analysis (Yin, 2009) in which incremental development strategies can be described in detail. Adequately defining the units of analysis is crucial for executing a case study design. The *purposive action* of incremental development strategies and the *rules* that condition the behaviour of actors in these strategies are the two main units of analysis. The provided linguistic statements (see Table 1) are used to describe this purposive action, the rules, and their application in the action arena.

Furthermore, the selected cases should be appropriate and instrumental in answering the central question. The number of cases is based on the available time and resources. I carefully selected the three cases based on the following criteria:

- This dissertation focuses in particular on urban development projects. I refer to projects here as physically demarcated sites that include development activities that shape urban environment futures. The word 'project' should not be confused with 'project planning', which generally speaking is associated with predetermined blueprints plan and fixed timeframes for action (Albrechts, 2004).

- Official policy documents had to explicitly characterise the urban development project as 'incremental' (sometimes expressed via other equivalent terms such as 'organic' or 'gradual'). To that end, the urban development projects must proceed by small steps and decisions, involve multiple actors, and not be based on blueprints.
- The urban development project had to have a directional character formulated in one or more particular strategic goal(s), for example, the provision of green infrastructure, sustainable wastewater management, or social housing.
- The urban development project had to be 'in motion' at the moment of inquiry. As incremental development strategies denote dynamic projects with a long temporal cycle, experiencing the urban development project as it unfolds is much more compelling. Interestingly, because of this ongoing character, all cases had not been studied previously, which strengthens the explorative character of this dissertation.

The following three cases fit these criteria well: the Navy Yard (Amsterdam, the Netherlands), Oosterwold (Almere, the Netherlands), and Carré de Soie (Lyon, France).

Methodological steps and methods

To study the cases empirically, this dissertation distinguishes between three types of data: (1) purposive data, (2) institutional data, and (3) interactive data. The first type of data includes information about the directional character and the strategic goals of a particular urban development project. The second type contains information about the relevant institutional context, such as the legal context and property rights. The third type focuses on data regarding the action arena, i.e. the interactive practices of an incremental urban development project. To describe these practices, I used the linguistic statements (see Table 1).

Table 2. Overview of methods applied in the case studies

Cases	**Chapters**	**Document Analysis**		**Interviews**	**Participant observation**
		Legal Analysis	*Document Analysis*		
Navy Yard (Amsterdam, the Netherlands)	1 and 2	n/a	15 policy documents	3 experts	48 months 46 professional meetings 18 control reports 24 internal talks
Oosterwold (Almere, the Netherlands)	3	5 laws	10 policy documents	19 experts	
Carré de Soie (Lyon, France)	4	n/a	178 policy documents	19 experts	

Source: Author, 2020

The three types of data required different qualitative methods (see Table 2). For the first and second type, qualitative document analysis was particularly useful. A document analysis can be regarded as a systematic technique to analyse the informative content of written documents. The first and second type mainly included policy documents. For the second type, a legal analysis was added (for more information on all documents see Appendix C). The written content of the documents was qualitatively analysed by means of predetermined codes based on the units of analysis. For the third type of data, and in order to understand the real-life situation, two methods were applied: expert interviews and participant observation. Expert interviews, as applied in Oosterwold and Carré de Soie, helped to develop a detailed description of the interaction of actors in the action arena of these two cases (see Appendix A for an overview of conducted interviews). Participant observation was implemented at the Navy Yard Amsterdam case. Participant observation concerns the immersion of the researcher in the real-life context, with the aim to observe the actors in their professional situation. As a participant observer, I followed the interaction of actors in the action arena of the Navy Yard (see Appendix B for an overview of the attended meetings and reports).

The structure of the book

This dissertation consists of four scientific articles that have been either published or submitted to scientific journals for publication, with each article representing a chapter.

Chapter 1, published in *Land Use Policy*, describes the institutional framework of this dissertation. This chapter introduces institutional theory with a particular reference to the work of Elinor Ostrom. The Navy Yard Amsterdam serves as an illustrative case study.

Chapter 2, currently under review, describes the incremental development strategy at the Navy Yard, following the concept of temporary uses of space.

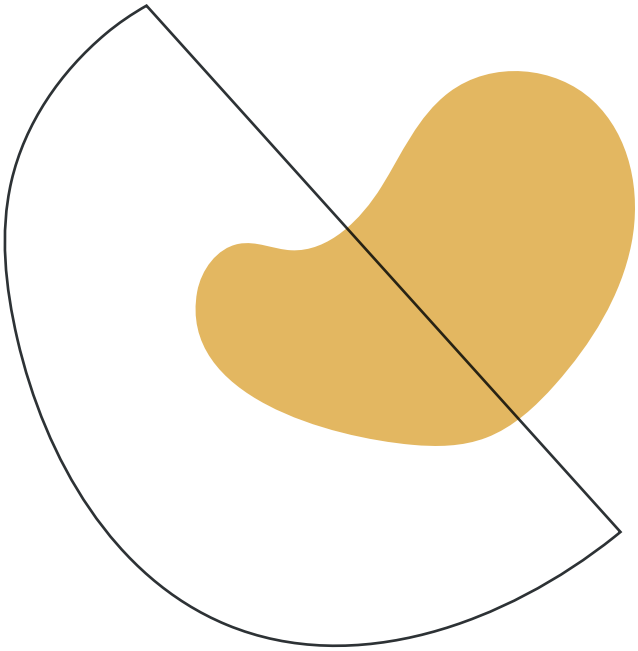
Chapter 3, published in *Journal of Environmental Planning and Management*, explores the efforts to organise collective action for wastewater management while following an incremental development strategy in the Oosterwold case in Almere.

Chapter 4, accepted for *Town Planning Review*, explores the efforts to organise collective action in the provision of green spaces while following an incremental development strategy in the Carré de Soie case in Lyon.

The dissertation ends with a concluding note and an epilogue. The concluding note serves to answer the central question and the five underlying research questions. In the epilogue, I reflect on the theory and methodology; I seek to bridge the gap between theory and practice and, finally, present a few suggestions for future research.

Chapter 1

Playing by the Rules? Analysing Incremental Urban Developments



Van Karnenbeek, L. and L. Janssen-Jansen (2018) Playing by the rules: analysing incremental urban developments. *Land Use Policy*, 72, 402-409.

Current urban developments are often considered outdated and static, and the argument follows that they should become more adaptive. In this article, we argue that existing urban developments are already adaptive and incremental. Given this flexibility in urban developments, understanding the changes in the so-called 'rules of the game' – which structure and change collective action – is increasingly relevant. Gaining such insights advances the ability of planners to deal with perceived spatial problems. The aim of this article is twofold: first, to develop an analytical framework for scrutinising changes in rules in incremental urban developments, and second, to test the analytical framework in a real-life incremental urban development. Building on Ostrom's IAD Framework, we develop an analytical framework that makes a distinction between formal and informal rules, connects sets of rules, actors and interaction patterns and provides a comparative, longitudinal perspective. The case of the Navy Yard in Amsterdam is used in order to test the framework's application, proving the relevance of investigating how rules in urban development change.

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

Introduction

Rational comprehensive planning approaches are often criticised for preserving the underlying social and spatial order in collective action aimed at urban development, rather than challenging or changing it. Several scholars (e.g., Moroni, 2010; Albrechts and Balducci, 2013; Horelli et al., 2015; Albrechts, 2015; Boelens and De Roo, 2016) argue that there is a tenacious weakness in recognising and dealing with uncertainty, dynamics and complexity in these approaches. Accordingly, new planning approaches including adaptive planning (Innes and Booher, 1999; Savini et al., 2014), self-organisation (Boonstra and Boelens, 2011; Partanen, 2015) or, particular to the Netherlands, 'organic development strategies'[10] (Hajer, 2011; Rauws and De Roo, 2016) have been proposed. It has been claimed that these new planning approaches allow urban planning to move away from rational processes and plans with predefined outcomes (ibid.). These approaches, however, might not be so innovative. The idea of rational comprehensive planning is rooted in positivistic origins that had their primes in the 1960s and 1970s and have been criticised ever since (McLoughlin, 1969; Rittel and Webber, 1973; Janssen-Jansen and Lloyd, 2018). Many competing ideas have emerged in and influenced planning literature and practice. Though existing planning practices still contain elements of rational comprehensive planning, current planning practices are more adaptive and incremental than is often assumed. Amidst shifts towards advocacy planning (Davidoff, 1965), deliberative planning (Forester, 1987) and collaborative planning (Healey, 2003), urban planning has already witnessed adaptive approaches (the ability to adjust to changing circumstances and demands) and incremental approaches (the idea of small steps and gradual changes instead of taking long-term fixed jumps) (Lindblom, 1959; Douvere and Ehler, 2009[11]; Atkinson, 2011; Savini, 2017).

Even in the Netherlands, with its tradition of a strongly controlled planning system, the reality has never matched this reasoning. Even the reference to the so-called national blueprint plans of the 1950s and 1960s can be refuted in this respect. Though the Netherlands is regularly praised for preserving policy steadiness, these national plans have only been partly realised and with many deviations, despite the strong financial steering from the Dutch government.

This has been enabled by the embedded flexibility, decision-making power and responsibility for land use planning at the local level, which is fixed in the 1965 Dutch Planning Law (for a detailed overview see Janssen-Jansen, 2016b).[12] In the early 1990s, urban development in the Netherlands was pushed towards the private sector and has become even more adaptive since, with continuous deregulation in the urban planning domain (Halleux et al., 2012; Evers, 2015).

Rebelling against rational-comprehensive thinking by proposing 'new' planning approaches ignores adaptive and incremental progress in planning and results in a tendency to relabel already existing planning approaches. Relabelling gives an impression of innovation and change, but does not automatically reflect such change in practice. Real change within collective action aiming for urban development occurs within the so-called 'rules of the game'. Rules are paramount institutions that guide collective action based on laws, regulations[13], norms and habits. The game refers to action and interaction within and between rules in collective action (Ostrom, 2005, 2010, 2013). The eventual urban development should be the outcome of the game. Within these games, rules are continuously produced, adapted and evolving, resulting in much more adaptive and incremental planning practices than often perceived.

In this article, we thus argue for a shift in attention from rebelling against rational-comprehensive thinking and proposing so-called new alternatives to, instead, focusing on the rules of the game (hereafter rules) that structure and change collective action in planning practices. The focus on rules, and the change thereof, is particularly relevant because planning is vastly influenced and constrained by formal and informal rules (North, 1990; Salet, 2002; Alexander, 2005; Moroni, 2010; Kim, 2011; Janssen-Jansen, 2016a; Salet, 2018). The change of these rules can be understood as either a deliberate alteration of rules or as a co-evolutionary process (Ostrom, 2013; Janssen-Jansen, 2016a). Planning practices cannot function without agreed-upon rules in collective action, making the understanding of rules – and the changing thereof – essential. Such rules provide insight into the right to make decisions, to take sanctions or to reward actions, and reveal their impact on collective action in planning practices.

Improved understanding of these 'new' planning approaches, such as the above-mentioned 'organic development strategies', or 'incremental urban development' as we coin these approaches in this article, requires a thorough investigation of existing and changing rules. The plans in incremental urban developments do not contain urban design principles but instead guide the development by themes or wide-ranging guidelines, contrary to plans with detailed predefined outcomes. The process refers to a wide range of public, private, civic and societal actors who negotiate and coordinate every step of an urban development project within a given development framework.

Currently, a gap exists in the literature concerning the specific rules that actors use in governing incremental urban developments and the way these developments adapt to meet the continuously changing needs of urban societies. Further insight into the rules improves the way governments, and other actors, deal with perceived spatial (strategic) problems or collective action problems. Gaining insight into how incremental urban developments work, how and why actors interact in a certain way and how decisions are made requires a framework to enable a systematic and detailed analysis of the rules. The proposed analytical framework theoretically stems from Ostrom's Institutional Analysis Development framework (Ostrom, 2005). The aim of this article is thus twofold: (1) to propose an analytical framework for scrutinising changes in rules in incremental urban development, and (2) to apply and test the analytical framework in a real-life case study of an incremental urban development project.

Towards an analytical framework

Institutions are widely discussed in urban planning literature (Friedmann, 1987; Innes, 1995; Alexander, 2005; Buitelaar et al., 2007; Salet, 2018). In this literature, it is generally acknowledged that rules are produced and adapted and thus evolve in new contexts (March and Olsen, 1989; Moroni, 2010; Van Assche et al., 2014; Healey, 2018; Salet, 2018). Several definitions of rules exist. In this article, we follow the work of Max Black (1962), as mentioned in Ostrom (2005), to clarify the meaning of rules. Black distinguishes four definitions of the term rules: they point to laws, regulations, instructions

and precepts (norms). The notion that rules can be more than formal, legal regulations is important here. This article thus considers rules as prescriptions concerning actions, interactions and outcomes (Ostrom and Basurto, 2011) following from both formal and informal aspects of laws, regulations, norms and habits. We argue that combining both formal and informal rules and different types of rules is essential for understanding planning practices. Together these rules enable and constrain how actors interact.

Only a handful of studies explicitly focus on how rules, and changes thereof, affect and determine urban development (Kim, 2011; Tan, 2013). The work of Elinor Ostrom represents an important theoretical starting point for analysing and classifying rules (Ostrom, 1990, 2005, 2013; see also Polski and Ostrom, 1999; Crawford and Ostrom, 2005; Ostrom and Basurto, 2011). Ostrom's Institutional Analysis Development (IAD) framework proposes a structure for a systematic and detailed analysis of rules within collective action. As planning is a matter of collective action structured by sets of rules, this framework provides important fundamentals for analysing rules and changes thereof (Ostrom, 1990, 2005, 2013; see also Polski and Ostrom, 1999; McGinnis, 2011; Van den Hurk et al., 2014).[14] The IAD framework is centred around the action arena in which a certain activity (action situation) and the actors who are involved in the activity (actors) result in patterns of interactions and outcomes (Ostrom, 2005, 2013; see also Smajgl et al., 2009; McGinnis, 2011). The structure of the action arena and the patterns of interactions (in this article 'the game' is visualised in Figure 2 by the grey square) are determined by exogenous variables, such as biophysical conditions, attributes of the community and rules (see Figure 2). In this article, we focus on the rules which govern the IAD framework. Spatial urban development is the outcome of the interaction.

In order to deeply analyse institutional arrangements, we use Ostrom's taxonomy based on the following seven sets of rules (Crawford and Ostrom, 2005; Ostrom, 2005; Ostrom and Basurto, 2011). First, position rules (R1) determine the roles actors are assigned to, including, for example, the owner or user. The position regulates to what extent actors are authorised to inform actions, select actions from a series of alternatives or make decisions (Ostrom, 2005). Secondly, demarcation rules[15] (R2) regulate which actor is qualified

to enter or leave a position. Demarcation rules determine the conditions that are required to enter or leave a position, such as experience, age, citizenship or membership in a certain organisation (Ostrom, 2005; Smajgl et al., 2009; Van den Hurk et al., 2014). Thirdly, decision-making rules[16] (R3) determine how decisions are made and by whom. A decision-making rule determines, for example, to what extent decisions should be made by individual actors or by teams of actors (Ostrom, 2005; Smajgl et al., 2009). Fourthly, choice rules (R4) define which actors may or may not act in an action arena and how. For example, a choice rule specifies who may rent land or buildings or who may compose directives for urban development. Fifthly, information rules (R5) refer to the amount and importance of information that is available to actors about the action situation and the other actors. Information rules specify actors' goals, motives and strategies. Sixthly, payoff rules (R6) specify rewards or sanctions that are linked to certain actions taken or outcomes achieved. Scope rules (R7) delimit the outcomes and 'affect a known outcome variable that must, must not, or may be affected as a result of actions taken within the situation' (Ostrom, 2005: 208).

Hence, seven sets of rules structure the game, or in other words, guide the action arena and interaction patterns. During the game, (sets of) rules change over time, and these changes in turn affect other (sets of) rules. This shows the continuous interchange between rules within the game, affecting not only the outcomes but also the rules in themselves (visualised in Figure 2 by the dashed arrow from the action arena to the exogenous variable rules). In planning, multiple sequentially connected action arenas exist, each with their own sets of rules (Ostrom, 2005). Dynamics in other action arenas may also influence sets of rules in a particular action arena, as well as unforeseen events, sudden shifts or times of stability. However, for the purpose of this article, we exclude these outside influences on rules' changes and limit the analysis to the dynamics of a particular action arena.

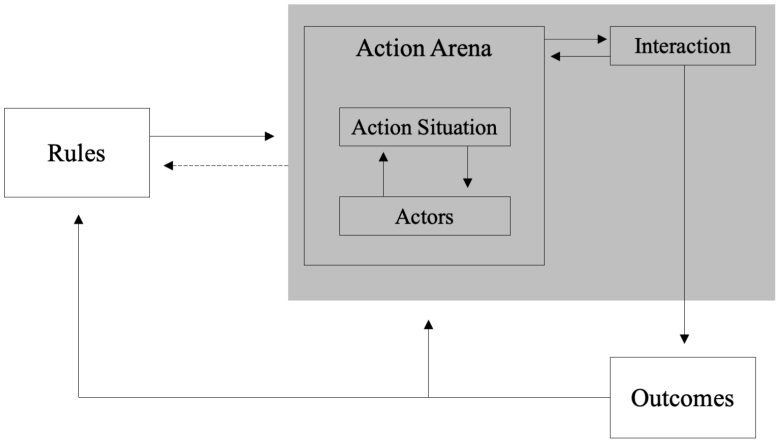


Figure 2. The conceptual framework. Source: Ostrom (2005), adapted by the author

Adjusting the IAD framework for urban planning

In order to precisely analyse incremental urban developments, we adjust the IAD framework in three ways. Firstly, we classify the seven sets of rules based on formality and informality. Although Ostrom mentions the distinction between formal rules and informal rules, the IAD framework is often associated with formal games, 'the framework enables us to compare work conducted in formal game-theoretical analyses' (Ostrom, 2013: 7). As mentioned before, for urban planning, it is important to analyse formal and informal rules in order to understand collective action. Formal rules appertain to rules that are extracted from laws and regulations as policies and plans. Informal rules refer to rules that are shaped by norms and habits. The development and functioning of formal and informal rules can only be understood by the continuously mutual shaping capabilities of informalities and formalities. Formal rules can be designed into or gradually evolved from informal rules, or vice versa (see the work of Buitelaar et al., 2007; Ostrom and Basurto, 2011; Van Assche et al., 2014). We, therefore, propose a distinction between formal rules, informal rules and rules that mix both elements.

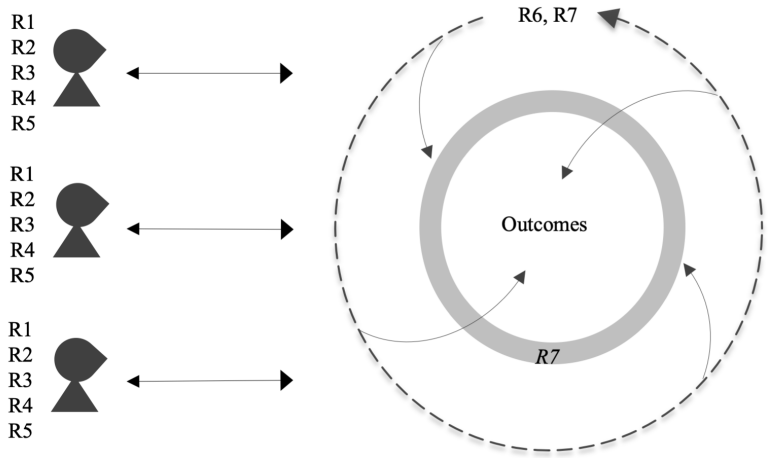


Figure 3. An analytical framework for rules analysis. Source: Author, 2017

Secondly, we adapt the framework by specifying how sets of rules structure the game by connecting sets of rules to actors, interaction patterns or outcomes. Position rules (R1), demarcation rules (R2), decision-making rules (R3), choice rules (R4) and information rules (R5) primarily belong to actors. These rules condition actors, forming the basis for whether they undertake action and what decisions they make. Of course, these sets of rules may change in the interaction process, changing the basis for actors. The payoff rules (R6) and scope rules (R7) are predominantly negotiated among actors concerning a specific action situation. Similarly, these two sets of rules are susceptible to change during interactions. Whereas six sets of rules (R1 to R6) delimit the process, the scope rules (R7) delimit the outcomes. Figure 3 visualises the seven rules in an analytical framework for three actors in an urban development project. Each actor is connected to five sets of rules (R1 to R5) that are susceptible to change. The dotted black arrow shows the interaction pattern in which payoff rules (R6) and scope rules (R7) are negotiated. The grey circle shows the delimiting condition of the scope rules (R7) on the outcomes.

Thirdly, we add a longitudinal perspective to the framework, which allows us to recognise changes in rules. Institutional analysis frameworks are often criticised for assuming institutional settings to be static (Scharpf, 1997;

Ostrom and Basurto, 2011). As Ostrom and Basurto (2011: 318) argue, 'an important next step for enhancing the ability of the social sciences to unpack the complexity of the world consists of developing a cluster of tools for analysing dynamic situations, particularly institutional change, and mainly changes in rule systems.' Adding this longitudinal perspective is valuable for two reasons. First, as argued before, rules change continuously (Van Assche et al., 2014). Second, policy changes over time may influence the decision-making in incremental urban development. In order to recognise the change in rules and the effect of policy changes, the analysis should include at least two moments in time (T0, T1, Tn).

With these adaptations, we propose an analytical framework which allows for a systematic analysis of the dynamics of informal and formal rules in urban development (see Figure 4). The longitudinal perspective is indicated through T0 and T1. The expected changes in rules in T1 are indicated by the delta sign Δ. All delta signs are italicised, in order to make clear that a rule, actor or outcome might change, but does not always. While the formality or informality of rules is omitted for the purpose of clarity, it is incorporated in the analysis.

Research design and methods

We use an illustrative case study of an incremental urban development project in the Netherlands, the Navy Yard Amsterdam, to test the applicability of the analytical framework (for case study design methods we refer to Yin, 2003). The case was selected based on two criteria. First, the case must be considered an incremental urban development and second, in order to perform a detailed analysis of the rules and their changes over time, the case must be ongoing. Based on these criteria, we selected the Navy Yard Amsterdam, which prior to this study had not been scientifically analysed.

The data collection consists of a triangulation of the methods of participatory observation, document analysis and semi-structured interviews. Participatory observation provided in-depth understanding of the institutional arrangements and settings. The participatory observation covered the period from May 2016

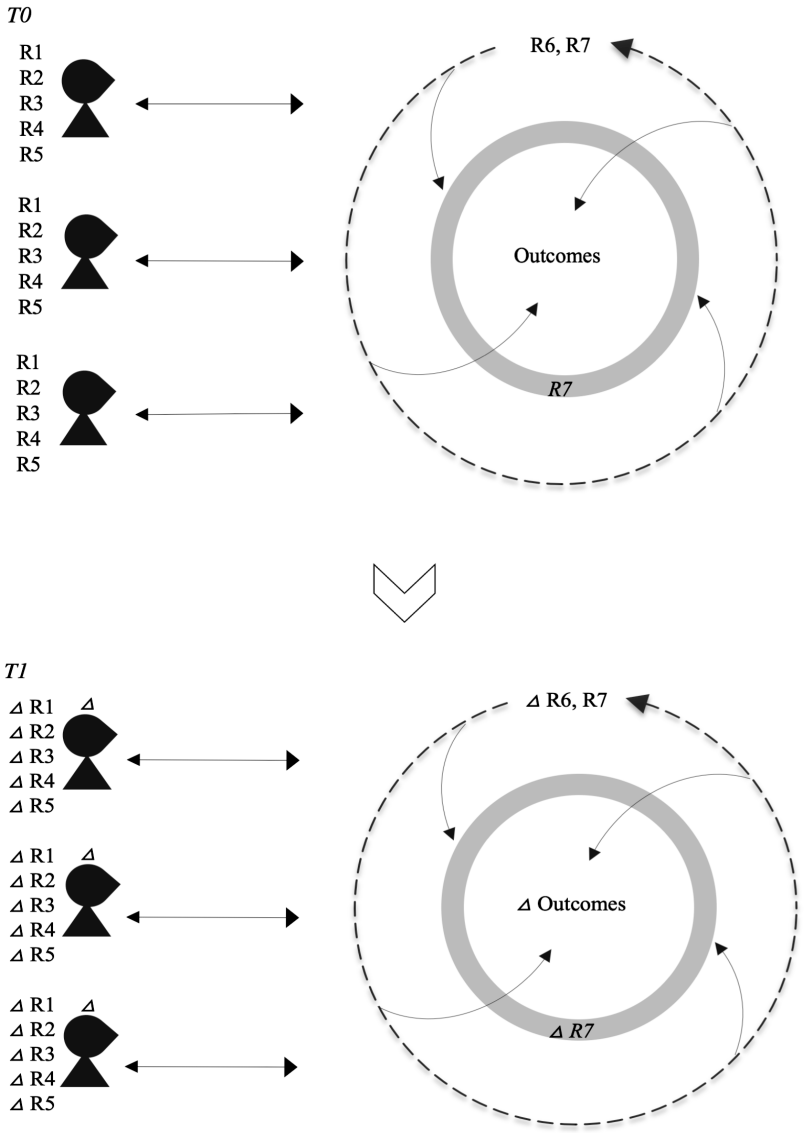


Figure 4. An analytical framework for institutional change. Source: Author, 2017

to May 2017. For ethical integrity, all actors were informed about the study in advance (Majoor, 2018). In the early stage of participant observation, many varied workshops, meetings and conversations were attended to develop a sense of the kinds of events, settings and topics that were necessary to unravel the rules of the game. The period of immersion in the case as a researcher lasted two months. Afterwards, to avoid the enticement of recording every detail and to safeguard the necessary distance for analytical purposes, the researcher was embedded for, on average, one day per week for another ten months (Bryman, 2008; Majoor, 2018). In this time, various specific interactions, meetings and conversations were attended and documented. Observing the steering committee meetings (with members of project office Navy Yard, Dutch Real Estate Company, Ministry of Defence and the City of Amsterdam), board meetings (with mayor, aldermen, Amsterdam centre district mayor and ministers) and workshops about spatial-legal conditions proved particularly meaningful to achieve a detailed understanding of sets of rules. These meetings and workshops were particularly meaningful because they were attended by key actors, which evidenced that many decisions and actions concerning substantive and governance issues were taken here. During the gatherings, the researcher wrote down detailed notes, including literal quotes. After each gathering, the detailed notes were documented precisely, placed in time, categorised into sets of rules and labelled as formal, informal or containing both elements.

Additional data was gathered through document analysis. The document analysis included major documents such as the project's management agreement and the strategy report. The data was complemented by two semi-structured interviews with key actors: the principal (director of project office Navy Yard) and the executives (project assistants of project office Navy Yard). The interviews were transcribed and recorded and used to (1) clarify issues that were not covered during meetings, (2) cross-check findings to limit researcher bias and (3) give key actors the opportunity to add their own thoughts and comments (Bryman, 2008). The results of the analysis and interpretations thereof have been checked in an iterative process with a member of the project office. A qualitative analysis of the collected data was conducted by using the sets of rules as units of measurement. The operationalisation of the sets of rules is shown in Table 3. For content recorded in laws, legal agreements

Table 3. The operationalisation of rules

Rules	Sets of Rules	Operators
Formal rules	Position (R1) Demarcation (R2) Decision-making (R3) Choice (R4) Information (R5) Payoff (R6) Scope (R7)	Required Forbidden Permitted Authorised
Informal rules	Position (R1) Demarcation (R2) Decision-making (R3) Choice (R4) Information (R5) Payoff (R6) Scope (R7)	Should Used to Holds on to

Source: Author, 2017; based on the work of Ostrom, 2005

and official policy documents, the rules were coded as formal. Additionally, we operationalised formal rules in operators as 'required', 'forbidden', 'permitted', 'authorised' or equivalents. To operationalise informal rules, we used the operators 'should', 'used to', 'holds on to' or equivalent to analyse norms, habits and routines (see the work of Ostrom, 2005, 2013).[17] The collected data was analysed in two timeframes. The first timeframe (T0) encompasses the period before 2014, during which the Dutch Ministry of Defence used the area privately for the military. The second time frame (T1) describes the period between 2014 and mid-2017 when the project office maintained and incrementally redeveloped one-third of the area.

Navy Yard Amsterdam

The Navy Yard Amsterdam, located in the historic city centre of Amsterdam, is an area of about 13 hectares situated at the waterfront of the IJ river. In 1655, the former Admiralty of Amsterdam claimed the area. During this period, the area was used to build warships to protect the Dutch East India Company (VOC). The Navy Yard Amsterdam (hereafter Navy Yard) was used for military purposes and activities and was, therefore, not open to the public, resulting in a mysterious area located in the heart of Amsterdam. Until recently, the Ministry of Defence was the only user of the Navy Yard

(Ministerie van Defensie, 2015; Jansen and Pedroli, 2016). Due to economic turmoil and budget cuts, the Dutch national government decided[18], as the owner of the area, to consider alternative uses for it from 2013 onwards. The Dutch national government decided to incrementally hand over the maintenance of approximately five hectares of the area between 2015 and 2017. The national government planned to sell the full 13 hectares to the City of Amsterdam in 2018[19]. At the time of writing (*2018*), about five hectares of the Navy Yard have been developed and made accessible; the former military uses have been relocated (Ministerie van Defensie, 2015; Jansen and Pedroli, 2016; Projectbureau Marineterrein, 2016). The development of the area occurs through incremental urban development. This development is managed by the Project Office Navy Yard, an organisation set up through the national government and the City of Amsterdam (Ministerie van Defensie, 2015; Projectbureau Marineterrein, 2016). The development of the Navy Yard adds to the waterfront developments already occurring in the east and west docklands on the bank of the IJ-river, which have taken place continuously for the past thirty years (Schuiling, 1996; Uffen, 2004; Kloosterman, 2009; McCarthy, 2012).

The strategy report of the Navy Yard of 2013 presents the guidelines for the development, defining three main ambitions for the Navy Yard: (1) becoming an innovative working space with international allure, (2) continuing to secure the maritime identity, and (3) emphasising the water that surrounds the area. Furthermore, the guidelines set the condition that the urban development project occurs incrementally, without a predefined final image. Additionally, the development strategy states that the development should evolve gradually and that the focus for the first few years should not be based on urban design principles or values (Ministerie van Defensie et al., 2013a, 2013b). The management agreement of the Navy Yard, which went into effect in 2013, is a legal document that outlines authorisations between the City of Amsterdam and the national government (Nederlandse Staatscourant, 2013).

Results: Testing the framework

We applied the analytical framework to the case of the Navy Yard (action situation) in order to explore its usefulness as a tool for analysing changes in rules. The case material is illustrative for testing the applicability of the framework. The aim of discussing the case is not to provide a full overview of actors, rules and possible changes in rules. Instead, we limit the focus to generic rules and four key actors: (1) the Ministry of Defence, (2) the Dutch National Real Estate Company, (3) the Project Office Navy Yard (hereafter project office), and (4) the City of Amsterdam, as owners, principals or executives of the incremental development.

Position and demarcation rules

The analysis begins with the position and demarcation rules. In the period before 2014 (T0), the Ministry of Defence (hereafter Ministry) used the Navy Yard for military purposes while the area was officially owned by the Dutch National Real Estate Company. The area was officially closed, with the national government (National Real Estate Company and the Ministry) being the only actor that held a position. As a result of national budget cuts, it was decided that the Ministry would slowly withdraw and eventually leave the area, therefore giving up its position as a user from 2014 onwards. In T1 (2014–2017), about one-third of the area was publicly accessible while the other two-thirds were strictly and privately used by the Ministry (Ministerie van Defensie et al., 2013a; Nederlandse Staatscourant, 2013). In this period, the full area was still formally owned by the Dutch National Real Estate Company, but the maintenance of the area that was publicly accessible was handed over to the project office. Therefore, since the area was partly vacated by the Ministry during T1, other users entered the scenario. Commissioned by the Ministry, the National Real Estate Company and the City of Amsterdam had to redevelop the Navy Yard.[20] Together, these three actors were required to set up a steering committee for negotiating the development of the Navy Yard. The demarcation rules stated that both the national government and the City of Amsterdam were permitted to appoint two members in the steering committee, in which both the national government and the City of Amsterdam each had

one vote. For the development of the Navy Yard, the national government and the City of Amsterdam were required to install a project office (named Project Office Navy Yard) under the responsibility of an appointed director. As stated in the management agreement,[21] 'the project office is part of the City of Amsterdam organisation and will consist of at least a director who is jointly appointed by both the national government and the City of Amsterdam' (Nederlandse Staatscourant, 2013: 7). The position rules particularly changed with respect to user positions. Although in T1 the Ministry still used two-thirds of the entire area, they were no longer the only actor with authority. The change in demarcation rules showed that the national government was not the only actor that could enter or leave a position, and, therefore, it lost its monopoly as an actor. Looking closely at the positions and demarcation rules, we conclude that both rules are exclusively formally described and changed.

Decision-making rules

Considering decision-making rules, the first period is well defined: the national government was the single actor permitted to take decisions. With respect to T1, the decision-making rules are less taken for granted. According to formal rules, all decisions were required to be made in collaboration between the project office, the City of Amsterdam and the national government, taking into consideration the strategy report and management agreement. The appointed steering committee was permitted to take all decisions concerning the use of the publicly accessible area and the development of the full area based on the mandate and the power of attorney that had been given by the four actors to the steering committee members. Unanimity in the steering committee was required; otherwise, a board meeting was needed. In T1, the steering committee was also required to decide about the longer-term development of all 13 hectares of the Navy Yard Amsterdam for the period after 2018, resulting in some specific decision-making rules. Firstly, the project office had to draft the initial guidelines for development. For this, the project office's director had the mandate to hire consultancy firms and research agencies to assist. The guidelines were subsequently presented to and discussed with all members of the steering committee. If all steering committee members agreed, the guidelines would be proposed to the board. If the board agreed,

the City Council of Amsterdam was required to finalise the decision-making. In short, the national government was not the only actor authorised to make decisions, contrary to the situation in the first period. Remarkably, the national government still possessed decision-making power in the second period, although the City of Amsterdam had a higher degree of power. Furthermore, during the observations and document analysis, traces of informal decision-making rules were not found.

Choice rules

Regarding the formal choice rules, the Ministry was permitted to take all actions in the Navy Yard in the time period T0, while other actors were forbidden to take any action in the area. During T1, the Ministry was permitted to take all actions and was required to manage and maintain the land, buildings and water zones in the privately used area. Additionally, the Ministry was required to leave the publicly accessible area. Concerning other formal choice rules in T1, all actors were required to actively negotiate the development of the Navy Yard based on guidelines and appointments documented in the strategy report and management agreement. The project office was permitted to take care of the daily running and maintenance of the area within the limits of these guidelines and arrangements. Furthermore, the project office was required to report and justify its actions to the members of the steering committee and inform them about temporary uses. The national government and the City of Amsterdam were, in turn, required to monitor the actions of the project office. Both actors were authorised to reverse actions of the project office.

Considering the informal choice rules, three distinctive rules are worth mentioning. First, the City of Amsterdam and the national government both mentioned that the strategy report and management agreement did not necessarily correspond to all current circumstances. Although formally agreed upon, both actors stated that the development should accommodate current circumstances, questioning to what extent actions must conform with the guidelines of the strategy report and management agreement. Combining this informal choice rule with the authority of the City of Amsterdam and national government to reverse actions and the decision-making rules, the strategy

report and management agreement can, in theory, be disregarded. Secondly, although the steering committee had decision-making powers concerning the use of the area, it is noticeable that the City of Amsterdam clearly held on to its established planning procedures (well-known – typical Amsterdam – planning documents and approaches), which reaffirmed its primus inter pares role in planning decisions. Thirdly, with respect to an informal choice rule in daily circumstances, the co-use of the sports fields and conference centre in the closed-off area is worth mentioning. The Ministry was formally required to allow co-use of the sports fields and conference centre, but by holding on to existing practices for their purposes, they constructed informal barriers in such a way that co-use by the project office was almost impossible. A member of the project office stated, 'the event centre is continuously in use by the Ministry of Defence as they organise events for themselves and external parties.' Recapitulating, the formally and informally taken actions differ substantially between the two periods; again, the Ministry was not the sole party acting at the Navy Yard in T1.

Information rules

With respect to T0, the Ministry was the only actor that maintained information about the area, the uses and activities. Furthermore, any sharing of this information was forbidden. As for T1, all four actors had – to different degrees – information concerning the use of and the activities in the area. While the project office had access to all of the available information concerning the development, they were required to inform the three other actors during steering committee meetings. Furthermore, the project office was required to inform citizens of the adjacent neighbourhoods. Though only 'informing' was required, the project office was convinced they should organise a citizen platform. In terms of informal information rules, the Ministry was accustomed to keeping available information about the closed-off area private. Other actors requested certain information (e.g., building characteristics) and visits to the closed-off Navy Yard in conjunction with the development. However, as the area was still closed off at the end of T1, this occasionally resulted in informal barriers to plan visits or share information. Furthermore, by sharing knowledge concerning the development, the City of Amsterdam and the

national government positively contributed to the urban development project. Notwithstanding, the City of Amsterdam held on to its practice of keeping information about land values secret. From the project office's perspective, sharing information with and gathering input from businesses in the neighbourhood is highly valuable. Eventually, these informal consultations resulted in a formal agreement with its 'business neighbours' about the collaboration. Concerning the information rules, much more information was shared during T1 than T0, although information regarding the closed-off area was secretly dealt with despite the emergence of some restrictive barriers for the development of the Navy Yard. Observations in this study revealed the explicit effect of informal information rules on the development.

Payoff rules

Concerning the payoff rules,[22,23] there were no formal sanctions or rewards containing constraints, penalties or coercion related to certain actions. During T1, a so-called 'gentleman's agreement' – an informal, non-enforceable agreement between parties in good faith – was in existence. Actors understood that the sharing of information gained in workshops or meetings, such as pictures of urban models, was not acceptable.

Scope rules

In T0, the scope rules were solely restricted to military uses and performances such as military education, recruitment and training. For T1, the fundamentals for the scope rules were formally documented in a strategy report in the form of guidelines. The national government and the City of Amsterdam were required to respect and comply with these guidelines unless otherwise agreed upon. As stated in the strategy report (Ministerie van Defensie et al., 2013b: 3), 'most importantly, the Navy Yard offers a unique opportunity to create a new cultural and urban hub and yet to keep the hidden, mysterious and green character of the space.' The strategy report further states that functions such as housing, education, research, restaurants, green spaces and culture should be clustered. In the early years of the development, actors were required to focus on

temporary uses that contribute to an innovative urban destination. The project office formulated three main core values that strengthened the substantive guidelines of the strategy report, namely innovation, interconnection and focus, underlining themes such as sustainability, water, sport and movement. As of 2017, there was no actual zoning plan that determined specific land use. The scope rules from T0, therefore, influenced the scope rules for T1 to a certain extent. Observations in this research showed that the informal dimension of scope rules was not necessarily noticeable in the official strategy report, but instead emerged during negotiation about the underlying values that strengthened scope rules.

Discussion

Many rule changes, both formal and informal, in the development of the Navy Yard can be recognised. During T0, the national government was the only actor with a position to act and decide, and to control the sharing of information. With the introduction of the new policy, management agreement and strategy report, all sets of rules were deliberately changed for the purpose of the development. The analysis revealed these changes and, as mentioned before, the results have been checked through data triangulation (participant observation, document analysis, interviews). During T1, after the policy change, the number of actors, and their subsequent authorising capacities, increased and subsequently the amount and diversity within the seven sets of rules multiplied. During the interaction process, the sets of rules evolved. While formal position rules generally determine the roles actors are assigned to, the case of the Navy Yard revealed that the choice rules and decision-making rules dominated during the interaction process. According to the formal decision-making rules, the City of Amsterdam has the final say in the development of the Navy Yard. Unsurprisingly, the City of Amsterdam will then be the first party allowed to make a bid for the purchase of the full 13 hectares. Furthermore, in this case, the formal decision-making rules may overrule the choice rules, because the City of Amsterdam and the national government have the power to reverse actions by other actors and dissolve official documents. Payoff rules are nearly absent in the Navy Yard case. The scope rules determine the outcomes to such an extent that the stated

guidelines and values in the strategy report must be fulfilled. In practice, these ramifications imply the realisation of different spatial outcomes. In the coming period, it is expected that more and more substantive scope rules will be negotiated, limiting the potential spatial outcomes at the Navy Yard.

Conclusion

This article featured two central aims: first, to develop an analytical framework for scrutinising changes in rules in incremental urban developments, and second, to test the analytical framework in a real-life incremental urban development project, namely the Navy Yard. The application of the analytical framework, as seen in the development of the Navy Yard, reveals the value of this framework as an analytical tool for understanding (changes in) sets of rules during urban development. Since we scrutinised a single case study, generalisation is out of the question. However, the case does offer an improved understanding of analysing rules and change thereof. Indeed, as many scholars proved in earlier work, collective action is formed considerably through a variety of rules. Studying changes in rules in this case study has led to a richer understanding of how rules shape collective action and the subsequent outcomes. This further aligns with work of scholars who have already acknowledged the influence of institutional change on urban development processes and outcomes (e.g., Alexander, 2005; Buitelaar et al., 2007; Moroni, 2010; Kim, 2011; Evers, 2015). The applied framework reveals, however, the extremely valuable strength of the work of Elinor Ostrom in understanding rules. Scrutinising Ostrom's sets of rules reaches beyond a simple application of rules: it enables us to extract particular impacts of sets of rules. Three main notions are worth emphasising concisely in this regard: the formal and informal dimension of rules, the hierarchy of rules and the effect of timing.

First, the case study features the importance of formal and informal dimensions of rules for urban development, as already earlier acknowledged by several scholars (e.g., Buitelaar et al., 2007; Van Assche et al., 2014). The application of the framework, however, elucidates the formal and informal dimensions of rules, and can, therefore, explicitly reify in which sets of rules formal and informal dimensions can be found. In the illustrative case study, the informal

dimension of rules is hardly noticeable in official documents but emerges instead during the interaction. The case study further reveals that position rules, demarcation rules and decision-making rules are primarily formally prescribed, whereas choice rules, information rules, payoff rules and scope rules contain both informal and formal dimensions. Information rules contain a particularly high degree of informality here.

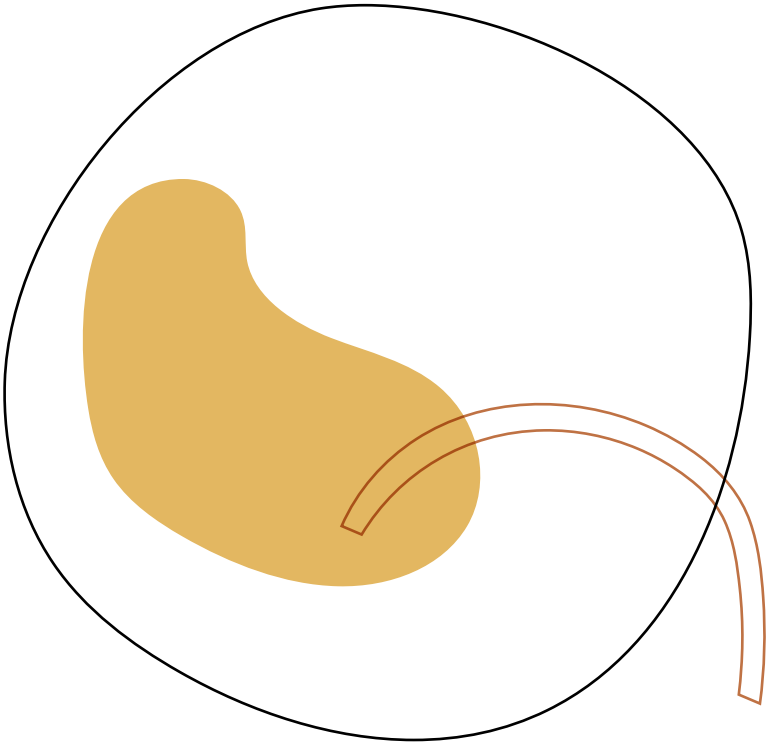
Second, the application of the framework reveals a hierarchy in rules. All sets of rules provide structure during collective action in this urban development. However, the degree to which a specific rule affects this urban development fluctuates. The case study reveals that scope rules and decision-making rules strongly define the outcome and interaction, respectively, while payoff rules have barely influenced this urban development so far. This observation shows that sets of rules shape each other reciprocally within hierarchies. This explicitly emphasises the presence of power among institutions (Kim, 2011), and more significantly, how rules in this regard produce power among sets of rules. Third, the application of the framework in terms of timing reveals that a change in rules may be prone to a specific phase or a deliberate policy change throughout the duration of an urban development project. Indeed, as already argued by other scholars, timing (e.g., when rules change) has been an important elucidation for rule change (Buitelaar et al., 2007; Sorensen, 2015). The case study shows that a deliberate policy change substantively changes all sets of rules, after which rule change actually occurs through an ongoing process of evolution and design. The application of the framework enables us to specifically determine when particular sets of rules change.

In conclusion, the analytical framework allows a specific elucidation of the rules and change thereof. Furthermore, the application of the framework informs about particular impacts of sets of rules over time, based on formality, hierarchy and timing. The results following the application of the framework in the case of the Navy Yard are not isolated. We suggest applying the framework in further research in order to reveal specific impacts of rules – and changes thereof – over time in multiple case studies. If more comparative research is carried out, it might be possible to eventually identify patterned conditions that determine the particular impact of rules. Investigating these conditions is particularly relevant to enrich Ostrom's typology. This specific focus on

rules may also allow for the identification of which rules result in collective action problems, such as deadlocks, advancing insights into how to potentially unlock such situations. This rule perspective understanding offers lessons for urban planning and can contribute to policymaking and decision-making in urban development.

Chapter 2

Institutions and Temporary Uses of Space: The Case of Navy Yard Amsterdam



Van Karnenbeek, L. (submitted) Institutions and Temporary Uses of Space: The Case of Navy Yard Amsterdam

The growing policy interest in temporary uses of space raises questions about the appropriate institutional conditions that enable temporary uses. This article aims to examine the critical relationship between the ambitions to realise temporary uses of space and the appropriate facilitating institutional conditions. First, a typology of different purposes of temporary uses of space is provided. Second, building on Elinor Ostrom's conceptualisation of rules, it explores the institutional conditions that can enable an effective realisation of the different purposes of temporary uses of space. Empirically, this interrelationship is examined in a compelling case, the Navy Yard Amsterdam, which illustrates the evolution of changes in the interest of temporary uses over time. The article concludes that the interrelationship between the purpose and corresponding institutional conditions of temporary uses of space should be carefully considered and addressed in order to ensure the effective temporary use of scarce urban spaces.

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

The Navy Yard, 2020

Introduction

The context of urban development has undergone significant changes since the turn of the 21st century, most notably the ongoing privatisation of public tasks, the empowerment of citizens, and the 2008 economic downturn. As a result, planning practitioners have frequently debated alternative planning practices for urban development projects (Lehtovuori and Ruoppila, 2017; Fisker et al., 2019; Savini, 2019). Among several approaches considered in this debate, the temporary use of space has emerged as a prominent alternative. It refers to planning practices that have shorter time horizons than traditional ones (Bishop and Williams, 2012; Németh and Langhorst, 2014; Olsen, 2017). Planning practitioners have highlighted the many advantages of temporary uses: the quick transformation of the status quo (Ferreri, 2015), the improved ad hoc reaction time (Madanipour, 2018; Parker et al., 2019), or the effective revitalisation of cities (Madanipour, 2018). Other main reasons for temporary uses of space are the involvement of civic or creative actors and the encouragement of innovation and experimentation (Tardiveau and Mallo, 2014; Ferreri, 2015). For these reasons, temporary uses of space are sometimes praised as the better alternative planning practice for urban development projects (see, for example, Tonkiss, 2013; Madanipour, 2017, 2018; Parker et al., 2019; Galdini, 2020). Whether this claim is valid or not, there is no doubt that temporary uses of space have emerged as a hot topic in public policy on urban development projects.

Temporary uses of space are seen as an important innovation that can address the pitfalls of traditional planning practices (Tonkiss, 2013; Ferreri, 2015). Traditional planning practices are frequently associated with permanent uses of space (Hayden and Temel, 2006; Bishop and Williams, 2012; Németh and Langhorst, 2014; Olsen, 2017). This ‘permanency’ of established traditions is often criticised for its inability to accommodate changing circumstances, frequently attributed to the very large number of planning rules (Hayden and Temel, 2006; Madanipour, 2018). Temporary uses of space, in contrast, are celebrated as a response to an increasing call for adaptability and deregulation (Andres, 2013). Therefore, and especially considering the contemporary context, the growing interest of planning practitioners in temporary uses of space comes as no surprise (Lehtovuori and Ruoppila, 2017). However, more

often than not, the interest in temporary uses of space for urban development projects is not made explicit. Planning practitioners are frequently more concerned in getting policy support for temporary uses of space (Ferreri, 2015), rather than explicitly discussing their contribution to urban development projects. Consequently, while praised as very useful, the idea of temporary uses remains vaguely defined. This article intends to keep away from this appraisal (Parker et al., 2019) and instead examines the potential of temporary uses of space by focusing on the purpose of temporary uses of space (Bruzzese, 2019) and appropriate institutional conditions that facilitate the achievement of that purpose. The main argument here is that particular institutional conditions might be necessary to attain temporary uses of space.

The aim of this article is then twofold: first, to distinguish different purposes of temporary uses of space, and second, to analyse the institutional conditions that enable this purposive action. To this aim, the research question of this article is formulated as follows: *How do different purposes of temporary uses of space for urban development interrelate with institutional conditions*? To answer this question, the researcher develops a typology to identify the potential purposes of temporary uses of space for urban development first. Second, the institutional theory is applied to identify particular institutional conditions that enable the effective realisation of these potential purposes. This article applies a normative conception of institutions as rules (Scott, 1995). The study builds on the work of Elinor Ostrom, specifically her systematic analysis of rules for effective organisation of collective action (Ostrom, 1990, 2005; Crawford and Ostrom, 2005; Van Karnenbeek and Janssen-Jansen, 2018).

In the empirical section, the analytical perspective is employed to reflect on temporary uses of space at the Navy Yard in Amsterdam. The public actors had a keen interest in temporary uses of space (Nederlandse Staatscourant, 2013). Empirically, the Navy Yard is particularly compelling as the added value of temporary uses changed over time. Therefore, the Navy Yard development provides a fascinating case to explore the interrelationship between the purpose and institutional conditions of temporary uses of space in practice. Through participant observation, I could reflect on the dynamics and evolution of temporary uses of this space over the course of my four-year research. The article concludes with a reflection on the empirical findings.

The purpose of temporary uses of space in urban development

Planning practices are primarily concerned with time (Abram and Weszkalnys, 2011; Madanipour, 2017), i.e. space is transformed through time. Traditionally, many planning practices focus on the far future or a long-term horizon, which more often than not involves permanent uses of space (Temel, 2006; Pogoreutz, 2006; Abram and Weszkalnys, 2011). For quite some years now, this idea of permanent uses of space, including its consequences, has been sharply criticised in planning theory (Hayden and Temel, 2006; Pogoreutz, 2006; Lehtovuori and Ruoppila, 2017; Madanipour, 2017). There was much discussion in planning theory on the traditional interpretation of time and the ineffective responses of permanent uses of space to changing situations. As a consequence, the academic literature that praises planning practices with shorter time horizons has recently bloomed (see, for example, the studies of Temel, 2006; Pogoreutz, 2006; Colomb, 2012; Andres, 2013; Tardiveau and Mallo, 2014; Olsen, 2017; Lehtovuori and Ruoppila, 2017; Madanipour, 2017, 2018; Degen, 2018; Parker et al., 2019; Bruzzese, 2019). This literature emphasises that planning practices exist transiently and that attention must be directed to temporary uses of space, which can deliver substantial positive value to urban development.

Scholars acknowledge that temporary uses of spaces are diverse and can have various purposes for urban development (Pogoreutz, 2006; Madanipour, 2017; Bruzzese, 2019). Madanipour (2018), for example, argues that the purpose of temporary uses may be subject to change, depending on the phase of urban development. Therefore, and in line with Madanipour (2018), it is necessary to classify the purpose of temporary uses of space for urban development. Based on a review of the existing academic literature, this study has classified three types of temporary uses (*interim*, *trying-out* and *cumulative*), based on the purpose they intend to fulfil for urban development (see Table 4). These types are alternatives to the traditional idea of permanent uses of space. The work of Madanipour (2017) and Bruzzese (2019) was particularly informative for this classification.

Table 4. The purpose of temporary uses of space

Types of temporary use	Purpose
Interim	To provide meantime activities for discontinued urban development
Trying-out	To open up new ideas for urban development
Cumulative	To trigger future urban development

Source: Author, 2020

The *interim* type aims to fill the gaps by meantime activities for urban development projects that are discontinued or cannot take place. The gap lasts until better times return or possibilities to re-start the development emerge (Andres, 2013; Madanipour, 2017). In this view, the interim type provides a temporary solution that reserves land for future developments (Madanipour, 2017) or that solves deadlocks of urban development projects. In this type, temporary uses have a very short temporal cycle and often include activities such as guerrilla gardening or pop-up galleries, events, shops, and restaurants. These activities must fit the physical characteristics of the area (e.g., an empty building or a disused land lot). As the activities may not leave any traces for future urban development projects (Bruzzese, 2019), it is essential to prevent irreversible spatial outcomes.

The *trying-out* type looks for innovative potentials for urban development by appealing for particular arrangements of pioneering actors such as artists or citizens (Oswalt et al., 2013; Bruzzese, 2019). These pioneers often discover new places for urban development projects and open up new ideas for urban development prospects (Bruzzese, 2019). This type often paves the way for urban development experiments and intends to transiently discover alternative planning practices that challenge more traditional practices (Parker et al., 2019). Planning practitioners often facilitate this type of temporary use by transiently deviating from existing rules or loosening the rigidity of the institutional framework (Madanipour, 2017). The duration of the trying-out type is dependent on the factor of success. In line with Bruzzese (2019), this type does not explicitly intend for longer-term uses of space, although it does not totally exclude them in advance. When successful, the practices can be a catalyst for change and can, as an unintended and unplanned outcome, continue in a more permanent form.

The *cumulative* type explicitly intends to trigger future development (Bruzzese, 2019: 210). Often, temporary uses of space are forerunners for future developments and ongoing triggers in the planning processes (Bruzzese, 2019; Parker et al., 2019). More often than not, temporary uses cumulatively add up at first. As time proceeds, temporary uses increasingly provide input for the planning process that shapes future developments. Eventually, temporary uses of space very slowly transform into more enduring uses (Ferreri, 2015; Bruzzese, 2019). Compared to the other two alternatives, this type entails a long planning process in which temporary uses of spaces are gradually rooted over time. Due to this gradual character, many choices and decisions are made on top or alongside existing choices and decisions. In general, planning practitioners actively collaborate with temporary users on how to proceed (Oswalt et al., 2013; Bruzzese, 2019). Furthermore, for this type of intervention to work, temporary uses of spaces must be connected to institutional urban planning structures.

Institutional conditions

Even though scholars acknowledge that temporary uses of space have distinct purposes for urban development, hardly any focus on which conditions are needed to achieve these particular types effectively. Institutional theories offer many ways to understand which institutions may condition intended purposes (Ostrom, 1990; 2010; Scott, 1995; McGinnis, 2011). When focusing on the challenge of how to undertake collective action effectively, Elinor Ostrom crafted one of the most influential and meaningful approaches (McGinnis, 2011). She defines institutions as regulators of human behaviour in particular social situations that are arranged by rules. Rules then denote enforced prescriptions about what actions or outcomes are required, forbidden, permitted or authorised (Ostrom, 1990; 2005; 2010; 2013, and Ostrom and Basurto, 2011).

In her seminal work *Understanding Institutional Diversity*, Ostrom (2005) provides an institutional grammar that enables the systematic analysis of rules, classified into seven sets of rules – position, demarcation[24], choice, decision-making[25], information, payoff and scope – that condition social

situations (see also Crawford and Ostrom, 2005). Position rules define the set of positions of actors in the action situation. Who is eligible to enter or leave a position rests on the demarcation rules. Choice rules specify actions that the particular participants are required, authorised, forbidden or permitted to take. Who is authorised to decide on the potential actions taken is prescribed in the decision-making rules. The information rules detail how communication among participants occurs and what information might or might not be shared. Payoff rules specify how incentives and deterrents are assigned and distributed to explicit actions and outcomes. Scope rules detail the outcomes (see for a detailed account of the rules Crawford and Ostrom, 2005, or an application in urban planning Van Karnenbeek and Janssen-Jansen, 2018).

An analytical perspective

Ostrom's classification is especially valuable for this article, as the sets of rules can help to identify appropriate conditions under which the purpose of temporary uses of space can be achieved. As agreed with Ostrom (2005), this study acknowledges that all seven sets of rules occur in almost all possible social settings; however, every context creates different needs, leading to different interpretations and interactions of sets of rules (Ostrom, 2013; Salet, 2018; Van Karnenbeek and Janssen-Jansen, 2018). Following this reasoning, this study assumes that types of temporary uses work because of their strong correspondence with a particular set of rules. Considering the particular characteristics of the distinct types of temporary uses helps uncover which particular institutional condition 'makes the difference'. Therefore, this article points to the significance of a particular set of rules for each type (see Table 4) – scope rules can activate the interim type, demarcation rules can motivate the trying-out type, and choice rules stimulate the cumulative type.

For the *interim type* to be successful, pointing to scope rules is essential. In contrast to the other sets of rules that focus on the process, scope rules define the width and range of outcomes for a particular time (Ostrom, 2005). Scope rules can be closed or open. Closed scope rules strictly define outcomes, whereas open scope rules set minimal targets of regulation to achieve particular outcomes (Crawford and Ostrom, 2005). In urban planning, scope rules

regulate spatial outcomes for a given period (Van Karnenbeek and Janssen-Jansen, 2018). As the interim type focuses on meanwhile activities with a particular spatial outcome (e.g., urban gardening, pop-up shops or restaurant) in a physical space (e.g., vacant building), describing the spatial outcomes for a particular time is highly significant. In this context, scope rules are applicable for a very short period of time and generally have an open character. Scope rules then allow a range of interim activities in a physical space for a limited period of time. Also, to prevent that the interim intervention leaves traces for future development, the limited time horizon of scope rules can prevent irreversible spatial outcomes.

As the *trying-out type* aims to attract pioneering actors, the prescription of who can participate is very beneficial for this type. Demarcation rules specify which actors are eligible to enter or leave a position, i.e. setting the conditions to determine who is in and who is out. Demarcation rules are subdivided into entry rules and exit rules (Crawford and Ostrom, 2005). Entry rules assign who may or must enter a position. Entry rules determine that someone can only occupy particular positions with particular knowledge, experiences, skills, or personal and professional characteristics (e.g., membership in an organisation). Exit rules define the conditions under which actors must or may leave positions (Crawford and Ostrom, 2005). For the trying-out type to deliver fruitful advances, one must explicitly describe who is in and who is out in the act of transiently discovering alternative planning practices (Bruzzese, 2019).

In the *cumulative type*, temporary uses of space trigger future developments and provide input for the longer-term planning process. For this type to be successful, temporary uses must be explicitly embedded in institutional structures that organise the longer-term planning process. Therefore, it is relevant to specify who may act and what one may do during the planning process (Parker et al., 2019). Consequently, choice rules are of utmost importance. Choice rules specify the actions available to process participants within a specific time frame. Put differently, choice rules detail which actors are permitted, authorised, forbidden or required to take actions (Crawford and Ostrom, 2005). Choice rules can anchor temporary uses in the actions of those who are involved. For this type to be successful, choice rules are made on top

or alongside existing choice rules. Furthermore, attention to decision-making rules also matters, as decision-making rules determine who is participating in the choice rules (Crawford and Ostrom, 2005).

Research design and methods

I will employ the analytical perspective explained above to reflect on the temporary uses of space at Amsterdam's Navy Yard development. A case study design (Yin, 2003) is applied to allow for a detailed examination of the Navy Yard. Participant observation was selected as the preferred research method (Bryman, 2008) due to its substantial added value in this context (see, for example, Schön, 1983; Laws and Forester, 2015; Majoor, 2018). Participant observation enables the immersion of a researcher in up-close observations of actors in a particular social setting (e.g., Whyte, 1979; Yin, 2003). For some, it means active participation in the social setting, whereas for others, it is limited to passive observations (Bryman, 2008). For this study, I opted for the latter approach, engaging in passive observation of the planning actors in their professional setting, implemented in four phases: securing access, writing field notes, analysing field notes, and reflecting (Bryman, 2008; Balsiger and Lambelet, 2014; Majoor, 2018).

The researcher gained access to a closed setting: the professional planning environment. The actors approved the researcher's access and were aware of the role of the researcher. The researcher enjoyed continuous access from May 2016 to April 2020. During the first year, the environment was engaged with an open mind and as many meetings, workshops, and conversations as possible were attended. This mindset assisted the researcher to get a sense of the key driving events and topics relevant to the study. After this period, specific meetings were attended, i.e. consultations of the steering committee members and meetings open to the public. The steering committee meetings were particularly important because key actors took part here, which proved that many actions and decisions concerning temporary uses were taken here. The meetings open to the public were attended because of their informative character. During each meeting, detailed, descriptive field notes were written, including date, location, participating organisations and the meetings' agendas.

Crucially, anonymity was ensured by excluding the names or functions of attending individuals, and the meetings were not recorded. During the subsequent analysis phase, all field notes were operationalised to the sets of rules, coding the data into interim, trying-out or cumulative types. In addition, two reflection techniques were employed to limit the subjectivity of the study (Balsiger and Lambelet, 2014). First, the researcher controlled the field notes by reports of the professional actors, and second, the results were read by the key actors to make sure the data does not contain inaccuracies.

Next to the observer role, participant observation included the additional method of document analysis (Balsiger and Lambelet, 2014). Document analysis was used as a systematic technique to analyse the informative content of fourteen documents that concerned tentative choices, decisions, and outcomes of the Navy Yard development process. The document analysis followed the same methodological approach and coding applied to the fieldnotes to ensure internal validity. The participant observation research phase was completed in April 2020, spanning a total of 48 months. It is important to highlight that participant observation is the direct interpretation of a particular issue by the researcher in a specific setting at a particular time (Majoor, 2018). As such, the researcher acknowledges that participant observation takes place in a social reality that is continuously being constructed by its intersubjectivity (Yanow et al., 2012).

Navy Yard Amsterdam in its context

The Navy Yard Amsterdam covers approximately 13 hectares in the city's historic centre. At the time of the Dutch Republic, the Admiralty of Amsterdam commanded the Dutch Royal Navy from here. In 1795, the Royal Netherlands Marechaussee replaced the Admiralty and used the site predominantly as a shipyard. During the 20th century, the shipyard closed and the Navy Yard was used for storages, barracks, and educational purposes by the Ministry of Defence. To fulfil these military activities properly, the Navy Yard has been owned by the national government ever since. The national government enclosed the site through the surrounding waters and a strictly protected wall (Jansen and Pedroli, 2016). For centuries, the Navy Yard had been largely

separated from the rest of the city, and then the 2008 economic crisis happened. Due to government austerity policies, the Ministry of Defence evaluated and critically disinvested in their properties. The clustering of military activities in other parts of the Netherlands led to the insight that the Navy Yard in Amsterdam was no longer a valuable military location. Therefore, the Ministry of Defence decided to relocate their activities, meaning that the hermetically enclosed Navy Yard opened to the public. The national government, as the owner of the site, sought close collaboration with the City of Amsterdam to initiate an urban development project.[26]

The national government and the City of Amsterdam did not want to redevelop the new Navy Yard based on blueprint thinking; therefore, they opted for an urban project with an incremental development strategy, based on a continuous coordinating process, proceeding stepwise without pre-set spatial outcomes (Ministerie van Defensie et al., 2013a; Van Karnenbeek and Janssen-Jansen, 2018). In 2013, the national government and the City of Amsterdam signed a management contract and wrote a strategy report with rules on finding consensus about the urban development project. Two particular rules emphasised the incremental development strategy. First, the Ministry of Defence did not leave at once but in phases. A third of the Navy Yard would be released in 2015 and 2016 (*Kade West and Voorwerf*, see Figure 5) and, by the summer of 2018, the whole area would unconditionally be available for development. Second, the urban development project actively aimed for temporary uses of spaces to allow for flexibility and adaptability (Ministerie van Defensie et al., 2013a; Van Karnenbeek, 2020).

Results

The results below show the reflection on the application of temporary uses of space at the Navy Yard development – based on three episodes. The first episode deals with the project office that coordinates temporary uses. The second episode details how temporary uses scarcely embed in the formal, longer-term planning process, followed by a third episode that shows how temporary uses unexpectedly serve as an interim solution that pushes the entire project forward.

Figure 5. The Navy Yard on the map. Source: Open Street Map, 2020/Author, 2020

Episode I: Cumulative temporary uses by a project office

The strategy report of 2013 introduced the initial idea for temporary uses of space. The strategy report stated that temporary uses of space had to set the tone for the future. As defined in the strategy report, the temporary uses of space were not entirely without obligation but had to follow a specific spatial concept along with the themes of maritime history, water, and innovation. The spatial concept was not set in stone but evolved and was adjusted over time, in interaction with temporary uses of space. The spatial concept marked a spot on the horizon and was a trigger for future pathways for more definitive spatial developments. The report indicated that in the autumn of 2018, some preliminary future pathways had to be approved by the Amsterdam City Council, in a formally binding document that shared the characteristics of an urban vision. From the summer of 2018 (when the whole area would become available for development) to 2027, temporary uses of space would be further exploited in interaction with the spatial concept. Also, the urban vision would be further advanced based on this interaction. After 2027, the Navy Yard would have a more permanent character and the urban vision would transform into a definitive urban plan. Clearly, the actors intended a cumulative type of temporary uses.

For the actors to realise the cumulative type, decision-making rules authorised the national government and the City of Amsterdam to decide who was eligible to set up the temporary uses of space. They founded a project office tasked with administering the cumulative type of temporary uses. Choice rules determined that the project office had to rent buildings for a period up to five years, organise temporal events, and to develop and guard the spatial concept. A steering committee (hereafter committee) was established to monitor the actions of the project office. Two representatives of the national government and the City of Amsterdam held a seat on this committee. The project office had to deliver regular reports to committee members about the progress of the Navy Yard development and the temporary uses of spaces. Further, it was the task of the City of Amsterdam to provide the project office with the means to administer temporary uses of space effectively. Officially, the City of Amsterdam had the ultimate responsibility for the formal, longer-term planning process in which the cumulative type of temporary uses would

unfold. For example, the binding document that shared the characteristics of the urban vision[27] and the urban plan were under the responsibility of the City of Amsterdam.

The urban development project officially started in 2015. The Ministry of Defence delivered lands and buildings at the Voorwerf in 2015 and Kade West in 2016 (see Figure 5). The project office started straight away with renting (parts of) buildings. To that end, the project office devised a workable set of institutional arrangements by specifying who was eligible to be a temporary user, i.e. professional profiles related to the main themes of maritime history, water, or innovation. Also, the project office consciously selected start-up organisations. By selecting these small-scale users, the project office prevented the arrival of large entities that could potentially undertake irreversible interventions. In the summer of 2016, during one of the meetings, a member of the project emphasised, 'it is a strict selection with short rental contracts.' By the spring of 2017, circa thirty temporary users rented buildings at the Navy Yard with varying contracts of up to three years.[28]

Meanwhile, the project office deliberately worked on the spatial concept and thought about ways the concept could trigger preliminary ideas for future pathways for the Navy Yard (as a precursor to the urban vision). It started by formulating ambitions and themes that were in line with the philosophy of temporary use. The project office held weekly meetings to identify, adjust and approve these ambitions and themes. Often, these meetings were in close collaboration with the City of Amsterdam. By focusing on ambitions and themes, the project office wanted to avoid discussions that would end up in a blueprint plan detailing spatial outcomes. In addition, the project office held a few workshops to discuss ambitions and themes with a variety of participants, including project members of the City of Amsterdam, temporary users, and a range of external stakeholders. During one of the workshops in the summer of 2016, attendees provided the project office with comments on a proposed spatial concept that was based on preliminary ambitions and themes, 'there is a lot of added value in it [the concept], but why is this direction you are going to choose so important?', 'the direction of the concept must be crystal clear. To what extent is this [direction] different from other valuable developments in the city?' or 'we set the bar very high. However, I miss cynicism.'

Until the spring of 2017, the project office continued to follow this iterative process of meetings and workshops. In this process, the contribution of the temporary users did go as far as requesting their opinions about ambitions or themes be considered, and, as a result, the ambitions and themes were more accurately defined. It was observable that during the meetings, words such as housing, technology, sport, learning, and sustainability were increasingly mentioned as future themes, on top of the already existing themes in the strategy report. As such, the project office, triggered by the presence of temporary users at the Navy Yard, strengthened the spatial concept and carefully pushed the future pathways of the Navy Yard into a preliminary direction. During that time, no additional choice rules were devised to institutionally embed temporary uses in the formal planning process. In some meetings, commission members mentioned that there was a feeling that such rules could enhance the likelihood of putting a rigid planning process in place, thereby endangering the project's temporary character.

Episode II: The idea of temporary uses disregarded?

In the spring of 2017, the City of Amsterdam increasingly emphasised the importance of the longer-term planning process. During one of the committee meetings, the City decided to implement Amsterdam's plan- and decision-making guide. This four-phased guide is obligatory for urban development projects and meets all requirements for a formal planning process. The ambitions and themes, as formulated by the project office, were considered by the committee members as adequate for the first phase. In the summer of 2017, an overarching spatial concept named 'innovation district', based on the ambitions and themes was launched in an official note. As presented by the project office, the innovation district was to be distinguished by the presence of an international community of entrepreneurs, scientists and trendsetters who would invent and test innovative experiments in education, learning, sports, sustainability, and technology. Furthermore, the innovation district included several open-scope rules about spatial outcomes dealing with housing, public spaces, car-free streets, use of rooftops, working spaces, and other topics.

In the months that followed, the project office continued to debate the ambitions and themes to sharpen the concept of the innovation district. Simultaneously, they looked for potential temporary users. The project office selected users who could rent buildings from a pool of various organisations, as space would become available under the Ministry of Defence's relocation timeline. The formalisation of the innovation district led to a narrower selection of temporary users. Eventually, the project office granted contracts of up to 10 years to three key temporary users: a university, a computer programming school, and an art school. These educational organisations were clustered around *Kade West* (see Figure 5). These choices delineated the character of the innovation district in more detail, in particular with reference to learning. In addition, the project office organised a wide variety of temporary activities at the Navy Yard, along the key ideas of the innovation district.

Meanwhile, at the end of 2017, the City of Amsterdam started working intensively on the urban vision. The urban vision was part of the second phase of the plan- and decision-making guide and had to be presented to the City Council of Amsterdam. For this document, the City of Amsterdam used the innovation district and the preliminary ideas for future pathways, as formulated by the project office, as its anchor point. As the City was highly aware of the proceedings of the project office, they automatically adopted the concept of learning and included its ideas into the urban vision. However, in devising the urban vision, it was clear that the City of Amsterdam emphatically focused on devising scope rules to determine more permanent spatial outcomes. At the beginning of 2018, the City drew maps with functions such as knowledge and education, residential, and commercial, to give rise to the innovation district. Through time, open scope rules progressively transformed into closed scope rules that delineated and detailed the spatial outcomes (e.g., in terms of heights and densities). In the spring of 2018, the City of Amsterdam presented a variety of maps to members of the committee – the urban 'vision' now looked very much like an urban plan.

During the months that the City of Amsterdam worked on the urban 'vision', the awareness that better economic times had returned was strong. Therefore, the City repeated the significance of accelerating more permanent development and started to concentrate on devising spatial outcomes. Consequently, even

before the Ministry of Defence had left the site, the spatial concept was already translated into ideas that detailed permanent uses of space. Although temporary uses of space had clearly triggered this permanency, it prevented temporary uses of space from continuing to act as triggers for future pathways up to 2027. To that end, 'temporary' uses of space were quickly translated and articulated as 'permanent' uses of space. With the focus on more permanent spatial outcomes, the City's approach resembled (and held on to) the more traditional urban planning. The lack of choice rules to anchor temporary uses for the longer-term may have resulted in permanent uses very quickly dominating the formal planning process.

Episode III: Temporary uses as a means to continue the urban development project

While both the City of Amsterdam and the project office prepared for the departure of the Ministry of Defence, something unexpected happened. Just before the summer of 2018, the Ministry of Defence threw a spanner in the works by announcing its decision to reconsider their presence at the Navy Yard. Evidently, the City of Amsterdam and the national government were surprised by this announcement. The City decided to put the formal planning process on hold until the Ministry of Defence clarified its position. Nevertheless, after the news reached everyone, the actors approached the situations as unavoidable and attempts were made to carry on. As such, the City of Amsterdam organised a renewed series of meetings to devise scope rules, now in negotiation with the Ministry of Defence. This negotiation process followed different paths. At the beginning of the negotiations, efforts had been made to slowly incorporate the presence of the Ministry of Defence into the spatial outcomes. For a couple of months, the City and the Ministry could not reach consensus concerning the future of the Navy Yard. In particular, the City expressed fierce concerns that the spatial concept, the innovation district, was in danger. As documented in the research notes, 'the provisional urban plan no longer applies. Due to the presence of the Ministry of Defence, the City of Amsterdam expresses substantial doubts about whether the coherence of the innovation district can be achieved at all.' The negotiations resumed in the summer of 2019, with the outcome that the spatial concept remained intact; however, the reserved land for the innovation district had to be diminished.

Meanwhile, the project office sought to further the temporary use of space. On the one hand, enabling temporary uses became more difficult as the expected expansion of available land and buildings did not occur. The reduced volume led to fewer options and an even stricter selection of temporary occupants. Also, the new temporary users faced some initial difficulties due to delays in building availability. On the other hand, temporary uses of space were extended as the announcement of the Ministry of Defence firmly delayed the municipal planning process of more permanent development. Reflecting on the summer of 2019, the project office was content with the daily routines of temporary uses of space. As documented in the field notes, 'the formal planning process may be on hold, yet a lot happened during the summer of 2019. Due to events organised by temporary users, there has been a hectic summer program in 2019. In the end, the short term is crystal clear, while the longer-term remains uncertain.' Strikingly, the City of Amsterdam likewise desired the continuation of temporary uses of space but for a different reason – in order to fill the gaps for the discontinued development. In the committee meetings, the City increasingly emphasised that temporary uses of spaces had to fit future spatial outcomes and that these uses, at no time, should hinder the more permanent idea of the development. Unintentionally, interim type of temporary uses was perceived as a solution to continue developing the site.

In the spring of 2020, the City announced that the negotiations with the Ministry of Defence had successfully resulted in a definitive urban plan with a definitive division and clustering of space, including a mixture of land uses (residential, commercial and learning), information on densities and heights, and the allocation of public spaces and infrastructure. At time of writing, the exact role of temporary use(r)s of space in the future of the Navy Yard is not clear (e.g., will the existing temporary uses gradually transform into more durable ones or disappear altogether).

Discussion

The analysis of the practices of temporary uses at the Navy Yard reveals remarkable insights. First of all, the purposes of temporary uses of space changed. In 2015, at the official start of the project, the homogeneity of interest

in the cumulative type of temporary uses was evident. In the initial years, the project office successfully managed to use temporary use(r)s to devise a spatial concept that provided preliminary triggers for future pathways for the Navy Yard (as attested by the idea of the innovation district). Interestingly, after two years, the meaning of temporary uses changed, primarily due to economic and societal shifts. First, the return of economic prosperity accelerated the City's push for permanent uses. Due to the increased focus on permanency, the role of temporary uses of space in the planning process was somehow disregarded. Second, the interest in temporary uses for the City of Amsterdam changed again when the Ministry of Defence decided not to leave. Their presence slowed down the formal planning process, and temporary uses of space were an opportunity to fill this gap. Unintentionally, the City's interest evolved towards the interim type of temporary uses. Despite the changing interests of the City, the project office unceasingly aimed for the cumulative type by focusing on the interaction between the spatial concept and temporary users of space.

Looking at the institutional dimension, it is noticeable that the institutional conditions to achieve the cumulative type (i.e. choice rules) were absent from the beginning of the Navy Yard development. At the start, the project office developed demarcation rules to successfully attract temporary use(r)s and instrumentalised these temporary uses to further advance the formulation of ambitions and themes. Over time, the innovation district arose and was adapted by these ambitions and themes. Meanwhile, the City used the idea of the innovation district as an anchor to define spatial outcomes. Increasingly, scope rules gained in importance and were further detailed. The improving economic landscape quickly led to the formulation of an urban plan that detailed permanent uses. When the formal planning process was delayed, the City of Amsterdam had no other choice than to call for the interim type. That the City felt for this type of temporary uses was to be expected due to the municipal focus on scope rules.

Due to the absence of choice rules, the cumulative type of temporary uses was not embedded in the formal, longer-term planning process. Initially, the perceived institutional rigidity of choice rules triggered reluctant attitudes among the public actors towards these rules. Later on, the idea of permanency

led to a significant reduction in the importance of temporary uses of space for the longer-term development. As such, temporary uses of space were not necessarily institutionally anchored in the longer-term vision and, therefore, did not necessarily become an ongoing trigger for spatial development up to 2027. Therefore, the cumulative type of temporary uses was endangered. However, the temporary use(r)s of space certainly did serve as forerunners to define the Navy Yard as an innovation district and did contribute to the permanency of space use types. These temporary uses of space did significantly influence the site's development, albeit for a shorter temporal cycle than initially planned.

Conclusion

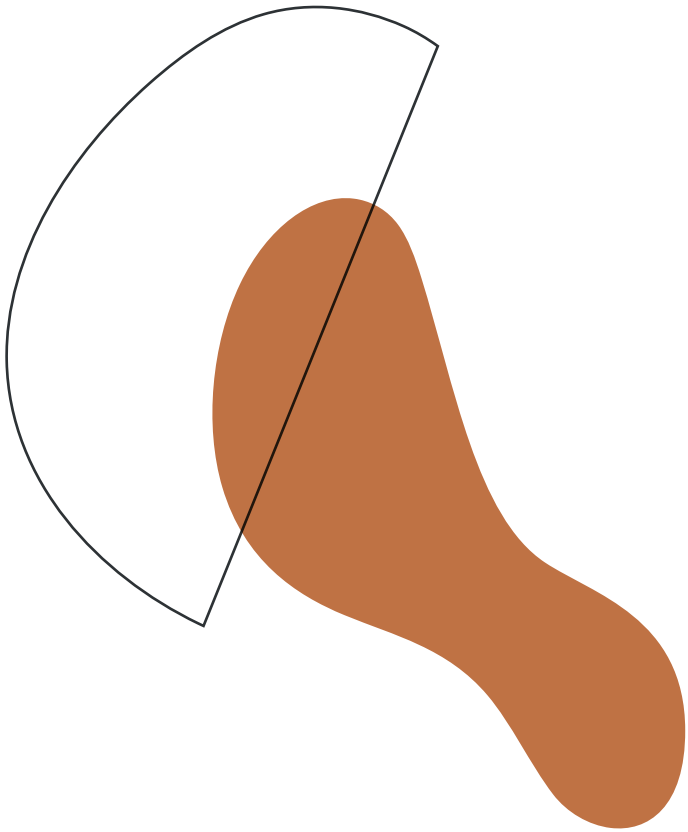
This article sought to go beyond temporary uses of space as a mere aspiration in urban policy and to employ an analytical perspective to making the contribution of temporary uses of space to urban development project more explicit. It focused on the interrelationship between the purpose and facilitating institutional conditions of temporary uses of space. This adopted analytical perspective proved to be a suitable lens for reflecting on temporary uses of space in practice.

In conclusion, there was a mismatch between the purpose and institutional conditions of the cumulative type at the Navy Yard development. First, and foremost, the interrelationship between the purpose and institutional conditions of temporary uses of space was not necessarily made explicit. Even though the initial purpose of temporary uses of space for the Navy Yard was rather precise, the way to deliver that purpose was not crystal clear. Choice rules were barely devised and insufficient for effectively applying the cumulative type. As temporary uses of space were loosely embedded in the formal process, the way was paved for permanent uses of space. Due to the focus on scope rules, the implicit choice for the interim type by the City of Amsterdam seems understandable, while the cumulative type was much more challenging to achieve. Furthermore, economic and societal circumstances profoundly influenced the choice of sets of rules through time. The return of better economic times, for example, facilitated the City's elaboration of scope rules.

The in-depth qualitative research of the Navy Yard case provides a few lessons with broader significance. First, it shows that the purpose of temporary uses of space is susceptible to change, dependent on the urban development phase or context (Madanipour, 2018). Second, when no effective institutional conditions are put in place, it is harder to satisfy the intended purpose of temporary uses of space. Third, when temporary uses of space must trigger future urban developments, it is crucial to deliberately connect temporarily to broader institutional structures of longer-term urban planning. Therefore, it is by holistically addressing the *interrelationship* between the purpose and institutional conditions of temporary uses of space that the effectiveness of temporary uses can be advanced in urban development projects. In order to effectively realise temporary uses of space, planning practitioners must take this interrelationship into account, and the analytical perspective applied in this article provides a potential tool (Ferreri, 2015). Future research is required to test the robustness of the analytical perspective as the findings are limited to examining the developments in a single case.

Chapter 3

Wastewater Management by Citizens: Mismatch Between Legal Rules and Self-Organisation in Oosterwold



Van Karnenbeek, L., W. Salet and S. Majoor (2020) Wastewater Management by Citizens: Mismatch Between Legal Rules and Self-Organisation in Oosterwold. *Journal of Environmental Planning and Management*

Self-organisation in environmental service delivery is increasingly being promoted as an alternative to centralised service delivery in urban development. This article argues that self-organised environmental service delivery must be understood in the context of legal rules, especially environmental legislation. The aim of this article is twofold: first, to understand the changing relationship between the government and citizens in self-organised environmental service delivery, and second, to explore how self-organised environmental service delivery complies with the environmental quality requirements stipulated in legislation. The empirical study focuses on wastewater management in Oosterwold, the largest urban development in the Netherlands that experimented with self-organisation. The results show that while individual wastewater management was prioritised and implemented at scale, the applicable legal rules were not adequately considered and integrated into the system. In consequence, the experiment led to a deterioration of water quality. The article concludes that the success or failure of self-organisation in delivering environmental services like wastewater management critically hinges on ensuring compliance with environmental legislation.

Oosterwold, 2019

Oosterwold, 2020

Oosterwold, 2019

Oosterwold, 2020

Oosterwold, 2019

Oosterwold, 2019

Oosterwold, 2020

Oosterwold, 2019

Introduction

How does self-organised wastewater management in urban development interact with the normative quality characteristics of legal rules? Since the turn of the 21st century, the delivery of environmental services by citizens in urban development has been gaining momentum, expressed by policy aspirations such as self-organised energy management (e.g., Van Aalderen and Horlings, 2020) and green self-governance (e.g., Mattijssen et al., 2018). The increasing role of citizens in environmental services delivery fits within the broader context of the growing importance of self-organisation for urban development (Boonstra and Boelens, 2011; Nederhand et al., 2016; Savini, 2016, 2017; Nederhand and Van Meerkerk, 2018; Moroni et al., 2020). There is a widespread belief that self-organisation can be a potential solution to the 'decreased legitimacy' of the government (Nederhand and Van Meerkerk, 2018: 533), strengthens localism and liberal individualism (Davoudi and Madanipour, 2015; Savini, 2017), features better responsiveness to the changing citizen needs and preferences (Gofen, 2015), and addresses the pitfalls of neoliberal service delivery that 'dehumanised' society (Verhoeven and Tonkens, 2013: 416). The academic literature broadly defines self-organisation along two streams: first, as the spontaneous emergence of (spatial) order without governmental guidance and control (Boonstra and Boelens, 2011; Moroni, 2015; Partanen, 2015; Rauws, 2016; Savini, 2017), and second, as the idea that citizens are the actors who can organise the delivery of public services in the most effective way (Gofen, 2015; Verhoeven and Tonkens, 2013; Nederhand et al., 2016; Nederhand and Van Meerkerk, 2018). It is this latter definition that arouses the interest of this article.

For many Western welfare states, the belief in self-organisation implies an explicit shift from traditional environmental service delivery by the government to 'active citizenship' (Verhoeven and Tonkens, 2013). Increasingly, governments want citizens to organise the delivery of environmental services that would usually fall under governmental control. Without a doubt, the shift redefines the relationship between the government and its citizens. Gofen (2015) talks of a shift from the citizen as 'consumer' to the citizens as 'entrepreneur'. While scholars often acknowledge this changing

relationship (e.g., Gofen, 2015; Savini, 2017; Nederhand and Van Meerkerk, 2018; Moroni et al., 2020), less attention has been paid to whether the consequences of this renewed relationship in environmental service delivery satisfies relevant environmental legislation. In many welfare states, there is a long tradition of environmental legislation that provides legal certainty in the protection of the environment and human health (Van Rijswick and Salet, 2012; Dembski, 2020). Generally, governments have devised (and in the context of sustainability are still devising) many legal rules to enable, secure and improve the delivery of environmental services. These legal rules are established through time, gradually reformed under changing circumstances, recognised over many different situations, and rooted in broad social networks (Salet, 2018). Traditional environmental service delivery by the government is often backed up by the environmental legislation that protects human health and the environment.

While some scholars have highlighted the importance of legal rules for self-organisation (e.g., studies on legal contextualisation[29] from Van Rijswick and Salet, 2012; Salet and De Vries, 2019; Dembski, 2020), others have emphasised the challenges that legal rules pose to self-organisation (Davoudi and Madanipour, 2015; Rauws and de Roo, 2016). Despite various academic attempts to consider legal rules and self-organisation, it is unclear how relevant legal rules (environmental legislation in particular) condition people's performance through self-organisation (Demsbki, 2020). The main argument here is that it is vital to explore the real-life mechanisms of self-organised environmental service delivery in urban development and to link these practices to the legal rules of environmental legislation. Therefore, the central aim of this article is twofold: first, to understand the changing relationship between government and citizens in self-organised environmental service delivery, and second, to explore how self-organised environmental service delivery interacts with existing environmental legislation. The research question of this article is formulated as follows: *How does self-organised delivery of environmental services in urban development interact with relevant environmental legislation?* In this article, we understand environmental legislation as a dynamic set of rules defined by law, which (often in the form of environmental and health standards) provide legal certainty and oblige public control of service quality. In other words, these legal rules condition human

behaviour to achieve public benefits and utility in environmental matters (Moroni, 2015; Savini, 2017). These legal rules are established at different scale levels, from local to national and European (Savini, 2016).

The substantive focus of this article is on wastewater management for two main reasons. First, the topic of wastewater is fascinating because of the strong focus on promoting centralised service delivery, ever since the Industrial Revolution. To illustrate, wastewater management in France is partly privatised but actively under public control (Richard et al., 2010); Germany's wastewater management is undertaken by the government (Wolf and Störmer, 2010), while in the Netherlands, wastewater management constitutes a governmental hierarchy restricting any form of privatisation (Van der Hoek et al., 2016). Second, the literature on self-organised environmental service often does not include examples of direct wastewater management by citizens. Nevertheless, due to the growing popularity of localism and individualism (Davoudi and Madanipour, 2015), new arrangements for wastewater management are being considered, supported by social and technological experiments in wastewater management beyond centralised service delivery (Eggimann et al., 2015; LaGro et al., 2017). Therefore, exploring self-organised wastewater management provides a valuable contribution to the understanding of self-organisation of environmental services.

The article is structured as follows. First, the changing relationship between citizens and the government in self-organised service delivery is sketched. After that, the historical and legal context of wastewater management in the Netherlands is described. Empirically, this study focuses on the service delivery of wastewater management in Oosterwold (Almere, the Netherlands), the largest urban development in the Netherlands that experimented with self-organisation. The article then analyses the implications of self-organised wastewater management in Oosterwold in the context of environmental legalisation. It ends with a concluding note that, for legal certainty concerns, it is important to consider environmental legislation seriously in self-organisation.

Self-organised public service delivery

Public service delivery refers to the mechanism through which public services are delivered to citizens. Usually, these services should be in the public interest and available to all (Gofen, 2015). In the aftermath of the Second World War, most advanced welfare states centralised public service delivery via collective arrangements aiming for widely accessible and high-quality public services. The underlying rationale of the welfare state is that the government is in the best position to provide public services and general welfare that benefits its citizens. Rather explicitly, this rationale assumes that individuals are passive recipients (Gofen, 2015), who cannot organise themselves to deliver public services. However, the delivery of public services by the government has not been without its setbacks (Nederhand et al., 2016). Two of the most well-known critiques are the government's inability to adequately capture citizens needs and preferences (Gofen, 2015) and inefficiency and ineffectiveness in public service delivery (Nederhand et al., 2019). As a result, alternative arrangements of public service delivery emerged, ranging from market approaches based on 'new public management' conceptions (Bryson et al., 2014; Salet and De Vries, 2019) to government-citizen arrangements based on the belief in the benefits of co-production (Brandsen and Pestoff, 2006; Loeffler and Bovaird, 2016). In recent years, the self-organisation of public service delivery by citizens seems to move to the forefront of this debate.

The argument that citizens can self-organise to deliver public services is not new. One of the most famous advocates of self-organisation is the economist Elinor Ostrom; in her celebrated book *Governing the Commons*, she argued that communities could successfully organise themselves while reaching further than their individual interests (Ostrom 1990). She acknowledged that centralised service delivery might be inevitable in some instances, yet effectiveness will remain a challenge because it lacks information on local needs and conditions. In her work, Ostrom preferred to focus on public goods that are economically defined as 'common-pool resources', such as fisheries, communal forests, irrigation systems and groundwater basins. She argued that common-pool resources are not necessarily satisfactorily managed via centralised government control. Her empirical cases demonstrated the capacity of citizens to govern common-pool resources successfully. Ostrom's work

has received wide acclaim, and many scholars from different scientific fields have acknowledged her ideas about self-organisation, beyond the narrow application to common-pool resources (Ostrom, 1990).

In the field of urban planning, the concept of self-organisation gained momentum around the 1960s as a way to comprehend the complexity of city evolution (for a historical overview see Partanen, 2015). The idea of self-organisation continued to be relevant in the following decades (Savini, 2017); however, it really took off only in the aftermath of the 2008 economic crisis (Partanen, 2015; Savini, 2017; Rauws et al., 2020). As a consequence, a new wave of interest in self-organisation arose in urban planning, and citizens were given an increasing and more responsible role in urban development (Rauws, 2016; Demsbki, 2020), evidenced by the emergence of more interest in self-built housing – even in countries without such a tradition as the Netherlands (Bossuyt et al., 2018), and the delivery of environmental services by citizens such as energy management or green spaces (e.g., Mattijssen et al., 2018; Van Aalderen and Horlings, 2020). In the planning literature, most scholars have praised this contemporary wave of interest in self-organisation for its potential (e.g., Portugali, 2000; Boonstra and Boelens, 2011; Partanen, 2015, 2020; Rauws, 2016; Moroni et al., 2020), while only a handful scholars have critically analysed its consequences or its democratic deficits (Uitermark, 2015; Savini, 2017).

From centralised to self-organised service delivery

The idea that citizens can actively deliver a service by themselves (Gofen, 2015) presupposes significant reforms in public service delivery (Nederhand and Van Meerkerk, 2018). Obviously, such reforms radically redefine the relationship between the government and its citizens (Savini 2017). Therefore, and in line with Nederhand and Van Meerkerk (2018), it is essential to identify this changing relationship. The work of Emanuel Savas (1978) provides a strong analytical framework for this endeavour. He identifies three roles in public service delivery: provider, user and arranger. The service provider is anyone who is actually producing and maintaining a public service; the service user denotes any person or organisation that is directly obtaining or using a

public service, and the most important role, according to Savas' distinction of rules, falls on the service arranger. The service arranger selects the service provider and ensures high-quality service provision. Service delivery reflects the interaction between provider and user, which is organised and monitored by the arranger. In particular, the analytical introduction of the role of arranger (Savas, 1977) allows for distinguishing between centralised and self-organised public service delivery. The arranger role is so intriguing because it decides *who* provides the service to citizens,[30] selecting a government agency, a business or even the consumers themselves (prosumers). Based on the definition of self-organisation, one centralised and two self-organised arrangements of service delivery are identified (see Table 5):

- *The centralised type*. The government arranges a provider and the user of the service is a passive recipient. Traditionally, in many Western welfare states, this hierarchical organisation was common for many public services, such as wastewater management.
- *The collective self-organised type*. Individuals co-operate in small groups to collectively arrange and commission the service. The users jointly select the provider (either directly by themselves or in collaboration with public or private agencies).
- *The individual self-organised type*. A user individually arranges the provision of the service by taking on the role of the prosumer.

Table 5. Types of centralised and self-organised public service delivery

Type	**Arranger**	**User**	**Provider**
Centralised type	Government	Passive recipient	Government selects the provider
Collective self-organised type	Co-operating users	Commissioning	Co-operating users jointly select provider, ranging from the users to private or public agencies
Individual self-organised type	Individual user	Active producer (prosumer)	User

Source: Author, 2020

With these ideal types in mind, it is crucial to explore how a shift toward self-organised service delivery (either the collective or individual type) relates to legal rules. In this article, we are particularly interested in whether self-organised wastewater management in Oosterwold is in line with the required legal certainty of environmental legislation.

Research design and methods

Exploring the legal regulatory compliance of self-organised wastewater management in Oosterwold demanded a detailed understanding of the specifics of the case, justifying a case study design (Yin, 2009). The case study triangulated the empirical data from legal research, document analysis, and semi-structured interviews (Bryman, 2008). The fieldwork took place while the urban experiment was still ongoing; however, sufficient time had elapsed to allow the researcher to study the structure and outcomes of wastewater management.

The legal analysis was qualitative and classified as doctrinal legal research (McConville and Hong Chui, 2017), covering any relevant laws applicable to a particular area (Dobinson and Johns, 2017). The legal research examined the content of environmental legislation and its application following a sequence of steps: selecting environmental legislations, reading the selected legislation, selecting relevant articles, summarising articles, establishing relationships between the relevant articles, and applying the contents to a real-world case (McConville and Hong Chui, 2017). The European Urban Wastewater Directive, the Dutch Constitution, the Water Act, the Environmental Management Act, and the Soil Protection Act were the main legal documents analysed. Following Weiss (1995), coding was used to structure the obtained information into European and Dutch wastewater rules. To cross-check the findings and to limit researcher bias and knowledge gaps, several lawyers reviewed the analysis during the interviews.

A document analysis is a suitable technique for systematically examining written content (Yanow, 2007). The primary aim of document analysis, in this case, was to provide a detailed description of the Oosterwold urban experiment by

identifying policy aspirations, permits and agreements concerning wastewater management. It encompassed all policy documents and agreements assigned and applicable to Oosterwold: the land use plan, the development strategy, the anterior agreement (a document that deals with financial issues and liability of 'plan' damage), the land transfer agreement (an agreement by residents to acquire land from the municipality), and water agreement. The researcher summarised the documents and structured the written content into codes (provider, arranger and user), to identify and describe the characteristics of self-organised wastewater management.

Furthermore, 19 key actor interviews served to develop a detailed description of Oosterwold and wastewater management, to cross-check the findings, and to identify the experience of the residents and public actors (Weiss, 1995). The researcher conducted pilot interviews with three key informants (two residents and the leading project member). These non-structured pilot interviews delivered a basic overview of Oosterwold and helped set up an interview guide for the semi-structured interviews (Weiss, 1995). We found that it was most useful to interview people who were either knowledgeable or experienced. Next to residents, various experts were interviewed, ranging from lawyers, policymakers, project members and environmental specialists. The interview guide was adapted to the interviewees' skills and knowledge. During each interview, the researcher ensured the respondent's anonymity. The interviews were transcribed and analysed based on coding of legal rules (European and Dutch) and wastewater management (provider, arranger and user). The next sections discuss the empirical details related to the case, providing a historical perspective on wastewater management, followed by the legal context of wastewater management, and closing with the specifics of wastewater management in Oosterwold.

A historical perspective on Dutch wastewater management

Today, it is common for wastewater to be collected, purified, and, to an increasing extent, reused; however, such comprehensive wastewater management was not always the norm. During the Industrial Revolution, cities suffered from poor quality of surface water due to explosive population growth. Poor water

quality resulted in extremely unhygienic conditions leading to outbreaks of diseases and epidemics (Van den Noort, 1990; Obani and Gupta, 2016). In the 19th century, fundamental experiments were carried out to collect and transport wastewater by wastewater disposal systems; a centralised system of sewers, aimed at draining rainwater and wastewater, was designed (Schaum, 2018). Decades later, the harmful environmental impacts of discharged wastewater were very visible, contributing to the eutrophication of rivers, lakes and coastal waters (Van der Hoek et al., 2016). This evidence underscored the need to treat wastewater before discharging it into surface waters. The sewage infrastructures are, as a result, connected to wastewater treatment plants. Contemporary views, as Van der Hoek et al. (2016) highlight, even take an additional step and consider wastewater as a reusable resource. This reuse is considered highly significant due to the increasing resource pressures and the drive to create sustainable environments (Kennedy et al., 2007).

In the Netherlands, almost all buildings and houses have been connected to a sewage system since the Industrial Revolution.[31] The latest information from 2020 shows that the Netherlands has about 150,000 km of sewerage lines within the centralised, public system, covering almost 99% of the population (RIONED, 2020). Individual sewage systems in the Netherlands are thus rare and found only in remote rural areas. Most buildings have a combined system in which both rain- and wastewater go into the same pipes, while newer buildings have separated lines. Several cities are currently replacing old sewage systems with these new systems, and all new construction projects are built with this new system. Furthermore, the Dutch sewage system is connected to several wastewater treatment plants, where the wastewater is treated and reused before being discharged into open surface waters. The Netherlands has about 327 wastewater treatment plants, owned by 21 water boards (RIONED, 2020). Within these wastewater treatment plants, about 90% of wastewater from businesses and almost 100% of wastewater from households is treated and reused. Clearly, the Netherlands has a strong tradition of centralised wastewater management.

The relevant legal rules

Wastewater management is considered a public good for the benefit of humanity and the environment (Obani and Gupta, 2016). It is within this context that wastewater management is legally institutionalised on a variety of scales, ranging from European, national, provincial to the local level. The legal rules for wastewater management pertain to collecting, transporting, purifying, and disposal of wastewater and are aimed at protecting – and even improving – human health and the environment (Garrone et al., 2018). This section provides the legal context applicable to the Netherlands. The European Urban Wastewater Directive is the essential legislation governing wastewater, providing an umbrella framework for protecting water quality and minimising the adverse impacts of wastewater discharge.[32] This European legal perspective resonates with the Dutch Constitution, which requires the government to ensure and prioritise human health, environmental protection and environmental improvement (Article 21[33] and 22[34]). The Water Act, the Environmental Management Act, and the Soil Protection Act provide the national legal framework, drawing their legal basis from existing EU legal frameworks (for a detailed legal overview see the work of Keessen et al., 2018).

The Dutch Environmental Management Act (EMA) sets out the legal rules concerning the collection and transport of wastewater. Section 10.33 of the EMA imposes a municipal duty to collect and transport wastewater by a sewage system within the municipal territory. The connection to a sewage system is mandatory in all agglomerations of more than 2,000 inhabitants. Section 4.22 of the EMA requires the municipality to draw up a municipal sewer plan that describes the characterises of the sewage system. A municipality can request a waiver for the sewage system from the province only if it would benefit effective wastewater management. A province has the exclusive right to grant exemptions from the sewage system mandate[35] when the choice is substantiated and ensures the same degree of environmental protection. The municipality must include and ground the choice for an alternative collection system in the municipal sewer plan. Under the EMA, the municipality can never abandon or transfer its provision and quality assurance duty (Keessen et al., 2018). Also, the municipality levies a charge on property users to recover

the costs of collecting and transporting wastewater (Lindhout, 2013).

The Water Act regulates the legal rules on the purification of wastewater. Until the late 20th century, contaminated wastewater directly discharged into surface water. From the 1970s, the commencement of the Dutch Surface Water Pollution Control Act (in 2009 replaced by the Water Act) prohibited this practice. The Water Act states that wastewater must be purified before its disposal. In Section 3.4, the act mandates the water board to take care of wastewater treatment (again, water agencies cannot release themselves from this duty). The water board established (and owns) wastewater treatment plants to execute this duty (Keessen et al., 2018). The European Urban Wastewater Directive sets minimum standards for treatment and maximum standards for emissions of pollutants, particularly nutrients and organic loads. In the Netherlands, wastewater treatment plants must purify wastewater following a tertiary treatment to reduce the discharge of phosphorus and nitrogen (Keessen et al., 2018).[36,37]

The Water Act, the Environmental Management Act, and the Soil Protection Act lay the foundations for discharging wastewater. The Water Act regulates the discharge of purified water into surface water and designates the water board as the legally responsible authority. Concerning the taxes for treatment and discharge of wastewater, the water board is entitled under the Water Act to charge a wastewater treatment levy and a pollution levy, in order to ensure water quality. The wastewater treatment levy is charged to cover the costs of treating wastewater to all households connected to the sewer system. The pollution levy is aimed at households that directly discharge wastewater into surface waters. The water board sets effluent charges following the polluter pays principle (Vollebergh and Dijk, 2017).

The Oosterwold development

At the eastern tip of the conurbation of Amsterdam lies the new town of Almere. The government initiated and planned Almere as a greenfield development, following the modernist principles popular at the time. It was this unquestioned belief in governmental control that eventually provoked a

counter-reaction. At the beginning of the 21st century, planners and politicians were fundamentally dissatisfied over the dominant interest of the government in Almere's rational-comprehensive planning. This counter-reaction produced a vision to further develop Almere based on self-organisation and the logic of incrementalism. A committed social-democratic alderman eventually operationalised this vision through a wide range of policy aspirations, such as self-built housing (Bossuyt et al., 2018) and incremental development strategies (Van Karnenbeek and Janssen-Jansen, 2018). It is in this context that the urban development experiment of Oosterwold originated in 2012.

Oosterwold is located at the municipal borders of Almere and covers an area of circa 4,000 hectares, which was previously agricultural land, offering many options for development and experimentation. The main philosophy of Oosterwold is to empower citizens (hereafter residents) and to develop the site incrementally. Residents must build their own houses, generate their energy, purify their wastewater, practice urban farming, and develop and maintain public spaces and roads (Cozzolino et al., 2017). The urban experiment develops incrementally as residents gradually buy plots on the site. It was set up by the Municipality of Almere, in collaboration with the Government of the Netherlands, the neighbouring Municipality of Zeewolde,[38] the Province of Flevoland and the Water Board Zuiderzeeland (hereafter 'public actors'). These public actors opted for an incremental development strategy based on self-organisation to counter overregulation and to empower residents through a radical experimental format. As highlighted by a project member, 'it is against everything […]. If people are allowed to do it themselves, then there is an actual change in society.'

For the public actors to succeed in the experiment, they deviated from the existing planning and environmental rules and devised 'experimental' rules (under the Dutch Crisis and Recovery Act), among other things granting relatively high autonomy to residents. However, the philosophy does not go so far as to claim that 'anything goes'. The public actors prescribed broad guiding principles for Oosterwold: residents have free choice of a plot, yet within a fixed division of space; there are some restrictions on construction; residents must comply with health and environmental standards, and residents must be self-sufficient in wastewater and road infrastructures. The public

actors emphasised that the idea of self-organisation advances the realisation of an ecologically and socially sustainable city.

Self-organised wastewater management in Oosterwold

Oosterwold is thus a radical development project that experiments with self-organisation in a semi-urbanised environment. The experiment firmly called into question the Dutch centralised wastewater management tradition, in place ever since the Industrial Revolution. For the public actors to enable self-organised wastewater management, they radically changed their roles and the role of residents through 'experimental' rules. This section describes the self-organised wastewater arrangements in Oosterwold according to the most significant role changes along the arranger, provider and user archetypes:

The user as the arranger. The public actors in Oosterwold decided not to install a centralised sewage system. Without a sewage system, the public actors enabled citizens to develop the site incrementally. In line with legal requirements, the Municipality of Almere explained this choice in the municipal sewer plan. Unlike legal requirements, the Municipality of Almere did not request a waiver for a sewage system mandate from the Province of Flevoland. Despite the absence of this waiver, residents had to arrange their own wastewater management, i.e. residents had to select the service provider. By arranging the service provider, residents had to ensure that the provider delivered infrastructures that complied with the requirements set in a discharge permit. The public actors required residents to apply for a discharge permit that was managed by the water board to protect the quality of surface water and to safeguard public health. Therefore, residents have an obligation to ensure that the selected providers deliver wastewater infrastructures that meet all requirements as prescribed in the permit. The water board is required to check these infrastructures several times a year to make sure residents are continually meeting the requirements. The water board is obliged and mandated to take actions if residents do not comply with the standards. Except for the requirements in the discharge permit, the public actors did not prescribe details regarding the infrastructures to be used. In principle, residents could arrange providers individually or collectively. As can be read

in the land use plan (Municipality of Almere, 2016: 18), 'residents organise wastewater management themselves, probably not on an individual scale but collective scale.' Nevertheless, most residents opted to independently organise as individual service providers.

The user as the provider. Nearly everyone opted for a sewage facility that collects, treats, and disposes of effluents on the plot of land that produces the wastewater. These onsite sewage facilities (OSSFs) are primarily designed to treat and dispose of effluents on an individual scale. Based on the treatment of wastewater through performance requirements, OSSFs are categorised into multiple intensities. The higher the category number of an OSSF, the more substances are purified. The set requirements in the discharge permit prevented the use of conventional OSSF I (such as septic tanks) and implicitly directed residents to opt for an OSSF III, which purifies organics, phosphate and nitrogen. At the time of writing (January 2020), nearly everyone in Oosterwold has installed an OSSF III onsite. Residents with an OSSF are financially levied for pollution.[39]

The user as the active producer (prosumer). The public actors obliged residents to sign an anterior agreement in which residents agree to collect, treat, and dispose of wastewater, as a prerequisite for residing in Oosterwold. In contrast to the passive role of users in centralised wastewater management, residents in Oosterwold have assumed an active role in the delivery of wastewater services.

Complications of self-organised wastewater management in Oosterwold

In Oosterwold, the public actors plucked up the courage to let residents organise wastewater management; however, the shift toward self-organised wastewater management was fraught with many complications. To begin with, the water board concluded that many OSSFs did not meet the requirements of the discharge permit. Regularly, the water board performed multiple measurements in Oosterwold. At the beginning of the project, one measurement showed that 28 of 40 OSSFs failed to meet these requirements. As a consequence, efforts have been taken to improve the functioning of the OSSFs (e.g., the

Municipality of Almere helped residents secure expert support). However, a more recent measurement in November 2019 showed that more than one-quarter of OSSFs (33 of 199) still do not meet the requirements, despite the efforts taken. Several reasons underpin the persistently poor performance.

First, the operation of an OSSF is based on experimental tests in laboratories, and while proven in a laboratory setting, the real-life application was more problematic. The systems do not purify all mandated substances, underpinning the system's technological vulnerability. Technological research into this case concluded that the purifying effects are limited due to insufficient phosphate removal and the absence of hard water. Furthermore, OSSFs need large water flows to function properly, yet residents use water sparsely (Centre of Expertise Water Technology, 2019). Second, many materials or liquids may not end up in an OSSF (such as chlorinated cleaning materials, disinfectants, diapers), risking system failure. As LaGro et al. (2017) point out, individuals do not always know how to use and maintain the system. Also, in addition to the inadequate functioning of some OSSFs, these infrastructures are (to date) less clean and sustainable compared to conventional centralised wastewater systems. As a project member explained, 'currently, the sewer is of better quality. All filter systems [OSSFs] still cause some water and soil pollution.' Further, OSSFs are not designed to reuse effluents from wastewater, such as materials and toxic substances. In other words, the centralised wastewater system in the rest of the town of Almere functions more sustainably than the self-organised system in Oosterwold. In Almere, all buildings are connected to a separate sewage system that transports wastewater to treatment plants in the province. In these treatment plants, the waters are biodegraded and used for the production of biogas (Gemeente Almere, 2017).

Furthermore, the incremental development strategy directed residents to arrange self-organised wastewater management on an individual scale. As the urban development proceeded, more and more inhabitants were gradually moving into the vast area of Oosterwold. As future residents may choose any plot of land, cooperation among individuals was exceptionally complicated, as residents did not know where or when potential neighbours would settle. This made it hard to set up decentralised systems of wastewater management beyond the level of individual solutions (such as collective self-

organised systems). As a result, a growing number of residents are setting up individual wastewater facilities. Because OSSFs cause some pollution, the increase in individual wastewater facilities is increasingly frustrating effective wastewater management. Although the pollution of some OSSFs is negligible, the cumulative effect of hundreds of OSSFs is much more dangerous. As a project member from the Municipality of Almere asserted, 'in the end, there is a concern that the cumulative effect of all individual systems leads to a [environmental] problem. There will be a tipping point in which it is no longer sufficient.'

Taken together, the combination of the self-organisation philosophy and the incremental development strategy triggered residents to opt for individual onsite sewage facilities. Eventually, the technological and social vulnerabilities, as well as the large number of OSSFs, contributed to serious deterioration of water quality, with potential risks for human health. Due to these adverse effects, the public actors felt the urge to organise collective action through a cooperation agreement (2018) and a living lab, in order to find solutions for more effective wastewater management and to ensure compliance with environmental standards (e.g., by testing technological innovation to purify wastewater). Despite these efforts, in the spring of 2020, the public actors announced that they will give up on individual onsite sewage facilities for future developments.[40] The tipping point, when water quality standards will no longer be met, has almost been reached, and there are no clear future improvement prospects under the current system. From now on, residents who operate an effective OSSF system may keep it; however, future residents and residents with inadequate OSSFs will be connected to the sewage system.

Discussion: a mismatch between legal rules and self-organised wastewater management

The Netherlands has a long tradition of government commitment to wastewater management, striving for centralisation backed up by its environmental legislation. The duty of care principles of the municipalities and water boards pave the way for the organisation of wastewater management by sewers and treatment plants. The case of Oosterwold is the first radical experiment with

self-organised wastewater management that truly challenged this centralised approach. The analysis reveals that the role of the residents in Oosterwold dramatically changed from passive recipients to active prosumers. Interestingly, all residents independently arranged themselves as providers by installing individual wastewater facilities, which is consistent with the *individual self-organisation* type.

Concerning the legal requirements of water quality, it is noticeable that this individual self-organised wastewater management created various legal inconsistencies, such as the delegation of municipal care, the absence of a waiver, and the deterioration of water quality. The experiment seems to assume that the legal obligation of the municipality and the water board is transferred to residents. However, it is important to keep in mind that this duty of care principle can never be transferred formally. Furthermore, the Municipality of Almere did not request a waiver because the same degree of environmental protection could not be secured. The Province of Flevoland tolerated this municipal decision because they co-initiated the experiment. Even more importantly, despite various attempts by the public actors to consider environmental and health standards (such as discharge permits and periodic checks by the water board), the combined effect of having many individual wastewater facilities was deteriorating the water quality, with potential danger to human health. Therefore, the experiment of self-organised wastewater management did not correspond to the required legal certainty that protects the environment and human health. Evidenced by the fact that the experiment almost reached its tipping point, the individual self-organised wastewater management in Oosterwold is a showcase of a mismatch between the outcomes of self-organised service delivery and the relevant environmental legislation.

While multiple reasons explain this mismatch, the origins of these reasons emanate from the following: (1) the *incremental development strategy*, (2) the *scale* of the urban development project, or (3) the *vulnerabilities* of OSSFs. First, due to the incremental development strategy, cooperation among residents was exceptionally complicated, forcing residents to arrange and provide individual solutions, thereby forestalling collective self-organised arrangements. Second, the development's large scale introduced too many

individual wastewater operations into the system. The cumulative effects of 100s of OSSFs enhanced the risk of environmental failure. Third, current OSSFs are characterised by technological and social vulnerabilities, such as insufficient phosphate removal. The sum of these reasons eventually led to inadequate collection and purification of wastewater and even prevented the reuse of wastewater. Therefore, the individual self-organised wastewater management experiment could not satisfy the legal rules and was discontinued.

Conclusion

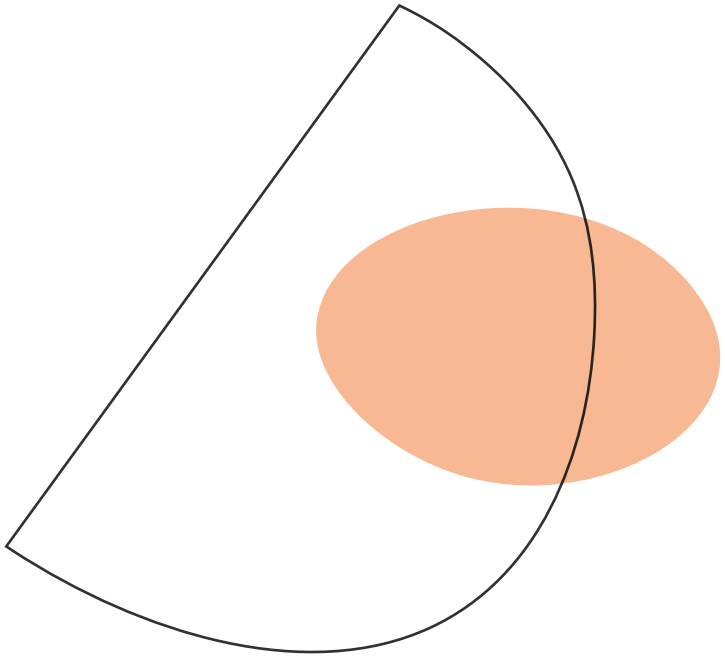
This article was an effort to enrich the discussion about self-organised environmental services with a perspective on meeting the required legal certainty of environmental legislation, specifically in the case of wastewater management in Oosterwold. The radical experiment of the case critically reflected on the somehow taken-for-granted practices of centralised wastewater management. Regrettably, the case demonstrated that the consequence of the individual self-organisation type felt short of satisfying the relevant environmental legislation. From the perspective of the required legal certainty of environmental legislation, it can be concluded that individual self-organised wastewater management in Oosterwold failed. However, this does not automatically mean that the idea of self-organisation always fails or that centralised public service delivery by the government is always the best fit for wastewater management, nor that legal rules are always impediments to self-organisation. Rather, the conclusion is that the success or failure in delivering environmental services like wastewater management critically hinges on ensuring compliance with environmental legislation (water quality requirements in particular).

The in-depth research of the Oosterwold experiment provides two lessons with broader significance and insights for facilitating compliance with environmental legislation. First, the combination of the self-organisation philosophy and the incremental development strategy might be an obstacle to collective action. Second, placing many OSSFs together has a negative influence on the environment. Further research is required to explore self-organised arrangements for wastewater management that can satisfy relevant

environmental legislation. Some suggestions for future research include (1) to explore the potential of collective self-organised arrangements of wastewater management in terms of environmental legislation, or (2) to experiment with self-organised wastewater management on a smaller scale. Finally, we want to acknowledge that the experiment presented in this article is context-specific. However, it should be noted that, in many Western welfare states, the ideology of self-organised environmental service delivery is gaining momentum. We posit that this study might help to formulate future research hypotheses about self-organised environmental services that have historically been administered under public control.

Chapter 4

Greening the City between Public Needs and Private Preferences in Carré De Soie, Lyon



Van Karnenbeek, L. (*forthcoming*) Greening the city between public needs and private preferences in Carré de Soie, Lyon. *Town Planning Review*.

Governments are increasingly facing conflicting land uses in cities. Many governments strongly aspire to provide green spaces for the public, yet simultaneously stimulate private preferences for real estate development. This article argues that examining the interrelationship between land ownership and control over land clarifies the provision of green spaces in the context of private preferences for development. It presents a case study of the Carré de Soie urban development in which the government aspires to an abundance of green but concurrently encourages the market to take the initiative. The findings show that the lack of public land ownership combined with private actors having a say in control over land meant that public aspirations for green spaces were not met. This article concludes that if cities need to become greener, recognising the role of the government to act in the public interest is of utmost importance.

Carré de Soie, 2018

Carré de Soie, 2019

Carré de Soie, 2018

Carré de Soie, 2019

Carré de Soie, 2019

Carré de Soie, 2018

Carré de Soie, 2018

Introduction

Across the globe, governments increasingly recognise the need for public green spaces[41] in cities due to clear evidence that they deliver a variety of social, health and environmental benefits (e.g., Barton, 2009; Wolch et al., 2014; Lennon and Scott, 2014; Haaland and Van den Bosch, 2015; Douglas et al., 2017; Boulton et al., 2018). A range of studies demonstrates the benefits of public green spaces for the well-being of humans and the Earth. In terms of physical and mental health, green spaces increase the exposure to nature, encouraging physical activities (e.g., Douglas et al., 2017), and stimulate social interaction (Pretty et al., 2007). Green spaces can also provide ecological functions by managing the flow of storm and surface water (e.g., Lennon and Scott, 2014), improving air quality (e.g., Wolch et al., 2014), moderating temperatures (e.g., Wolch et al., 2014) and managing biodiversity and habitat provision (e.g., Kambites and Owen, 2006). In addition, green spaces may enhance access to recreation, such as public gardens, playing fields and community allotments (e.g., Lennon and Scott, 2014).

Despite these numerous benefits of green spaces, the provision of green spaces in cities is not evident (Boulton et al., 2018). To claim this statement, one must briefly explain the underlying mechanisms of green space provision. From an economic perspective, green spaces share many characteristics of a public good (Choumert, 2010; Wang and Chan, 2019). Based on the frequently mentioned assumption that the government is in a better position than the market to provide public goods (Olson, 1965), it is no surprise that green space provision often rests in the hands of the government. Governments frequently argue that the significance of green spaces is in the name of the public interest. To reinforce this argument, governments often cite the numerous benefits of such spaces in cities. Clearly, governments themselves have apparent incentives to aspire to and provide green spaces in cities (Colding et al., 2013). However, at the same time, they are increasingly promoting real estate development in cities through private planning. Consequently, much land is assigned to real estate uses, such as housing and offices (Boulton et al., 2018; Wang and Chan, 2019). Governments regularly set conditions under which markets can develop these land uses. Indeed, private actors are highly interested in these

profitable uses (MacLaran, 2014). As such, given that land is scarce, it is relatively easy to imagine that different interests in land use can increase the chances of conflict over land uses.

Particularly in cities, there is an increased risk that real estate uses of land are at the expense of green spaces (Colding and Barthel, 2012; Haaland and Van den Bosch, 2015; Boulton et al., 2018). Consequently, green spaces come under pressure or even run out. As such, the provision of green spaces in cities often illustrates the dispute about public aspirations and private preferences to land use (Boulton et al., 2018). To that end, clarifying the provision of green spaces through private planning is of increased importance. To do so, one must turn to the domain of land use planning (Choumert, 2010; Boulton et al., 2018; Wang and Chan, 2019). Generally speaking, land use planning coordinates the use of physical land based on the preferred uses (Lai, 1994). Two particular concepts are considered crucial in land use planning: first, someone holds land in ownership, and second, the actions and behaviour of the owner of land are subject to control (Fennell, 2011; Needham et al., 2019). It is the interrelationship between land ownership and control that is ultimately the primary factor in explaining the uses of land (Bromley, 1991; Booth, 2002). To date, much planning literature about green space provision concerns land control (e.g., Lennon and Scott, 2014; Haaland and Van den Bosch, 2015; Boulton et al., 2018). Consequently, the literature often ignores ownership and the explicit interrelationship of ownership and control over land (Wang and Chan, 2019). Therefore, it remains unclear how the concepts relate to one another in realising public needs for green space provision through private planning.

The aim of this article, therefore, is to better understand the relationship between land ownership and control in providing green spaces in the context of real estate development. The research question of this article is: *How can land ownership and control over land be governed to satisfy public aspirations for green spaces in the context of private preferences?* This question is applied to the French context. France is an appealing case in examining the struggle over land between public aspirations and private preferences because of the rapidly increased interest in private planning since the turn of the century. For France, the subjugation of land use planning to the private sphere of action

is a relatively recent phenomenon (Dikec, 2006). Historically, the republican logic considers the government as the representative of the public interest and the legitimate actor for land use planning to provide public goods such as green spaces (Mehdi et al., 2012). Nowadays, the French government is increasingly facing conflicts over public and private land uses, in particular in its metropolitan areas (Boino, 2010; Guelton, 2018). This article uses the urban development Carré de Soie, located in the metropolitan area of Lyon, as an illustrative example. The urban development was based on an abundance of green space but was concurrently premised upon the idea of privatisation of land. Therefore, the Carré de Soie development provides insights about how land ownership and control over land can be governed to provide green spaces in the context of private preferences.

Who owns and controls land?

Land ownership and control over land are essential for the existence and functioning of land use planning (Alexander, 2001, 2014; Wang and Chan, 2019). To focus on the interrelationship of the concepts requires the definition of ownership and control in the first place. Land ownership is a social construct that determines the behaviour among those who own land and those who do not (Ostrom, 1990; Bromley, 1991; Davy, 2012). More specifically, ownership apportions particular confines of the physical space of land to someone (Lai, 1994; Alexander, 2001). In economic theory, various scholars consider ownership as a bundle of property rights (see, for example, Ostrom, 1990; Bromley, 1991; Schlager and Ostrom, 1992). Ownership denotes the entire set of rights 'to possess, use, manage, benefit, secure, and alienate land' (Bromley, 1991: 159). Premised upon this definition, a landowner holds the fullest set of property rights. In most advanced welfare states, the law regulates these rights to own land (Davy, 2012). Who holds property rights to own land can be diverse. For this article, the focus is on public and private ownership. In public ownership, land rests in the hands of the government (Davy, 2012), whereas in private ownership, land rests in the hands of a private person or organisation (Bromley, 1991).

Control over land, as defined by Bromley (1991: 159), allows someone the right and capacity without regarding the interests of others in the practice of ownership. In other words, control concerns those who are permitted to intercede without having to consider the specific interests of the owner. Those who hold control have the power to yield outcomes that are perceived as desirable or needed. In many advanced welfare states, governments are legitimated to take actions to control preferred uses to land (Needham et al., 2019). Upon this thought, many welfare states legally conclude that governments are entitled to enable or limit the behaviour of the owner of the land. The government is then authorised to act on behalf of the public in determining ways of using land without the endorsement of others (Davy, 2012; Needham et al., 2019). Controlling the behaviour of owners then justifies public interventions as a means to achieve spatial outcomes that are perceived as desirable (Alexander, 2001), or to satisfy public aspirations (Needham et al., 2019).

Control over land can have multiple components (Wang and Chan, 2019). Alexander (2001) differentiates between three types of control: *regulative*, *inducing,* and *contractual*. *Regulative* control is an act of sovereignty in terms of legislation and regulations and provides certainty to owners. This type of control is frequently enshrined in planning law, comprising rules that regulate the government regarding the imposition of prescriptions, restrictions and obligations around land ownership. Planning law is mostly supplemented by land use planning tools, which are formal interventions that regulate the use of land (Richardson, 2017; Needham et al., 2019). Alexander (2001) presumes that regulative control often complements *inducing* control by producing incentives for others to enhance satisfaction with spatial outcomes and public aspirations (see also the work of Wang and Chan, 2019), such as tax incentives or financial and resource contributions. The *contractual* type of control is a form of market-supported control over land. The control over land is then subjected to the plan-conforming agreement with private landowners.

Due to these multiple components of control over land, governments can answer differently to public or private property (Wang and Chan, 2019). As such, ownership and control over land can relate to each other in diverse ways and, therefore, yield different outcomes in the uses of land. Therefore, the interrelationship strongly determines whether land uses are effectively

regulated. The working hypothesis of this study is that in the event of private planning, it is likely that private ownership increases (Colding and Barthel, 2012; Haaland and Van den Bosch, 2015). Furthermore, based on previous studies, it is expected that the government is much more reliant on market-supported control over land – the contractual type of control – to support private preferences of land uses (see, for example, Németh and Schmidt, 2011; Wang and Chan, 2019). The lack of other types of control, as a consequence, is expected to endanger the provision of green spaces (Madanipour, 2003; Wang and Chan, 2019).

Research design and methods

This research uses a case study design (Yin, 2003). Understanding the interrelationship of land ownership and control requires an in-depth understanding, justifying the choice of such a design. The methods used in this case study were document analysis and expert interviews. The document analysis included a systematic review of policy and council documents. The analysis of the policy documents identified the public aspirations for green spaces and encompassed all policy documents assigned to Carré de Soie. Further, 170 official decrees in the period between 2003 and mid-2019 were analysed to gain insights into the justification of decisions taken by the metropolitan council of Grand Lyon.[42] The data from the document analysis used the logic of coding (Weiss, 1995; Bryman, 2008), which entailed the qualitative conversion of the obtained data into concepts such as public aspirations, control over land and land ownership.

Additional data was collected using expert interviews, enabling a rich and detailed description of Carré de Soie. In the early stage of interviewing, three non-structured pilot interviews allowed the researcher to get to grips with the relevant topics. During these pilot interviews, the snowball sampling technique was used to select other experts. The expert interviewing included a variety of experts, including senior planning officers and project managers of the metropolitan government of Grand Lyon, politicians of local governments, project managers of environmental research agencies, landscape architects, and a range of private developers. The expert interviews were semi-structured,

which permitted the experts to talk about topics that came up in their mind and to answer further questions based on the importance of particular responses (Weiss, 1995). The interviews were qualitatively analysed using the same logic of coding to ensure internal validity. The interviews took place in 2018 and 2019 when the urban development project was still ongoing. Nevertheless, sufficient time had elapsed to allow the researcher to study the interrelationship of ownership and control in depth. The interviewing stopped at the moment the encountered information did not add new insights to the research (Weiss, 1995). In total, the research is based on interviews with 19 key actors. During each interview, the researcher informed the respondents about their anonymity, namely that the scientific output does not include people's names.

An urban development project in Lyon: Carré de Soie

Carré de Soie is an urban development project located in Grand Lyon, France's second-largest metropolis. The metropolis consists of 59 municipalities and is governed by the metropolitan government of Grand Lyon (named after the eponymous metropolis). Grand Lyon has considerable powers and competences in land use planning and related fields such as public transport, economic development, culture and environmental planning (Carpenter and Verhage, 2014). Despite the powers held at the metropolitan level, Grand Lyon delegates a few competences concerning land use planning to the municipal level. The municipalities are required to sign building permits and to realise green spaces and schools on land designated by Grand Lyon. However, in principle, the authority for land use planning is held by Grand Lyon. Within the practice of land use planning, Grand Lyon decided to launch Carré de Soie, one of the largest urban development projects located in the Municipalities of Vaulx-en-Velin and Villeurbanne.

Carré de Soie has a long history of industrial activities in artificial silk (Foret, 2010). When the industrial productivity came to an end in the 1970s, Carré de Soie deteriorated rapidly (Linossier and Verhage, 2010). In 2001, the Rhône territorial department decided to use the abandoned tracks to reopen a railway line and, subsequently, Grand Lyon realised the development potential of Carré de Soie. Consequently, Grand Lyon extended the railway line with

Figure 6. The Carré de Soie development on the map. Source: Open Street Map, 2019; Author, 2019

metro and bus lines into a multimodal hub. Furthermore, adjacent to this hub, a film company constructed a multiplex cinema, and Grand Lyon invested in a leisure activity centre (Karadimitriou et al., 2013). Eventually, the sum of these activities formed the trigger for the mayor of Vaulx-en-Velin and residents to resolutely request further investments from Grand Lyon. Grand Lyon accepted these requests and launched an urban development of circa 500 hectares (see Figure 6), of which 250 hectares were to be developed (Linossier and Verhage, 2010).

In 2004, Grand Lyon determined that Carré de Soie had to incrementally become a high-density and sustainable mixed-used neighbourhood with offices, housing and public spaces. To that end, Grand Lyon hired a landscape architect to draw up a spatial concept. A delegation from Grand Lyon, called *Mission Carré de Soie*, formally coordinated this concept. The spatial concept mostly expressed desired outcomes that Grand Lyon hoped to achieve for the benefit of public interest, of which public aspirations for green space provision were a prominent part. These aspirations were a reaction to the polluted, impermeable and infertile ground and the perceived lack of green spaces as a result of mass industrialisation. To add green spaces and to prevent a high-density design only consisting of buildings, the concept detailed the green infrastructure,[43] premised upon the idea of a *paysage inhabité* (inhabited landscape) that denoted green canopies of trees stretching over buildings and covering green open spaces. To strengthen this idea, the concept of *ilots jardin* (garden islands) was applied – inspired by Ebenezer Howard's garden city and the former industrial spatial patterns. The idea of the garden islands was partly focused on the architecture of buildings, including green roofs, access to natural light, stimulating natural wind flows, and an increase of water infiltration through green spaces. Furthermore, the spatial concept included the design of a green promenade that stretched from north to south. The underlying thought behind this green infrastructure was the continuity of green spaces and the discontinuity of houses, offices and streets. The metropolitan government considered the green infrastructure essential to enhance biodiversity, counter high temperatures, increase water infiltration, and regenerate the fertility of the ground.

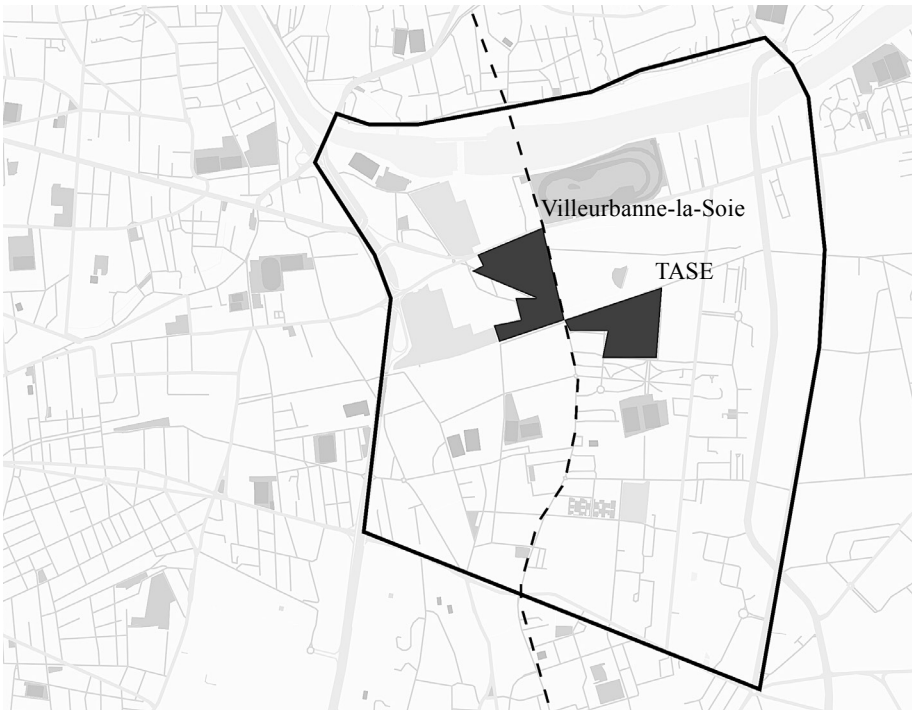


Figure 7. The TASE and Villeurbanne-la-Soie locations. Source: Open Street Map, 2019; Author, 2019

Who owns and controls land in Carré de Soie?

Despite the evident formulation of public aspirations in the spatial concept, Grand Lyon simultaneously expressed a preference for encouraging private owners to take the initiative in Carré de Soie. To do so, Grand Lyon decided not to turn to public ownership (as is common in France), but instead, opted for a less well-known strategy to land ownership known as the strapontin (folding-seat) strategy. This strategy meant that the government highly favoured private ownership,[44] while some small but strategic pieces of land rested in the hands of the government. Public land was then a means to satisfy public needs or to use the land as a negotiation tool to control the actions of developers. A senior planning officer of Grand Lyon explained it as, 'it is a strategy to attempt to acquire a small [public] piece of land in the middle of other large [private] pieces. With this [public] piece of land, in fact, we force private operators to have a seat at the [negotiating] table.'[45]

Before the urban development project, small and large private landowners owned land. With this strategy, private ownership continued to dominate, yet Grand Lyon strongly desired different types of private owners. Therefore, Grand Lyon sold the land on to private developers and investors. Further, at the start of the project, Grand Lyon devoted much money to acquiring some strategic pieces of land (Guironnet, 2016). The spatial concept assigned particular locations for acquisition, scattered throughout Carré de Soie. Some of these designated locations were immediately ready for development, while others would be developed at a later stage. This strategy was a means to develop Carré de Soie incrementally up to the year 2030 and to 'let the market work'. Concerning control over land, Grand Lyon was authorised to act on behalf of the public in determining how private owners would use their land. To that end, Grand Lyon had multiple options to exact control over land in terms of legislation and regulations. Due to the incremental character (Van Karnenbeek and Janssen-Jansen, 2018) of the development, Grand Lyon used different types of control. The next sections examine two significant locations in Carré de Soie, TASE and Villeurbanne-la-Soie, to illustrate this. Figure 7 shows both locations, situated in the Municipalities of Vaulx-en-Velin and Villeurbanne (the dotted line represents the municipal boundary).

The power of a private developer in Vaulx-en-Velin

The 17-hectare site of the former silk factory *Textile Artificiel du Sud-Est* (TASE), located in the Municipality of Vaulx-en-Velin, was the first location to be developed in Carré de Soie. In 2007, a private developer acquired all the land from a speculator. Grand Lyon did not seize the moment to acquire land here as they had already acquired some expensive pieces of land nearby. Right after the developer's acquisition, the economic crisis hit. In order to instigate the urban development project, Grand Lyon granted the private developer a large amount of freedom to draw up their development plans. The developer proposed a 75,000 m2 project with residential towers, which involved the demolition of the historic factory. For these plans, Grand Lyon adapted its *Plan Local d'Urbanism* (PLU) in consultation with the private developer. The PLU is the binding land use plan that designates land uses and sets limits on matters such as heights and footprints. Although the development plan was scarcely receptive to the spatial concept of the landscape architect, Grand Lyon modified the land use plan to further proceed with the urban development project.

The changes to the land use plan were accompanied by the establishment of the *Program d'Aménagement d'Ensemble*[46] (PAE), a financial tool intended to finance public facilities through investments by private actors that have land ownership (Karadimitriou et al., 2013). Furthermore, the PAE allowed some time-consuming land use planning procedures in Grand Lyon to be skipped. Therefore, the private developer was helped to act rapidly. Within that context, the development plans of the developer were further (and quickly) approved by the signing of building and demolition permits by the mayor of Vaulx-en-Velin.[47] The municipal government argued that the perceived interest of the private developer was highly beneficial in improving Vaulx-en-Velin, which suffered from a bad reputation. Therefore, the mayor viewed this signing as necessary to serve the needs of the municipality, even though it was mainly at the expense of green aspirations laid down in the spatial concept.

The planned demolition of the factory, the high density and the lack of green space, however, resulted in a considerable mobilisation of the inhabitants of Vaulx-en-Velin. The inhabitants submitted a legal challenge to the building

permits of two residential buildings. When someone legally challenges a building permit in France, the entire development must stop. Given these emerged uncertainties, negotiations started between the private developer, Grand Lyon, and the Municipality of Vaulx-en-Velin. The public actors felt it was necessary to reassess their previous stance regarding the agreement on density and the demolition of industrial heritage. In turn, the private developer appointed a personal landscape architect to explicitly set out the developers' interests. Collaboration was slowly established between the landscape architect of the spatial concept and the developer's landscape architect. Eventually, they agreed on a revised development plan. Although the negotiations were time-consuming, the mobilised inhabitants approved the renewed development plan and withdrew their legal challenge.

It took almost two years until an agreement was reached and the urban development continued under three significant conditions. First, the private developer had to keep the architecture of the factory intact after the national heritage authority classified the facade and the volume of the TASE factory. Second, the private developer had to cut back its density to 65,000 m2. Third, the public actors decided to pay for a green vein, known as *Esplanade TASE*, throughout the site, to connect to the intended green infrastructure proposed by the landscape architect in the spatial concept. To realise the Esplanade, an exchange of land took place between the private developer and Grand Lyon, combined with a change in land uses.

Apart from the Esplanade TASE, further green aspirations disappeared in the negotiations due to a lack of public money. Green spaces had to be financed by the Municipality of Vaulx-en-Velin, and at the time, the Municipality had no resources to fund them. For the Esplanade TASE, Grand Lyon provided additional funding to bear the costs. Nevertheless, it was not very easy to get a sufficient amount of money in the given time, delaying the process of the Esplanade TASE substantially. Though the PAE offered possibilities to finance public facilities via developer contributions, the municipal government had already spent these contributions at the beginning of the project – strikingly on roads rather than green spaces.

Negotiating land uses in Villeurbanne

Villeurbanne-la-Soie, an 11-hectare site in the Municipality of Villeurbanne, was assigned as a location for development a few years later. For a long time, the site was mainly used by yoghurt and gas companies. A well-known private developer in France was among the first to show interest in the derelict site and started to discuss with the landowners about transfers of land ownership. In the meantime, the private developer informed Grand Lyon about its development plans. Subsequently, another private developer and two housing associations also acquired land for development. For the benefit of the developers' plans, Grand Lyon adjusted the land use plan in consultation with the private developers and housing associations, among other things in terms of the number and height of buildings.

For the benefit of set public aspirations, Grand Lyon decided to force the development plans to take place within the context of a *Zone d'Aménagement Concertée*[48] (ZAC). A ZAC is an operational contract between public and private actors, allowing public actors to firmly engage in negotiations with private actors about land uses and the conditions of urban development plans (Guelton, 2018). This contract was chosen because it offered Grand Lyon opportunities to set conditions and regulate the urban development plans of the private developers. Utilising the ZAC, Grand Lyon was able to suspend building permits – even if the building permit followed the land use plan – to expropriate land and to impose requirements about densities and the choice of architects.

In the context of the PLU and the ZAC, the public sector made considerable efforts to achieve an agreement with the private sector. From this purpose, Grand Lyon set up a committee to consider and discuss the proposed development plans, comprising the relevant private developer, Mission Carré de Soie, the Municipality of Villeurbanne, the landscape architect and Grand Lyon itself. The committee turned out to be an open forum for repeatedly discussing and negotiating the urban development plan, including the number of dwellings, environmental quality and architectural competition. The discussions were time-consuming, with disputes over public aspirations and private preferences, but were held on good terms.

Concerning green space provision, environmentalists from Grand Lyon and consultancies advised on and defended green space provision during the debates. The environmental experts searched for a so-called 'green pedagogy', based on the spatial concept and broader environmental policies of Grand Lyon. During the discussions, environmental experts expressed the benefits of green spaces, time and time again. A senior planning officer of Grand Lyon explained, 'the regulatory aspect is important, but not everything. [...] When one considers [green space provision] as an obligation, people do the minimum.'[49] In other words, Grand Lyon did not impose strong regulations on private actors regarding green uses of land in addition to the specifications in the land use plan. Instead, efforts were made to influence private actors to act in favour of green space provision and sustainability. What was clearly observable in the discussed development plans was that private developers themselves had little incentive to provide green spaces. Furthermore, the provision of green spaces was seen by the developers as a public task. As a result, green spaces were an underexplored topic during the discussions at the expense of issues about height and densities.

The minimal attention to green spaces provision was evident, for example, in the discussions with one of the private developers. The conversations about the development plan took a long time but, eventually, the private developer received its building permits. The development plan of the private developer consisted of multiple residential towers with green roofs, shared spaces and spacious balconies – the latter imposed by the public actors. The discussions scarcely touched upon the provision of green spaces on private land. The topic of green spaces was considered of less importance as Grand Lyon had already designated a small park (*Parc Jorge Semprun*) of 0.5 hectares adjacent to the urban plan of the private developer. Grand Lyon acquired this land according to the principles of the strapontin strategy. Subsequently, the piece of land was resold to the Municipality of Villeurbanne to realise the park. Compared to Vaulx-en-Velin, Villeurbanne is a much more affluent municipality, making it easier to meet the green demands as laid down in the spatial concept. However, despite green roofs and this park, the Villeurbanne-la-Soie failed to deliver the proposed green infrastructure.

Discussion: private dominance over Carré de Soie

To analyse Carré de Soie necessitates a return to the two concepts. Regarding ownership, the urban development project mainly consisted of privately owned land. Instead of strictly relying on private ownership, Grand Lyon adopted the strapontin logic with the idea to either negotiate with developers or to realise public needs. In practice, the metropolitan government did not use the strapontin logic as a negotiation tool but assigned pieces of land for public needs. Although the public land was used to provide green spaces, the minimal share of it unquestionably increased the scarcity of green land uses. As such, land ownership barely contributed to the proposed green infrastructure. Concerning control over land, Grand Lyon applied several types of control in the two designated locations. The work of Alexander (2001) is used here as a reference to characterise these types of control. First of all, for both the TASE and Villeurbanne-la-Soie locations, a regulative type of control was applied: the land use plan. For a spatial concept to be legally binding, its ideas have to be translated into land use plan rules (Karadimitriou et al., 2013). For both locations, the rules of the land use plan were adapted to the private preferences of the developers, and thus the plans predominantly assigned real estate uses to private lands.

The PAE, as used in the TASE location, likewise corresponded to regulative control. In theory, Grand Lyon had the power to force the private developer to invest in the proposed green infrastructure. Strikingly, the public actors only made efforts to use the PAE for realising roads. Further, the PAE was used as a means to quickly proceed with the private developer's development plans with the aim of giving Vaulx-en-Velin a better image. As such, the regulative control was in favour of real estate uses and was highly underutilised for the provision of green spaces. Therefore, the proposed green infrastructure was endangered. Only after Grand Lyon redefined its position after the local residents' legal challenge, they did apply regulative control differently – issuing regulations and initiating changes in favour of green space provision by cutting back density and changing land uses. Gradually, the situation in the TASE location was rectified and did, therefore, some justice to the green infrastructure.

The ZAC, in the Villeurbanne-la-Soie location, mainly shared characteristics of the contractual and inducing controlling types. During the negotiations with the private developers, the public actors predominantly searched for market-supported control with private landowners. This is evidenced by the fact that the discussions were often limited to real estate uses of land. However, the public actors made a few demands to reach a plan-conforming agreement with private landowners, such as the green roofs and spacious balconies. These green roofs partly sustained the idea of the *paysage inhabité*. Furthermore, the public actors attempted to induce private developers with a green pedagogy within the context of the ZAC. Given the focus on real estate uses during the negotiations, it is questionable seen whether this pedagogy had an impact. Theoretically, the ZAC could deliver a wide range of options for regulative control over land, but in Villeurbanne-la-Soie, these options were not explicitly applied to satisfy public aspirations for green spaces.

On balance, both the TASE and Villeurbanne-la-Soie locations produced relatively disappointing results in terms of satisfying the public aspiration for green spaces. The proposed green infrastructure, consisting of the concepts of *paysage inhabité* and *ilots jardin*, was not truly realised. Ownership was predominantly ceded to private developers. Control over these private lands was diverse, but in all circumstances highly determined by private preferences. As a result, the diverse types of control over land did not produce significantly different outcomes. In this view, the findings partly correspond with the working hypothesis formulated earlier. Private ownerships did indeed increase, yet the public actors did not apply a specific type of control in Carré de Soie. Instead, they subjugated themselves, and their control, to the preference of private actors. Therefore, private developers mainly governed themselves, aiming to keep restrictions for and limitations to their preferences low, while putting public aspirations at risk of being eroded, or at least, of being treated with reduced importance.

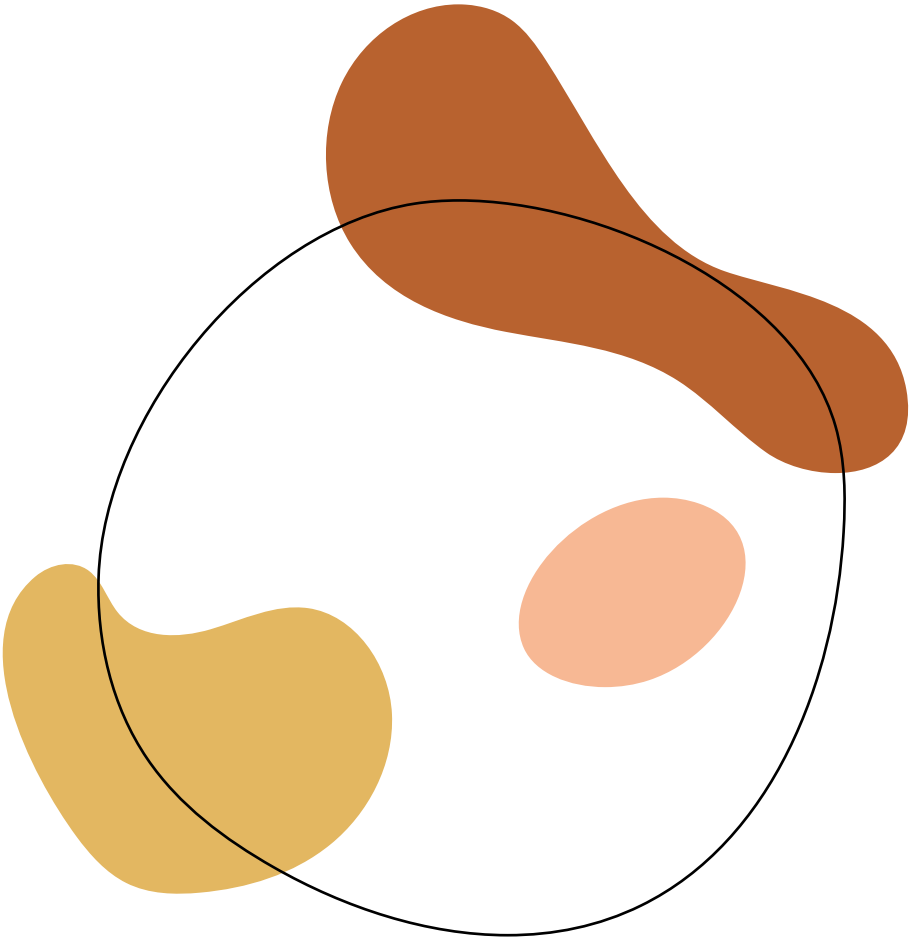
Conclusion

This article has shed light on the provision of green uses of land in the context of real estate developments. It started with the claim that despite the well-documented benefits of green spaces, their provision cannot be taken for granted. Particularly in cities, governments face conflicts over these public and private preferences of land uses. This article has argued that examining the interrelation between land ownership and control over land helped to clarify the provision of green spaces in the context of private preferences for development. Despite the limitations of a singular case in terms of generalisation, it has provided two valuable insights for broader contemporary debates on conflicts over private and public preferences of land uses across the world.

First, the article argues that while it is in the public interest that cities become greener, the lack of public ownership and public control over land can introduce considerable uncertainty to green space provision. The TASE and Villeurbanne-la-Soie locations showed that private land combined with private actors having a say in control over land was not a perfect fit for satisfying public aspirations for green spaces. A misalignment of land ownership and control over land can, therefore, endanger the provision of green spaces in the context of real estate development. Second, as again observable in both locations, there are various ways to deal with private property and land control is exceptionally diverse (Wang and Chan, 2019). However, ceding control over land to private developers enhances the risk that control over land by the government loses its value, including its diversity.

On balance, the concern about the provision of green spaces is nothing but a struggle about who owns the land and how one controls the land. This article ends with the claim that for green space provision, the role of government to act in the public interest (without the endorsement of others) must be recognised for its importance. Green spaces may be variously provided, but the role of the government in its provision seems vital (Choumert, 2010). In this vein, planners need to think critically about the way land ownership or control over land interrelate and how public aspirations can be thoughtfully articulated in these concepts.

Conclusion and Epilogue



Concluding note

Many planning scholars and practitioners agree that urban planning is extremely dynamic, prolifically generating new theories, approaches and strategies. At the turn of the 21st century, there was a resurgence of interest in incrementalism, which has further gained momentum, shaping the emergence of a 'new' strategy for urban development projects (Savini, 2019; Mäntysalo et al., 2019). This dissertation has labelled this strategy as an *incremental development strategy*. Despite the growing enthusiasm in the sector, I did not want to uncritically accept its potential as a strategy. Instead, I wanted to provide a critically reflexive perspective on the incremental development strategy by analysing it from an institutional perspective. In this concluding note, I document the main findings and answer the central question and the five underlying research questions.

Shared logic and diverse application

This conclusion starts by looking at the first underlying research question: *How are incremental strategies applied to urban development projects*? To answer this question, a full understanding of the definition of incremental strategies is required. An examination of Lindblom's and Quinn's work, as presented in the introduction, showed that incremental development strategies are guided by four determining principles, namely (1) the opposition to rational-comprehensive thinking, (2) the rationale of small steps and decisions, (3) the involvement of multiple actors, and (4) the direction toward strategic goals. Using these principles, I summarise below how incremental development strategies emerged and progressed at the Navy Yard, Oosterwold, and Carré de Soie.

The opposition to rational-comprehensive thinking

In each case, the public actors firmly 'attacked' rational-comprehensive planning. None of the urban development projects was based on comprehensive

blueprint plans from the start. Instead, as the preceding chapters have shown, the public actors searched for and found substitutes for this traditional concept. For the Navy Yard and Carré de Soie developments, spatial concepts were designed, while the Oosterwold development was shaped through guiding principles. Importantly, the spatial concepts and guiding principles shared the hesitation to prescribe spatial outcomes that set out specific, detailed future spatial configurations. Clearly, the actors strongly resisted delivering defined project outcomes. Instead, the spatial concepts and guiding principles were broadly defined through focal points that allowed for opportunistic agency. Further, as covered in Chapter 2 and 3, the public actors in the Dutch cases specifically mentioned the misplaced, blind faith in rational planning (Chapter 3) and the entrenched inflexibility and non-adaptability in urban planning (Chapter 2). To address this shortcoming, these projects proposed an experimental alternative to the traditional way of doing urban planning, based on self-organisation (Chapter 3) and temporary uses of space (Chapter 2).

The rationale of small steps and decisions

These experiences showcase a close application of Lindblom's rationale of small steps and decisions, as all cases follow a stepwise development pathway. At the Navy Yard, the stepwise development was enabled by temporary uses of spaces and the agreement made on the gradual relocation of military activities. Importantly, the Navy Yard development also demonstrated examples of feedback loops of adaptation. For instance, the Ministry of Defence's revision of its original decision to completely vacate the premises could, although with some initial aversion, be anticipated. Both Oosterwold and the Carré de Soie saw a step-by-step development through land acquisitions. In the first case, the stepwise progression was made explicit by allowing individuals to buy land lots. After the acquisition, individuals took many small steps and decisions about the owned land (e.g., what house to build, what wastewater system to select). Cumulatively, these steps and decisions added up to the shape of the overall development. In the second case, specific pieces of land, scattered throughout the area, had been assigned for development. For the public actors to enable a stepwise progression, some of these lots were immediately made available for development, while others were to be developed at a later time,

up to the year 2030. The experiences made with the plots developed prior could be kept in mind for future actions. Following this reasoning, the public actors anticipated and actively sought to take advantage of feedback loops of learning.

The involvement of various actors

All cases adopted a pluralistic view and involved a wide variety of relatively autonomous actors that in a series of agreements, meetings or negotiations adjusted their positions. Nevertheless, a few notable differences between the empirical cases should be highlighted in regard to key actors. As can be read in Chapter 1 and 2, the Navy Yard development had an actor-network of multiple public actors, including the City of Amsterdam, the Ministry of Defence, the National Government of the Netherlands, and the members of the project office. The project office developed the spatial concept triggered by the presence of temporary users. They had a relatively broad autonomy but had to regularly report on the elaboration and implementation of the spatial concept. Based on these reports, the City of Amsterdam and the national government meticulously monitored the project office's actions. In turn, the City of Amsterdam intensely debated and negotiated with the Ministry of Defence, the national government and the project office the idea of embedding the spatial concept in the formal planning process. As a summarising remark, the various public actors anticipated a centrally coordinated development of the Navy Yard, in contrast to Lindblom's ideal of decentralised coordination.

The Oosterwold experiment also included multiple public actors: the Municipality of Almere, the Municipality of Zeewolde, the National Government of the Netherlands, the Province of Flevoland and Water Board Zuiderzeeland. However, and in sharp contrast to the Navy Yard case, these actors jointly enabled – and even forced – citizens to act alone or together in developing Oosterwold. The citizens enjoyed broad autonomy but were limited by the commitments to the guiding principles and the regulations underlying these principles. Through a set of mandatory meetings between citizens and public actors, individual interests were set against the collective interest. In Carré de Soie, the urban project was developed by Grand Lyon (in

collaboration with the Municipality of Vaulx-en-Velin and the Municipality of Villeurbanne) in response to the request of the Mayor of Vaulx-en-Velin and its residents to further invest in the area. Due to the focus on real estate development, most of the development locations were sold off to private developers and investors. Therefore, a dialogue space was created where both private and public interests could be openly and repeatedly negotiated. As Chapter 4 outlined, these negotiations were very sensitive to the autonomous actions of private actors. Unlike Lindblom's idea of partisan mutual adjustment, the cases show that the adjustments were not necessarily 'mutual' and did not originate spontaneously.

To conclude, the cases show a wide variety of actors embedded in incremental development strategies. Nevertheless, the role of the public actors was prominent in these cases – they had considerately decided to initiate and develop incremental development strategies. Contrarily, the implementation of the strategies was more diverse, ranging from centralised (Navy Yard development) to more decentralised forms of implementation (Oosterwold and Carré de Soie).

The direction toward strategic goals

The final principle to be addressed is the direction to strategic goals. As a general observation, none of the urban projects had a random character but entailed perspectives on future developments without a sense of comprehensive thoughts. For the Navy Yard, the project office took small steps that culminated in about three years into the formation of the innovation district, with an explicit focus on residential, commercial and learning land uses. The strategic goals in Oosterwold were premised upon adequate self-organisation in which individuals had to build their house, generate their energy, purify their wastewater, practise urban farming, and develop and maintain public spaces and roads. In this dissertation, the strategic goal to realise sustainable wastewater management based on self-sufficiency was put centre stage. The strategic goals in Carré de Soie were designed to develop a high-density and sustainable, mixed-use neighbourhood with a substantial emphasis on the realisation of green infrastructures. The strategic goals were formulated so

that they could provide broad directions and keep options open. The urban development projects are presented according to their specific principles of incremental development strategies in Table 6.

As noted above, all four principles are at work in all projects. Therefore, it can be concluded that the logic of incrementalism is articulated in strategy-making (it includes the imagination of a desirable future combined with an idea on how to get there). This conclusion may not come as a surprise considering the case selection for this dissertation. More interestingly, despite this shared belief in the logic of incrementalism, the chapters highlighted diverse application across the projects. Apparent differences can be found in the modes of implementation (ranging from more centralised to decentralised modes) or the application of the stepwise development (ranging from temporary uses of space to individual land acquisition). The diverse applications might be the result of the very different situational contexts of the cases (e.g., Oosterwold is a greenfield development while the Navy Yard and Carré de Soie are brownfields). The scale between the projects ranged from 13 hectares (the Navy Yard) to circa 4,000 hectares[50,51] (Oosterwold). The history of the Navy Yard goes back to the 16th century (the Dutch Republic); the history of Carré de Soie in silk industry goes back to 19th century[52]; while the history of Oosterwold goes back to 1968 (when the South Flevoland Polder was drained).

To conclude, the four principles can be used to identify incremental development strategies for urban projects but do not explicitly provide practical tools to translate its understanding into planning practice. This concluding remark is perhaps unsurprising when one considers that Lindblom, the founding father of incrementalism, described incrementalism not as a practical tool but as a theory. But let me give a disclaimer: I arrived at this specific conclusion based on the study of three cases. Therefore, this conclusion is not generalisable to other contexts.

Table 6. The characteristics of the incremental development strategies in each case study

Principles	Navy Yard	Oosterwold	Carré de Soie
The opposition to rational-comprehensive thinking	Spatial concept	Guiding principles	Spatial concept
The rationale of small steps and decisions	Stepwise development through temporary uses of space	Stepwise development through gradual land acquisition	Stepwise development through gradual land acquisition
The involvement of multiple actors	Multiple public actors, temporary users of space	Multiple public actors, individual residents	Multiple public actors, private developers, and investors
The direction toward strategic goals	To develop an innovation district with a particular reference to residential, commercial, and learning land uses	To promote a self-organised urban development (e.g., sustainable wastewater management based on self-sufficiency)	To develop a mixed-use district with a green infrastructure, premised on the idea of paysage inhabité (inhabited landscape), ilots jardin (garden islands) and a green promenade

Source: Author, 2020

Incremental development strategies from an institutional perspective

The central research aim of this dissertation was not to identify incremental development strategies but to offer an institutional perspective to analysing them. The main underlying presumptions for applying this perspective can be summarised as follows. To begin with, incremental development strategies are assumed to demand collective action. As explained in the introduction, collective action shares two essential characteristics: first, it is *purposeful*, and second, it is *coordinated*. This dissertation claimed that incremental development strategies are already *purposeful*, i.e. the strategies involve planned actions to achieve strategic goals. These strategic goals serve the ultimate purpose of urban planning – to create more desirable futures and to solve urban problems. The impetus to coordinate the planned actions in these strategies does not come automatically but arises from institutions.

Institutions are conditions under which actors can appropriately achieve their purposive action in social interactions; therefore, an institutional perspective to incremental development strategies is deemed necessary. As explicitly mentioned in Chapter 1, I suggest that focusing on institutions is much more helpful for securing a deeper understanding of incremental development strategies. This dissertation focused on how purposive actions in incremental development strategies relate with the institutional conditions, to assess whether these strategies can effectively spur collective action. The institutional perspective applied in this dissertation – termed as an *institution-actor orientation* (Salet, 2018) – was heavily influenced by the work of Elinor Ostrom. The theoretical basis for this orientation outlines that rules are prescriptions concerning actions, interactions and outcomes following both from laws, regulations, and habits (see Chapter 1). I followed Ostrom's thinking in applying her conceptual classification of sets of rules into position, demarcation, choice, decision-making, information, payoff and scope rules. Chapter 1 and 2 explored at length this conceptualisation and applied it to the Navy Yard context, providing an answer to research question two: *How can rules be conceptualised*? Now, I would like to provide a few concluding thoughts drawn from the applied institutional perspective.

Analysing institutional design and rule changes

As already described in the introduction, incremental development strategies are dynamic: they anticipate the many small steps and decisions involved (Dahl and Lindblom, 1953; Lindblom, 1959). As a result, the actors that operate in these strategies will likely experience institutional design and rule changes. In this section, I address how rules are devised and changed respectively at the Navy Yard, Oosterwold, and Carré de Soie development, providing an answer to research question three: *How are rules devised and changed according to incremental development strategies?*

Based on Chapter 1 and 2, I argue that the Navy Yard development was predominately characterised by a cumulative institutional design that entailed incremental rules changes. Let me explain this according to the articulation of the innovation district in the formal planning process. At the start, three

general themes (maritime history, innovation, and water) outlined a very broad strategic orientation for the Navy Yard. This orientation was institutionally inscribed in the strategy report and management agreement. To illustrate, the project office members were required to develop a spatial concept based on this orientation. In interaction with temporary uses of space, the project office more accurately updated this strategic orientation over time. After two years, this approach led to the overarching spatial concept, the 'innovation district', which was institutionally anchored in an official note that completed the first phase of the plan- and decision-making guide. As the development proceeded, the innovation district was updated by the project office and directed towards housing, working spaces and learning. This updated version was institutionally articulated by the City of Amsterdam in a provisional urban plan (corresponding to the second phase of the plan- and decision-making guide). From this perspective, new rules were based on existing rules (cumulative institutional design) and changed only incrementally; therefore, the innovation district evolved stepwise and was cumulatively institutionalised.

Although the Navy Yard was essentially dominated by incremental rule changes, the Ministry of Defence's decision to remain led to *abrupt* rule changes. This unexpected choice brought radical changes to the existing rules of the development. In particular, the scope rules that defined the spatial outcomes of the Navy Yard were all of a sudden no longer relevant. As Chapter 2 demonstrated, the Ministry's decision led to a deadlock and shortly interrupted the formal planning process. When the deadlock was solved, a process of negotiations started, which by the time of its completion in the spring of 2020 had significantly altered the scope rules (in tandem with the Ministry). In line with Etzioni (1967), incremental and non-incremental changes co-occur. As of time of writing, it is not clear how the Navy Yard development will proceed. Initially, the rules of the Navy Yard were defined very broadly; however, when the innovation district was articulated by the City of Amsterdam in a provisional urban plan, the rules increasingly became specific in terms of spatial outcomes. The permanent character of these so-called scope rules might potentially make the incremental character of rule changes unnecessary in the near future and might lead to a new development path.

The Oosterwold case is a radical experiment that breaks with planning tradition. For the public actors to facilitate this experimentation, they deviated from the existing planning rules and devised many 'experimental' rules (under the Dutch Crisis and Recovery Act). In the wastewater example, experimental rules were employed in organisational arrangements (e.g., individuals execute wastewater management) and monitoring arrangements (e.g., a regular check of individual systems by the water board). For over five years, these experimental rules remained largely unaltered, despite their incongruency with existing environmental legislation. Only recently (at the beginning of 2020) did the public actors concerned with Oosterwold announce significant changes. Due to the deteriorating problems with water quality, the public actors were ready to give up on self-organised wastewater management. They are currently in the process of devising new rules that comply with the existing environmental legislation. The expectation is that a sewage system will be installed, and the public actors will fall back on a set of traditional rules. Unlike the Navy Yard, this development was not characterised by incremental changes but by more radical ones.

The Carré de Soie development was predominantly characterised by piecemeal institutional design and incremental rule changes. Due to gradual land acquisition, the public actors created a system that had the capacity to apply different rules to different development location (stepwise institutional design), i.e. rules could be tailored according to the specifics of the site. The experiences with the already developed plots could be kept in mind for future lots and could lead to an altered application of rules for these locations. To illustrate, the public actors applied different institutional arrangements for the TASE (*Program d'Aménagement d'Ensemble*) and Villeurbanne-la-Soie locations (*Zone d'Aménagement Concertée*). For each particular location, a dialogue space was created where private and public actors repeatedly engaged in negotiations. In this dialogue space, incremental rule changes took place. However, as Chapter 4 has shown, the involved private developers and investors took advantage of the opportunity to change the rules according to their private preferences. Although the public actors had the capacity to instigate rules changes in terms of control over land, they did not act on this potential. In the TASE location, the public actors only instigated a rule change after the inhabitants submitted a legal challenge. Like the Navy Yard, this

development experienced incremental changes but did not see a cumulative accumulation of institutional design.

In summary, the rules were devised and changed in different ways. The Navy Yard was predominantly centred around cumulative institutional design and incremental rule changes. In Oosterwold, new 'experimental' rules were devised while the institutional changes were much 'bigger' and occurred rarely, compared to the Navy Yard and Carré de Soie. In Carré de Soie, institutions were devised according to the specific characteristics of each lot. During the negotiations of each development lot, the rules changed incrementally but towards favouring preferences of private developers. A particular observation is worth highlighting: incremental development strategies involved not only incremental design or changes of rules but also 'experimental' institutional design, and abrupt and radical changes.

Institutional mismatches

In this section, I summarise how actors achieved specific strategic goals in the examined urban development projects and provide an answer to research question four: *How can strategic goals of incremental urban development projects be achieved?*

In the Navy Yard case, the strategic goals were not set beforehand but elaborated as the urban development proceeded through the temporary uses of space, which set the tone for the future. In about three years, the preliminary future pathways were formulated in a spatial concept known as the 'innovation district'. The initial idea was that this broadly defined spatial concept would interact with temporary uses of space up to the year 2027 (what I labelled as *cumulative temporary uses of space*). Chapter 2 presented how temporary uses acted as forerunners to define the Navy Yard as an innovation district but that no appropriate rules had been devised to realise temporary uses in the long run. The focus on other sets of rules, such as the scope rules, paved the way for more permanent uses of space. In conclusion, appropriate rules were set to condition actors to realise the innovation district, albeit with a strong emphasis on permanent uses of space at the expense of temporary uses

of space. But I must give a disclaimer: the Navy Yard is a vibrant, ongoing project, and the exact role and contribution of temporary use(r)s of space is still being defined.

The strategic goal of Oosterwold was to introduce sustainable wastewater management based on self-organisation and it was not achieved (see Chapter 3). The experiment of Oosterwold took a critical view of the Dutch tradition of centralised wastewater management and proposed a radical civic alternative – the residents would organise wastewater management by themselves. Despite the fact that Oosterwold deserves credits for holding a mirror to existing practice and considering a radical alternative, the experiment created legal inconsistencies with relevant environmental legislation. Because the urban development was incremental, each resident followed his or her preferred schedule, and the potential for cooperation on more decentralised systems of wastewater management was not realised. As a consequence, all Oosterwold residents opted for individual wastewater management facilities. Eventually, the cumulative effect of these individual facilities did not meet the required health and environmental standards, causing deterioration of water quality with potential dangers to human health. In summary, the self-organised wastewater management could not comply with the existing standards, i.e. the devised experimental rules did not match existing environmental legislation, such as EU legislation. As a consequence, the public actors failed to realise sustainable wastewater management by citizens.

The strategic goal examined in the Lyonnais case was the realisation of green infrastructure. Chapter 4 showed the disappointing results in the TASE and Villeurbanne-la-Soie locations. I illustrated that these disappointing results were the consequence of ceding ownership to private developers and control over land to the whims of the market. Despite the diverse types of land control (such as the land use plan, the ZAC or the PAE) that granted public actors the capacity to set the appropriate conditions that would foster green infrastructure, the rules were adapted according to the wishes of private developers and investors. The incremental development strategy was heavily influenced by the preferences of private actors, and public aspirations to provide green spaces were stifled. Only in one instance did the public actors set the ‘appropriate’ conditions to achieve green uses of space in the TASE

location – after residents filed a legal challenge. Until the residents withdrew the challenges, the entire development was stopped. This enabled the public actors to renegotiate with the private developer and to reach an agreement that specified desired outcomes, such as the realisation of green spaces.

The effectiveness of incremental development strategies

In the introduction, I claimed that the effectiveness of incremental development strategies is dependent on the capacity to organise collective action. Therefore, I have developed a reflexive critical analysis of incremental development strategies to examine whether they allow for collective action, formulated as the central research question: *How do purposive actions in incremental development strategies relate to institutions*? Based on the insights from this dissertation, the answer[53] to this question is threefold – (1) purposive actions and institutions *interrelate*; (2) this interrelationship is *not in equilibrium*, and (3) the interrelationship is *dynamic*.

Let me start by saying that regardless of the specifics, the purposive actions of incremental development strategies are deeply embedded into an institutional context. This dissertation has revealed that there is an *interrelationship* between purposive actions and institutions. Nevertheless, it also demonstrated the challenges with generating collective action, as particular purposive actions were *not in equilibrium* with the facilitating institutional conditions. At the Navy Yard, the public actors set facilitating conditions to realise the innovation district but did not set appropriate conditions to ensure the intended cumulative type of temporary use of spaces. The experimental rules for wastewater management in Oosterwold did not satisfy the environmental and health standards set by the existing legal rules, and the realisation of sustainable wastewater management based on self-organisation did not succeed. In the Carré de Soie case, the public actors subjugated themselves, and their control, to the preference of private actors. Consequently, the private actors set the conditions for the development locations at the expense of the intended green infrastructure.

I'm careful in what I say here, but the 'urban planning paradox' might – at least partly – explain this imbalance. Urban planning is characterised by a paradox: the struggle to exercise a form of control over the urban environment under changing, unknown, and complex realities. Incremental development strategies are believed to help to resolve this paradox by bringing in adaptability (Hillier, 2011; Rauws and de Roo, 2016). Therefore, incremental development strategies tend to be based on abstract plans (rather than blueprint plans) and general strategic goals (rather than specific goals); both can be adapted stepwise as new information and knowledge appear. There seems to be a particular fear that institutions impede incremental development strategies. For example, the Navy Yard did not have choice rules to embed temporary uses of space in the long run because there was a feeling that such rules could enhance the likelihood of putting a rigid planning process in place. In the Oosterwold case, the experimental rules were put centre stage, at the expense of environmental and health standards, due to the fear that the normative meaning of legal rules would stifle the experiment. In Lyon, private preferences dominated, meaning that the normative meaning of planning regulations to satisfy the provision of green spaces were disregarded. These examples illustrate that incremental development strategies found it difficult to embrace institutions or preserve their normative meaning (at least in the studied cases). However, I would like to highlight that they not only limit the behaviour of actors but also *enable* them to organise collective action.

The unbalanced interrelationship between the purposive actions and institutional conditions, however, also revealed the dynamic character of incremental strategies. The dissertation demonstrated that both institutions (or rules in this context) and purposive actions changed in the implementation of the urban development projects. In planning practice, it is much easier to understand what institutions mean and what they are actually doing through specific practical applications, i.e. only in practice does it becomes clear how institutions condition actions. On the one hand, this means that when institutional mismatches arise, purposive actions can be changed to 'more appropriate' behaviour. Consider, for example, the decision of the public actors in Oosterwold to give up on the individual self-organised wastewater management and to search for more appropriate alternatives. On the other hand, the purposive actions also challenged conventional interpretations of

institutions and prevented actors from taking institutions for granted. All urban development projects hold a mirror (although differently) to the existing way of doing urban planning. Consider, for example, how temporary uses of space forced the public actor involved in the Navy Yard to incrementally and cumulatively set rules to anchor its future development (albeit for a shorter period than expected). Thus, the linkage between purposive actions and institutions is *dynamic*. This claim also emphasises the importance of the feedback arrows in the conceptual framework, as presented in the introduction.

I want to end this dissertation by calling on my peer academics practitioners to put their investigative spotlight on institutions. The discussions about incremental development strategies look very different when deploying an institutional perspective. This focus enhances the capacity to reach an equilibrium between purposive action of incremental development strategies and rules. In other words, it enhances the chance to succeed in collective action. Hopefully, as incremental development strategies continue to be implemented in urban development projects, this dissertation provides both insights and tools to practice it much more skilfully. I would like to leave the reader with the following thoughts: embrace institutions, test and evaluate them in practice and try to bring them in equilibrium with purposive actions. Only then can we make progress in tackling the challenges of collective action!

Epilogue

This epilogue presents my personal reflections on this dissertation, specifically the empirical focus of the case studies, the theoretical lens, and the methodological choices. Further, I aim to bridge the gap between theory and practice, and to finalise my exploration of the topic by presenting a few suggestions for future research.

Incremental development strategies

I want to say two things about the term 'incremental development strategies'. First, those who know Lindblom's work might be surprised to see a combination of the words 'incremental' and 'strategy'. For Lindblom, the incrementalism model of policymaking is not strategic, i.e. it is not directed towards (longer-term) ends or means to get to those ends. However, urban planning is in all its aspects directional (it is intentionally directed towards a better future). Applying Lindblom's idea to urban development projects would – per definition – turn incrementalism into a development strategy that presents a vision for a desirable future and the necessary planning actions to achieve it. That is why I combined the words 'incrementalism' and 'strategy'. Second, the incremental development strategies are, to use Mintzberg's (1978) words, examples of 'strategy as a plan'. During conferences, my peer academics practitioners (often from the Netherlands) often said, 'incrementalism as a strategy for urban planning is very common outside of the Netherlands'. Although I would question this view, in this case there is also a difference in the way 'strategy' is defined. To the best of my knowledge, my peer academics and practitioners usually referred to the consistency of behaviour (Van Assche et al., 2020), understood by Mintzberg as a 'strategy as a pattern' (1978).

A strong focus on collective action problems

The incremental development strategy in urban projects was the core subject of this study. In this dissertation, I have directed my attention on collective

action problems that arise when adopting incremental development strategies. More often than not, academic publications on incremental strategies in public policies uncritically accept its relevance for urban development projects. To put it simply, there is a lot of hype about incremental development strategies, and this can be problematic as it leads to loud support (or opposition) but suppresses critical reflection and analysis. Given the current popularity of incremental development strategies in public policies and political agenda, I thought it was important to present the challenges of facilitating collective action. The focus on collective action problems may have led me to gloss over the positive aspects of the empirical cases. These developments might be indeed 'more thrilling' and 'innovative' examples of urban planning that truly go against established (and sometimes outdated) practices than I have acknowledged.

To this claim, I want to highlight a few striking features of these urban development projects. The fascinating experiment in Oosterwold led to a diversity of self-built houses, a proliferation of urban farming, and a strong community feeling. Also, Oosterwold challenged the traditional way of doing large-scale greenfield development in the Netherlands, where such developments are often left to large real estate developers. In Oosterwold, the public actors plucked up the courage to let citizens undertake this large-scale greenfield development. The Navy Yard dared to experiment with temporary uses of space for a relatively long period of time at a very attractive location (the historical city centre of Amsterdam). Obviously, the Navy Yard site is on the radar of many developers, yet the actors did not follow the money and emphasised the importance of nurturing innovative processes instead. Also, the Navy Yard case clearly demonstrated the added value of a spatial concept, framed as the 'innovation district'. The spatial concept was rock solid despite the highly uncertain and changing circumstances. This case clearly added knowledge to the debate of adaptability in urban planning. Lastly, the Carré de Soie development experimented with a novel strategy to land ownership, understood as the 'strapontin strategy'. The heterogeneity of owners is often neglected despite its stimulus for innovation in governance configurations and time horizons in urban planning (Wright, 2017).

In closing, I feel that without experiments and innovations, urban planning cannot be invigorated, and thus innovations like incrementalism are very valuable. This dissertation was not meant as an attempt to discredit or tear down the ideas put forward in incremental development strategies. Instead, I sought to highlight the significance (and challenge) of combining the incremental development strategy with the institutional perspective. I hope that the insights of this dissertation contribute to and advance the discussion on the theory of collective action and, at the same time, help practitioners engage with incremental development strategies more skilfully.

Theoretical reflection

Building on Elinor Ostrom's work, I sought to locate incremental development strategies institutionally. As described in the introduction and Chapter 1, I adapted Ostrom's framework for this dissertation, yet marginally. Therefore, and to my understanding, I kept her underlying thoughts intact. As evidenced in Chapter 1 and 2, Ostrom's work proved relevant for getting a deeper understanding of how changes in rules shape collective action in urban development projects. For instance, due to a focus on scope rules, instead of choice rules, the cumulative type of temporary uses of space proved much more challenging to achieve (see Chapter 2). Her work was instrumental in uncovering the challenges of spurring collective action in this case. Based on the application of Ostrom in this dissertation, I dare to argue that her institutional analysis has much broader relevance, beyond the narrow application of the commons and common-pool resources. The accuracy of her institutional analysis is the primary justification for this argument. Also, other urban planning scholars are applying her institutional analysis (see the recent work of Van den Hurk et al., 2014; Salet, 2018; Savini, 2019; Spijkerboer et al., 2019; Myers, 2020). Furthermore, this dissertation has illustrated the utility of her approach to a qualitative case study design, in addition to its frequent and recognised application to quantitative analysis (Forsyth and Johnson, 2014).

Despite the advantages of Ostrom's approach, there are also some limitations to understanding urban development projects through her institutional lens. To begin with, she emphasises the formal aspects of rules, in particular, because

her institutional analysis is deeply rooted in game theory (Forsyth and Johnson, 2014). In Chapter 1, I mentioned this shortcoming in the context of the IAD framework, enriched by Ostrom's own words, 'the framework enables us to compare work conducted in formal game-theoretical analyses' (Ostrom, 2013: 7). As the informal aspect of rules is essential for understanding planning practices (Buitelaar et al., 2007; Van Assche et al., 2014), I reiterated the importance of both the formal and informal aspects of rules for understanding collective action in urban development projects. To incorporate the informal aspect of rules in my analysis, I added verbs such as 'hold on to' and 'should' in the operationalisation (see Chapter 1). However, in Chapter 3 the legal rules were put at the heart of the Oosterwold case while in the Lyon case, I primarily focused on the formal aspect of rules, in terms of property rights and land control regulations. The principal focus on these rules helped me to better relate the purposive actions to institutions, and therefore, seemed to fit well the central research question of this dissertation. In Chapter 2, considering the temporary uses of space in the Navy Yard case, no explicit distinction between the formal and informal aspects of the rules was made, although sometimes the verbs selected for analysis implicitly denoted a more formal or informal aspect of the rules. When I reflect on the rules in the studied cases, I have to admit that it is possible that the rules' informal aspects received too little attention.

Furthermore, while the institutional analysis allowed me to sort and understand institutional statements into generic sets, rules are incredibly diverse and complex. This dissertation encountered a wide variety of rules that emanate from environmental laws (Chapter 3), constitutions (Chapter 3), property rights (Chapter 4), land use plans (Chapter 4), and land control instruments (Chapter 4). Obviously, in empirical settings, many detailed institutional arrangements are involved in these rules. In some cases, as in the wastewater management example, the explicit details of the institutional arrangements had to be known in order to obtain sufficient information and knowledge. In these circumstances, Ostrom's work proved to be less applicable as the sets of rules remained too abstract. Crucially, I am aware of the fact that theory nearly always involves abstraction and that a theoretical lens, in some instances, does not easily lend itself for suitable application.

This dissertation also brought up a few broader theoretical concerns. First, the institutional orientation of this dissertation is limited to the institution-actor orientation. The introduction acknowledged the coexistence of many orientations to institutional theory, such as the historical orientation (Pierson, 2000) or the cultural orientation (Bourdieu, 1998). Although the choice of the institution-actor orientation has been substantiated, adopting another orientation would have potentially yielded different types of outcomes in the studied cases. Second, I must recognise that the examination of the informal aspects of rules in this dissertation only took notice of regular practices, such as habits or routines. Admittedly, this dissertation did not deal with intrinsic preferences, personal feelings or characteristics, individual expressions, or symbolical meanings, to name a few. Third, I did not explicitly focus on multiple levels of analysis, and it should be emphasised that rules operate at different levels: operational, collective and constitutional (Ostrom, 2005; Savini, 2019). Based on the results, it seemed that operational rules (the day-to-day decision-making of the urban development project) did not match or were not articulated in broader institutional structures at the collective level (e.g., urban planning regulations) or constitutional level (e.g., environmental legislature). Analysing the interaction between the multiple levels would have potentially brought an added value to the study. Fourth, the institutional perspective clearly dominated the analysis of the studied cases. The full reliance on the institutional perspective might give the impression that institutions are all that matters; however, this was not my intention. Many, many important elements shaped these projects, such as the situational context (e.g., the size, the location, greenfield vs brownfield development), the political context (e.g., political preferences), the history of the site, and others.

Methodological reflection

This section presents my reflections on the methodological choices of this dissertation and provides an answer to research question five: *How to empirically observe incremental development strategies?*

Reflections on the action-oriented methodological approach

A defining methodological choice of this dissertation was to study *ongoing* urban development projects. Because the small choices and decisions made by actors (over a long period of time) are at the heart of incremental development strategies, I researched urban development practice in real-life situations (Chapters 1, 2, 3, and 4). This approach enriched the dissertation with an *action-oriented* methodological approach. In the Navy Yard, I immersed myself in the professional setting with up-close observations (participant observation). For the Oosterwold and Carré de Soie cases, I talked to actors while they were in the midst of shaping the project (semi-structured interviews). From a methodological perspective, it helped me understand in detail how the actors behaved in their professional settings. Reasoning from this perspective, this methodological approach bears some resemblance to Schon's idea of *reflection-in-action* (Schön, 1983). Further, it allowed me to adopt a less-commonly used methodological approach, that is studying urban development projects 'in motion'. Usually, urban development projects are researched during their advanced stage or after completion (Dembski, 2012). Obviously, there are many advantages to this type of research, such as the availability of data, and the possibility of ex-post evaluation of the process and analysis of the resulting spatial configurations. But there are also limitations, for example, an increased risk that the historical details on the specific urban development approach are overlooked or that the actors are not accessible (because they no longer work on the project).

The study of ongoing urban development projects provided me with both positive and negative experiences. To start with the positive ones, first of all, it was very enriching to see how planning practices unfolded in real time. At the Navy Yard, it was nearly always a surprise to learn what had happened in the time between two meetings. Sometimes it was nothing critical, as related to my research aims; however, sometimes a particular actor's choice or action fundamentally changed the focus of my chapter. For Oosterwold, I struggle to put in words the tremendous scope of the observed changes from my first to my last visit. Today, the development has many more owner-constructed houses, asphalted streets, and many more residents. I spent considerably less time engaged in the Carré de Soie case than in the Navy Yard and Oosterwold;

however, I could witness how quickly the constructions site changed between September 2018 and March 2019. In addition to being personally invigorating, it provided me as a researcher with rich knowledge of and experience in interactive planning practices. Another positive effect of this methodological approach was the opportunity to reflect – not only for me as a researcher but also for the planning practitioners I talked to or interviewed. By asking planning practitioners questions about what they were doing, they could hold a mirror to own thoughts, choices, and decisions. In sum, this methodological approach lets researchers learn from planning practitioners and vice versa.

Studying ongoing urban development projects also brings challenges and shortcomings. First, there is a very limited number of academic publications on such case studies. Second, ongoing urban development projects are incredibly dynamic, meaning that the actors, the action situation, interaction patterns, and outcomes continuously change. To illustrate, I had to substantially rewrite Chapter 2 after the Ministry of Defence decided to retain some operations at the Navy Yard. Due to their reconsideration, the actors changed, the provisional urban plans were no longer applicable, and only the idea of the innovation district remained intact. Another example is the decisions of the public actors in the Oosterwold case to give up on individual self-organised wastewater management. The focus of Chapter 3 is on this individual self-organised type; when the decision to cancel it was taken, I had already completed my empirical research. What does this say about the relevance of Chapter 3? Luckily, the ideology of self-organisation in public service delivery is present in a wide range of environmental and planning policies (Chapter 3), affirming the relevance of the chapter.

Reflections on the methods

With respect to the methods, I will focus on participant observation in this section.[54] Selecting participant observation brought on multiple, decisive methodological choices (see Chapter 2) and various important benefits. As a researcher, I could enjoy immediate access to relevant actors; as an insider, I could generate a better understanding of the existing situations, and as an academic, I could leave the 'ivory tower'. But the method also brings up

a few issues to be carefully considered. First, due to the timeframe of the research project, I engaged with and left the study context at a somewhat 'arbitrary' moment. Nevertheless, I could follow the Navy Yard for almost the entire duration of my PhD research. Second, it is a very time-intensive method, and its success hinges on building strong relationships of mutual trust between researcher and actors. At the end of the process, I occasionally underestimated the importance of regularly updating the actors about the progress of the research. Third, as a researcher, you must be continuously aware of the professional bias and the dynamics of the planning field – actors change, power relationships transform, the political environment shifts, and so on. Furthermore, another limitation is the power of the actors themselves. The actors approved my access to the urban development project in terms of meetings and workshops and read my work as data and analytical quality assurance.

Reflections on the operationalisation

From an analytical point of view, the linguistic statements were very helpful in understanding the urban development projects and provided guidance in the dynamic real-life situations (Ostrom, 2005). Therefore, I would encourage my peer academics practitioners to consider linguistic statements as measurable entities that serve the operationalisation. However, it is important to acknowledge that the findings rely heavily on the capacity to understand the institutional linguistic statements in a particular context. To illustrate, the actors did – clearly – not only use words such as 'authorised to', 'permitted to', 'required to' when referring to the rules. Neither did they only employ verbs such as 'long to' or 'aspire to' when denoting a particular strategic orientation. Thus, the results in this dissertation reflect the direct interpretation of the researcher, i.e. my own intersubjectivity. Nevertheless, as a final note on the research question, I benefitted from studying incremental development strategies in urban projects from such an accurate operationalisation.

Recommendations for future research

The exciting thing about research is that the ensuing answers always give rise to new questions, i.e. opportunities for future research. In this section, I shall highlight some recommendations for future research that arose during writing this dissertation. The theoretical recommendation concerns the application of Elinor Ostrom's work in urban planning. Ostrom's classification entails six sets of rules that affect actions of actors (position, demarcation, choice, decision-making, information and payoff rules) against one set of rules that affects the outcome space (scope rules). From an urban planning perspective, scope rules, as described in Chapter 1, centre on the prescriptions of spatial configurations in a particular place. In other words, scope rules shape the formation of space and place (Healey, 2004). It would be interesting for the urban planning profession to develop a more comprehensive classification system for scope rules.

In terms of methodology, I argue that participant observation is a valuable tool for urban planning scholars. Although the method is a long-standing standard in sociological or anthropological studies, planning scholars have utilised it only to a limited extent (notable exceptions are Laws and Forester, 2015; Majoor, 2018). The method has several shortcomings and issues to be considered (e.g., it is time-consuming, there is a risk of professional bias); however, despite these challenges it should be encouraged. Following Laws and Forester (2015), the method provides a better understanding of what planners are actually doing, the complex environment in which they operate, and the daily, practical challenges they face. In addition, the method encourages planning scholars and practitioners to consciously engage in reflective conversations, an argument that mirrors Schön's thinking (1983). Looking at the advantages, the method is a way to bridge the gap between theory and practice and helps scientists and practitioners to understand each other's languages. However, to perform this method correctly, it would be helpful to develop methodological steps that fit well with urban development projects.

Finally, two empirical recommendations for future research should be given. The first recommendation concerns the contemporary perception of the role of lawmakers in setting public norms. Public actors in the Netherlands, for

example, recently drafted and approved two new laws: *the Climate Law* and *the New Environment and Planning Law.* Both laws are legislative frameworks (*Kaderwetgeving* in Dutch) that provide abstract rules that 'prescribe' how the living environment must be regulated. Furthermore, both laws delegate the legislative responsibilities to the executives (Salet, 2018), meaning that the legislative authority is sidelined and the normative power of these two laws is clearly diminished (Raad van State, 2019). It would be interesting to uncover whether the disinterest in normative institutional conditions dominates Dutch policies and political agendas or whether it is also observable in other planning cultures. The second empirical question relates to the scale on which incremental development strategies are applied. In this dissertation, I covered in great detail the empirical application of the incremental development strategy; however, I did not address the scale on which incremental development strategies are applied. The scale in the case studies ranged from 13 hectares (the Navy Yard) to circa 4,000 hectares (Oosterwold). Future research could explicitly assess whether the scale of the incremental development strategy affects its effectiveness.

From theory to practice

This research was part of the R-LINK research project funded by *the Nederlandse Organisatie voor Wetenschappelijk Onderzoek* (Dutch Scientific Organisation). The R-LINK research project aims to uncover solutions to economic, social, and environmental challenges through spatial transformations. Specifically, R-LINK concentrated on incremental development strategies (Van Karnenbeek and Janssen-Jansen, 2018; De Nijs et al., 2019; Van Karnenbeek, 2020); small-scale, bottom-up initiatives through social learning (Von Schönfeld et al., 2019); and contractual agreements with citizens (Stapper et al., 2020). For this research project, fostering knowledge exchange between planning scholars and planning practitioner is deemed to be vital. The findings of my research are deliberately aimed at professionals and decision-makers in the field of urban planning, with the aim to advance vibrant and inclusive cities. Therefore, I consider it essential to translate some of the theoretical and empirical findings of this dissertation into formats that are applicable in planning practice.

First, and foremost, I hope that this dissertation raises awareness among practitioners that rules not only limit the behaviour of actors but also *enable* them to organise collective action. In particular, I recommend for planning practitioners to debate the normative meaning of rules and to move beyond a mere discussion about the number of rules. In other words, the discussion about rules should not be limited to a quantitative discussion but should be extended to the qualitative level. By exploring the explicit meaning of rules, planning scholars and practitioners can address key research questions: *Does this rule still condition legitimate behaviour? Does the rule provide an adequate framework for action? How are we interpreting this rule? What are the consequences of applying a particular rule?* Second, I want to recommend that governments not only aspire to, long to, want to, desire to or aim for incremental development strategies but also *condition* these strategies. Planning practitioners are increasingly praising incremental development strategies for their potentials but pay less attention to institutions that condition the behaviour of actors in implementing these strategies.

In closing, I would like to point to a few common fallacies regarding the logic of incrementalism. First, small steps and decisions do not necessarily have small consequences or outcomes. Second, small steps and decision can substantially raise the costs for public service delivery (e.g., the water board having to check hundreds of individual wastewater systems in Oosterwold on a regular basis). Third, urban planning does not only consist of incremental steps and decisions but also features non-incremental ones (e.g., the Ministry's choice not to vacate the Navy Yard), as already mentioned by Etzioni (1967). Fourth, mutual adjustments do not necessarily result in consensus but are also prone to deadlocks, as the Carré de Soie and Navy Yard cases have clearly shown. Nevertheless, my exploration of this thematic revealed a key contribution of incrementalism to reimagining the modern urban form: by triggering introspection among urban policymakers and planners, it inspires them to innovate and advance their respective professions and to create liveable cities.

References

Abram, S. and G. Wezkalnys (2011) Anthropologies of planning: temporality, imagination and ethnography. *Journal of Global and Historical Anthropology*, 61, 3-18.

Albrechts, L. (2004) Strategic (spatial) planning re-examined. *Environment and Planning B: Planning and Design*, 31 (5), 743-758.

Albrechts, L. (2015) Ingredients for a more radical strategic spatial planning. *Environment and Planning B: Planning and Design*, 42 (3), 510-525.

Albrechts, L. and A. Balducci (2013) Practicing strategic planning: in search of critical features to explain the strategic character of plans. *disP - The Planning Review*, 49 (3), 16-27.

Alexander, E. (2001) A transaction-cost theory of land use planning and development control: towards the institutional analysis of public planning. *Town Planning Review*, 72 (1), 45-76.

Alexander, E. (2005) Institutional transformation and planning: from institutionalization theory to institutional design. *Planning Theory*, 4 (3), 209-223.

Alexander, E. (2014) Land-property markets and planning: a special case. *Land Use Policy*, 41, 533-540.

Andres, L. (2013) Differential spaces, power hierarchy and collaborative planning: a critique of the role of temporary uses in shaping and making places. *Urban Studies*, 50 (4), 759-775.

Atkinson, M. (2011) Lindblom's lament: incrementalism and the persistent pull of the status quo. *Policy and Society*, 30 (1), 9-18.

Bailey, A. and G. Johnson (1997) Logical or processual? defining incrementalism. Retrieved 11 May, 2020, from https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/521/SWP0697.pdf?sequence=2.

Balsiger, P. and A. Lambelet (2014) Participant observation. In: Porta, D. (Ed.), *Methodological practices in social movement research*, 144-172. Oxford: Oxford University Press.

Barton, H. (2009) Land use planning and health and well-being. *Land Use Policy*, 26 (1), S115-S123.

Bishop, P. and L. Williams (2012) *The temporary city*. London: Routledge.

Black, M. (1962) *Models and metaphors*. Ithaca: Cornell University Press.

Boelens, L. and G. de Roo (2016) Planning of undefined becoming: first encounters of planners beyond the plan. *Planning Theory*, 15 (1), 42-67.

Boino, P. (2010) *Lyon: la production de la ville*. Marseille: Editions Parenthèses.

Boonstra, B. and L. Boelens (2011) Self-organization in urban development: towards a new perspective on spatial planning. *Urban Research & Practice*, 4 (2), 99-122.

Booth, P. (2002) From property rights to public control: the quest for public interest in the control of urban development. *Town Planning Review*, 73 (2), 153-170.

Booth, P. (2009) Planning and culture of governance: local institutions and reform in France. *European Planning Studies*, 17 (5), 677-695.

Bossuyt D., W. Salet and S. Majoor (2018) Commissioning as the cornerstone of self-build: assessing the constraints and opportunities of self-build housing in the Netherlands. *Land Use Policy*, 77, 524-533.

Boulton, C., A. Dedekorku-Hower and J. Byrne (2018) Factors shaping urban greenspace provision: a systematic review of the literature. *Landscape and Urban Planning*, 178, 82-101.

Bourdieu, P. (1991) *Language and symbolic power*. Cambridge, MA: Polity Press.

Bourdieu, P. (1998) *Acts of resistance: against the new myths of our time*. Cambridge, UK: Polity Press.

Brandsen, T. and V. Pestoff (2006) Co-production, the third sector and the delivery of public services. *Public Management Review*, 8 (4), 493-501.

Bromley, D. (1991) *Environment and economy: property rights and public policy*. Cambridge MA: Basil Blackwell.

Bruzzese, A. (2019) The spatial features and temporality of urban alternatives. In: Fisker, J., L. Chiappini, L. Pugalis and A. Bruzzese (Eds.), *Enabling urban alternatives: crises, contestation, and cooperation*, 201-222. Singapore: Palgrave Macmillan.

Bryman, A. (2008) *Social research methods.* Oxford: Oxford University Press.

Bryson, J., B. Crosby and L. Bloomberg (2014) Public value governance: moving beyond traditional public administration and the new public management. *Public Administration Review*, 74 (4), 445-456.

Buitelaar, E., A. Lagendijk and W. Jacobs (2007) A theory of institutional change: illustrated by Dutch city-provinces and Dutch land policy. *Environment and Planning A,* 39 (4), 891-908.

Carpenter, J. and R. Verhage (2014) Lyon city profile. *Cities*, 38, 57-68.

Centre of Expertise Water Technology (2019) *Effectiviteit IBA-systemen*. Almere: Gemeente Almere.

Choumert, J. (2010) An empirical investigation of public choices for green spaces. *Land Use Policy*, 27 (4), 1123-1131.

Colding, J. and S. Barthel (2012) The potential of 'urban green commons' in the resilience building of cities. *Ecological Economics*, 86, 156-166.

Colding, J., S. Barthel, P. Bendt, R. Snep, W. van der Knaap and H. Ernston (2013) Urban green commons: insights on urban common property systems. *Global Environmental Change*, 23 (5), 1039-1051.

Colomb, C. (2012) Pushing the urban frontier: temporary uses of space, city marketing, and the creative city discourse in the 2000s Berlin. *Journal of Urban Affairs*, 34 (2), 131-152.

Cozzolino, S., E. Buitelaar, S. Moroni and N. Sorel (2017) Experimenting in urban self-organization: framework-rules and emerging orders in Oosterwold. *Cosmos + Taxis*, 4 (2), 49-59.

Crawford, S. and E. Ostrom (2005) Classifying rules. In: Ostrom, E. (Ed.), *Understanding institutional diversity*, 186-215. Princeton: Princeton University Press.

Dahl, R. and C. Lindblom (1953) *Politics, economics and welfare: planning and socio-economic systems resolved into basic social processes*. New York, Evanston and London: Harper & Row.

Davidoff, P. (1965) Advocacy and pluralism in planning. *Journal of the American Institute of Planners*, 31 (4), 331-338.

Davoudi, S. and A. Madanipour (2015) *Reconsidering localism*. New York and London: Routledge.

Davy, B. (2012) *Land policy: planning and the spatial consequences of property*. New York: Routledge.

Degen, M. (2018) Timescapes of urban change: the temporalities of regenerated streets. *The Sociological Review*, 66 (5), 1074-1092.

Dembski, S. (2012) *Symbolic markers and institutional innovation in transforming urban spaces*. Amsterdam: University of Amsterdam.

Dembski, S. (2020) 'Organic' approach to planning as densification strategy? The challenge of legal contextualisation in Buiksloterham, Amsterdam. *Town Planning Review*, 91 (3), 283-303.

De Nijs, K., M. Levelt and S. Majoor (2019) *Open stad: Werken aan duurzame en democratische steden*. Amsterdam: R-LINK.

Dikec, M. (2006) Two decades of French urban policy: from social development of neighbourhoods to the Republican Penal State. *Antipode*, 38 (1), 59-81.

Dobinson, I. and F. Johns (2017) Legal research as qualitative research. In: McConville, M. and W. Hong Chui (Eds.), *Research methods for law*, 18-47. Edinburgh: Edinburgh University Press.

Douglas, O., M. Lennon and M. Scott (2017) Green space benefits for health and well-being: a life-course approach for urban planning, design and management. *Cities*, 66, 53-62.

Douvere, F. and C. Ehler (2009) New perspectives on sea use management: initial findings from European experience with marine spatial planning. *Journal of Environmental Management*, 90 (1), 77-88.

Eggimann, S., B. Truffer and M. Maurer (2015) To connect or not to connect? Modelling the optimal degree of centralisation for wastewater infrastructures. *Water Research*, 84, 218-231.

Etzioni, A. (1967) Mixed-scanning: a 'third' approach to decision-making. *Public Administration Review*, 27 (5), 385-392.

Evers, D. (2015) Formal institutional change and informal institutional persistence: the case of Dutch provinces implementing the Spatial Planning Act. *Environment and Planning C: Government and Policy*, 33, 1-17.

Farjoun, M. (2002) Towards an organic perspective on strategy. *Strategic Management Journal,* 23 (7), 561-594.

Fennell, L. (2011) Ostrom's law: property rights in the commons. *International Journal of the Commons*, 5 (1), 9-27.

Ferreri, M. (2015) The seductions of temporary urbanism. *Ephemera: Theory & Politics in Organization*, 15 (1), 181-191.

Fisker, J., L. Chiappini, L. Pugalis and A. Bruzzese (2019) *Enabling urban alternatives: crises, contestation, and cooperation.* Singapore: Palgrave Macmillan.

Forester, J. (1984) Bounded rationality and the politics of muddling through*. Public Administration Review,* 44 (1), 23-31.

Forester, J. (1987) Planning in the face of conflict: negotiation and mediation strategies in local land use regulation. *Journal of the American Planning Association*, 53 (3), 303-314.

Foret, C. (2010) *De l'épopée industrielle de l'Est lyonnais au projet urbain du Carré de Soie, ou l'invention d'un territoire d'agglomeration*. Lyon: Agence d'Urbanisme.

Forsyth, T. and C. Johnson (2014) Elinor Ostrom's legacy: governing the commons and the rational choice controversy. *Development and Change*, 45 (5), 1093-1110.

Friedmann, J. (1987) *Planning in the public domain: from knowledge to action*. Princeton: Princeton University Press.

Galdini, R. (2020) Temporary uses in contemporary spaces: a European project in Rome. *Cities*, 96, 1-8.

Garrone, P., L. Grilli, A. Groppi and R. Marzano (2018) Barriers and drivers in the adoption of advanced wastewater treatment technologies: a comparative analysis of Italian utilities. *Journal of Cleaner Production*, 171, S69-S78.

Gordley, J. (1994) Myths of the French Civil Code. *The American Journal of Comparative Law*, 42 (3), 459-505.

Gemeente Almere (2012) *Landgoed voor initiatieven*. Almere: Gemeente Almere.

Gemeente Almere (2016) *Bestemmingsplan Oosterwold*. Almere: Gemeente Almere.

Gemeente Almere (2017) *Waterplan Almere 2017-2022*. Almere: Gemeente Almere.

Gemeente Amersfoort (2015) *De Nieuwe Stad*. Amersfoort: Gemeente Amersfoort.

Gemeente Den Haag (2011) *Gebiedsaanpak Binckhorst*. Den Haag: Den Haag: Gemeente Den Haag.

Gemeente Groningen (2015) *Bestemmingsplan Ebbingekwartier*. Groningen: Gemeente Groningen.

Giddens, A. (1984) *The constitutions of society*. Berkeley, CA: University of California Press.

Gofen, A. (2015) Citizens' entrepreneurial role in public service provision. *Public Management Review*, 17 (3), 404-425.

Grand Lyon, Ville de Vaulx-en-Velin and Ville de Villeurbanne (2016) *Projet urbain du Carré de Soie: principes et enjeux*. Retrieved 18 January, 2019, from https://carredesoie.grandlyon.com/app/uploads/2017/09/PU-CdS_Principes-et-enjeux_Vdef_BD.pdf.

Grand Lyon, Ville de Vaulx-en-Velin and Ville de Villeurbanne (2017) Guide du bien construire à Carré de Soie en 7 clefs. Retrieved 18 January, 2019, from https://carredesoie.grandlyon.com/app/uploads/2017/09/bien_construire_a_Carre_de-_soie_2017_-Web.pdf.

Guelton, S. (2018) The end of the French model of land development*? Town Planning Review*, 89 (6), 553-556.

Guironnet, A. (2016) Une financiarisation si discrete? La circulation des standards de la filière d'investissement en immobilier tertiaire dans les politiques de développpment urbain du Grand Lyon, *Métropoles*, 19. Retrieved 28 November, 2019, from http://journals.openedition.org/metropoles/5371.

Haaland, C. and C. van den Bosch (2015) Challenges and strategies for urban green-space planning in cities undergoing densification: a review. *Urban Forestry & Urban Greening*, 14 (4), 760-771.

Hajer, M. (2011) *De energieke samenleving: op zoek naar een sturingsfilosofie voor een schone economie*. Den Haag: Planbureau voor de Leefomgeving.

Hall, P. (1988) *Cities of tomorrow*. Oxford: Basil Blackwell.

Halleux, J., S. Marcinczak and E. van der Krabben (2012) The adaptive efficiency of land use planning measured by the control of urban sprawl: the cases of the Netherlands, Belgium and Poland. *Land Use Policy*, 29 (4), 887-898.

Hardin, G. (1968) The tragedy of the commons. *Science*, 162, 1243-1248.

Hayden, F. and R. Temel (2006) *Temporary urban spaces: concepts for the use of city spaces*. Basel: Birkhäuser.

Healey, P. (1997) *Collaborative planning.* London: MacMillan Press.

Healey, P. (2003) Collaborative planning in perspective. *Planning theory*, 2 (2), 101-123.

Healey, P. (2004) The treatment of space and place in the new strategic spatial planning in Europe. *International Journal of Urban and Regional Research*, 28 (1), 45-67.

Healey, P. (2007) *Urban complexity and spatial strategies*. London: Routledge.

Healey, P. (2008) The pragmatic tradition in planning thought. *Journal of Planning Education and Research*, 28, 277-292.

Healey, P. (2018) Developing a sociological institutionalist approach to analysing institutional change in place governance. In: Salet, W. (Ed.), *Institutions in actions*, 24-42. London: Routledge.

Hillier, J. (2007) *Stretching beyond the horizon: a multiplanar theory of spatial planning and governance.* London: Routledge.

Hillier, J. (2011) Strategic navigation across multiple planes: towards a Deleuzean-inspired methodology for strategic spatial planning. *Town Planning Review*, 82 (5), 503-528.

Hoppe, R. (2017) Lindblom on limits to policy change: the tragic dilemma between understanding and shaping the world. *European Policy Analysis*, 3 (2), 226-255.

Horelli, L., J. Saad-Sulonen, S. Wallin and A. Botero (2015) When self-organization intersects with urban planning: two cases from Helsinki. *Planning Practice & Research*, 30 (3), 286-302.

Innes, J. (1995) Planning theory's emerging paradigm: communicative action and interactive practice. *Journal of Planning Education and Research*, 14 (3), 183-189.

Innes, J. and D. Booher (1999) Consensus building and complex adaptive systems. *Journal of the American Planning Association*, 65 (4), 412-423.

Jansen, L. and M. Pedroli (2016) Marine establishment. In: Kalisvaart, I., A. Garvin, K. Gray and A. Harwell (Eds.), *The Marine Establishment: New Terrain for Central Amsterdam*. New Haven: Yale School of Architecture.

Janssen-Jansen, L. (2016a) Stromen van institutionele verandering. *Rooilijn,* 49 (5), 378-381.

Janssen-Jansen, L. (2016b) Taking national planning seriously: a challenged planning agenda in the Netherlands. *Public Administration*, 64 (3/4), 23-43.

Kambites, C. and S. Owen (2006) Renewed prospects for green infrastructure planning in the UK. *Planning, Practice & Research*, 21 (4), 483-496.

Karadimitrio, N., C. de Magalhaes and R. Verhage (2013) *Planning, risk and property development: urban regeneration in England, France and the Netherlands*. New York: Routledge.

Keessen, A., M. van Kogelenberg and T. de Graaf (2018) *De juridische mogelijkheden voor alternatieve afvalwatervoorzieningen: onderzoek in opdracht van de provincie Flevoland.* Utrecht: Universiteit Utrecht.

Kennedy, C., J. Cuddihy and J. Engel-Yan (2007) The changing metabolism of cities. *Journal of Industrial Ecology*, 11 (2), 43-59.

Kim, A. (2011) Unimaginable change. *Journal of the American Planning Association*, 77 (4), 328-337.

Kloosterman, R. (2009) New urbanity in the old city: lessons from Amsterdam. *Geographische Zeitschrift*, 97 (2), 59-72.

Labaree, R. (2013) *Organizing your social sciences research paper*. California: University of Southern California.

LaGro, J., B. Vowels and B. Vondra (2017) Exurban housing development, onsite wastewater disposal, and groundwater vulnerability within a changing policy context. *Landscape and Urban Planning*, 167, 60-71.

Lai, L. (1994) The economics of zoning: a literature review and analysis of the work of Coase. *Town Planning Review*, 65 (1), 77-98.

Laws, D. and J. Forester (2015) *Conflict, improvisation, governance*. New York: Routledge.

Lindhout, P. (2013) Application of the cost recovery principle on water services in the Netherlands. *Journal for European Environmental & Planning Law*, 10 (4), 309-332.

Lehtovuori, P. and S. Ruoppila (2017) Temporary uses producing difference in contemporary urbanism. In: Henneberry, J. (Ed.), *Transience and permanence in urban development*, 47-63. Hoboken: John Wiley and Sons.

Lennon, M. and M. Scott (2014) Delivering ecosystems services via spatial planning: reviewing the possibilities and implications of a green infrastructure approach. *Town Planning Review*, 85 (5), 563-587.

Lindblom, C. (1959) The science of 'muddling through'. *Public Administration Review*, 19 (2), 79-88.

Lindblom, C. (1965) *The intelligence of democracy*. New York: Free Press.

Lindblom, C. (1979) Still muddling, not yet through. *Public Administration Review*, 39 (6), 517-526.

Lindblom, C. (1988) *Democracy and the market system*. Oslo: Norwegian University Press.

Linossier, R. and R. Verhage (2010) La co-production public/privé dans les projets urbains. In: Boino, P. (Ed.), *La production de la ville*, 144-171. Marseille: Editions Parenthèses.

Loeffler, E. and T. Bovaird (2016) User and community co-production of public services: what does the evidence tell us? *International Journal of Public Administration*, 39 (13), 1006-1019.

MacLaran, A. (2014) *Making space: property development and urban planning*. New York: Taylor & Francis.

Madanipour, A. (2003) *Public and private spaces of the city*. London: Routledge.

Madanipour, A. (2017) *Cities in time: temporary urbanism and the future of the city.* London: Bloomsbury Academic.

Madanipour, A. (2018) Temporary use of space: urban processes between flexibility, opportunity and precarity. *Urban Studies*, 55 (5), 1093-1110.

Majoor, S. (2018) Coping with ambiguity: an urban megaproject ethnography. *Progress in Planning*, 1-28.

Mäntysalo, R., A. Balducci and J. Kangasoja (2011) Planning as agonistic communication in a trading zone: re-examining Lindblom's partisan mutual adjustment. *Planning Theory*, 10 (3), 257-272.

Mäntysalo, R., J. Tuomisaari, K. Granqvist and V. Kanninen (2019) The strategic incrementalism of Lahti master planning: three lessons. *Planning Theory & Practice*, 20 (4), 555-572.

March, J. and J. Olsen (1989) *Rediscovering institutions: the organizational basis of politics*. New York: The Free Press.

Mattijssen, T., A. Buijs, B. Elands and B. Arts (2018) The 'green' and 'self' in green self-governance – a study of 264 green space initiatives by citizens. *Journal of Environmental Policy & Planning,* 20 (1), 96-113.

McCarthy, J. (2012) Cruise passenger terminals, spatial planning and regeneration: the cases of Amsterdam and Rotterdam. *European Planning Studies*, 20 (12), 2033-2052.

McConville, M. and W. Hong Chui (2017) *Research methods for law*. Edinburgh: Edinburgh University Press.

McGinnis, M. (2011) Networks of adjacent action situations in polycentric governance. *The Policy Studies Journal,* 39 (1), 51-78.

McLoughlin, J. (1969) *Urban and regional planning: a systems approach*. London: Faber and Faber.

Mehdi, L., C. Weber, F. Di Pietro and W. Selmi (2012) Évolution de la place du végétal dans la ville, de l'espace vert à la trame verte. *Natures et Métropoles*, 12, 2-16.

Ministerie van Defensie, Rijksvastgoedbedrijf and Gemeente Amsterdam (2013a) *Strategienota het Marineterrein*. Amsterdam: Gemeente Amsterdam.

Ministerie van Defensie, Rijksvastgoedbedrijf and Gemeente Amsterdam (2013b) *Strategienota het Marineterrein samenvatting*. Amsterdam: Gemeente Amsterdam.

Ministerie van Defensie (2015) Eerste deel Marineterrein Amsterdam afgestoten. Retrieved 20 June, 2016, from https://www.defensie.nl/actueel/nieuws/2015/01/05/eerste-deel-marineterrein-amsterdam-afgestoten.

Mintzberg, H. (1978) Patterns in strategy formation. *Management Science*, 24 (9), 934-948.

Moroni, S. (2010) An evolutionary theory of institutions and a dynamic approach to reform. *Planning Theory*, 9 (4), 275-297.

Moroni, S. (2015) Complexity and the inherent limits of explanation and prediction: urban codes for self-organising cities. *Planning theory*, 14 (3), 248-267.

Moroni, S., E. Buitelaar, N. Sorel and S. Cozzolino (2018) Simple planning rules for complex urban problems: toward legal certainty for spatial flexibility. *Journal of Planning Education and Research*, 1-12.

Moroni, S., W. Rauws and S. Cozzolino (2020) Forms of self-organization: urban complexity and planning implications. *Environment and Planning B: Urban Analytics and City Science*, 47 (2), 220-234.

Moulaert, F., D. MacCallum, A. Mehmood and A. Hamdouch (2013) *The international handbook on social innovation: collective action, social learning and transdisciplinary research*. Cheltenham: Edward Elgar.

Myers, J. (2020) Fixing urban planning with Ostrom: strategies for existing cities to adopt polycentric, bottom-up regulation of land use. Retrieved 11 June, 2020, from, https://ssrn.com/abstract=3561745.

Nederhand, J., V. Bekkers and W. Voorberg (2016) Self-organization and the role of government: how and why does self-organization evolve in the shadow of hierarchy? *Public Management Review*, 18 (7), 1063-1084.

Nederhand, J. and I. van Meerkerk (2018) Activating citizens in Dutch care reforms: framing new co-production roles and competences for citizens and professionals. *Policy & Politics*, 46 (4), 533-550.

Nederhand, J., E. Klijn, M. van der Steen and M. van Twist (2019) The governance of self-organization: which governance strategy do policy officials and citizens prefer? *Policy Sciences*, 52, 233-253.

Nederlandse Staatscourant (2013) *Bestuursovereenkomst ontwikkeling Marineterrein Amsterdam*. Retrieved 11 January, 2017, from http://www.marineterrein.nl/wp- content/uploads/2014/12/bestuursovereenkomst-def-2.pdf.

Needham, B., E. Buitelaar and T. Hartmann (2019) *Planning, law and economics*. New York, London: Routledge.

Németh, J. and J. Langhorst (2014) Rethinking urban transformation: temporary uses for vacant land. *Cities*, 40, 143-150.

Németh, J. and S. Schmidt (2011) The privatization of public space: modelling and measuring publicness. *Environment and Planning B: Planning and Design*, 38 (1), 5-23.

Newman, P. (2008) Strategic spatial planning: collective action and moments of opportunity. *European Planning Studies*, 16 (10), 1371-1383.

North, D. (1990) *Institutions, institutional change and economic performance*. New York: Cambridge University Press.

Obani, P. and J. Gupta (2016) Human right to sanitation in the legal and non-legal literature: the need for greater synergy. *WIREs Water*, 3, 678-691.

Olsen, T. (2017) *Timely uses*. Aalborg: Aalborg University Press.

Olson, M. (1965) *The logic of collective action*. Cambridge: Harvard University Press.

Open Street Map (2019) Mapbox. Retrieved 10 December, 2019, from https://www.mapbox.com.

Open Street Map (2020) Mapbox. Retrieved 28 April, 2020, from https://www.mapbox.com.

Ostrom, E. (1990) *Governing the commons: the evolution of institutions of collective action*. Cambridge: Cambridge University Press.

Ostrom, E. (2005) *Understanding institutional diversity*. Princeton: Princeton University Press.

Ostrom, E. (2010) Beyond markets and states: polycentric governance of complex economic systems. *The American Economic Review*, 100 (3), 641-672.

Ostrom, E. (2013) Do institutions for collective action evolve? *Journal of Bioeconomics,* 16 (3), 3-30.

Ostrom, E. and X. Basurto (2011) Crafting analytical tools to study institutional change. *Journal of Institutional Economics*, 7 (3), 317-343.

Oswalt, P., K. Overmeyer and P. Misselwitz (2013) *Urban catalyst: the power of temporary use*. Berlin: Jovis.

Pal, L. (2011) Assessing incrementalism: formative assumptions, contemporary realities. *Policy and Society*, 30 (1), 29-39.

Parker, P., N. Vogel and L. Diedrich (2019) Investigating the democratic potential of temporary uses. In: Fisker, J., L. Chiappini, L. Pugalis and A. Bruzzese (Eds.), *Enabling urban alternatives: crises, contestation, and cooperation*, 85-108. Singapore: Palgrave Macmillan.

Partanen, J. (2015) Indicators for self-organization potential in urban context. *Environment and Planning B: Planning and Design*, 42 (5), 951-971.

Partanen, J. (2020) Guiding urban self-organization: combining rule-based and case-based planning. *Environment and Planning B: Urban Analytics and City Science*, 47 (2), 304-320.

Pierson, P. (2000) Increasing returns, path dependence, and the study of politics. *American Political Science Review*, 94 (2), 251-267.

Pogoreutz, M. (2006) Urban intelligence. In: Hayden, F. and R. Temel (Eds.), *Temporary urban spaces: concepts for the use of city spaces*, 75-80. Basel: Birkhäuser.

Polski, M. and E. Ostrom (1999) *An institutional framework for policy analysis and design*. Indiana University: Workshop in Political Theory and Policy Analysis.

Portugali, J. (2000) *Self-organization and the city*. Heidelberg: Springer.

Pretty, J., R. Peacock, M. Hine, N. Sellens, N. South and M. Griffin (2007) Green exercise in the UK countryside: effects on health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management*, 50 (2), 211-231.

Projectbureau Marineterrein (2016) *Marineterrein Amsterdam*. Retrieved 20 June, 2016, from http://marineterrein.nl/nl/marineterrein-amsterdam/aanpak.

Quinn, J. (1977) Strategic goals: process and politics. *Sloan Management Review*, 19 (1), 21-37.

Quinn, J. (1978) Strategic change: 'logical incrementalism'. *Sloan Management Review*, 20 (1), 7-21.

Quinn, J. (1980) Managing strategic change. *Sloan Management Review*, 21 (4), 3-20.

Quinn, J. and J. Voyer (1998) The logic of logical incrementalism. In: Mintzberg, H. et al., (Eds.), *The strategy process*, 103-110. London: Prentice Hall Europe.

Raad van State (2019) *Jaarverslag 2018*. Retrieved 11 June, 2020, from https://jaarverslag.raadvanstate.nl/2018/.

Rauws, W. (2016) Civic initiatives in urban development: self-governance versus self-organisation in planning practice. *Town Planning Review*, 87 (3), 339-361.

Rauws, W. and G. de Roo (2016) Adaptive planning: generating conditions for urban adaptability: lessons from Dutch organic development strategies. *Environment and Planning B: Planning and Design*, 43 (6), 1052-1074.

Rauws, W., S. Cozzolino and S. Moroni (2020) Framework rules for self-organizing cities: introduction. *Urban Analytics and City Science*, 47 (2), 195-202.

Richard, S., G. Bouleau and S. Barone (2010) Water governance in France: institutional framework, stakeholders, arrangements and process. In: Jacobi, P. and P. Sinisgali (Eds.), *Water governance and public policies in Latin America and Europe*, 2137-2178.

Richardson, J. (2017) Formal instruments to address environmental changes and property rights. In: Van Straalen, F., T. Hartmann and J. Sheehan (Eds.), *Property rights and climate change: land-use under changing environmental conditions.* New York: Routledge.

RIONED (2020) *De geschiedenis van het riool.* Ede: RIONED. Retrieved 26 June, 2017, from https://www.riool.info/de-geschiedenis-van-het-riool.

Rittel, H and M. Webber (1973) Dilemmas in a general theory of planning. *Policy Sciences*, 4 (2), 155-169.

Rivlin, A. (1971) *Systematic thinking for social action.* Washington D.C.: The Brookings Institution.

Sager, T. (1995) Dialogical incrementalism: competing rationalities and the cultivation of the synoptic/incremental distinction. *Journal of Architectural and Planning Research*, 12 (2), 121-140.

Salet, W. (2002) Evolving institutions: an international exploration into planning and law. *Journal of Planning Education and Research*, 22 (1), 26-35.

Salet, W. (2018) *Public norms and aspirations: the turn to institutions in action*. New York: Routledge.

Salet, W. and J. de Vries (2019) Contextualisation of policy and law in sustainable urban development. *Journal of Environmental Planning and Management*, 62 (2), 189-204.

SAMOA (2017) *Une nouvelle équipe de conception urbaine pour l'Ile de Nantes*. Nantes: SAMOA.

Savas, E. (1977) An empirical study of competition in municipal service delivery. *Public Administration Review*, 37 (6), 717-724.

Savas, E. (1978) The institutional structure of local government services: a conceptual model. *Public Administration Review*, 38 (5), 412-419.

Savini, F., W. Salet and S. Majoor (2014) Dilemmas of planning: intervention, regulation and investment. *Planning theory*, 14 (3), 296-315.

Savini, F. (2016) Don't blame public law: the legal articulation of certainty in Amsterdam land-use planning. *Town Planning Review*, 87 (4), 459-479.

Savini, F. (2017) Self-organization and urban development: disaggregating the city-region, deconstructing urbanity in Amsterdam. *International Journal of Urban and Regional Research*, 40 (6), 1152-1169.

Savini, F. (2019) Responsibility, polity, value: the (un)changing norms of planning practices. *Planning Theory,* 18 (1), 58-81.

Scharpf, F. (1997) *Games real actors play*. Boulder: Westview Press.

Schaum, C. (2018) Wastewater treatment of the future: health, water and resource protection. In: Schaum, C. (Ed.), *Phosphorus: polluter and resource of the future – removal and recovery from wastewater*, 537-554. London: IWA Publishing.

Schön, D. (1983) *The reflective practitioner: how professionals think in action*. New York: Basic Books.

Schlager, E. and E. Ostrom (1992) Property-rights regimes and natural resources: a conceptual analysis. *Land Economics*, 68 (3), 249-262.

Schuiling, D. (1996) Key projects for urban regeneration: the Dutch experience. *Planning Practice and Research*, 11 (3), 279-290.

Scott, J. (1998) *Seeing like a state*. New Haven, CT: Yale University Press.

Scott, W. (1995) *Institutions and organizations: ideas and interests*. Los Angeles, Ca: Sage Publications.

Smajgl, A., A. Leitch and T. Lynam (2009) DKCRC report 31: Outback institutions: an application of the institutional analysis and development (IAD) framework to four case studies in Australia's outback. Alice Springs: Desert Knowledge Cooperative Research Centre.

Sorensen, A. (2015) Taking path dependence seriously: an historical institutionalist research agenda in planning history. *Planning Perspectives*, 30 (1), 17-38.

Spijkerboer, R., C. Zuidema, T. Busscher and J. Arts (2019) Institutional harmonization for spatial integration of renewable energy: developing an analytical approach. *Journal of Cleaner Production*, 209, 1593-1603.

Stapper, M., M. van der Veen and L. Janssen-Jansen (2020) Consultants as intermediaries: their perceptions on citizen involvement in urban development. *Environment and Planning C: Politics and Space*, 38 (1), 60-78.

Tan, W. (2013) *Pursuing transit-oriented development: implementation through institutional change, learning and innovation*. University of Amsterdam: Off Page.

Tardiveau, A. and D. Mallo (2014) Unpacking and challenging habitus: an approach to temporary urbanism as a socially engaged practice. *Journal of Urban Design*, 19 (4), 456-472.

Temel, R. (2006) The temporary in the city. In: Hayden, F. and R. Temel (Eds.), *Temporary urban spaces: concepts for the use of city spaces*, 55-66. Basel: Birkhäuser.

Thelen, K. (2004) *How institutions evolve: the political economy of skills in Germany, Britain, the United States, and Japan*. Cambridge: Cambridge University Press.

Tonkiss, F. (2013) Austerity urbanism and the makeshift city. *City*, 17 (3), 312-324.

Uffen, F. (2004) Implementing waterfront redevelopment in Amsterdam and Havana. Retrieved 11 May, 2017, from https://www.lincolninst.edu/publications/articles/implementing-waterfront-redevelopment-amsterdam- Havana.

Uitermark, J. (2015) Longing for Wikitopia: the study and politics of self-organisation. *Urban Studies*, 52 (13), 2301-2312.

Van Aalderen, N. and L. Horlings (2020) Accommodative public leadership in wind energy development: enabling citizens initiatives in the Netherlands. *Energy Policy*, 138, 1-13.

Van Assche, K., R. Beunen and M. Duineveld (2014) Formal and informal dialectics and the self-transformation of spatial planning systems: an exploration. *Administration & Society*, 46 (6), 654-683.

Van Assche, K., R. Beunen, M. Gruezmacher and M. Duineveld (2020) Rethinking strategy in environmental governance. *Journal of Environmental Policy & Planning*, 1-14.

Van den Hurk, M., E. Mastenbroek and S. Meijerink (2014) Water safety and spatial development: an institutional comparison between the United Kingdom and the Netherlands. *Land Use Policy*, 36, 416-426.

Van den Noort, J. (1990) *Afvalwater, afval en water*. Rotterdam: Stichting PK.

Van der Cammen, H. and L. De Klerk (2012) *The self-made land*. Houten: Spectrum.

Van der Hoek, J., H. de Fooij and A. Struker (2016) Wastewater as a resource: strategies to recover resources from Amsterdam's wastewater. *Resources, Conservation and Recycling*, 113, 53-64.

Van Karnenbeek, L. and L. Janssen-Jansen (2018) Playing by the rules: analysing incremental urban developments. *Land Use Policy*, 72, 402-409.

Van Karnenbeek, L. (2020) Organische gebiedsontwikkeling is allesbehalve spontaan. *AGORA*, 2, 2020.

Van Karnenbeek, L. (*forthcoming*) Greening the city between public needs and private preferences in Carré de Soie, Lyon. *Town Planning Review*.

Van Rijswick, H. and W. Salet (2012) Enabling the contextualization of legal rules in responsive strategies to climate change. *Ecology and Society*, 17 (2), 1-8.

Verhoeven, I. and E. Tonkens (2013) Talking active citizenship: framing welfare state reform in England and the Netherlands. *Social Policy and Society*, 12 (3), 415-426.

Vogel, B. and D. Henstra (2015) Studying local climate adaptation: a heuristic research framework for comparative policy analysis. *Global Environmental Change*, 31, 110-120.

Vollebergh, H. and J. Dijk (2017) Taxes and fees of regional water authorities in the Netherlands. Retrieved 16 June, 2020, from: https://www.researchgate.net/profile/Justin_Dijk/publication/326439981_Taxes_and_fees_of_regional_water_authorities_in_the_Netherlands_Capacity_building_for_environmental_tax_reform_European_Commission_study/links/5b4da9570f7e9b240fe53ac8/Taxes-and-fees-of-regional-water-authorities-in-the-Netherlands-Capacity-building-for-environmental-tax-reform-European-Commission-study.pdf.

Von Schönfeld, K., W. Tan, C. Wiekens, W. Salet and L. Janssen-Jansen (2019) Social learning as an analytical lens for co-creative planning. *European Planning Studies*, 27 (7), 1291-1313.

Voorberg, W., V. Bekkers and L. Tummers (2015) A systematic review of co-creation and co-production: embarking on the social innovation journey. *Public Management Review*, 17 (9), 1333-1357.

Wang, A. and E. Chan (2019) Institutional factors affecting urban green space provision – from a local government revenue perspective. *Journal of Environmental Planning and Management*, 62 (13), 2313-2329.

Webber, M. (1983) The myth of rationality: development planning reconsidered. *Environment and Planning B: Planning and Design*, (10) 1, 89-99.

Weiss, A. and E. Woodhouse (1992) Reframing incrementalism: a constructive approach to its critics. *Policy Sciences*, 25, 255-273.

Weiss, R. (1995) *Learning from strangers: the art and method of qualitative interview studies*. New York: The Free Press.

Whyte, W. (1979) On making the most of participant observation. *The American Sociologist*, 14 (1), 56-66.

Witte, P., W. Wiegmans, F. van Oort and T. Spit (2012) Chokepoints in corridors: perspectives on bottlenecks in the European transport network. *Research in Transportation Business & Management*, 5, 57-66.

Williamson, O. (2000) The new institutional economics: taking stock, looking ahead. *Journal of Economic Literature*, 38 (3), 595-613.

Wolch, J., J. Byrne and J. Newell (2014) Urban green space, public health, and environmental justice: the challenge of making cities 'just green enough'. *Landscape and Urban Planning*, 125, 234-244.

Wolf, M. and E. Störmer (2010) Decentralisation of wastewater infrastructure in Eastern-Germany. *Network Industries Quarterly*, 12 (1), 7-10.

Wright, M. (2017) Innovation and ownership variety. *Innovation Organization & Management*, 19 (1), 74-79.

Yanow, D. (2007) Interpretation in policy analysis: on methods and practice. *Critical Policy Analysis*, 1 (1), 110-122.

Yanow, D., S. Ybema and M. van Hulst (2012) Practising organizational ethnography. In: Symon, G. and C. Cassell (Eds.), *Qualitative organizational research: core methods and current challenges*, 331-350. London: Sage.

Yiftachel, O. (1989) Towards a new typology of urban planning theories. *Environment and Planning B: Urban Analytics and City Science*, 16 (1), 23-39.

Yin, R. (2003) *Case study research: design and methods* (3rd ed.). Thousand Oaks: Sage Publications.

Yin, R. (2009) *Case study research: design and methods* (5th ed.). Thousand Oaks: Sage Publications.

Appendix A. Overview of conducted interviews

Chapter 1 and 2. Navy Yard

Position	Organisation	Date
Project Member B	Project office Navy Yard	27 June 2017
Project Member C	Project office Navy Yard	17 August 2017
Project Member G	Project office Navy Yard	31 August 2017

Position	Organisation	Date
Inhabitant A	Not applicable	14 December 2017
Inhabitant B	Not applicable	9 January 2018
Project member Oosterwold A	Municipality of Almere	26 January 2018
Project member Oosterwold B	Municipality of Almere	6 February 2018
Project member Oosterwold C	Municipality of Almere	13 February 2018
Researcher A	Wageningen University	15 February 2018
Lawyer A	Municipality of Almere	5 March 2018
Project member Oosterwold D	Municipality of Almere	5 March 2018
Project member Oosterwold E	Dutch National Government	7 March 2018
Project member Oosterwold F	Water Board	8 March 2018
Project member Oosterwold G	Water Board	8 March 2018
Lawyer B	Municipality of Almere	8 March 2018
Inhabitant C	Not applicable	21 March 2018
Inhabitant D	Not applicable	26 March 2018
Inhabitant E	Not applicable	3 April 2018
Researcher C	Wageningen University	1 May 2018
Project member Oosterwold H	Utility Company	3 May 2018
Project member Oosterwold I	Utility Company	3 May 2018
Project member Oosterwold J	Province of Flevoland	15 June 2018

Position	**Organisation**	**Date**
Project member Carré de Soie A	Grand Lyon	17 October 2018
Researcher A	L'Agence d'Urbanisme	11 October 2018
Researcher B	L'Agence d'Urbanisme	11 October 2018
Private actor Carré de Soie E	Etamine	11 December 2018
Project member Carré de Soie B	Grand Lyon	10 December 2018
Project member Carré de Soie C	Grand Lyon	10 December 2018
Project member Carré de Soie D	Grand Lyon	12 December 2018
Project member Carré de Soie E	Grand Lyon	12 December 2018
Project member Carré de Soie F	Grand Lyon	13 December 2018
Project member Carré de Soie G	Grand Lyon	13 December 2018
Project member Carré de Soie H	Tribu	17 December 2018
Politician A	Municipality of Vaulx-en-Velin	21 January 2019
Private actor Carré de Soie A	Private Developer	22 January 2019
Private actor Carré de Soie B	Private Developer	31 January 2019
Private actor Carré de Soie C	Private Developer	7 February 2019
Landscape architect A	Atelier MRP	8 February 2019
Private actor Carré de Soie D	Private Developer	14 February 2019
Project member Carré de Soie I	Grand Lyon	15 February 2019
Project member Carré de Soie J	Grand Lyon	15 February 2019

Appendix B. Overview of attended meetings and reports

Professional Meetings

Date	Professional Meetings
May 2016	Meeting closed setting A
May 2016	Meeting closed setting B
June 2016	Meeting closed setting C
June 2016	Meeting closed setting D
July 2016	Meeting closed setting E
July 2016	Meeting closed setting F
July 2016	Meeting closed setting G
August 2016	Meeting closed setting H
August 2016	Meeting closed setting I
August 2016	Meeting closed setting J
September 2016	Meeting closed setting K
September 2016	Meeting closed setting L
September 2016	Meeting closed setting M
November 2016	Meeting closed setting N
November 2016	Meeting closed setting O
November 2016	Meeting closed setting P
November 2016	Meeting closed setting Q
December 2016	Meeting closed setting R
December 2016	Meeting closed setting S
January 2017	Meeting closed setting T
January 2017	Meeting closed setting U
January 2017	Meeting closed setting V
January 2017	Meeting closed setting W
February 2017	Meeting closed setting X
February 2017	Meeting open setting I
March 2017	Meeting closed setting Z
March 2017	Meeting closed setting AA
May 2017	Meeting closed setting AB
May 2017	Meeting closed setting AC
May 2017	Meeting closed setting AD
June 2017	Meeting closed setting AE
June 2017	Meeting closed setting AF

October 2017	Meeting closed setting AG
October 2017	Meeting closed setting AH
November 2017	Meeting closed setting AI
December 2017	Meeting closed setting AJ
February 2018	Meeting open setting II
May 2018	Meeting open setting III
Augustus 2018	Meeting closed setting AM
September 2018	Meeting open setting IV
March 2019	Meeting open setting V
April 2019	Meeting closed setting AP
July 2019	Meeting closed setting AQ
October 2019	Meeting open setting VI
October 2019	Meeting closed setting AR
December 2019	Meeting closed setting AS

Control Reports

Date	Control reports
September 2015	Control report 1
November 2016	Control report 2
January 2017	Control report 3
January 2017	Control report 4
March 2017	Control report 5
June 2017	Control report 6
October 2017	Control report 7
January 2018	Control report 8
March 2018	Control report 9
June 2018	Control report 10
Augustus 2018	Control report 11
October 2018	Control report 12
December 2018	Control report 13
April 2019	Control report 14
July 2019	Control report 15
October 2019	Control report 16
March 2020	Control report 17
March 2020	Control report 18

Intern Talks

Date	Position
15 May 2016	Participant G, Participant B, Researcher X, Researcher B
4 October 2016	Participant G, Participant B, Researcher X, Researcher B
1 September 2016	Participant G, Researcher X
18 December 2016	Participant G, Researcher X
6 February 2017	Participant D, Researcher X
28 February 2017	Participant G, Researcher X
11 April 2017	Participant B, Researcher X, Researcher B
11 April 2017	Participant G, Researcher X
2 May 2017	Participant G, Participant B, Researcher X
1 June 2017	Participant B, Participant C, Researcher X
13 June 2017	Participant G, Researcher X
1 November 2017	Participant G, Researcher X
13 December 2017	Participant G, Researcher X
25 January 2018	Participant G, Researcher X
22 February 2018	Participant G, Researcher X
9 May 2018	Participant G, Researcher X
25 May 2018	Participant G, Researcher X
19 July 2018	Participant G, Researcher X
15 November 2018	Participant G, Researcher X
28 November 2018	Participant G, Researcher X
13 March 2019	Participant B, Participant C, Researcher X
10 April 2019	Participant G, Researcher X
31 March 2020	Participant B, Researcher X
10 April 2020	Participant B, Researcher X

Appendix C. Overview of analysed documents

Chapters 1 and 2. Navy Yard

Year	Documents
2013	Strategy Report
2013	Summary Strategy Report
2013	Management Agreement
2016	Building Blocks I
2017	Building Blocks II
2017	Spatial Concept
2017	Note of Principles Concept
2017	Note of Principles
2017	Anchor Tenants
2018	Exploration Marineterrein I
2018	Work plan 2018
2019	Exploration Marineterrein II
2019	Exploration Marineterrein III
2019	Work plan 2019
2019	Work plan 2020

Chapter 3. Oosterwold

Policy documents

Year	Documents
2012	Development Strategy *Land-Goed voor initiatieven*
2013	Intermunicipal Structural Concept
2014	Cooperation Agreement Land transfer
2015	Exploration Cooperation Agreement Water
2016	Land Use Plan Oosterwold
2016	Rules Land Use Plan Oosterwold
2017	Evaluation Oosterwold
2018	Cooperation Agreement Water
Not applicable	Anterior Agreement
Not applicable	Letter of Intent

Laws

Year	Laws
1983	Dutch Constitution
1986	Soil Protection Act
1991	European Urban Wastewater Directive
1993	Environmental Management Act
2009	Water Act

Ordinances

Year	Ordinances	Terrain	Date
2003	Délibération n°2003-1036	*retiré*	Retiré
2003	Décision n°B-2003-1324	Vaulx-en-Velin, Villeurbanne	5 May
2003	Délibération n°2003-1145	Vaulx-en-Velin, Villeurbanne	19 May
2003	Décision n°B-2003-1395	Vaulx-en-Velin, Villeurbanne	2 June
2003	Délibération n°2003-1267	Vaulx-en-Velin, Villeurbanne	7 July
2003	Arrêté n°2003-10-20-R-0202	n/a	n/a
2003	Décision n°B-2003-1832	Vaulx-en-Velin, Villeurbanne	3 November
2004	Délibération n°2004-1761	Vaulx-en-Velin	29 March
2004	Délibération n°2004-1792	Vaulx-en-Velin, Villeurbanne	29 March
2004	Décision n°B-2004-2150	Vaulx-en-Velin, Villeurbanne	5 April
2004	Délibération n°2004-2022	Vaulx-en-Velin, Villeurbanne	12 July
2004	Arrêté n°2004-11-10-R-0302	Vaulx-en-Velin, Villeurbanne	10 November
2004	Décision n°B-2004-2688	Vaulx-en-Velin	22 November
2004	Décision n°B-2004-2707	Vaulx-en-Velin, Villeurbanne	22 November
2004	Arrêté n°2004-12-06-R-0316	n/a	n/a
2005	Décision n°B-2005-2866	Vaulx-en-Velin - Villeurbanne	3 January
2005	Délibération n°2005-2496	Vaulx-en-Velin - Villeurbanne	14 February
2005	Délibération n°2005-2598	Vaulx-en-Velin - Villeurbanne	18 April
2005	Décision n°B-2005-3236	Vaulx-en-Velin - Villeurbanne	23 May
2005	Décision n°B-2005-3301	Vaulx-en-Velin - Villeurbanne	6 June
2005	Délibération n°2005-2810	Vaulx-en-Velin - Villeurbanne	11 July
2005	Décision n°B-2005-3519	Vaulx-en-Velin	12 September
2005	Délibération n°2005-2909	Vaulx-en-Velin - Villeurbanne	19 September
2005	Délibération n°2005-2917	Vaulx-en-Velin - Villeurbanne	19 September
2005	Décision n°B-2005-3819	Vaulx-en-Velin	12 December
2006	Délibération n°2006-3204	Vaulx-en-Velin - Villeurbanne	1 March
2006	Délibération n°2006-3220	Vaulx-en-Velin - Villeurbanne	1 March
2006	Décision n°B-2006-4271	Vaulx-en-Velin - Villeurbanne	22 May
2006	Décision n°B-2006-4346	Vaulx-en-Velin - Villeurbanne	19 June
2006	Décision n°B-2006-4347	Vaulx-en-Velin - Villeurbanne	19 June
2006	Décision n°B-2006-4370	Vaulx-en-Velin - Villeurbanne	19 June
2006	Délibération n°2006-3602	Vaulx-en-Velin - Villeurbanne	11 September
2006	Délibération n°2006-3633	Vaulx-en-Velin	10 October

2006	Délibération n°2006-3727	Villeurbanne	13 November
2006	Décision n°B-2006-4851	Vaulx-en-Velin	11 December
2006	Délibération n°2006-3789	Vaulx-en-Velin	12 December
2007	Décision n°B-2007-4897	Vaulx-en-Velin, Villeurbanne	22 January
2007	Décision n°B-2007-4938	Vaulx-en-Velin	22 January
2007	Décision n°B-2007-4979	Vaulx-en-Velin, Villeurbanne	26 February
2007	Décision n°B-2007-5016	Vaulx-en-Velin,	26 February
2007	Décision n°B-2007-5038	Vaulx-en-Velin, Villeurbanne	26 February
2007	Décision n°B-2007-5106	Vaulx-en-Velin, Villeurbanne	19 March
2007	Décision n°B-2007-5107	Vaulx-en-Velin	19 March
2007	Décision n°B-2007-5108	Vaulx-en-Velin, Villeurbanne	19 March
2007	Décision n°B-2007-5148	Vaulx-en-Velin	16 April
2007	Délibération n°2007-4135	Vaulx-en-Velin, Villeurbanne	12 June
2007	Décision n°B-2007-5302	Vaulx-en-Velin, Villeurbanne	18 June
2007	Décision n°B-2007-5404	Vaulx-en-Velin, Villeurbanne	2 July
2007	Délibération n°2007-4223	Vaulx-en-Velin, Villeurbanne	9 July
2007	Délibération n°2007-4356	Vaulx-en-Velin, Villeurbanne	10 September
2007	Délibération n°2007-4377	Vaulx-en-Velin, Villeurbanne	10 September
2007	Décision n°B-2007-5785	Vaulx-en-Velin, Villeurbanne	10 December
2008	Délibération n°2008-4670	Vaulx-en-Velin, Villeurbanne	21 January
2008	Délibération n°2008-4673	Vaulx-en-Velin	21 January
2008	Délibération n°2008-4681	Vaulx-en-Velin	21 January
2008	Délibération n°2008-4685	Vaulx-en-Velin	21 January
2008	Délibération n°2008-4743	Vaulx-en-Velin, Villeurbanne	21 January
2008	Décision n°B-2008-5933	Vaulx-en-Velin, Villeurbanne	4 February
2008	Arrêté n°2008-06-16-R-0169	n/a	n/a
2008	Délibération n°2008-0204	Vaulx-en-Velin	8 July
2008	Délibération n°2008-0215	Vaulx-en-Velin	8 July
2008	Décision n°B-2008-0161	Vaulx-en-Velin	8 July
2008	Décision n°B-2008-0162	Vaulx-en-Velin, Villeurbanne	8 July
2008	Délibération n°2008-0229	Vaulx-en-Velin, Villeurbanne	24 September
2008	Décision n°B-2008-0332	Vaulx-en-Velin, Villeurbanne	29 September
2009	Décision n°B-2009-0619	Vaulx-en-Velin	9 February
2009	Annexe de la Délibération n°2009-0635	Site	site
2009	Délibération n°2009-0635	Vaulx-en-Velin, Villeurbanne	9 March
2009	Délibération n°2009-0641	Vaulx-en-Velin, Villeurbanne	9 March

2009	Délibération n°2009-0872	Vaulx-en-Velin, Villeurbanne	6 July
2009	Délibération n°2009-0876	Vaulx-en-Velin, Villeurbanne	6 July
2009	Délibération n°2009-1021	n/a	n/a
2009	Décision n°B-2009-1257	Vaulx-en-Velin	2 November
2009	Décision n°B-2009-1305	Vaulx-en-Velin	30 November
2010	Délibération n°2010-1293	Vaulx-en-Velin	15 February
2010	Décision n°B-2010-1504	Vaulx-en-Velin, Villeurbanne	29 March
2010	Décision n°B-2010-1505	Vaulx-en-Velin, Villeurbanne	29 March
2010	Délibération n°2010-1467	Vaulx-en-Velin	26 April
2010	Délibération n°2010-1634	Vaulx-en-Velin, Villeurbanne	28 June
2010	Délibération n°2010-1650	Vaulx-en-Velin	6 September
2010	Délibération n°2010-1672	Vaulx-en-Velin, Villeurbanne	6 September
2010	Délibération n°2010-1763	Vaulx-en-Velin, Villeurbanne	25 October
2011	Décision n°B-2011-2050	Villeurbanne	17 January
2011	Délibération n°2011-2269	Vaulx-en-Velin	23 May
2011	Décision n°B-2011-2396	Vaulx-en-Velin, Villeurbanne	6 June
2011	Décision n°B-2011-2451	Vaulx-en-Velin	4 July
2011	Délibération n°2011-2466	Vaulx-en-Velin, Villeurbanne	12 September
2011	Décision n°B-2011-2768	Villeurbanne	14 November
2011	Décision n°B-2011-2811	Vaulx-en-Velin, Villeurbanne	5 December
2012	Décision n°B-2012-2984	Vaulx-en-Velin, Villeurbanne	6 February
2012	Décision n°B-2012-3424	Vaulx-en-Velin	9 July
2012	Délibération n°2012-3240	Vaulx-en-Velin	10 September
2012	Délibération n°2012-3242	Vaulx-en-Velin, Villeurbanne	10 September
2012	Annexe de la Délibération n°2012-3419	*Site*	*Site*
2012	Délibération n°2012-3419	Villeurbanne	10 December
2012	Délibération n°2012-3420	Vaulx-en-Velin	10 December
2013	Décision n°B-2013-4032	Vaulx-en-Velin	11 March
2013	Délibération n°2013-3895	Vaulx-en-Velin, Villeurbanne	18 April
2013	Délibération n°2013-3948	Vaulx-en-Velin	27 May
2013	Délibération n°2013-4219	Vaulx-en-Velin, Villeurbanne	21 October
2013	Annexe de la Délibération n°2013-4283	*Site*	*Site*
2013	Délibération n°2013-4283	Vaulx-en-Velin	18 November
2013	Délibération n°2013-4284	Vaulx-en-Velin	18 November
2013	Délibération n°2013-4285	Vaulx-en-Velin	18 November

2013	Délibération n°2013-4286	Vaulx-en-Velin, Villeurbanne	18 November
2013	Délibération n°2013-4343	Vaulx-en-Velin, Villeurbanne	16 December
2014	Délibération n°2014-4504	Vaulx-en-Velin	13 January
2014	Délibération n°2014-4505	Vaulx-en-Velin, Villeurbanne	13 January
2014	Délibération n°2014-4506	Vaulx-en-Velin, Villeurbanne	13 January
2014	Décision n°B-2014-5033	Villeurbanne	3 February
2014	Délibération n°2014-0413	Villeurbanne	3 November
2014	Décision n°B-2014-0509	Vaulx-en-Velin	8 December
2014	Décision n°B-2014-0510	Villeurbanne	8 December
2014	Décision n°B-2014-0519	Villeurbanne	8 December
2014	Délibération n°2014-0473	Vaulx-en-Velin, Villeurbanne	15 December
2015	Délibération n°CP-2015-0062	Villeurbanne	30 March
2015	Délibération n°CP-2015-0147	Vaulx-en-Velin	18 May
2015	Délibération n°CP-2015-0270	Villeurbanne	18 June
2015	Annexe de la Délibération n°2015-0472	*Site*	*Site*
2015	Délibération n°2015-0472	Vaulx-en-Velin	6 July
2015	Délibération n°CP-2015-0410	Villeurbanne	7 September
2015	Délibération n°2015-0648	Vaulx-en-Velin, Villeurbanne	21 September
2015	Délibération n°CP-2015-0599	Villeurbanne	7 December
2016	Délibération n°CP-2016-0664	Villeurbanne	11 January
2016	Délibération n°CP-2016-0720	Villeurbanne	8 February
2016	Délibération n°CP-2016-0723	Vaulx-en-Velin	8 February
2016	Délibération n°CP-2016-0765	Villeurbanne	7 March
2016	Délibération n°2016-1135	Vaulx-en-Velin	21 March
2016	Délibération n°CP-2016-0830	Vaulx-en-Velin, Villeurbanne	11 April
2016	Annexe de la Délibération n°2016-1184	*Site*	*Site*
2016	Délibération n°2016-1184	Vaulx-en-Velin	2 May
2016	Délibération n°2016-1185	Vaulx-en-Velin	2 May
2016	Délibération n°CP-2016-0900	Vaulx-en-Velin	23 May
2016	Délibération n°CP-2016-0901	Villeurbanne	23 May
2016	Délibération n°CP-2016-0902	Villeurbanne	23 May
2016	Délibération n°2016-1254	Vaulx-en-Velin	30 May
2016	Délibération n°CP-2016-1015	Villeurbanne	11 July
2016	Délibération n°CP-2016-1101	Villeurbanne	12 September
2016	Délibération n°CP-2016-1104	Villeurbanne	12 September

2016	Délibération n°CP-2016-1151	Vaulx-en-Velin	12 September
2016	Délibération n°CP-2016-1235	Vaulx-en-Velin	10 October
2017	Délibération n°CP-2017-1399	Villeurbanne	9 January
2017	Délibération n°CP-2017-1451	Villeurbanne	13 February
2017	Délibération n°CP-2017-1463	Vaulx-en-Velin	13 February
2017	Délibération n°CP-2017-1473	Villeurbanne	13 February
2017	Délibération n°CP-2017-1634	Villeurbanne	15 May
2017	Délibération n°CP-2017-1710	Vaulx-en-Velin	20 July
2017	Délibération n°CP-2017-1711	Vaulx-en-Velin	20 July
2017	Délibération n°CP-2017-1726	Villeurbanne	20 July
2017	Délibération n°2017-2030	Vaulx-en-Velin	11 September
2017	Délibération n°CP-2017-1795	Vaulx-en-Velin	11 September
2017	Délibération n°CP-2017-1921	Villeurbanne	3 October
2017	Délibération n°CP-2017-2005	Vaulx-en-Velin	6 November
2017	Délibération n°CP-2017-2021	Villeurbanne	6 November
2017	Délibération n°CP-2017-2089	Villeurbanne	4 December
2018	Délibération n°CP-2018-2104	Vaulx-en-Velin	15 January
2018	Délibération n°CP-2018-2130	Vaulx-en-Velin	15 January
2018	Délibération n°2018-2689	Vaulx-en-Velin	16 March
2018	Délibération n°CP-2018-2369	Vaulx-en-Velin	14 May
2018	Délibération n°CP-2018-2412	Vaulx-en-Velin, Villeurbanne	14 May
2018	Délibération n°CP-2018-2419	Villeurbanne	14 May
2018	Délibération n°CP-2018-2613	Vaulx-en-Velin	10 September
2018	Délibération n°2018-3020	Vaulx-en-Velin	17 September
2018	Délibération n°2018-3021	Vaulx-en-Velin	17 September
2018	Délibération n°2018-3022	Vaulx-en-Velin	17 September
2018	Délibération n°2018-3038	Villeurbanne	17 September
2019	Délibération n°CP-2019-2855	Villeurbanne	14 January
2019	Délibération n°CP-2019-2857	Villeurbanne	14 January
2019	Délibération n°CP-2019-2879	Vaulx-en-Velin	14 January
2019	Délibération n°CP-2019-2937	Vaulx-en-Velin	4 March

Policy documents

Year	Policy documents
2012	Valoriser les territoires en cultivant l'esprit des lieux
2016	Projet urbain du Carré de Soie - Principes et enjeux
2017	Guide du bien construire à Carré de Soie en 7 clefs
2018	Presentation et Actualités du Project
2018	L'instant Carré de Soie - Janvier 2018 - Vaulx-en-Velin la Soie
2018	L'instant Carré de Soie - Février 2018 - Villeurbanne la Soie
2018	L'instant Carré de Soie - Décembre 2018 - Villeurbanne la Soie
2018	Kit communication partenaires

Summary

After World War Two, the theory of incrementalism opened up a critical perspective to policymaking, with political scientist Charles Lindblom as its foremost advocate. Lindblom referred to incrementalism as a policymaking process of small steps and decisions that continuously allows for adjustments of varying interests without reaching 'right' solutions. Although several planning scholars early recognised the potential of Lindblom's theory for planning practice, it remained somehow limited to a scientifically informed epistemology. However, at the turn of the 21st century, a wave of interest in incrementalism swept over the field of planning practice, which further gained momentum and shaped the emergence of a 'new' strategy for urban development projects. Usually, the development strategy involves multiple actors taking small steps that can be adapted or changed according to previous steps to achieve particular strategic goals. Because this development strategy resonates strongly with the logic of Lindblom, this dissertation labels it as *incremental*.

Despite the growing enthusiasm in the planning sector for the incremental logic, I do not want to uncritically accept its potential as a strategy. Therefore, this dissertation explores whether the incremental logic makes sense in strategy-making, i.e. a critical reflexive perspective is presented. In this dissertation, I adopt this critical reflexive perspective by asking whether incremental development strategies are effective. By effective, I mean whether the strategy has the capacity to build structures in which collective action can emerge. In the context of urban planning, collective action usually refers to the coordinated action of an ensemble of actors with the collective purpose to improve future urban environments along social, economic, and environmental values that benefit general welfare. Following this formulation, collective action shares two essential characteristics: first, it is *purposeful*, and second, it is *coordinated*. The purposive action directs urban planning into improved futures and is centred on the achievement of strategic goals by multiple actors. It is coordinated in the sense that specific institutional arrangements set 'appropriate' conditions that shape the actions of actors in the pursuit of these strategic goals.

The main assumption in this dissertation is that it is only possible to assess whether incremental development strategies can lead to collective action when we understand how its purposive action relates to institutional arrangements. While incremental development strategies usually define their purposive actions with strategic goals (broadly defined planning goals) and guidance how to achieve these goals (small steps and decisions by multiple actors), the strategies themselves do not – and never will – execute a coordinating function. This is what institutions do. Therefore, to understand whether incremental development strategies can succeed in organising collective action requires an institutional perspective. The central research aim of this dissertation is to offer this institutional perspective and to apply this perspective to concrete urban development projects. To this aim, the central question is: *How do purposive actions in incremental development strategies relate to institutions?*

This dissertation refers to institutions as prescriptions that people use to structure social interactions by enabling or limiting actions. In this sense, institutions are both regulative and normative, i.e. they constrain and enable actors' behaviour (*regulative*) in line with what is considered 'appropriate' (*normative*). Because of this broad definition, it is important to focus on a particular institutional way of thinking. In this dissertation, I subscribe to the work of Elinor Ostrom and I embrace her ideas and develop them further for planning theory. Based on a game analogy, Ostrom defines institutions as prescriptions that enable and constrain the behaviour of actors. For Ostrom, rules are the principal statements in institutional analysis. She defines rules as enforced prescriptions that either forbid, permit, or require specific actions or outcomes in a particular social setting. Rules are often formal, but can also have an informal aspect. Formal rules can be distinguished into enforceable laws and regulations, while the informal aspect refers to the regular actions, such as habits or routines, that define how rules are used, maintained, or changed.

Grounded in Ostrom's work, this dissertation provides an institutional perspective to incremental development strategies. This dissertation does not presume to uncover the optimal rules for these strategies but rather explores the institutional conditions under which these incremental strategies operate. Therefore, I investigate how rules have been devised, used and changed in

three urban development projects that adopted the incremental development strategy. The following three cases are analysed: the Navy Yard (Amsterdam, the Netherlands), Oosterwold (Almere, the Netherlands), and Carré de Soie (Lyon, France). The empirical investigation of the studied cases shows different perspectives on how purposive actions relate to institutions:

- In the *Navy Yard* case, I place particular attention on the ambitions to realise temporary uses of space (purposive action) and the appropriate facilitating institutional conditions. To understand the relationship between the ambitions to realise temporary uses of space and the appropriate facilitating institutional conditions, the dissertation provides a typology of different purposes of temporary uses of space. Furthermore, I have built on Elinor Ostrom's conceptualisation of rules to identify particular institutional conditions that enable the effective realisation of these potential purposes. Three types of temporary uses are distinguished: (1) the *interim* type aims to fill the gaps by meantime activities for urban development projects that are discontinued or cannot take place, (2) the *trying-out* type looks for innovative potentials for urban development by appealing for particular arrangements of pioneering actors, and (3) the *cumulative* type explicitly intends to trigger future developments. For the interim type to be successful, pointing to scope rules is essential, i.e., rules that define the width and range of outcomes for a particular (temporary) time. For the trying-out type, it is essential to point to demarcation rules, i.e. prescribing who can and cannot participate. For the cumulative type to be successful, temporary uses must be explicitly embedded in institutional structures that organise the longer-term planning process. Therefore, it is relevant to specify choice rules, i.e. who may act and what one may do during the planning process.

  Based on these types of temporary uses and facilitating institutional conditions, the application of temporary uses at the Navy Yard development is analysed. Initially, the City of Amsterdam and the national government intended the cumulative type in which temporary uses of space set the tone for the future and more permanent developments after 2027. A project office was tasked with exploiting

the cumulative type while the City of Amsterdam had the responsibility to embed this type in the formal (longer-term) planning process. It was noticeable that the institutional conditions to achieve the cumulative type (i.e. choice rules) were relatively absent from the beginning of the Navy Yard development. At the start in 2015, the project office developed demarcation rules to successfully attract temporary users and instrumentalised these temporary uses to develop ambitions and themes that provide preliminary future pathways. In about two years, the innovation district arose and was adapted throughout the years by renewed ambitions and themes. The City of Amsterdam used the idea of the innovation district as an anchor to define spatial outcomes in the formal planning process. However, from 2018 on, rules that detailed permanent outcomes gained in importance and were further detailed. As a result, the temporary uses of space were loosely embedded in the formal (longer-term) planning process. Eventually, temporary uses of space had served as forerunners to define the Navy Yard as an innovation district, but they were prevented from continuing to act as triggers for future pathways up to 2027. In conclusion, 'temporary' uses of space were quickly translated and articulated as 'permanent' uses of space. To that end, appropriate rules were set to condition actors to realise the innovation district, albeit with a strong emphasis on permanent uses of space at the expense of temporary uses of space.

- In the *Oosterwold* case, the focus is on the self-organisation of wastewater management. The main argument here is that it is vital to explore the real-life mechanisms of self-organised environmental service delivery and to link these practices to the legal rules of environmental legislation. In many welfare states, there is a long tradition of environmental legislation that provides legal certainty in the protection of the environment and human health. Generally, governments have devised (and in the context of sustainability are still devising) many legal rules to enable, secure and improve the delivery of environmental services. Despite various academic attempts to consider legal rules and self-organisation, the specific case of environmental legislation and self-organised environmental service delivery in urban development remains unexplored. Empirically, this

study focuses on the service delivery of wastewater management in Oosterwold, the largest urban experiment in the Netherlands that experimented with self-organisation. The experiment firmly called into question the Dutch centralised wastewater management tradition, in place ever since the Industrial Revolution. The dissertation analyses the implications of self-organised wastewater management in Oosterwold in the context of environmental legalisation.

For the public actors to enable self-organised wastewater management in Oosterwold, they radically changed their roles and the role of residents through 'experimental' rules. The public actors in Oosterwold decided not to install a centralised sewage system and determined that residents had to arrange their own wastewater management. Residents had to ensure that the delivered infrastructures complied with the requirements set in a discharge permit. The public actors required residents to apply for a discharge permit that was managed by the water board to protect the quality of surface water and to safeguard public health. Nearly everyone opted for a sewage facility that collects, treats, and disposes effluent on the plot of land that produces the wastewater. However, this shift toward self-organised wastewater management was fraught with many complications. First, the operation of an onsite sewage facility is based on experimental tests in laboratories, and while proven in a laboratory setting, the real-life application is more problematic. The systems do not purify all mandated substances, underpinning the system's technological vulnerability. Second, many materials or liquids may not end up in an onsite sewage facility, yet individuals do not always know how to use and maintain the system. Furthermore, the incremental development strategy directed residents to arrange self-organised wastewater management on an individual scale. Eventually, the technological and social vulnerabilities, as well as the large number of onsite sewage facilities, contributed to serious deterioration of water quality, with potential risks for human health. Therefore, the experiment of self-organised wastewater management did not correspond to the required legal certainty that protects the environment and human health. The conclusion is that the success or failure in delivering self-organised

environmental services like wastewater management critically hinges on ensuring compliance with environmental legislation (water quality requirements in particular).

- In the *Carré de Soie* case, the focus is on the provision of green uses of land in the context of real estate developments. The argument follows that the interrelationship between land ownership and control over land clarifies the provision of green spaces in the context of private preferences for development. The public actors determined that Carré de Soie had to incrementally become a high-density and sustainable mixed-used neighbourhood with a particular reference to the intended green infrastructure. In Carré de Soie, the government aspires to an abundance of green but concurrently encourages the market to take the initiative. The public actors concerned with the development opted for a particular land strategy, known as the strapontin strategy. This strategy means that the government highly favoured private ownership, while some small but strategic pieces of land rested in the hands of the government. To develop the site incrementally, the public actors assigned particular locations for acquisition, scattered throughout Carré de Soie. Some of these designated locations were immediately ready for development, while others would be developed at a later stage. Due to the incremental character of the development, Grand Lyon used different types of control per location. In this dissertation, the TASE and Villeurbanne-la-Soie locations have been examined.

  Both the TASE and Villeurbanne-la-Soie locations have produced relatively disappointing results in terms of satisfying the public aspiration for green spaces. The proposed green infrastructure was not truly realised. Ownership was predominantly ceded to private developers in both locations. Control over these private lands was diverse. The TASE location was based on the *Program d'Aménagement d'Ensemble* (a financial tool intended to finance public facilities through investments by private actors that have land ownership). In contrast, the Villeurbanne-la-Soie location was based on a *Zone d'Aménagement Concertée* (an operational contract between public and private actors, allowing public actors to firmly

engage in negotiations with private actors about land uses and the conditions of urban development plans). But as private preferences highly determined the types of control, the types did not produce significantly different outcomes. The findings show that the lack of public land ownership combined with private actors having a say in control over land meant that public aspirations for green spaces were not met. The results suggest that if cities need to become greener, recognising the role of the government to act in the public interest is of utmost importance.

Based on the insights from these empirical cases in this research, the answer to the central research question is threefold: first, purposive actions and institutions *interrelate*, second the interrelationship is *not in equilibrium*, and third, the interrelationship is *dynamic*. This dissertation reveals that there is an *interrelationship* between purposive actions and institutions. Regardless of the specifics, the purposive actions of incremental development strategies are deeply embedded into an institutional context. Second, this interrelationship is *not in equilibrium*. This dissertation demonstrates the challenges with generating collective action when particular purposive actions were *not in equilibrium* with the facilitating institutional conditions. The studied cases have illustrated that incremental development strategies found it difficult to embrace institutions or preserve their normative meaning. The unbalanced interrelationship between the purposive actions and institutional conditions, however, also revealed the dynamic character of incremental strategies. The dissertation demonstrates that both institutions (or rules in this context) and purposive actions changed in the implementation of the urban development projects. On the one hand, this means that when institutional mismatches arise, purposive actions can be changed to 'more appropriate' behaviour. On the other hand, the purposive actions also challenged conventional interpretations of institutions and prevented actors from taking institutions for granted. Clearly, this answer is not generalisable to others context, but it might help to formulate a working hypothesis for future researches.

This dissertation ends by calling on peer academics practitioners to put their investigative spotlight on institutions. The discussions about incremental development strategies look very different when deploying an institutional

perspective. This focus enhances the capacity to reach an equilibrium between purposive action of incremental development strategies and rules. In other words, it enhances the chance to succeed in collective action. Hopefully, as incremental development strategies continue to be implemented in urban development projects, this dissertation has provided both insights and tools to practice it much more skilfully. I want to leave the reader with the following thoughts: embrace institutions, test and evaluate them in practice and try to bring them in equilibrium with purposive actions. Only then can we make progress in tackling the challenges of collective action!

Notes

1 The urban projects in these policies are often called ‘organic urban development’ (organische gebiedsontwikkeling in Dutch).

2 In Lindblom’s ideal situation, at least so it seems, incrementalism happens through partisan mutual adjustment. Nevertheless, partisan mutual adjustment is not limited to incrementalism. As Lindblom argues (1979: 523) ‘one can also imagine partisan mutual adjustment for non-incremental policy making.’

3 In his 1979 article, Lindblom already addressed this point of criticism: ‘Objections to partisan mutual adjustment, often voiced as objections to pluralism, often begin with the allegation that not all interests are represented by participants in it, nor are participants influential in proportion to the numbers of citizens for whom they act. Who can deny so obvious a point? It is not, however, a persuasive objection to partisan mutual adjustment unless it can be shown that more centralized political decision making represents a fuller array of interests’ (Lindblom, 1979: 523).

4 A strategy can be defined according to two characteristics: first, it involves an imagination for a desirable future, and second, it provides ideas of how to get to that desirable future (Van Assche et al., 2020).

5 Unlike Lindblom, the logic of incrementalism does not apply here to a process of policymaking. Instead, the logic provides the foundation for development strategies in urban development projects.

6 Broad goal statement may sometimes be supplemented by a few specific goals if considered necessary.

7 For a detailed institutional analysis, see Ostrom’s book Understanding Institutional Diversity (2005).

8 All adjustments made by me to the IAD framework are represented by dotted arrows or lines.

9 This dissertation differentiates between dissertation research question and research questions of particular articles.

10 ‘Organic development strategies’ is the direct translation of the Dutch organische gebiedsontwikkeling. Taking the definition literally it refers to spontaneous urban development.

11 Douvere and Ehler (2009: 78) already referred to incremental as traditional, ‘the traditional and incremental, permit-by-permit approach has been enhanced by a comprehensive planning approach that lays out a vision to be developed for an area.’

12 The 1965 Dutch Planning law was revised in 2008.

13 Regulations in this regard refer to planning policy documents such as land use plans.

14 Initially, Ostrom applied her Institutional Analysis Development framework to analyse common pool resources (Ostrom, 1990; Ostrom, 2010; Ostrom and Basurto, 2011). More recently, the IAD framework has also been applied to other domains, such as planning and water management (Van der Cammen and De Klerk, 2012; Smajgl et al., 2009).

15 To prevent confusion within a planning context, I refer to demarcation rules instead of boundary rules (Ostrom’s original term).

16 To prevent confusion within a planning context, I refer to decision-making rules instead of aggregation rules (Ostrom’s original term).

17 As I conducted the data collection in Dutch, the operators for formal rules were moeten, dienen, verbieden, eisen, toestaan dat and equivalents. The following operators for informal rules were used: gewend zijn aan, bekend zijn met and equivalents.

18 The Dutch Real Estate Company, as part of the Dutch National Government, is the official owner of the area.

19 By then, it was likely that the City of Amsterdam would buy the area, as they were in the position to offer the first bid. All expected the City of Amsterdam to buy the area.

20 This contains the redevelopment of the publicly accessible area, but also the redevelopment of the full area after 2018.

21 All quotes are translated and checked by a bilingual person.

22 For the purpose of this article, I did not include financial rewards or burdens as a result of the purchase of the area in the future.

23 I focused on external rewards or sanctions and, therefore, did not include salaries.

24 This study refers to demarcation rules instead of boundary rules (the original term) to prevent confusion in the urban planning context.

25 This study refers to decision-making rules instead of aggregation rules (the original term) to prevent confusion in the urban planning context.

26 The site is officially owned by the Dutch Real Estate Company (as part of the National Government).

27 The urban vision refers here to the Note of Urban Planning Principles (Nota van Uitgangspunten in Dutch).

28 Three organisations were granted contracts for up to ten years due to massive investments.

29 'The challenge of how to improve on regulation in such a way that it guides local practices in a normative sense but simultaneously enables optimal use of local – context bounded – option space' (Salet and De Vries, 2019: 189).

30 Self-organization is not a synonym for self-provision.

31 Except from several remote buildings and houses in the meadows.

32 The European Urban Wastewater Directive stipulates appropriate collection systems and treatments in all agglomerations of more than 2,000 inhabitants (Garrone et al., 2018).

33 'It shall be the concern of the government to keep the country habitable and to protect and improve the environment.'

34 'The government shall take steps to promote the health of the population.'

35 This legislation is aimed in particular at remote farms (Keessen et al., 2018).

36 A second stage of treatment is obligatory for agglomerations of 2,000 inhabitants, while a tertiary stage is mandatory for agglomerations of over 10,000 inhabitants (Garrone et al., 2018).

37 Due to growing environmental concerns (Van der Hoek et al., 2016) and increased awareness regarding substances such as pharmaceuticals (Schaum, 2018) and micro-plastics in wastewater (Keessen et al., 2018), it is expected that the European Water Framework Directive will impose stricter requirements for purifying wastewater in the near future.

38 The Oosterwold development is also located in the Municipality of Zeewolde. Up to 2020, only one-third of Oosterwold has been made available for development, and this area is located in the Municipality of Almere.

39 Obviously, they do not pay sewer or wastewater treatment levies.

40 The decision to give up on self-organized wastewater management was also influenced by the very high transaction costs of the water board (setting up discharge permits, checking individual systems).

41 Public green spaces are publicly accessible spaces, leaving aside private green spaces such as back gardens (Wolch et al., 2014). Hereafter they are referred to as green spaces.

42 The metropolitan council can mandate the mayor of the metropolitan government to enact ordinances.

43 Green infrastructure denotes here a network of green spaces (Kambites and Owen, 2006)

44 According to French law, an owner holds the fullest set of rights to land but choices and actions open to owners are enabled and limited by the government's law and regulations (Gordley, 1994; Booth, 2009).

45 My translation of the original quote in French: 'Voilà, c'est une stratégie pour dire j'essaye d'acheter une petite parcelle au milieu d'autres grandes, et en fait cette parcelle-là, on va obliger les opérateurs à me mettre autour de la table.'

46 If you translate literally, 'Comprehensive Development Plan'

47 Signing building permits is a competence of the municipality.

48 If you translate literally, 'joint development zone' (Guelton, 2018: 553)

49 My translation of the original quote in French 'L'aspect règlementaire est important mais ce n'est pas tous. […] Parce que quand tu considères à obligation, les gens vont minimum.'

50 Only one-third was open for development at the time of writing Chapter 3.

51 See the section on recommendations for future research for proposals about the appropriate scale of incremental development strategies.

52 During the Renaissance, the silk industry emerged and flourished in Lyon's city centre.

53 As the answer is based on three cases studies, I do not presume to have uncovered the answer for all incremental development strategies. However, given the fact that incremental development strategies do share some distinct features (e.g., the rationale of small steps and decisions, the involvement of multiple actors, the direction toward strategic goals), these insights are potentially valuable for understanding other cases of incremental urban development.

54 The limitations of semi-structured interviews and document analysis are widely known and have been extensively covered elsewhere (e.g., Weiss, 1995; Yanow, 2007; Bryman, 2008; Vogel and Henstra, 2015). Limitations of semi-structured interviews include, amongst others, the risk for the researcher to bias the interview, the risk to ask the 'wrong' questions, or the difficulty to find the 'right' interviewees. Limitations of document research include, amongst others, the subjectivity of the researcher's interpretation and the difficulty to assess the authenticity and credibility of documents.

Lilian van Karnenbeek
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
Writing research proposal	WUR	2016-2017	6
'Bringing Agency Back In: how actors can initiate institutional change'	AESOP, Venice	2019	1
'Let's understand the rules of the game as dependent variables that condition the planning game: an institutional actor perspective'	AESOP, Lisbon	2017	1
'Planning for self-sustaining energy infrastructures: challenges for the citizens-based incremental development approach in Oosterwold'	AESOP, Gothenburg	2018	1
'Creating more effectiveness in planning process through institutional change and innovation'	PLPR, Hong Kong	2017	1
'How to incrementally develop the built environment by citizens? An example of Oosterwold te Netherlands'	AESOP, Groningen	2018	1
'Envisioning strategic planning in a short-term world'	ACSP, Portland	2016	1
Colloquium on research methods and methodology in landscape architecture and spatial planning	ELLS, LASP	2017	2
Advanced social science theory course	AISSR	2018	12
B) General research related competences			
Introduction Course	WASS	2016	1
PhD Carousel	WGS	2016	0,3
Reviewing papers (peer-reviewed journals)	n/a	2018-2020	1
Planning/geography journal clubs (*editor*)	AGORA	2016-2020	2
Interdisciplinary windows	Dreamteam	2016-2020	2
C) Career related competences/personal development			
Master class 'Negotiation Theory and Practice'	WASS	2016	0,5
Teaching / supervision thesis	Land Use Planning Group	2016-2018	4
Total			**36,8**

*One credit according to ECTS is on average equivalent to 28 hours of study load

The research described in this thesis was financially supported by the Netherlands Organization for Scientific Research (NWO) under Grant [438-15-159].