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Hanna Kosunen

URBAN PLANNING APPROACHES FOR LOW-GROWTH CONTEXTS

A CASE STUDY ON THE DEVELOPMENT OF EXISTING BUILT ENVIRONMENT IN FINNISH SUBURBS

UNIVERSITY OF OULU GRADUATE SCHOOL;
UNIVERSITY OF OULU,
FACULTY OF TECHNOLOGY

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URBAN PLANNING APPROACHES FOR LOW-GROWTH CONTEXTS

A case study on the development of existing built environment in Finnish suburbs

Academic dissertation to be presented with the assent of the Doctoral Training Committee of Technology and Natural Sciences of the University of Oulu for public defence in lecture hall IT115, Linnanmaa, on 26 November 2021, at 12 noon

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Abstract

Until now, one of the main functions of urban planning has been to guide urban growth. However, the ideal of continuous growth and the associated paradigm of growth-dependent urban planning is increasingly being questioned. At the same time, it is unclear how to approach urban planning in the context of low growth. The aim of this thesis is to examine how urban planning can be approached in low-growth contexts.

This compilation thesis is based on four peer reviewed scientific articles, one of which is a literature review. In the three other articles, the case study research strategy is deployed to examine urban planning conducted by two Finnish cities, Turku and Oulu. The theoretical framework builds upon the concept of a planning approach that is further defined through the concept of configuration, that originates from organization sciences. The configuration concept suggests that organizations may configure their strategies and structures to suit the characteristics of the context and change them in response to contextual change. When applied to urban planning, this implies that the planning objectives, the relationships between actors, and planning context influence each other.

The findings are presented through two Research Tasks. Research Task 1 examines planning approaches as static ideal types. It identifies hierarchical, individualistic, and egalitarian planning approaches, and explores how they manifest in low-growth contexts. Research task 2 examines the relationship between planning approaches and change. It proposes that the uncertainty of urban development related to low-growth contexts could be acknowledged by viewing planning and its context as co-evolutionary. In this case, the goal of planning might not be to achieve a predetermined goal, but to initiate urban change and respond to it. This thesis contributes to the theoretical discussion on planning approaches and their context-dependency. The findings also contribute to planning practice by discussing urban planning approaches that could be deployed to complement growth-dependent planning.

Keywords: co-evolutionary planning, infill development, low growth, planning approach, urban planning

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Tiivistelmä

Kaupunkisuunnittelun yhtenä tehtävänä on ollut ohjata kaupunkien kasvua. Jatkuvan kasvun ihannetta ja siihen liittyvää kasvuriippuvaisen kaupunkisuunnittelun paradigmaa on kuitenkin alettu kyseenalaistaa. Samalla on epäselvää, minkälaista kaupunkisuunnittelu matalan kasvun kontekstissa voi olla. Väitöstutkimuksen tavoitteena on tarkastella, miten kaupunkisuunnittelua voidaan lähestyä matalan kasvun kontekstissa.

Väitöstutkimus on kokoomaväitöskirja, joka koostuu neljästä osatutkimuksesta. Yksi osatutkimuksista on kirjallisuuskatsaus. Kolmessa muussa osatutkimuksessa tutkimusstrategiana on tapaustutkimus, joka tarkastelee olemassa olevan rakennetun ympäristön kehittämistä kahdessa suomalaisessa kaupungissa, Turussa ja Oulussa. Tutkimuksen keskeisenä teoreettisena käsitteenä on suunnittelun lähestymistapa, joka määritellään organisaatiotieteistä lähtöisin olevan konfiguraation käsitteen avulla. Konfiguraation käsite ehdottaa, että organisaatiot muokkaavat strategiansa ja rakenteensa kontekstiin sopivaksi, ja muuttavat sitä kontekstin muuttuessa säilyttääkseen toimintakykynsä. Kaupunkisuunnitteluun sovellettuna tämä voi tarkoittaa, että kaupunkisuunnittelun tavoitteet, toimijoiden väliset suhteet, ja suunnittelun konteksti yhdessä vaikuttavat suunnittelun lähestymistapaan.

Tutkimuksen tulokset esitetään kahtena tutkimustehtävänä. Ensimmäisessä tutkimustehtävässä tarkastellaan suunnittelun lähestymistapoja staattisina ideaalityyppeinä. Tutkimustehtävässä tunnistetaan hierarkkinen, individualistinen, ja egalitaristinen suunnittelun lähestymistapa, ja tarkastellaan niiden ilmenemistä matalan kasvun kontekstissa. Toisessa tutkimustehtävässä tarkastellaan suunnittelun lähestymistapojen suhdetta muutokseen. Tutkimustehtävä ehdottaa, että matalan kasvun kontekstiin liittyvä kaupunkikehityksen epävarmuus voitaisiin huomioida lähestymällä kaupunkisuunnittelun ja kontekstin suhdetta koevolutionaarisena. Tällöin suunnittelussa ei välttämättä pyritä saavuttamaan ennalta määritettyä tavoitetta, vaan synnyttämään muutos ja vastaamaan siihen useampaa kuin yhtä suunnittelun lähestymistapaa soveltamalla. Tulokset osallistuvat suunnitteluteoreettiseen keskusteluun suunnittelun lähestymistavoista ja niiden kontekstisidonnaisuudesta. Käytännön suunnittelijoille tutkimus tarjoaa tietoa kasvuriippuvaisen suunnittelun vaihtoehdoista.

Asiasanat: kaupunkisuunnittelu, koevolutionaarinen suunnittelu, matala kasvu, suunnittelun lähestymistapa, täydennysrakentaminen

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Oulu, October 2021 Hanna Kosunen

List of original publications

This thesis is based on the following publications, which are referred throughout the text by their Roman numerals:

I Kosunen, H., Hirvonen-Kantola, S., & Hentilä, H-L. (2016). Preconditions of urban infill in residential areas with low market position. In J. Rajaniemi (Ed.), *Re-City: Future city – Combining disciplines* (Datutop 34, pp. 37–58). Tampere: Tampere University of Technology.

II Kosunen, H., & Atkova, I. (In press). Alternative approaches to urban regeneration and infill planning: Case Turku, Finland. *Architectural Research in Finland*, *3*(1).

III Kosunen, H., Atkova, I., & Hirvonen-Kantola, S. (2020). Co-evolutionary urban planning of a Finnish city for its low growth neighborhoods. *Planning Theory & Practice*, *21*(4), 552–569.

IV Kosunen, H., & Hirvonen-Kantola, S. (2020). Fatalism in co-evolutionary urban planning: Experiences from infill planning in Finland. *Planning Practice & Research*, *35*(3), 251–266.

Author's contribution:

Article I (Refereed conference proceeding): Main author. The author was responsible for collecting and analyzing the research material and writing the paper. The responsibility of selecting the subject matter, formulating the research questions and research design, selecting the research methods, and interpreting the results was shared with the co-authors. The co-authors also took part in elaborating the main arguments and provided advice and comments for structuring and editing the paper. The responsibility of writing the discussion part was shared with the second author. The co-authors are thesis supervisors.

Article II (Refereed scientific journal): Main author. The author was responsible for selecting the subject matter, formulating the research question, collecting and analyzing the research material, interpreting the results and writing the paper. The responsibility of developing the research design and the analytical framework was shared with the co-author. The co-author also took part in elaborating the main arguments and provided advice and comments for structuring and editing the paper.

Article III (Refereed scientific journal): Main author. The author was responsible for selecting the subject matter, collecting and analyzing the research material, interpreting the results and writing the paper. The responsibility of formulating the research question and developing research design and the analytical framework was shared with the co-authors. The co-authors also took part in

elaborating the main arguments and provided advice and comments for structuring and editing the paper. The third author is a thesis supervisor.

Article IV (Refereed scientific journal): Main author. The author was responsible for selecting the subject matter, formulating the research question, developing the research design and the analytical framework, collecting and analyzing the research material, interpreting the results and writing the paper. The co-author took part in elaborating the main arguments and provided advice and comments for structuring and editing the paper. The co-author is a thesis supervisor.

Contents

1 Introduction

1.1 Background

Infill development [1] is generally viewed as an opportunity to simultaneously prevent urban sprawl and revitalize existing urban neighborhoods (Janssen-Jansen, 2013; McConnell & Wiley, 2012). In Finland, infill development as a policy objective is identified already at the highest level of the planning system in the National Land Use Objectives, according to which the existing built environment must be utilized as efficiently as possible (Finnish Government, 2017). Furthermore, the ongoing reform of the Finnish Land Use and Building Act aims to create better prerequisites for Finnish urban planning to address the development of the existing built environment (Ministry of the Environment, 2018).

Consequently, infill development is currently identified as an important goal[2] in Finnish land use planning, and efforts are being made to promote it on national, regional and city levels (S. Puustinen, 2016). In Finland, cities and municipalities in particular have an important role to play in promoting infill development (Ministry of the Environment, 2014b, p. 17; S. Puustinen, 2016). In the Finnish land use planning system, cities and municipalities have a land use planning monopoly[3], which implies that they can promote and guide infill development by

[1] Infill development can be defined as urban development that takes place in underutilized building sites within a previously developed neighborhood (McConnell & Wiley, 2012). It can also refer to redevelopment and renovation of existing buildings on a previously developed building site (McConnell & Wiley, 2012). In this thesis, the term infill development includes both definitions.

[2] In Finland, infill development is considered a means to fight urban sprawl (Ministry of the Environment, 2014a, p. 135; S. Puustinen, 2016). Furthermore, it is viewed to have a positive impact on the public economy through the savings it creates in public infrastructure and service production when the existing networks can be put into more effective use instead of building new ones (Ministry of the Environment, 2014a, p. 136). Infill development could also diversify the housing stock in existing housing areas, thus preventing social segregation and the resulting costs to public finances (Ministry of the Environment, 2014a, pp. 136–137; S. Puustinen, 2016). Moreover, infill development has been thought to improve the quality of life in existing urban neighborhoods through the upgrade of the physical environment and preservation of public and private services (Ministry of the Environment, 2014a, pp. 136–137). Infill development is also viewed as a means of maintaining national wealth, as the projects may offer private property owners the opportunity to finance the maintenance of their properties (Ministry of the Environment, 2014b; S. Puustinen, 2016, p. 76).

[3] In the Finnish land use planning system, local land use planning is the responsibility of municipalities, creating a so-called planning monopoly that can be deployed as a tool in municipal strategic planning (Hakkola, 2009). Planning monopoly implies that Finnish municipalities have the superior right to decide upon the contents of local land use plans and private developers have to depend on the local government for sharing its urban development aims (Hakkola, 2009; Mäntysalo & Saglie, 2010).

urban planning. Finnish cities are also responsible for their own expenses and income, and the public economy savings created by infill development are therefore important for them (S. Puustinen, 2016). Due to these motivations, Finnish cities have drawn up strategic, proactive infill development plans for their existing housing areas. The plans have aimed at identifying potential sites for infill development, mapping the urban development interests of residents, property owners and other urban development actors, and estimating the impacts of infill development on cityscape, traffic and the environment (Ministry of the Environment, 2014a, p. 137; Nykänen et al., 2013, p. 48; S. Puustinen, 2016, p. 81).

One challenge related to the strategic promotion of infill development is that it is not economically viable in all urban areas. In Finland, a significant part of the built environment consists of suburbs that were built around the city centers from the 1960s to the 1980s, when urbanization was rapid and new housing was needed (Hankonen, 1994; Ministry of the Environment, 2014b). Today, suburbs often face problems related to a built environment maintenance lag, declining population, social segregation, and under-utilized public and private services (Ministry of the Environment, 2014b). One suggested means to revitalize suburbs is infill development, which could help solving the above-mentioned problems and support other policy goals related to infill development (Ministry of the Environment, 2014a, pp. 136–137, 2014b). However, due to the relatively low value of land and high costs of redevelopment, suburbs are not always attractive for market-based urban development, adding uncertainty to infill development implementation (Nykänen et al., 2013, pp. 49–50). Therefore, even if infill development would be societally desirable, it is not fully applicable in contexts where there is a lack of economic growth.

Jansen-Janssen (2013) has argued that in the European context, policies that seek to promote infill development rely on the assumption of continuous economic growth, which renders them rather unrealistic in the context of economic downturns. Rydin (2013) and Rajaniemi (2006) have criticized urban planning because it assumes continuous economic growth to drive urban development, even though many cities and urban districts are growing very slowly, if at all. It is possible that growth-based urban policies are applied as one-size-fits-all solutions without critically considering their applicability to different market contexts (Janssen-Jansen, 2013; Rydin, 2013). At the same time, it is unclear how urban planning

However, municipalities are often motivated to cooperate with private developers, to share financial costs and ensure implementation of urban development projects (Mäntysalo & Saglie, 2010).

could be approached in contexts of low growth (Rydin, 2013). For example, in Finland, urban planning has by far focused on the production of new urban environments rather than the qualitative improvement of old ones (Rajaniemi, 2006, p. 49).

1.1.1 Explanations for the growth dependency of urban planning

According to Rajaniemi (2006, p. 49) *growth* means an increase of something, and is therefore a quantitative term. However, it is often associated with *development*, which can also be qualitative, and *progress*, which is a value-laden concept (Rajaniemi, 2006, p. 49). Such connections between growth, development, and societal progress will be discussed in this section, to explain why mainstream urban planning can be viewed as growth dependent.

According to Rajaniemi (2006, pp. 52–53), typical human thinking strives for growth, since a lack of growth could be perceived as leading to the end of one's existence. Thus, the metaphors of growth, according to which all good moves forward and upward, are easy to embrace because they resemble the idea of personal and human progress (Raworth, 2018, p. 44). According to Jackson (2009, p. 23), the experience of progress and continuity is intrinsically linked to the human experience of well-being: we feel we are doing well when things go according to our hopes and expectations. It has been argued that the idea of non-growth may be avoided in urban planning precisely because of negative perceptions related to the recession, and may lead to an unrealistic belief in progress and strong efforts to restore growth (Rajaniemi, 2006, pp. 52–54). Growth might be pursued at any cost, for example by abandoning the strategic goals of urban plans to promote the implementation of individual projects (Janssen-Jansen, 2013). According to Beauregard (2003, p. 7), the urban decline discourse can even be deployed to motivate growth: framing recession as negative makes growth feel important.

A society striving for growth is also based on the idea that growth automatically leads to desirable societal development, such as social well-being and increased level of environmental protection (Raworth, 2018). Growth thus becomes a goal instead of being a tool for achieving other goals (Rajaniemi, 2006, pp. 170–172; Raworth, 2018). The use of economic growth as a measure of well-being is justified by the idea that higher incomes give individuals more options to fulfill themselves, leading to a better quality of life (Jackson, 2009, pp. 25–26). For example, using gross domestic product as a measure of well-being can be justified by the idea that we value the goods and services we are willing to pay for (Jackson, 2009, p. 27).

According to Rydin (2013), mainstream urban planning often assumes the same idea. The willingness of citizens to pay more for a new urban function than for an old one indicates that the new activity is better and societally more desirable (Rydin, 2013, pp. 53–58). Noteworthy is that in this case the items that are not priced, such as the quality of everyday life, the beauty of the environment, and environmental protection, may not be accounted for in urban planning (Rydin, 2013, pp. 58–60).

Urban planning can also be viewed as a part of the capitalist society[4] that is based on the pursuit of continuous growth (Ferreira & von Schönfeld, 2020; Rajaniemi, 2006, p. 57; Savini, 2019). Growth dependency is thus not a feature of urban planning alone, but a broader societal issue. Jackson (2009) further explains the necessity of continuous growth from the perspective of national economies. He draws from the notion that the capitalist motivation to make profit leads to the development of new technologies that improve productivity. More efficient production decreases production costs and prices, which in turn increases demand (Jackson, 2009, pp. 84–85). At the same time, however, the improved productivity also reduces the amount of work and workers needed to make the products (Jackson, 2009, pp. 84–85). This is not a problem as long as the economy grows fast enough to compensate for the efficiency gains, that is, when the demand for new products grows faster than the efficiency of their production (Jackson, 2009, p. 85). From a national economic perspective, efficiency gains can be thought of as creating a cycle of positive growth: in a growing economy, people have more money to buy products, which increases the demand for commodities and thus the need for labor (Jackson, 2009, p. 118; Raworth, 2018, pp. 68–71). Correspondingly, however, a slowdown of growth could trigger a negative cycle: rising unemployment and declining demand for products. In the public economy, rising unemployment increases spending while tax revenues fall, which might eventually threaten the stability of a society (Jackson, 2009, pp. 85–86). From this perspective, urban development, when understood as the construction of new buildings and the new urban activities that arise with them, creates new jobs, services and economic activity, and thus contributes to creating a spiral of positive growth (Rydin, 2013, pp. 58–62).

[4] Harvey (2020, pp. 9–10) explains the growth dependence of a capitalist society by looking at the process of capital accumulation as its driving force. In this process, the circulation of capital starts when money is invested in commodities (workforce and means of production such as machinery and raw materials) to produce new commodities. These are then taken to markets, to turn them back into money that can be invested into a new round of production. Noteworthy is that this circular process is not a closed cycle but a spiral: the new cycle must always be larger than the previous one, to produce the profit that motivates the whole process. Hence, the capitalist system is continuously expanding.

1.1.2 Problems of growth-dependent urban planning

Based on the above perspectives, it can be concluded that questioning growth in urban planning would be challenging, as it would require wider societal change. However, a growth-dependent society and therefore also growth-dependent urban planning have been considered problematic. A significant problem is that the exploitation of natural resources and environmental pressures resulting from growth will soon exceed the planetary boundaries[5] (Jackson, 2009; Raworth, 2018). Moreover, the idea that economic growth would always increase human well-being is increasingly being questioned. Gross domestic product growth significantly improves human well-being in countries with low annual per capita incomes (Jackson, 2009, pp. 62–63). However, Jackson (2009) points out that as per capita income levels rise above a certain threshold, it seems that gross domestic product growth will do little to increase people's satisfaction with their lives. In addition, it has been observed that the benefits of growth are not evenly distributed in society, resulting in economic inequality and societal tensions (Jackson, 2009, p. 27; Raworth, 2018, pp. 169–171; Wilkinson & Pickett, 2009). According to Rydin (2013), growth-dependent planning may reinforce economic inequality because its principle is to replace existing urban functions with activities that people are willing to pay more for. In this way, the city might develop to meet the needs of better-off urban dwellers, while the needs of low-income residents are in danger of being ignored (Rydin, 2013, pp. 117–118).

It has also been pointed out that, although growth-dependent urban planning could produce social well-being and environmental benefits as cities grow, growth is unevenly distributed across different locations and its continuity may be

[5] The concepts of ecological-economic decoupling and green growth have been proposed as a solution to the problematic environmental consequences of growth. Essentially, the concepts suggest that we will learn to use technology so efficiently that eventually economic growth will be possible without corresponding increases in environmental pressure (Jackson, 2009, p. 89). The concept of green growth can also be deployed to justify the benefits of growth-dependent urban planning (Rydin, 2013, pp. 94–95). For example, investments in new built environments can be seen as investments in a greener future, as old buildings can be replaced with more energy-efficient ones (Rydin, 2013, pp. 95–96). However, reliance on ecological-economic decoupling has also been criticized. It has been noted that the global population and income growths are significantly faster than the progress of technological development, with the risk that decoupling will not be achieved before the planetary boundaries are exceeded (Jackson, 2009, pp. 99–105; Raworth, 2018, pp. 207–208). Green urban growth is also a complex issue. For example, it has been pointed out that due to the carbon peak caused by new construction, the benefits of new, more energy-efficient buildings will only become apparent after decades, which is too late from the environmental perspective (Huuhka et al., 2021). Jackson (2009, pp. 98; 109) concludes that decoupling might be used as an argument to justify the continuation of current activities, without considering in what timeframe and to what extent it will be possible to achieve.

uncertain. For example, Rydin (2013, pp. 82–86) points out that on a global scale, economic growth may in the future be increasingly targeted at developing countries, while in Europe and North America it may slow down. In addition, the aging population may in the future reduce the amount of workforce and thus slow down economic growth in many European countries (Janssen-Jansen, 2013; Janssen-Jansen, Lloyd, Peel, & van der Krabben, 2012; Rydin, 2013, p. 86). The economic crisis of 2008, in turn, showed how fluctuations in the global economic situation make local urban development trajectories more uncertain (de Roo, Rauws, & Zuidema, 2020a; Majoor, 2015b; Savini & Salet, 2017). The stagnation of large-scale urban development projects, for instance, affected the everyday life of urban dwellers by producing unfinished urban environments (de Roo et al., 2020a, p. 85; Janssen-Jansen et al., 2012). Thus, even if the need for growth is not questioned, it is important to note that there are also urban environments that are not currently targeted by growth. According to Rydin (2013), it is problematic if urban planning can increase human well-being and solve environmental problems only in places where growth happens to occur.

The increasing criticism of growth dependence has been viewed as a broader societal sign of a paradigm shift (Jackson, 2009; Raworth, 2018), and the need to find alternatives to growth dependency has also been noted in urban planning (Ferreira & von Schönfeld, 2020; Janssen-Jansen, 2013; Janssen-Jansen et al., 2012; Rajaniemi, 2006; Rydin, 2013; Schlappa, 2016). One important notion is that such alternatives could complement the growth-dependent planning approach where it does not work. According to Janssen-Jansen (2013) and Rydin (2013), instead of applying growth-dependent urban planning on a one-size-fits-all basis, it would be beneficial to identify the market contexts for which it is not appropriate and apply alternative approaches. These could include, for example, increasing the responsibility of the public sector in producing well-being, or taking the goals of local communities more broadly as a starting point for urban planning (Rydin, 2013, pp. 21–23). Finding alternative approaches to growth dependency might thus require the ability to develop new worldviews, frameworks, or paradigms, and to question old ones (Ferreira & von Schönfeld, 2020, p. 60; Raworth, 2018, pp. 28–29).

1.2 Objectives and scope

The research question of this thesis is: *How can urban planning be approached in low-growth contexts?* The starting point of the research is that urban planning is

part of a market-based society, and therefore questioning urban growth cannot be outlined by urban planners alone. Yet, identifying alternative approaches to growth-dependent planning could provide urban planning with ways to foster societally desirable urban development in times and places where growth does not occur. The current urban planning paradigm has been identified as best suitable to growth situations (Janssen-Jansen, 2013; Rajaniemi, 2006; Rydin, 2013). This is problematic if it means that in the absence of growth, urban environments cannot be developed to enhance the well-being of citizens and foster environmental protection (Rydin, 2013).

This research builds on the idea that the suitable approach to urban planning depends on the context. *Planning approaches* are here defined as ideal types of planning that can be connected to different contextual features. Such planning approach typologies are rather common in planning theory (Zuidema, 2017, p. 121), including discussion on *planning styles* (Brindley, Rydin, & Stoker, 1996; Christensen, 1985; Faludi, 1976; Galland & Hansen, 2012; Innes & Gruber, 2005; Sager, 2001b, 2001a), *planning rationales* (Davy, 2008, 2012; Hartmann, 2012; Schmitt & Hartmann, 2016), *planning as work types* (Hirvonen-Kantola, 2013), *planning strategies* (Rajaniemi, 2006) and *planning and policy approaches* (Rydin, 2013; Zuidema, 2017, 2020). What is common to these typologies is that they seek to explain the relationship between planning and its context (Sager, 2001b; Zuidema, 2020, p. 67). However, as context and the elements of a planning approach can be defined in numerous ways, the typologies presented in the literature differ from each other (Sager, 2001b, p. 630). In this research, I have chosen to view planning approaches as *configurations*. The concept of configuration originates from organization sciences, where it can be viewed as consisting of an organization's strategy, structure, and the environmental forces the organization experiences (Miller, 1986; Mintzberg, Ahlstrand, & Lampel, 2009, pp. 336–337). To adjust the configuration concept to the field of urban planning, I build upon theoretical development by Zuidema (2017), who suggests that in planning, strategy can be viewed as *the scope of planning goals*, and structure connected to *the pattern of relationships of planning actors*. The contextual features of planning approach configurations can be depicted as *the degree of uncertainty of the planning situation* (Zuidema, 2017). I will explain this definition more thoroughly in Section 2.1.

Urban development is in this research understood widely as activities of diverse, networked actors that manifest in urban space. This understanding comprises urban development as new building, demolition and rebuilding,

refurbishment, regeneration and area improvement, as well as the construction processes, finance and exchange processes, and the planning and regulatory processes related to them (Rydin, 2010, p. 31). Furthermore, it comprises urban development as local action that shapes the city in the realm of everyday life, and might for instance manifest as co-production and maintenance of urban space and urban functions (Wallin, 2019).

Urban planning, then, is viewed as an activity that shapes the urban context and the processes of urban development but is also shaped by them. On the one hand, this definition of urban planning builds upon a more general understanding of *planning* as a collective activity that aims at solving societal problems by creatively constructing solutions (Mäntysalo, 2002) that are intended to change the initial planning situation into a more desirable one (Campbell, 2012). Urban planning can then be understood as the collective process of envisioning alternative futures for an urban area and formulating strategies to realize them (Legates, 2005, p. 705). On the other hand, urban planning is also understood as an activity that is shaped by the urban development context where it operates. The idea of planning approaches proposes that different forms of planning originate from different social, economic and political contexts (Allmendinger, 2002a, p. 215). Furthermore, planning approaches can also be understood as concepts that may change as the response to contextual changes (Zuidema, 2020). Consequently, rather than understanding urban planning as an activity that guides urban development, in this research urban planning and urban development are viewed to have a reciprocal, co-evolutionary relationship.

The *actors* from whose perspective planning approaches are examined in this research are Finnish cities, and more specifically the city officials working in the field of urban planning. The choice of perspective is based on the Finnish context, where cities and municipalities have a planning monopoly, and where public urban planning agencies can identify planning targets and choose aligned planning procedures (Hirvonen-Kantola, 2013). Furthermore, taking into account the wider urban development scopes, Zuidema's (2017) definition of strategy as the scope of planning goals and structure as relationships between actors suggests that planning approaches emerge in a social process (Davy, 2008) involving not only urban planners but also private sector actors, politicians, third and fourth sector actors, and residents (Rydin, 2010, pp. 70–72). However, even if planning approaches are understood to be formed in a social process, planners play a crucial role in arranging the opportunity for the different actors to contribute to the production of different types of planning knowledge (Rydin, 2007).

Finally, in the context of this research *growth* is mainly looked at as population growth and demand for market-led urban development on the level of an urban neighborhood. In the literature that studies growth and decline of cities from a long-term perspective, population change has been considered a simple measure to indicate urban change (Beauregard, 2009; Turok & Mykhnenko, 2007; Wolff & Wiechmann, 2018). The connection of population change to economic change, both as its cause and effect, has also been recognized (Turok & Mykhnenko, 2007). Population growth is a measure widely used also by Finnish cities to anticipate the development of different parts of the city in their strategic land use planning (Rajaniemi, 2006). Of course, population growth is not the only form of growth that urban planning may seek to support. For example, Rydin (2013, pp. 60–62) discusses how growth-dependent urban planning seeks to promote economic activity, such as construction of new buildings, which contributes to the creation of a positive spiral of economic growth. In this study, viewing growth as population growth is above all due to the context of the study: the empirical material comprises urban development cases in the Finnish context, where the promotion of infill development has become an important policy goal. The promotion of infill development essentially aims at increasing the population of existing urban neighborhoods, to put the existing services and infrastructure to more efficient use, secure the conditions of public transport, and diversify the social structure of urban neighborhoods, for instance. The actualization of infill development also requires that there is growing demand for new urban development, that is, that someone wants to buy property for occupation or workplace, for investment, or for speculation (Rydin, 2010, pp. 41–43).

The research can be viewed as a part of the procedural planning theory tradition, where the object of research is the planning itself (Faludi, 1976). In comparison to substantive planning theory, which studies *what* is the object of planning, procedural planning theory examines *how* planning is done (Faludi, 1976). However, the procedural/substantive division can be considered problematic because it assumes that planning procedures could be developed independently from substance matters, such as values and politics (Allmendinger, 2002c). Post-positivist planning theory has noted that planning practices, procedures and theories cannot be separated from their wider historical and societal context, and procedure and substance matters are therefore intertwined (Allmendinger, 2002c, 2002a). The choice of procedures for a given situation is therefore not only a technical matter but depends on the social reality where the choice is made, where analytical and normative viewpoints, or facts and values, are intertwined

(Allmendinger, 2002a, pp. 213–219). I would therefore like to position my research as part of post-positivist planning theory tradition, by pointing out that the research does not seek to understand the choice of planning approach for low-growth contexts as a technical issue, or suggest that the suitability of planning approaches to their context could be determined based on one objective reality (Allmendinger, 2002a, p. 218; Zuidema, 2017).

However, the mere idea of discussing context-dependent planning approaches assumes that there can be some common ground to establish a criteria for selecting them (Zuidema, 2017). I here intend to take the middle way between positivist and post-positivist perspectives by adopting a critical realist perspective (Allmendinger, 2001, pp. 215–219; Sayer, 2000; Zuidema, 2017). Critical realism assumes that objective reality exists independently of the socially constructed reality and is transmitted to us through our experience (Allmendinger, 2001, p. 204; Sayer, 2000, pp. 10–11). However, our perception of reality is inaccurate in two ways: it is an estimation of objective reality that can be mistaken, and colored by the interpretations and beliefs made in the intersubjective realm (Allmendinger, 2001, p. 216). According to the critical realist perspective, the selection of planning approaches is thus influenced by two factors: the object-oriented perception of reality that gives us the experience that some approaches are more successful than others in certain situations, and the intersubjective perception of reality where different worldviews and preferences influence how the experienced consequences are valued (Zuidema, 2017). By embracing critical realism, some factors explaining the relationship of planning approaches and context can be viewed to exist in objective reality, while some of the factors are socially produced (Zuidema, 2017).

1.3 Research method

The research strategy of this thesis is qualitative case study. For this research, the choice of a case study as a research strategy can be justified because the motive is to examine the relationship of social action, that is, urban planning, and its context, which is a central motivation of a case study research strategy (Flyvbjerg, 2011, p. 301). In addition, case study is suited for examining a contemporary set of events over which a researcher has little or no control (Yin, 2014, p. 14), which characterizes urban planning processes.

In case study research it is important to distinguish between the case and the broader phenomenon that the case is thought to represent (Laine, Bamberg, & Jokinen, 2015, pp. 10–11). The phenomenon studied in this research is urban

planning in the context of low growth. The phenomenon is researched through four urban development cases in two Finnish cities, Turku and Oulu. In Turku, I have studied three cases comprising urban development activities in the suburbs of Runosmäki, Härkämäki, and Pansio-Perno. In Oulu, I have studied urban development activities in the suburb of Kaukovainio. The main research methods are conceptual literature review (Article I) and qualitative, thematic analysis of thematic interviews (Articles II, III, and IV) (Table 1).

Table 1. Research methods and materials used in the Articles.

Article	Research methods	Research material
Article I: Preconditions of urban infill in residential areas with low market position	Conceptual literature review	Research literature on urban regeneration in the context of low growth
Article II: Alternative approaches to urban regeneration and infill planning	Collective case study (Runosmäki, Härkämäki and Pansio-Perno) Qualitative, thematic analysis	Thematic interviews of urban planning and urban development actors (15 pcs) Planning documents (10 pcs)
Article III: Co-evolutionary planning of a Finnish city for its low-growth neighborhoods	Collective case study (Runosmäki, Härkämäki and Pansio-Perno) Qualitative, thematic analysis	
Article IV: Fatalism in co-evolutionary urban planning: Experiences from infill planning in Finland	Longitudinal, single case study (Kaukovainio) Qualitative, thematic analysis	Thematic interviews of urban planning and urban development actors (16 pcs) Planning documents (10 pcs)

Case study as a research strategy can be based on an interplay of theory-driven, deductive reasoning and empirically based, inductive interpretation (Peltola, 2015; Peuhkuri, 2015). Case studies produce knowledge on conditions, phenomena, processes, and meanings that are bound to certain times and places, which implies that they by definition rely on inductive logic (Peltola, 2015, p. 111). The contribution of an inductive case study can be to show that social problems can be approached from many starting points and perspectives, and to offer new approaches for solving them (Häikiö & Niemenmaa, 2015, p. 56; Peltola, 2015, p. 125). However, case study may also include the assumption that empirical observations can be used to provide more general interpretations of the nature and significance of phenomena (Peltola, 2015, p. 111; Peuhkuri, 2015, p. 133; Ragin, 1992). The objective is not a statistical generalization but an analytical

generalization, with the goal of confirming, developing or questioning an existing theory, or creating an entirely new theory (Yin, 2014). The aim of this research, on the one hand, is to understand a social phenomenon, which may provide opportunities to reflect on different perspectives to urban planning in the context of low growth. On the other hand, the research also aims at analytic generalization by connecting the case-based observations to theoretical discussion. I believe these two aims reflect the critical realist perspective adopted for the study, according to which social science is not based on seeking universal laws but does not aim at documenting the unique, either (Sayer, 2000, p. 3).

According to Peltola (2015), in the reporting of case studies, theory and empiricism are often described as separate stages, where the theoretical argument is followed by an empirical case serving as an example. In reality, however, case study research rarely proceeds in this way, but can be more reminiscent of a learning process in which the construction of a theoretical framework and empirical findings overlap (Peltola, 2015, pp. 127–128; Peuhkuri, 2015, p. 148; Ragin, 1992; Walton, 1992). Peuhkuri (2015, p. 148) describes case study research as an adaptive process in which empirical material is filtered and interpreted under the guidance of theory, but at the same time the theory is modified on the basis of empirical observations. This idea illustrates the progress of this research, too. In this kind of research, however, it is important to increase the reader's ability to assess the trustworthiness of the research by making the theoretical and methodological choices and the research process visible (Peltola, 2015, pp. 127–128; Peuhkuri, 2015, p. 148).

1.3.1 Framing the initial theory

The researcher's preliminary assumptions about the phenomenon under study guide the formation of choices to be made in the case study, and therefore it is important to indicate the researcher's position (Häikiö & Niemenmaa, 2015, p. 54). I started building my understanding of the researched phenomenon when working as a research assistant in the Integrative Urban Redevelopment project in the Oulu School of Architecture in years 2014 and 2015. The aim of the project was to examine how Finnish cities could create conditions for infill development in urban neighborhoods with low housing market prices and therefore unlikely market-based infill development (Hentilä, Hirvonen-Kantola, & Kosunen, 2016). The project addressed an observation made in real-life that urban planning is usually based on producing new built environments, even when there are no economic

conditions for its realization, resulting in unrealized plans and unfulfilled planning objectives. The problem was interesting because at the same time in the Finnish context, infill development was increasingly viewed as a means to advance sustainable urban development (Ministry of the Environment, 2014a; Nykänen et al., 2013; S. Puustinen, 2016). However, the problem needed more precise structuring. Could it be addressed by creating the missing economic conditions for infill development? Or could sustainable urban development be supported by means other than infill development?

At the beginning of the research process, I tentatively structured the phenomenon under study and the related theoretical discussion through a literature review, which is presented in Article I. The research strategy of Article I can be characterized as a conceptual literature review (Kennedy, 2007). Generally, the aim of a conceptual literature review is to find out how the research topic has been conceptualized in previous research, to identify related theoretical discussions, and to form new research problems (Kennedy, 2007). While systematic literature reviews often seek an answer to a very specific question with detailed rules for selecting the literature, in conceptual literature reviews the search process can be more akin to a learning process (Kennedy, 2007). In case study research, reviewing the existing theoretical knowledge at the beginning of the research process can help constructing initial research design (Eisenhardt, 1989; Yin, 2014, pp. 39–45). Walton (1992, p. 122) compares the selection of initial theories to an anchor that steadies the research process "until more anchors can be fixed for eventual boarding". As is common in case study research, I have later supplemented my initial theoretical understanding. Therefore, the results of Article I are in this compilation part presented by discussing them together with other relevant literature.

1.3.2 Selecting the cases

After conducting the literature review, I started considering the selection of potential cases. According to Peltola (2015, p. 114), at the beginning of the case study process, cases are often viewed as empirical manifestations of the phenomenon under study, as if they existed in objective reality as such, waiting to be discovered. It is also typical that the case is defined according to clear, empirically observable boundaries (Peltola, 2015). Later in the process, however, the entire delimitation of the case and theoretical discussions relevant to it may change based on insights arising from the case (Peltola, 2015; Ragin, 1992; Walton,

1992). In this study, too, the cases were at first delimited based on my initial theoretical understanding of the phenomenon, and according to the spatial boundaries of urban districts that were targeted with urban development activities.

Planning researchers are encouraged to get close to their phenomenon of interest, to increase understanding on what is really going on in planning (Häikiö & Niemenmaa, 2015, p. 42). Thus, one aspect guiding the selection of cases was my access to them as a researcher. The Kaukovainio case in Oulu was selected through project cooperation: Kaukovainio was a target area of the Integrative Urban Redevelopment project, conducted in cooperation with the City of Oulu. The project offered an opportunity to learn about Kaukovainio's urban development, network with the related actors, and to evaluate its suitability as a case. Project cooperation influenced the selection of Turku cases, too. In 2015 I received one year of funding for my thesis from the Turku Urban Research Programme. The research program provided contact persons for my research from the City of Turku, and an opportunity to discuss my research topic with City representatives. Due to this collaboration, it was natural to select case studies for my research from Turku.

Case selection was also guided by relevance to the phenomenon under study. The urban development cases examined in this study are located in two large Finnish cities. At the end of 2020, Oulu was Finland's fifth largest city (207 327 inhabitants) while Turku was sixth largest (194 391 inhabitants) (Statistics Finland, 2021). Both are growing cities (Statistics Finland, 2021), but discussions with city representatives revealed that pocket-like, slow-growing areas existed in their urban structure. In these cities, therefore, it was relevant to study how urban planners approach urban planning in low-growth contexts. I will next present the selection of four urban development cases in more detail and discuss their identification as low-growth contexts.

Runosmäki, Härkämäki and Pansio-Perno cases in Turku

In Turku, the selection of cases was guided by my preliminary theoretical understanding that there are different approaches to urban planning that somehow are related to the planning context. Based on this understanding, the selection of cases in Turku followed a logic of collective, cross-sectional case study (Stake, 2005). Collective case studies typically examine the same research questions within different contexts (Goddard, 2012). The motivation is to obtain information about the significance of various circumstances for the phenomenon under study (Flyvbjerg, 2011, p. 307; Peltola, 2015, p. 115). The challenge of multiple case

studies is that the amount of research work increases along with the number of cases, which may limit the depth of examination (Goddard, 2012). In this research, the choice of multiple cases as a research approach is justified by the research interest (Häikiö & Niemenmaa, 2015, p. 49): the motivation has been to explore different approaches to urban planning.

The cases were selected via discussions with urban planning officials from the City of Turku. The case selection process was part of the data collection process and was gradually refined as the research interviews progressed. At the beginning of the interviews, I asked the interviewees to describe urban development cases in suburbs where the economic conditions for the implementation of infill development were considered challenging. The interviewees associated the economic conditions for infill development with the demand for housing: if there was no demand for new housing in an urban district, the economic conditions for infill development were lacking. Urban development, on the other hand, was broadly defined in the interviews: not only as planning and construction of a new built environment, but also as repair and maintenance of the existing built environment and functional improvements to citizens' everyday lives.

The interviewees described that infill development in Turku is mainly targeted to the city center and its surroundings. The forthcoming Master Plan 2029 for the City of Turku defines a strategic development zone for urban intensification, which extends approximately three kilometers from the city center, and along main public transport routes (City of Turku, 2018a, pp. 62–63, 2018b). In addition, the master plan draft categorizes housing areas as *completed housing areas*, *suitable areas for infill development* and *new or profoundly changing housing areas* (City of Turku, 2018c, 2018a, pp. 12–13). While some suburbs are located within the urban intensification zone and defined as suitable for infill development, others are situated outside of the intensification zone, or defined as completed housing areas. The interviewees viewed it as important to ensure that the suburbs develop as pleasant environments to live in, but highlighted the need to select the appropriate measures to achieve this in each area. For instance, the renovation of the existing building stock was in many suburbs considered more urgent than infill development.

In the interviews, urban development activities taking place in Runosmäki, Härkämäki, and Pansio-Perno suburbs were referred to as approaches that were different from each other, and therefore these were eventually selected as cases for my research. In Runosmäki, the City had devised a strategic infill development plan to proactively examine infill development potential of the area. In Härkämäki,

urban development activities had started from within the area: the local housing companies [6], the local maintenance company and the local neighborhood association have together shown interest in developing the neighborhood. In Pansio-Perno, the City has addressed the neighborhood's urban problems with an attempt to create new networks among the local actors and by supporting small-scale urban development activities. The three cases are described in more detail in Article II (Kosunen & Atkova, in press) and Article III (Kosunen, Atkova, & Hirvonen-Kantola, 2020). I also reflected on case selection in relation to the population projection presented in the draft version of the City's local master plan (City of Turku, 2018a, pp. 64–68). There, Runosmäki is viewed as a growing area, whereas in Härkämäki and Pansio-Perno the population is expected to slightly decrease [7]. However, the interviews revealed that even the realization of Runosmäki's population growth was considered uncertain. The location of the case areas in relation to the Turku city center is presented in Figure 1.

[6] Here, the term housing company refers to a common form of organizing apartment ownership in Finland. In the Finnish housing company model, the company form is a limited liability company. The real property is owned by the housing company, and shares in the company correspond to a right of possession of an apartment or some other part of the building (Limited Liability Housing Companies Act 2 §). Lujanen (2010) notes that the shareholders can either live in the apartment they have the right to possess or rent it. The highest authority for housing company decision-making is the shareholders' meeting, where the shareholders can vote according to the number of their shares (Lujanen, 2010). The shareholders' meeting decides the yearly budget for the company and elects the housing company board that has the power to make decisions related to the company's operation (Lujanen, 2010). The company board appoints a property manager who is responsible for everyday operations of the company (Lujanen, 2010). In Finland, housing companies are important actors related to the development and maintenance of the existing building stock and infill development (Ministry of the Environment, 2014b). In the existing urban structure land ownership is often scattered, and implementation of infill development is dependent on existing property owners, a considerable share of whom in the Finnish context are housing companies (T. Puustinen, 2020). Lujanen (2010) notes that the Finnish housing companies are non-profit by nature, aiming to provide maintenance of the real property to the shareholders as cost-efficiently as possible. While housing companies could earn profit and pay dividends to their shareholders, this is in practice not done for taxation reasons (Lujanen, 2010). Therefore, the motivation for Finnish housing companies to participate in infill development would be to finance renovations and maintenance of their real property, but not to earn profit (Nykänen et al., 2013).

[7] At the time of writing, the Master plan 2029 for the City of Turku had proceeded to plan proposal phase. In the plan proposal's plan report, Härkämäki and Pansio-Perno are presented as slightly growing areas (City of Turku, 2020, pp. 17–19). According to the plan report, Turku's faster-than-expected population growth in recent years has raised the master plan's population target.

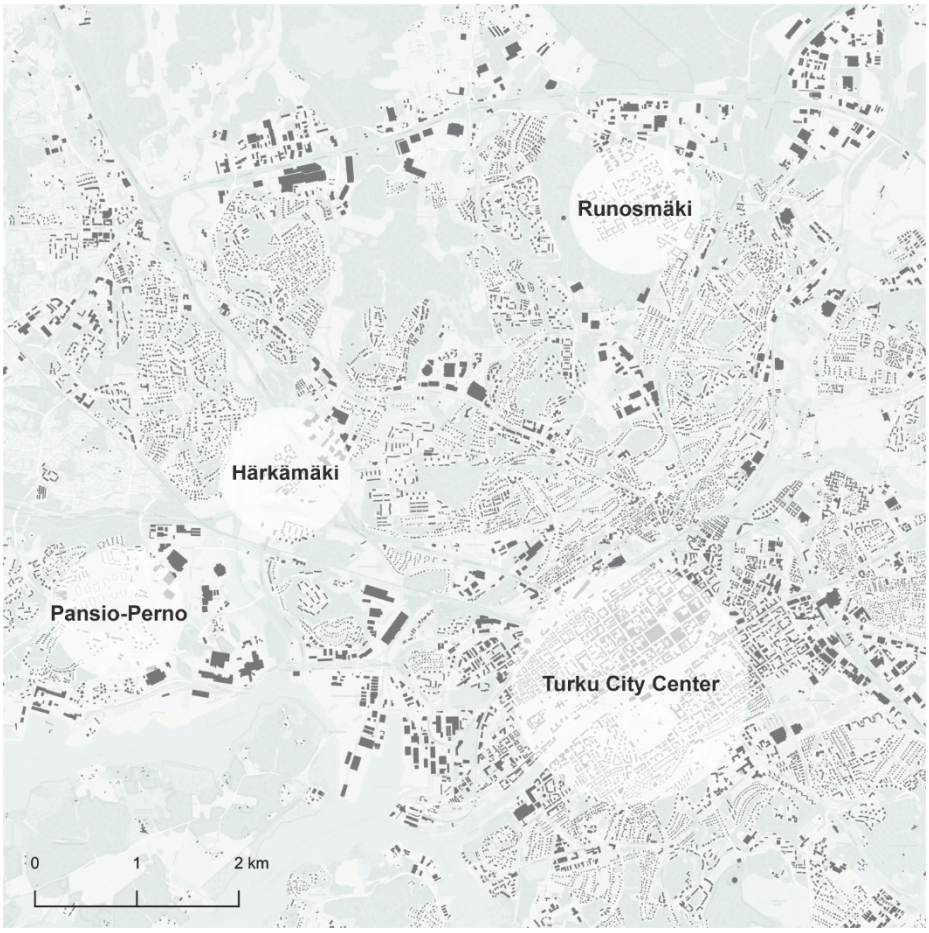

Fig. 1. Runosmäki, Härkämäki, and Pansio-Perno cases in Turku (Base map © OpenStreetMap contributors, https://www.openstreetmap.org/copyright).

Kaukovainio case in Oulu

In Oulu, the selection of the Kaukovainio case was based on the preliminary knowledge of the case gained during the Integrative Urban Redevelopment project. I also discussed the case selection with City of Oulu representatives. They identified Kaukovainio as an urban district where the City has the strategic aim to advance infill development by urban planning, but where there is also uncertainty related to the implementation of market-based infill development projects. The

City's strategic intention to promote infill development in Kaukovainio originates from its local master plan and land use implementation program that have a specific focus on infill development. In its master plan, accepted in 2016, the City of Oulu has identified certain suburbs as strategic areas for infill development (City of Oulu, 2016c, p. 25, 2016a, 2016b). Kaukovainio is one of these suburbs. The City has considered it important to attract new inhabitants to Kaukovainio, to maintain the neighborhood's diverse public and commercial services (City of Oulu, 2013, 2016c, p. 24). Another objective has been to support the achievement of the City's climate targets by urban intensification (City of Oulu, 2013, p. 18). Furthermore, in certain areas surrounding the city center, including Kaukovainio, the City is the main landowner, and can actively promote urban development by conveying plots to interested developers (City of Oulu, 2020, pp. 6–7). With the land use implementation program and plot conveyance, the City has been able to prioritize and program urban development projects in Kaukovainio in more detail, and thus bridge the master plan objectives with implementation. The location of the case in relation to the Oulu city center is presented in Figure 2.

My preliminary theoretical understanding of urban planning approaches drew my attention to the different stages of Kaukovainio's urban development and shifts in the development approach. The first stage that I identified is the Kaukovainio general infill development planning (2010–2013), an overall infill development scheme for the area devised by the City and Kaukovainio District Board, a local neighborhood association run by the residents. The second is the Kaukovainio Center infill development project (2012–2017), where the local shopping center was planned to be replaced with new housing and commercial functions. The third phase is Kaukovainio as a part of a national urban renewal program (2013–2015), where small-scale, socially oriented neighborhood development activities were enacted to complement the infill development activities. Due to this focus on different development stages, the Kaukovainio case was treated with the logic of a longitudinal single case study, suitable for examining change (Yin, 2014, p. 53). The case is described in more detail in Article IV (Kosunen & Hirvonen-Kantola, 2020).

Fig. 2. Kaukovainio case in Oulu (Base map © OpenStreetMap contributors, https://www.openstreetmap.org/copyright).

1.3.3 Collecting the research material

In parallel with case selection, I started to collect the research material. Case study research seeks to increase understanding of the case in its context. One approach to achieve this is triangulation, which seeks to ensure that a complex social phenomenon is observed from various perspectives and the case is not forced to fit some pre-determined theoretical interpretation (Laine, Bamberg, et al., 2015, p. 23; Lincoln & Guba, 1985, pp. 305–307). In this research I mainly deployed source

triangulation, that is, I collected empirical material from various sources. The main sources were thematic interviews of urban planners and other actors participating in urban development in the case study areas. The interview material was complemented with planning documents related to the cases.

The interviewing process followed the logic of snowball-sampling, where the researcher first has discussions with some key-informants, and then asks them to name other potential informants (Hirsjärvi & Hurme, 2008, pp. 59–60). I started the interviews with city officials, because I estimated that they would have an overall picture of urban development activities taking place in different parts of the city and could help me to identify the potential cases and key actors related to them. After the case selection I extended the interviews to the other key actors relevant for each case. The number of interviewees was not determined in advance but was kept open to be able to react to the insights that would emerge from the interviews (Hirsjärvi & Hurme, 2008, p. 59). The final number of interviews was determined by saturation: when new interviewees no longer provided substantial new information, it could be assumed that at least the most important aspects of the cases had been covered (Hirsjärvi & Hurme, 2008, p. 60). The decision to examine multiple cases also limited the depth of case examination compared to a situation where only one case was selected.

In Turku, the interviews were semi-structured thematic interviews, where the themes of discussion are predefined, but the actual questions may vary (Hirsjärvi & Hurme, 2008). The motivation for selecting this interview format was to leave room for the interviewee's interpretations of the phenomenon, and for the meanings constructed interactively in the interview situation (Hirsjärvi & Hurme, 2008, pp. 47–48; Sayer, 1992, pp. 245–246). In Turku, altogether fifteen interviews with urban planners and other relevant actors in the case study areas were made (Appendix 1). From the city organization, I interviewed six persons from the urban planning department, four from the urban development department, and one from the real estate department. In Pansio-Perno I interviewed a representative of a City-owned real estate company, TVT Asunnot, and in Härkämäki representatives of a local neighborhood association, a local maintenance company, and a consulting firm involved in urban development. The duration of the interviews was 30–120 minutes and they were conducted between November 2016 and June 2017. The interviewees were asked to describe urban development in the case study areas, and to evaluate whether the low-growth context provided specific challenges for urban planning. Another main theme that was discussed concerned cooperation in urban

development between the City, private developers, and local communities. The approximate interview themes are presented in Appendix 2.

In Oulu, too, the interviews followed the logic of a semi-structured thematic interview. In addition to the themes discussed in Turku, one theme was to discuss urban development in Kaukovainio in more detail. In this respect the interview format resembled narrative interview, where the discussion is guided by the interviewees' reflections on past events (Kvale & Brinkmann, 2009). In Kaukovainio, ten interviews were conducted by the author between December 2016 and March 2017 (Appendix 1). The duration of the interviews was 60–120 minutes. From the city organization, I interviewed four persons from the urban and environmental services department that is responsible for urban planning in the City organization, and two persons from cultural and educational services who had participated in Kaukovainio's urban development. Moreover, I interviewed two representatives from the Kaukovainio District Board, a representative of the City-owned real estate company Sivakka, and a representative of the construction company that acted as a developer in the Kaukovainio Center project. Furthermore, during the Integrative Urban Redevelopment project in years 2014–2015, five interviews of urban planners from the urban and environmental services department were conducted by a research assistant. These interviews followed the logic of a thematic, semi-structured interview, and concerned the City's strategic infill planning in Kaukovainio and in other suburbs. During the project, we also organized a group interview for the Kaukovainio urban renewal program steering group, which reflected on the different phases of Kaukovainio's urban development.

Planning documents were used as supplemental research material to provide background information and context for the interviews, which is one way to utilize documentary material in qualitative research (Bowen, 2009; Coffey, 2014). In addition, they were deployed to seek clues for possible interview themes, and to check the backgrounds of the perspectives that emerged from the interviews (Bowen, 2009). Local master plans and plan commentaries of Turku and Oulu were deployed to identify strategic urban development objectives and growth expectations related to the cases. Other documentary material included unofficial strategic urban plans and local detailed plans with their plan commentaries, project plans and reports. The main documentary material related to the cases is listed in Appendix 3.

1.3.4 Analyzing the material

The analysis proceeded in parallel with the data collection. I transcribed the interviews and started the analysis within a few days after data collection, except for the interviews collected in the Integrative Urban Redevelopment project that were transcribed earlier. Combining data collection with analysis fostered prolonged engagement and persistent observation of the cases (Lincoln & Guba, 1985, pp. 301–305): reflecting on the insights arising from the interviews enabled searching for deeper understanding in the next interviews.

I analyzed the research material by myself but collaborated with other researchers when writing the research articles and reflecting on the analysis. The trustworthiness of the research could have been improved by researcher triangulation, that is, if several researchers had collected the material and analyzed it (Laine, Bamberg, et al., 2015, pp. 25–26). The credibility of the interpretations resulting from the analysis was reflected on together with the interviewees (Lincoln & Guba, 1985, pp. 314–316). In Turku, I discussed the preliminary findings with the City representatives in a seminar organized in January 2018. In Oulu, the different approaches characteristic to Kaukovainio's urban development were reflected on with the steering group of the Kaukovainio urban renewal program in January 2015.

Analysis of research material for Article II

I started the analysis of empirical material from Turku cases. The analysis was based on qualitative, thematic analysis that organizes and makes sense of the empirical material by describing it verbally (Lichtman, 2014; Tuomi & Sarajärvi, 2009). The analysis process followed a sequence described by Lichtman (2014), proceeding from an initial coding of the material to categorizing the codes and distilling the categories into concepts. The material was coded with the Nvivo program.

As is common in case study research (Peuhkuri, 2015, p. 136), both theory-driven and inductive approaches to analysis were deployed. I had formed a preliminary, theoretical understanding of planning approaches for low-growth contexts when conducting the literature review presented in Article I. One of my starting points was to test and evaluate my initial theoretical understanding with the help of the cases (Peuhkuri, 2015, p. 135). The result of such a theory-guided case study may be, for example, to provide a more nuanced perspective on some

generally accepted theoretical phenomenon (Flyvbjerg, 2011, p. 306). However, the analysis had an exploratory motive, too: I did not want to limit the identification of planning approaches to pre-established theoretical constructs, but also consider any new perspectives emerging from the empirical material.

The analysis of the Turku cases followed the logic of theory-guided thematic analysis, where the codes may emerge from the data via a process of reading and thinking about the material but analysis is also guided by the researcher's theoretical understanding of the phenomenon (Tuomi & Sarajärvi, 2009, pp. 96–97; 117–118). At the beginning of the analysis, I deployed a priori coding to organize the material into coherent narratives. I deployed the *four territories of experience* approach (Torbert, 1972; Torbert et al., 2004; Torbert & Taylor, 2008) as a tool to identify how the interviewees framed reality (framing/visioning), proposed activities (advocating/strategizing), described action that was or could be taken (illustrating/performing) and evaluated the activities in the outside world (inquiring/assessing) (Torbert & Taylor, 2008). These codes did not provide classifications related to the substance of planning approaches, but helped to structure the interviewees' speech so that their assumptions about reality, the action derived from it, and the assessment of the suitability of the actions in their context could be identified. The four territories of experience approach is described in more detail in Article II (Kosunen & Atkova, in press).

After organizing the material like this, the analysis loosely corresponded with the two-step qualitative, thematic content analysis developed by Gioia and colleagues (Gioia, Corley, & Hamilton, 2012). In the first stage, the coded material was organized into categories according to themes arising from the interviews (Gioia et al., 2012). In the second stage of the analysis, attention was paid to the interpretations made by the researcher, that is, to theoretical concepts (Gioia et al., 2012). These may be, on the one hand, existing theoretical constructs, and, on the other hand, concepts emerging from the empirical material for which there does not appear to be a common ground in the research literature (Gioia et al., 2012). In this second stage, the literature review I had made at the beginning of the research served as a preliminary understanding of how the themes raised by the interviewees related to the theory of planning approaches. However, one theme also emerged from the interviews that opened up new perspectives to my initial theoretical understanding. In the cases, it seemed that sometimes planning approaches were not yet fully structured, due to the limited number of urban development interests targeted to low-growth contexts. This was something that I had not yet considered

in my initial theoretical framework. As an example, Table 2 presents the analysis process for the Pansio-Perno case.

Table 2. Coding in Pansio-Perno.

Codes	Categories	Concepts	Comparison with extant theory
Passages under framing/visioning (how reality was framed)	Isolated location Lack of attractions Social deprivation Lack of alternatives No idea how to proceed	Social justice Constrained context	
Passages under advocating/strategizing (proposals for action)	Image building Address social segregation Integrate marine industry into urban development Attract new inhabitants Infill development unlikely No physical plan needed	Focus on the existing conditions Generation of something new Giving up old practices	Egalitarian planning approach
Passages under illustrating/performing (description of action that was or could be taken)	Small scale initiatives to address local needs and build area image New co-operation practices Plot conveyance problematic New single-family housing area Improvement of City-owned rental housing	Cooperation between the City and the local actors City-led urban development activities	Uncertainty, change, and generation of something new as new theoretical concepts
Passages under inquiring/assessing (assessment of activities)	Traditional urban planning not functional Inability to plan is disturbing Openness of outcome as a positive feature More important to take action than plan in advance	Open ended process Action precedes planning Uncertainty is disturbing	

One contribution of Article II to my research process was therefore to provide new conceptual understanding of the phenomenon under study. In case study research, a more precise delimitation and conceptualization of the research phenomenon may

arise from the case, and lead to the search for new theoretical perspectives explaining the phenomenon during the research process (Peltola, 2015, pp. 116–118; Ragin, 1992; Walton, 1992). The approach resembles the grounded theory logic, with the difference that the formation of theory does not start from scratch, but the case is gradually constructed through conceptual choices (Peltola, 2015, p. 121). In this research, the observation that the theoretical framework of planning approaches I had outlined through the literature review was not entirely sufficient to describe the real-life phenomenon led to a review of my theoretical understanding.

Analysis of research material for Articles III and IV

Laine et al. (2015) and Walton (1992) propose that in case study research the ideas that emerge from the material can help targeting the analysis and support the choice of theoretical frameworks. Here, my observation that planning approaches might not yet be fully structured in the context of low growth led to the idea that in such contexts, they might first have to be developed. I found support for the idea from researchers who have suggested that in the context of low growth, urban planning could play a role in creating new relationships between networks of actors and generating new activities (Boelens & Coppens, 2015; Rydin, 2013; Schlappa, 2016). The challenge is that in this case, the urban development outcomes cannot be known in advance, as the objective is precisely to create something new. This eventually led me to look at planning theory and planning approaches from the perspectives of uncertainty, change, and co-evolution.

After this realization, I started to deploy the cases as a tool for constructing interpretation, in which the researcher combines observations from the empirical world with interpretations emerging from the research literature to understand the phenomenon (Peltola, 2015, pp. 122–123; Ragin, 1992, p. 10; Walton, 1992, p. 128). This type of case study research is about creating new references and meanings between theoretical understanding and the case by combining cases with concepts that originally did not seem to be related (Peltola, 2015, p. 123; Walton, 1992). Walton (1992, p. 129) mentions three features of this type of constructive approach to case study research. First, the case is found to be a case of something that was not initially noticed. Second, the case is reformulated by defining it theoretically and forming a hypothesis about the relationships that explain the case. Thirdly, the previous interpretation of the case is included in the new interpretation, since it is this previous interpretation that invoked the need for a new interpretation. In this

research, the theoretical idea of *co-evolutionary planning* became an important concept for reformulating the cases. In Articles III and IV, my aim has been to build an understanding of the co-evolutionary planning approach in low-growth contexts by combining theoretical understanding with case-emerging observations and exploring the explanatory power of the new theoretical concept through the cases (Walton, 1992, p. 128). In Article III, I deployed the *organizational ecocycle* theory (Hurst, 1995; Hurst & Zimmerman, 1994) to demonstrate the idea of urban planning in low-growth contexts as co-evolutionary. In Article IV, I deployed the concept of *polyrational planning* (Davy, 2008, 2012; Hartmann, 2011, 2012) to combine the planning approach concept with the concept of co-evolutionary planning.

Because my motive was to demonstrate the explanatory power of the interpretation I had constructed through cases (Walton, 1992), the thematic analysis of the material in Articles III and IV was theoretically guided. Article III was based on the Turku cases that I had already analyzed via the four territories of experience approach and categorization and conceptualization arising from the material. For Article III I did the second step of the analysis again, this time reflecting the codes, categories and concepts with the organizational ecocycle theory. For Article IV, I organized the material related to Kaukovainio case with the four territories of experience approach. I then combined the codes into empirically grounded categories and finally into concepts (Lichtman, 2014). During the analysis process, I also iteratively compared the emerging categories and concepts with the theory of polyrational planning.

1.4 Dissertation structure

As a result of the abductive research process presented above, two phases can be identified for this research, which I will refer to as Research Tasks. Research Task 1 looks at planning approaches in low-growth contexts as static ideal types. Research Task 2, in turn, looks at planning approaches from the perspectives of time and change by building upon the concept of co-evolutionary planning. It also discusses the relationship between co-evolutionary planning and the planning approaches identified in Research Task 1. Contribution of the articles to the Research Tasks is presented in Table 3.

Table 3. Articles' contribution to the thesis.

Article	Research question	Contribution to thesis
Article I: Preconditions of urban infill in residential areas with low market position	What is the current understanding of urban regeneration strategies in urban areas with depressed markets?	Identifies planning approaches for low-growth contexts from the research literature Contributes to Research Task 1, which studies planning approaches as ideal types
Article II: Alternative approaches to urban regeneration and infill planning: Case Turku, Finland	When the growth-dependent planning approach is used, whether alternative approaches are deployed, and what are their underlying logics?	Identifies urban planning approaches to low-growth contexts in Turku, Finland Contributes to Research Task 1, which studies planning approaches as ideal types
Article III: Co-evolutionary planning of a Finnish city for its low-growth neighborhoods	How can co-evolutionary urban planning be applied to low-growth contexts?	Conceptualizes a co-evolutionary planning approach for low-growth contexts Contributes to Research Task 2, which studies planning approaches in relation to uncertainty and change
Article IV: Fatalism in co-evolutionary urban planning: Experiences from infill planning in Finland	How can planning both proactively motivate urban development and adapt to change?	Connects the co-evolutionary planning approach to planning approaches discussed in Research Task 1 Contributes to Research Task 2, which studies planning approaches in relation to uncertainty and change

2 Research Task 1: Planning approaches as ideal types

2.1 Theoretical framework of Research Task 1: Planning approaches as configurations

My research builds on the notion that a suitable approach to urban planning depends on context. Such planning approach typologies are rather common in planning theory (Zuidema, 2017, p. 121, 2020, p. 67). Examples include discussion on planning styles (Brindley et al., 1996; Christensen, 1985; Faludi, 1976; Galland & Hansen, 2012; Innes & Gruber, 2005; Sager, 2001b, 2001a), planning rationales (Davy, 2008, 2012; Hartmann, 2012; Schmitt & Hartmann, 2016), planning as work types (Hirvonen-Kantola, 2013), planning strategies (Rajaniemi, 2006) and planning and policy approaches (Rydin, 2013; Zuidema, 2017, 2020). Planning approach typologies propose that certain features of planning match especially well with certain contextual features (Sager, 2001b; Zuidema, 2020, p. 67). Here, I have adopted the perspective that planning approaches can therefore be understood as configurations (Miller, 1986; Mintzberg, 1983), where different characteristics of planning are matched with each other and with the context (Zuidema, 2017, p. 120).

In organization science, configurations denote a coherent set of mutually supportive elements that together with contextual compatibility enhance an organization's performance (Miller, 1986; Mintzberg, 1983, pp. 151–152). One way to approach configurations is to view them as the interplay of an organization's strategy, organizational structure, and the environmental forces that the organization experiences (Chandler, 1962; Miller, 1986; Mintzberg et al., 2009, pp. 336–337), as presented in Figure 3. When the elements of a configuration fit together well, organizations perform well in their environment. For example, it is often noted that a hierarchical organizational structure suits pursuing clearly defined goals in a stable environment (Miller, 1986; Mintzberg et al., 2009, p. 324). This is because the hierarchical structure enables routinization and specialization of operations, which enables accomplishing an organization's goals more efficiently. Since the combination of a hierarchical structure and a fixed organizational goal is relatively rigid, organizations relying on it survive best in stable environments, which further encourages specialization on certain objectives and routinization of operations. The elements of a configuration are thus complementary: they all make sense in terms of a whole, forming a cohesive system

(Miller, 1986; Mintzberg, 1983, pp. 151–152). According to configuration theory, this explains why ideal type configurations can be identified in real life: when strategies, structures and contexts fit together well they tend to mutually reinforce each other, while configurations with less compatible elements fade away (Miller, 1986).

Fig. 3. Elements of a configuration.

Zuidema (2017, pp. 120–121) proposes that when viewing planning approaches as configurations, strategy can be equated with the scope of planning goals, focused on the question of what planning aims to achieve. Zuidema (2017), De Roo (2012) and Christensen (1985) view the strategy element of planning as a continuum, where one extreme is to pursue maximization of a single objective, and another is to combine a large amount of competing or interrelated objectives. Along the same lines, Innes and Gruber (2005) propose that one element of planning styles is related to the diversity of interests in the planning situation: whether there are only a few interests that define the scope of planning goals, or whether multiple interests need to be integrated. Brindley et al. (1996) associate the scope of planning goals with the relationship between planning and markets: the extent to which urban development is guided by public planning objectives or follows the diverse interests of the market actors.

Structure, in turn, can be connected to the patterns of relationships of planning actors focused on who is involved in decision-making and implementation

(Zuidema, 2017, pp. 121–122). Zuidema (2017) and De Roo (2012) view structure as a spectrum between a fully centralized and coordinative structure where one actor can exert control over others, and a participative structure with many interdependent or competing actors involved. For Innes and Gruber (2005), one element of planning styles concerns interdependency of interests: the extent to which planning actors are dependent on other actors to pursue their interests. For Brindley et al. (1996) one element of planning styles concerns the involved actors: public planning authorities, market actors, or citizen-based groups.

Finally, the contextual features of planning approach configurations can be depicted as the degree of uncertainty of the planning situation (Zuidema, 2017). Uncertainty of the planning situation is affected by the extent to which the cause-and-effect relationships of the context are known, that is, the extent to which urban plans lead to the expected outcome (Zuidema, 2017, p. 128). Uncertainty of the planning context can be further conceptualized based on whether the uncertainty is related to objective or intersubjective reality (de Roo, 2012; Zuidema, 2017). In the uncertainty related to the objective reality, the effectiveness of planning to achieve intended outcomes is not known because planning participants have no previous experience of the situation. Such uncertainty can be reduced by acquiring more information about the planning situation, for example, through analysis or experimentation (Christensen, 1985; Zandvoort, Van der Vlist, Klijn, & Van den Brink, 2018). As an example of object-oriented uncertainty, Brindley et al. (1996) relate the contextual fit of planning approaches to the market context. In buoyant market contexts, plans can be expected to actualize, while in less attractive market contexts, urban development interests must be proactively searched for (Brindley et al., 1996). By contrast, in uncertain situations that originate from the intersubjective nature of reality, people might attribute different meanings to the issues faced (Christensen, 1985; Zandvoort et al., 2018; Zuidema, 2017). For instance, Brindley et al. (1996) relate the contextual fit of planning approaches also to the market-orientation of planning: whether planning is intended to support market processes, or to guide and coordinate them. From an intersubjective perspective, a context with many competing interests and interdependent actors can be considered uncertain, while a context with few interests and independent actors can be considered predictable (Innes & Gruber, 2005). Uncertainty about intersubjective reality can be reduced through communication: the goal is to form a common understanding between actors about the nature of reality (Christensen, 1985; Zandvoort et al., 2018; Zuidema, 2017). Elements of a planning approach configuration are summarized in Figure 4.

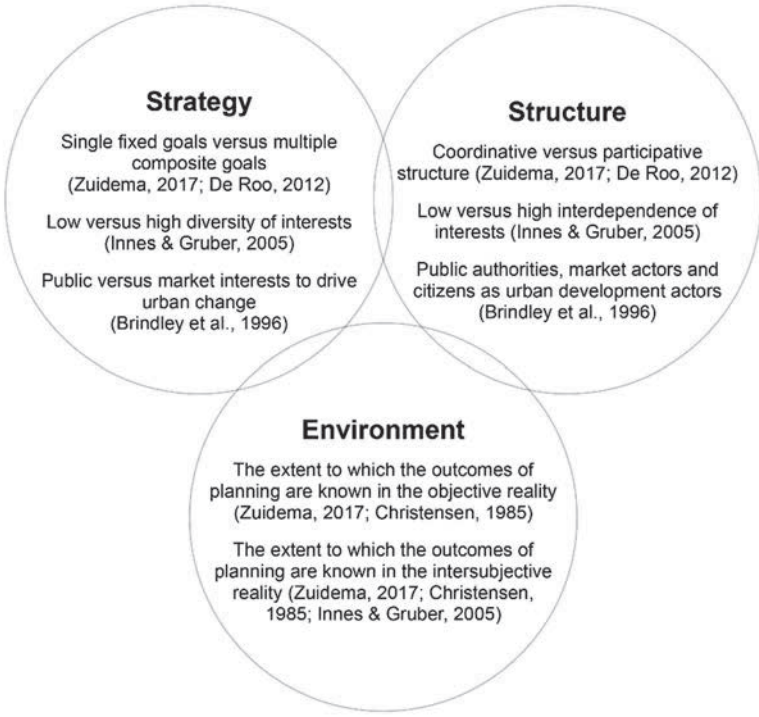

Fig. 4. Elements of a planning approach configuration.

2.1.1 Configurations as ideal types

It is typical for configuration-thinking to discuss configurations as ideal types by lumping various elements of a configuration into categories (Mintzberg et al., 2009, pp. 319–320). Together, the scope of planning goals, the relationships of the actors involved, and the contextual uncertainty of planning, can be viewed to form planning approach configurations as ideal types of planning (Zuidema, 2017, p. 105). Configuration-thinking proposes that since particular environments support particular organizational strategies and structures, and since the elements of a configuration mutually reinforce each other, viable configurations that work in practice become manifest more often than unviable ones (Miller, 1986, 1996). For the same reason, theoretical conceptualizations of configurations that focus on the same phenomenon tend to converge (Miller, 1986).

In planning theory, too, planning approaches are often presented as a set of ideal types. One example is the typology of planning rationales discussed by Davy (2008, 2012) and Hartmann (2011, 2012). It is based on a theoretical approach called Cultural Theory that originates from the work of anthropologist Mary Douglas. Cultural Theory proposes that social relations and human perceptions of reality can be characterized by two dimensions, grid and group (Douglas, 1978; Mamadouh, 1999). The grid dimension denotes how humans position themselves in relation to externally imposed control, whereas the group dimension denotes their willingness to belong to a group or act on their own (Mamadouh, 1999). Grid-group combinations result in four cultures or rationales: *hierarchism*, *egalitarianism*, *individualism*, and *fatalism* (Mamadouh, 1999; Thompson, Ellis, & Wildawsky, 1990).

The grid and group dimensions are parameters that help defining the four cultures of Cultural Theory as ideal types (Mamadouh, 1999), somewhat like a strategy, structure and environment can be deployed as parameters to define configurations. The grid and group dimensions could even be viewed to roughly correspond with the strategy and structure dimensions of planning approach configurations. The grid dimension could be connected to the strategy dimension that defines the scope of planning goals. The group dimension, in turn, could be connected to the structure as relationships between planning participants.

Based on the notion of planning approaches as ideal types, the theoretical framework of this research builds upon three planning approach configurations found in the planning literature, here discussed as hierarchism, individualism, and egalitarianism. The configurations are based on Cultural Theory-based planning rationales discussed by Davy (2008, 2012) and Hartmann (2011, 2012). Other planning approach typologies are compared with this framework to find similarities between the approaches. The purpose of presenting planning approach configurations as a typology is to form an initial framework that depicts how the strategy and structure of planning can be connected to different contexts. This understanding is then reflected in the empirical part of the research where the suitability of the three planning approach configurations in low-growth contexts is explored.

2.1.2 Hierarchism

The first planning approach discussed here is in Cultural Theory referred to as hierarchism (Davy, 2008, 2012; Hartmann, 2011, 2012; Schmitt & Hartmann,

2016). Planning approach literature also discusses *technical/bureaucratic planning* (Innes & Gruber, 2005), or *regulative planning* and *public investment planning styles* (Brindley et al., 1996). The approach also loosely corresponds with *comprehensive-rational planning style* (Faludi, 1976) or *technical-rational planning approach* (Zuidema, 2017). I will call this planning approach hierarchical planning.

Hierarchical planning denotes a planning approach where a centralized planning agency sets the framework for urban development, and where other actors are willing to take joint action by committing to this framework (Davy, 2008; Hartmann, 2012). According to Davy (2012, pp. 51–53) the hierarchical approach implies a social contract where power in society is given to an institution that governs the welfare of all people, and where the integrity of that institution must be protected to retain its ability to govern. The hierarchical approach has also been connected to the utilitarian concept of justice, where the goal is to produce happiness for as many as possible and suffering for as few as possible (Hartmann, 2012; Schmitt & Hartmann, 2016). The role of the government is thus to divide welfare evenly to the greatest number of people (Schmitt & Hartmann, 2016). Distributing welfare through other means, for instance through markets, is seen to produce imbalances and inequalities that must be rectified by planning (Schmitt & Hartmann, 2016). The hierarchical planning approach thus also resembles what Brindley et al. (1996) call market-critical planning, aiming to redress imbalances and inequalities created by the market.

The aim of hierarchical planning to distribute welfare evenly implies an assumption that a comprehensive plan of what is needed in society can be formulated. Allmendinger (2002a, p. 215) and Zuidema (2017) connect this idea to positivist planning theories, such as rational-comprehensive or technical-rational planning, where planners seek to make decisions for the interest of the whole society based on objective, scientific knowledge. The ideals of rationality and comprehensiveness assume a single true world that can be fully understood when carefully analyzed with a scientific method. They imply an ability to select the most effective means to achieve planning objectives by considering all possible courses of action and evaluating them against the relevant ends (Allmendinger, 2002a, p. 57; Faludi, 1976, p. 155).

Furthermore, the aim to distribute welfare evenly in society assumes that a broad societal consensus of what welfare means can be achieved (Brindley et al., 1996, p. 14; Schmitt & Hartmann, 2016). The technical-rational approach relies on the legitimacy of representative democracy and a coordinative form of governance,

where the government decides upon goals that are considered to benefit the public interest (Zuidema, 2017, p. 106). Planners are viewed as politically neutral professionals, whose expert knowledge is relied on to define the framework for urban development (Hartmann, 2012) and establish rules and regulations that help ensuring that individual actions follow the framework (Brindley et al., 1996, p. 168). Therefore, in the hierarchical planning approach, the assumptions that comprehensive knowledge of the planning situation can be gained and a broad societal consensus on the goals of planning achieved often lead to long-term plans with fixed trajectories for future urban development. The concrete planning instruments may include master plans to define the direction of urban development, and development control to regulate individual urban development proposals (Brindley et al., 1996).

However, the ideal of comprehensive knowledge that justifies hierarchical planning can be criticized because it is impossible to achieve (Zuidema, 2017, pp. 36–37), and because apart from expert knowledge, other forms of knowledge are often ignored (Innes & Gruber, 2005). Further, post-positivist planning theorists have noted that what is claimed to be objective knowledge is dependent on the social context in which knowledge is created, especially in the realm of social sciences such as planning (Allmendinger, 2002a; Zuidema, 2017, p. 37). Related to this notion, it can be argued that the increasing fragmentation and diversification of social realities no longer allows formation of a unified conceptualization of public interest that could be used as the starting point of planning (Healey, 1997; Zuidema, 2017, pp. 40–41). Further, since today power is increasingly dispersed in society between state, markets and civil society actors, the government can no longer be considered the sole actor in advancing and protecting the public interest (Zuidema, 2017, pp. 40–41). Finally, the ideological premise of hierarchical planning to distribute happiness, wealth, or public interest evenly is based on the idea that everyone in society is in the same situation, while the structural inequalities that exist in society might be ignored (Fainstein, 2017; Schmitt & Hartmann, 2016).

The contextual fit of hierarchism

Cultural Theory also proposes that the different approaches systematically direct their attention towards certain features of their environment and away from others, (Thompson et al., 1990, pp. 26–33), implying a relationship between the approaches and their context. Following Cultural theory, Hartmann (2011, 2012),

proposes that the hierarchical planning approach assumes that the environment tolerates intervention within certain limits. The task of planning is to define appropriate limits to intervention, and then establish rules and regulations that ensure that these limits are not crossed (Hartmann, 2011, p. 40, 2012). Along with this line of thought, hierarchical planning approach can be deemed suitable for situations where creation of certainty is desirable or necessary, such as achieving certain degree of environmental protection (de Roo, Rauws, & Zuidema, 2020b; Zuidema, 2017). However, the critique of hierarchical planning points out that in practice it is often challenging for the public planning agency to unilaterally control the situation. The hierarchical approach has therefore been proposed to work best in contexts where there are at least some chances for the planning agency to gain comprehensive knowledge of the situation and be able to control it. For instance, Zuidema (2017, 2020), De Roo (2012) and Christensen (1985) relate technical-rational planning to contexts with a low degree of objective or intersubjective uncertainty, characterized by broad consensus of planning objectives and sufficient knowledge on the instruments required to achieve them. Innes and Gruber (2005) regard technical-bureaucratic planning as suitable for situations where the diversity of interests is limited, and where achieving the objectives of planning does not necessarily require cooperation between planning participants.

2.1.3 Individualism

The second planning approach that I will discuss combines features of Cultural Theory's individualist rationale (Davy, 2008, 2012; Hartmann, 2011, 2012; Schmitt & Hartmann, 2016), *political influence planning style* (Innes & Gruber, 2005), and *trend planning* and *leverage planning styles* (Brindley et al., 1996). It can also be connected to *the competitive form of governance*, associated with the wider concept of collaborative planning (Zuidema, 2017). Here, I will call this planning approach individualistic planning.

Individualistic planning denotes a planning approach where planning actors do not commit to a centrally established framework, and where joint action in accomplishing urban development objectives is not viewed important (Davy, 2008; Hartmann, 2012). The approach relies on a social contract based on individual liberty, private property rights, and free market competition (Davy, 2012, pp. 53–54; Hartmann, 2012). Davy (2012) refers to John Locke's social contract theory where humans are considered free, equal, and capable of making rational, independent decisions. The concept of justice behind individualistic rationale has

been characterized as libertarian, which assumes that the free operation of markets ultimately results in fair outcomes (Hartmann, 2012; Schmitt & Hartmann, 2016). It highlights the right of every individual to pursue happiness and wealth through self-determination (Schmitt & Hartmann, 2016). Therefore, in the individualistic approach, the task of planning is not to make decisions on behalf of individuals, but to protect the rights of individual actors (Davy, 2012, p. 35).

In the individualistic planning approach, a desirable urban development trajectory is not determined by planning, but by the self-organizing markets. Since the functioning of markets is based on patterns of spontaneous organization between independent actors, it is argued that it produces more accurate and timely information on what is demanded in society, compared to hierarchical planning that is based on centrally gathered information that might become outdated when situations change (Bertaud, 2018; Webster & Lai, 2003). Such planning approach can also be connected to neoliberal political ideology (Allmendinger, 2002a, p. 216; Brindley et al., 1996, p. 170; Hartmann, 2012). In the context of planning, neoliberalism can be characterized as a strategy that "aims to give administrative efficiency, entrepreneurialism, and economic freedoms more impetus than democratic political steering" (Sager, 2011, p. 148). Noteworthy is that while the neoliberal rhetoric often presents hierarchical planning as a threat to the efficient organization of cities, it still reserves a specific role for planning in supporting and stimulating market processes (Rydin, 2013; Sager, 2011).

In practice, the individualistic planning approach may manifest as project-based planning that aims to maximize the efficiency of implementation. Another aim may be to fuel experimentation and bring innovative ideas to the planning process by including a competitive element (Hartmann, 2012). Innes and Gruber (2005) discuss political influence planning style, where planners seek to establish partnerships with the private sector actors, and where plans represent a summary of interested urban development parties' aims. Zuidema (2017, pp. 23–24) refers to the competitive form of governance, where different priorities are reconciled by bargaining for compromises between them.

However, developing a built environment based on market logic can be questioned because of the tendency of markets to maximize short-term profit. In the built environment which generally lasts a long time, the mistakes made by the markets will be visible as empty buildings or an unfinished environment (Brindley et al., 1996, p. 182). Further, market logic might not always identify values that are not priced, such as qualities related to human well-being, nature, aesthetics, or use-value of the urban environment (Rydin, 2013; Sager, 2011). The tendency of

market-led urban development is to replace urban functions that produce these qualities with functions that bring monetary value (Rydin, 2013). The individualistic approach can also be criticized because the initial allocation of resources in society is never equal, resulting in some people having better starting points to pursue happiness and wealth through self-determination than others (Schmitt & Hartmann, 2016). An individualistic planning approach therefore might benefit those who are in a position to take advantage of available urban development opportunities, for instance private sector developers and their customers that can afford for the urban environment that is being produced (Brindley et al., 1996, p. 181).

The contextual fit of individualism

Following Cultural Theory, Hartmann (2011, p. 43, 2012) proposes that the individualist planning approach assumes that the environment tolerates a considerable amount of experimentation and intervention. Hence, neither a hierarchical framework that guides individual actions nor mutual commitment to it are needed (Hartmann, 2012). Zuidema (2017, pp. 91, 105–109) proposes that the competitive form of governance works best in environments where the number of actors with diverging perspectives is high, or where limited knowledge on the possible courses of action necessitates keeping the objectives of planning open and experimenting with alternatives. Innes and Gruber (2005) propose that the political influence planning style suits contexts where there is a high diversity of interests but the interdependency of actors in furthering their aims is low, and planning must therefore proceed based on individual decisions. The individualistic approach therefore seems suitable for uncertain planning situations. In this case, uncertainty can refer to the addressed phenomena in the object-oriented reality, such as the involved cause and effect relationships or the extent to which the outcomes of actions are known (Christensen, 1985; Zandvoort et al., 2018; Zuidema, 2017, p. 128). It can also refer to the intersubjective-oriented reality where people might attribute different meanings to the issues faced (Christensen, 1985; Zandvoort et al., 2018; Zuidema, 2017, p. 128).

2.1.4 Egalitarianism

The third planning approach that I will discuss contains features of Cultural Theory-based egalitarian planning rationale (Davy, 2008, 2012; Hartmann, 2011,

2012; Schmitt & Hartmann, 2016), *social movement planning style* (Innes & Gruber, 2005) and *popular planning* (Brindley et al., 1996). I will call this planning approach egalitarian planning.

In egalitarianism, people are bound together by similar opinions and values (Davy, 2012, pp. 18–19). Egalitarians have a strong willingness to belong to a group but reject the idea of developing a centralized framework to guide individual action, since this would fail to consider the local specifics (Hartmann, 2012). Davy (2012, pp. 18–19) refers to Rousseau's idea of a social contract where private interests can be reconciled by identifying areas of common interest, resulting in that the government exists based on the consent of the governed. Thus, while the organizing principle of individualism is the market, the egalitarian principle of organization results from the moral commitment to the community (Schmitt & Hartmann, 2016). According to this rationale, urban problems are best solved by consulting with the members of local communities and by building trust and relationships among them (Davy, 2012, pp. 53–54). Further, egalitarianism has been connected to the idea of social justice, which explicitly looks at how welfare is distributed in society from the perspective of the least advantaged (Schmitt & Hartmann, 2016).

Due to its aim to achieve consensus among community members, egalitarian approach has been connected to communicative planning, where the ideal is that a consensus on the planning objectives can be achieved through open participation and deliberation (Hartmann, 2012). However, the ideal of participation has a challenging relationship with the ideal of social justice (Fainstein, 2017). Critics of communicative planning note that a more open planning process does not necessarily make planning more just, since those who have power in society or resources to implement urban development often have better chances of getting their voice heard (Allmendinger, 2001, pp. 190–191; Fainstein, 2017; Rydin, 2013, pp. 14–18). Noteworthy is that the idea of participation in urban planning was originally invoked by the low-income groups' resistance to hierarchical planning that failed to consider local needs (Fainstein, 2017). Along the same lines, the egalitarian planning rationale has also been connected to community-based urban development initiatives that are viewed as alternatives to government-led or market-led urban planning (Davy, 2008; Hartmann, 2012; Schmitt & Hartmann, 2016). Popular planning style (Brindley et al., 1996) and social movement planning style (Innes & Gruber, 2005) describe urban planning that arises when groups who feel excluded join around a vision that opposes a mainstream policy. Such initiatives typically organize around an issue that is important for the locality, seek

the formal recognition of these issues in public urban plans, and even aim at their implementation (Brindley et al., 1996, pp. 17–18; Innes & Gruber, 2005).

The egalitarian planning approach can be criticized because it might benefit only those who are involved in the community or group that makes the planning initiative. Those who have resources to self-organize for urban development may represent selected groups within a society (Savini, 2016), which may turn egalitarian planning into a rather elitist and exclusive activity (Brindley et al., 1996, p. 171; Davy, 2008; Fainstein, 2017). Hence, while egalitarian planning might in some cases help to protect marginalized citizens' interests, such as low-income groups or non-property owners, in other situations the approach might benefit those who already are well-off in society (Fainstein, 2017). Fainstein (2017) proposes that the capacities of community-based planning initiatives to further social justice should therefore be critically evaluated against their context.

The contextual fit of egalitarianism

According to Cultural Theory, the egalitarian worldview considers the environment as fragile, and therefore has a cautious attitude towards intervention (Thompson et al., 1990, pp. 26–29). This further explains why the egalitarian planning approach values local-level decision-making: the assumption that the world tolerates only a small amount of intervention leads to action derived from caring and responsibility (Hartmann, 2011, p. 40, 2012). Individualist experimentation is out of the question, and the hierarchical approach with its formal procedures is too rigid to consider the specificity of local circumstances (Hartmann, 2012).

Zuidema (2017, pp. 91, 105–109), in turn, proposes that the argumentative form of governance, which highlights the participation of civil society members in planning, suits uncertain contexts, due to the capacity of the approach to accommodate diverging perspectives and develop new knowledge on the possible courses of action. However, it differs from the competitive form of governance in that instead of bargaining and compromising, the actors aim at developing a shared vision that motivates collective action (Zuidema, 2017, p. 108). Innes and Gruber (2005) propose that the social movement planning style suits contexts where there is a high interdependency of actors, but low diversity of interests. They argue that it would go against the logic of community-based initiatives to accommodate wide diversity of interests, since the commitment of the involved actors requires a clear, motivating vision. The commitment to the shared issue also indicates high interdependency of actors (Innes & Gruber, 2005).

2.1.5 Summary and discussion

The three planning approaches are summarized in Table 4, based on the elements of planning approach configuration as strategy, structure, and context. The strategy-dimension of the planning approach focuses on what planning aims to achieve, whereas the structure-dimension looks at the relationships of actors involved in planning and decision-making (Zuidema, 2017). The context-dimension looks at the environmental forces that urban planning experiences as the objective and intersubjective uncertainties of the planning context (Zuidema, 2017). Following Zuidema (2017), these three elements are considered interrelated and mutually reinforcing each other, forming planning approach configurations as ideal types of planning.

Table 4. Planning approach configurations.

Planning approach	Strategy: What planning aims to achieve	Structure: Who is involved in decision-making	Contextual fit: Intersubjective and objective uncertainties
Hierarchical planning	To govern the welfare of all people and to produce greatest happiness to the greatest number	Public authorities, based on their expert knowledge and reliance on the unified concept of public interest defined through representative democracy	Where the diversity of the competing views is low, and where all actors are either committed to an established framework, or where public authorities can implement the planned development on their own.
Individualistic planning	To protect individual liberty and the right to pursue happiness through self-determination	Market actors, based on the belief that an aggregate of individual decisions will lead to fair outcomes and efficient use of resources	Where there are multiple competing views and the interdependency between actors is low, and it therefore is not possible to establish a framework that would guide the actions of individual actors.
Egalitarian planning	To establish a shared urban development vision that fulfils local needs	Local communities, based on their mutual commitment to an urban development issue	Where the number of competing interests is low, and the interconnectedness of actors is high, which enables establishing the shared urban development vision.

The aim of the hierarchical planning approach is to govern the welfare of all people and produce greatest happiness for the greatest number. Public authorities are responsible for planning and decision-making, based on their expert knowledge and reliance on the unified concept of public interest defined through representative democracy. This approach assumes a broad societal consensus on planning objectives, and comprehensive knowledge about the situation that allows forming fixed, long-term plans. Ideally, this would require a context where the diversity of competing interests is low, and where all actors are either committed to the established planning framework, or where public authorities can implement the planned development on their own.

The aim of the individualistic planning approach is to protect individual liberty and free operation of markets, which is considered to ultimately result in fair outcomes and effective use of resources. The approach implies a relationship between actors where planning goals and knowledge are formulated as an aggregate of individual decisions. The approach has been associated with contexts where there are multiple competing views but the interdependency between actors is low, and it therefore is not meaningful to establish a binding framework that would guide the actions of individual actors.

Finally, the aim of the egalitarian planning approach is to establish a shared urban development vision that fulfils local needs and explicitly considers urban development from the perspective of social justice. The approach implies a relationship between actors where planning objectives and knowledge of the situation are formulated at the local level, which simultaneously generates mutual commitment among the actors involved. Ideally this would denote a planning situation where the number of competing interests is low, but the interconnectedness of actors is high.

Critique of viewing planning approaches as configurations: The critical realist perspective

Viewing planning approaches as configurations proposes that the performance of different approaches is influenced by the circumstances encountered and that guidelines to choose between approaches could be formulated based on analyzing the situation (Zuidema, 2017, 2020). This idea can be criticized because it assumes that there is only one objective reality which determines the contextual fit of planning approaches (Zuidema, 2017, 2020). Zuidema (2017, 2020) notes that the planning situation could be interpreted quite differently by different social realities,

and hence selecting a planning approach according to the contextual fit is not as straightforward as it seems. Further, the contextual fit perspective does not explicitly discuss the selection of a planning approach as a normative choice, where the objectives and outcomes of planning might be valued differently by different social realities (Zuidema, 2017).

Such challenges are further discussed in post-positivist planning theory, according to which reality cannot be explained by general rules or theories, but knowledge is always bound to the space and time where it is produced (Allmendinger, 2002b). As such, the idea of planning approaches is compatible with the post-positivist planning theory, which proposes that urban planning cannot be given one specific definition, but planning always depends on its local social, economic and political context (Allmendinger, 2002a, p. 215). In post-positivist thinking different strands of planning theory, such as communicative planning or neoliberal planning, can be understood as planning approaches that manifest in certain locations at certain times (Allmendinger, 2002a, pp. 213–216). However, another tenet of post-positivism is that since knowledge and reality are socially constructed and depend on the context where they are produced, it is impossible to have a pre-defined criteria based on which some things are better than others (Allmendinger, 2002c; Zuidema, 2017, p. 90). Hence, adopting a post-positivist perspective poses a challenge for the idea of proposing the best planning approach to a given situation a priori (Allmendinger, 2002c; Zuidema, 2017, p. 80).

Allmendinger (2001) and Zuidema (2017) propose that this challenge could be resolved by approaching post-positivism through critical realism (Sayer, 2000), that is, a combination of relativist and realist perspectives (Allmendinger, 2001, pp. 215–217; Zuidema, 2017). Critical realism assumes that objective reality exists independently of the socially constructed reality and is transmitted to us through our experience (Allmendinger, 2001, p. 204; Sayer, 2000, pp. 10–11). Especially the fallibility of our knowledge, that is, the experience that the outcomes of our actions do not always meet our expectations, provide evidence that the objective reality exists (Sayer, 2000, p. 2). However, our experience of this reality is always partial because our ability to sense the world is imperfect, and because our experience is also influenced by interpretations made in the intersubjective realm (Sayer, 2000, pp. 10–11; 41). Our perception is thus inaccurate in two ways: on the one hand it is an estimation of objective reality that can be mistaken, and on the other hand it is colored by the interpretations and beliefs made in the intersubjective realm (Allmendinger, 2001, p. 216). Unlike positivism, critical realism does not support the idea that humans can achieve an accurate picture of reality but accepts

that the picture is always imperfect and changing, and that many pictures of reality can exist in parallel (Zuidema, 2017, pp. 88–90).

According to the critical realist perspective, the selection of planning approaches is thus influenced by two factors: the object-oriented perception of reality that gives us the experience that some approaches are more successful than others in certain situations, and the intersubjective perception of reality where different worldviews and preferences influence how the experienced consequences are valued (Zuidema, 2017). Consequently, the best ways to approach a situation are partially determined by the consequences that can be verified through experience, but are partially a socially mediated choice (Allmendinger, 2001, pp. 215–216; Zuidema, 2017). In the spirit of this argument, Brindley et al. (1996, p. 214) argue that for planning theoretical discussion that acknowledges the existence of multiple realities, case study research that analyzes local specifics is valuable in proving that not everything is possible everywhere. In their framework of planning styles, planning approaches are categorized both by the market situation of the area (*buoyant*, *marginal*, and *derelict* urban areas), and market-orientation of planning (*market-critical* or *market-led* planning) (Brindley et al., 1996). From a critical realist perspective, the market situation of the area could be interpreted as a feature belonging to the object-oriented reality, whereas the market-orientation of planning belongs to the intersubjective realm.

Zuidema (2017, 2020) proposes that knowledge of the planning situation in the object-oriented realm could be deployed as a starting point for selecting the planning approach, while accepting that the ways in which people respond to this argument remains a matter of choice. He further proposes that since complete information about reality itself can never be obtained, a planning approach could be selected based on what is agreed to be the desired end-state of planning. For instance, technical rational planning helps to achieve fixed outcomes based on a coordinative structure, whereas planning approaches based on either competitive or argumentative forms of governance help to achieve multiple goals and are based on a decentralized structure. From the contextual fit perspective, technical rationality and the coordinative form of governance thus suit simple contexts where goals are easy to define, whereas communicative rationality and competitive or argumentative forms of governance suit complex contexts, where the way to proceed is more unclear. However, Zuidema (2017) also notes that in some cases, a decision can be made in the intersubjective realm to choose a planning approach against the contextual fit. For instance, securing a certain level of environmental protection may be so highly valued that the planning situation is not opened to

deliberation, despite that there are multiple, competing interests (Zuidema, 2017, p. 280). Correspondingly, a society that appreciates citizen participation might approach also simple, agreed upon planning situations with communicative rationality (Zuidema, 2017, p. 279).

2.2 Findings of Research Task 1: Planning approaches as ideal types in low-growth contexts

Articles I and II examined planning approach configurations in low-growth contexts as ideal types. Article I (Kosunen, Hirvonen-Kantola, & Hentilä, 2016) identifies planning approaches for low-growth contexts through a literature review. Article II (Kosunen & Atkova, in press) is a case study that explores how urban planners in Turku have approached urban planning in low-growth contexts. This chapter summarizes the results of Articles I and II and reflects them through the theoretical framework of Research Task 1 to depict the contextual fit of the planning approaches in low-growth contexts.

2.2.1 Extending the theoretical framework to low-growth contexts (Summary of Article I)

This section discusses how the three planning approaches might manifest in low-growth contexts, based on the categorization presented in Article I (Kosunen et al., 2016). The aim of Article I was to identify planning approaches for low-growth contexts through a literature review. The article recognizes three urban regeneration strategies: *state-led*, *property-led*, and *community-led strategies*. Here, I will connect these strategies to the three planning approaches identified in the theoretical framework of Research Task 1: hierarchism, individualism, and egalitarianism. While the focus of Article I was on Anglo-Saxon urban regeneration literature, the results are here connected also to a more general planning theoretical discussion.

Hierarchical approach as the state-led approach

As was discussed in the theoretical framework of Research Task 1, the hierarchical planning approach assumes a predictable context where there are at least some chances for the planning agency to gain comprehensive knowledge of the situation and be able to control it. Historically, the hierarchical planning approach can be

connected to the period of postwar economic growth and the establishment of welfare states in Europe. Back then, economic growth was assumed continuous, and the social redistribution of the economic surplus became the role of public planning (Galland & Hansen, 2012; Janssen-Jansen et al., 2012, p. 17; Mäntysalo, 2000, p. 191). In this context, the task of urban planning was to regulate urban growth strategically, and economic actors were expected to invest according to public urban plans (Healey, 1997, p. 146). Brindley et al. (1996) and Rydin (2013) observe that the hierarchical planning approach works best in economically buoyant market contexts, where the continuity of economic activity can be relied on to fulfill the public urban planning objectives, and the economic actors are willing to invest according to the public urban plans due to the expected profits. Without market demand for urban development hierarchical planning can exercise little influence (Brindley et al., 1996, pp. 168–169), unless the public authority is able to implement the desired urban development by itself (Brindley et al., 1996, pp. 22–23).

Article I identifies that a corresponding planning approach has manifested as the state-led urban regeneration strategy. In the past, the assumption of continuous economic growth and the strong agency of public urban planning enabled public authorities to allocate urban development to disadvantaged neighborhoods. More recently, examples of the state-led urban regeneration approach have tried to solve urban problems in low-growth areas by rearranging the urban structure beyond the local level. For instance, in the United Kingdom, housing market renewal areas have been appointed by the central government in the northern parts of the country where housing markets have been depressed (Cameron, 2006; Rydin, 2013, pp. 33–34). Also in the shrinking cities of eastern Germany, restructuring of housing markets has been realized under a state-led program (Bernt, 2009; Wiechmann & Pallagst, 2012). The aim in both cases has been to demolish existing housing and replace it with selective redevelopment, to create a more balanced housing market in terms of supply and demand (Bernt, 2009; Rydin, 2013, pp. 33–34).

While hierarchical planning in post-war years shaped urban structure to redistribute the benefits of urban growth, more recently the approach has been deployed to restore balance to the urban structure that has been disturbed by shrinkage. Based on Article I findings, the ability of the planning agency to control the situation could be identified as one prerequisite for the application of the hierarchical approach in low-growth contexts. A challenge here may be that the notion of a unified public interest assumed by hierarchical planning does not take into account local needs and perspectives. Even if the demolition of the built

environment in selected areas would benefit the city or the region as a whole, it would not necessarily help to improve conditions in those areas that are being targeted with demolition activities. For example, in the German urban regeneration examples mentioned in Article I, the reorganization of the urban structure was based on plans from the central government. The result has been that the localities end up having limited choices to determine the priorities and objectives of their urban policies (Bernt, 2009).

Individualist approach as the property-led approach

The theoretical framework of Research Task 1 proposes that the individualistic planning approach may surface in contexts where the number of actors with diverging perspectives is high, or where limited knowledge on the possible courses of action necessitates keeping the objectives of planning open. For public urban planning, this might be a situation where there are limited possibilities to control future urban development because its actualization is dependent on the motivations of other actors that operate in the urban context, notably the market actors. Historically, one reason for the emergence of the market-led approach in the European urban planning context resulted from the economic recession that occurred from the 1970s onwards, and from the practical necessity of public governments to share the load of implementing public policies with the private sector (Brindley et al., 1996; Galland & Hansen, 2012; Mäntysalo, 1999). Due to the lowered expectations of economic profit, market actors were no longer willing to invest according to the public urban plans, making the achievement of planning objectives through the hierarchical approach uncertain. Consequently, the purpose of public planning was no longer to redistribute the benefits of economic growth, but to stimulate it to support the local economy (Healey, 1997, pp. 133–136; Mäntysalo, 1999). For instance, Mäntysalo (1999) describes how in Finland the slowdown of economic growth and urbanization in the beginning of 1990s led to a gradual shift from rationalist-comprehensive planning towards market-led planning based on project-orientation.

Article I identifies that in the urban regeneration literature a corresponding approach has manifested as the property-led strategy, where public authorities attempt to stimulate local markets by making urban development more attractive to market actors. The public sector can offer leverage to private sector development by providing direct financial support, tax reliefs, developable land, or public infrastructure investments, or by relaxing planning regulation (Brindley et al., 1996;

Rydin, 2013, pp. 72–73). The idea is that real estate investments will revive the local economy and eventually bring also social and environmental improvements to the area (Sager, 2011).

One weakness of the property-led strategy is that it functions properly only when there are at least some prospects for economic growth to drive urban development. In times of economic downturn, private developers tend to avoid more difficult sites as return on their investment cannot be guaranteed (Janssen-Jansen, 2013; Janssen-Jansen et al., 2012). Consequently, they might not be willing to develop all sites indicated in cities' strategic urban plans, even if the city attempts to make the development opportunity more attractive to them (Janssen-Jansen, 2013). Rydin (2013, pp. 90–92) observes that leveraging private development is most efficient in situations where the point of profitability is not far away anyway, and the efficiency of using public funds to stimulate urban development can therefore be questioned.

A further limitation of deploying a market-led planning approach in low-growth areas is that the social groups likely to benefit most are those who can afford to pay for the new urban environment that is being produced. The most extreme implication of this is gentrification, meaning that people already living in the area are gradually replaced with those who can afford the area's new price level (Rydin, 2013, pp. 117–118). Of course, things do not always go this far, and market-led urban development often brings improvements also to the existing residents by bringing new services and functions into their everyday life or upgrading the built environment in their neighborhood (Rydin, 2013, pp. 111–112). However, there is also the risk that the market-led development replaces urban functions that have high use value for existing residents with new functions that are targeted to other social groups (Rydin, 2013, pp. 111–112). While public urban planning with participatory processes may attempt to ensure that the market-led urban development is beneficial also for the locality, in low-growth contexts possibilities to negotiate with the private property developers to include features that would be beneficial for the area, such as improvements to the cityscape or more versatile street-level functions, are limited. Private developers might argue that these features make the development economically unviable (Brindley et al., 1996; Rydin, 2013; Sager, 2011).

Egalitarian approach as the community-led approach

The preceding discussion demonstrates that the hierarchical and individualistic planning approaches may have limited applicability in areas where there is no market demand for new urban development. The main reason for this is that both approaches tend to rely on economic growth to deliver urban policies (Rydin, 2013). Rydin (2013) connects both approaches to the growth-dependent planning paradigm, where public planners apply their regulatory powers to market-led urban development to further societal objectives, but only to a point where the development stays economically profitable. The problem is that such growth-dependent planning does not function in areas where there is no market demand for urban development (Janssen-Jansen, 2013; Rydin, 2013). These notions have inspired scholars to explore how urban planning could produce social and environmental benefits and human well-being without relying on economic growth. The alternatives to growth-dependent planning paradigm often build upon ideas from postgrowth scholarship that explores ways to decouple the societal system from the premise of growth and explicitly understand economy as a servant of human well-being (Ferreira & von Schönfeld, 2020).

When exploring alternatives to growth-dependent planning, Rydin (2013) builds upon the concept of just sustainabilities (Agyeman, 2013) which argues that the discussion on sustainable development has by far focused on the combination of economic and ecological perspectives, and should more explicitly focus on social justice. Framing sustainable urban development from the perspectives of human well-being and social equity could produce alternative approaches to urban planning in the absence of economic growth (Rydin, 2013). This would mean that the needs of the communities in low-growth neighborhoods were explicitly taken as urban planning objectives, and that the toolkit and roles of urban planners were expanded to include new forms of community engagement (Rydin, 2013, Chapter 6). Janssen-Jansen (2013) refers to the just city concept (Fainstein, 2010, 2017), where urban planning is deployed to produce socially equitable outcomes rather than to support those that are already well-off in society. Shrinking city scholarship proposes that rather than attempting to turn the shrinking areas back to growth, public authorities could seek to convert the unique features of these areas into positive assets that can help prevent social polarization (Oswalt, 2006; Schlappa, 2016; Schlappa & Neill, 2013). This could be done by exploring new scopes for urban development together with the local communities, who have previously been

left out of decision-making in urban development due to their lack of financial resources (Oswalt, 2006, p. 17).

Alternatives to growth-dependent planning thus advocate planning that is based on the concept of social justice, associated with the egalitarian planning approach in the theoretical framework of Research Task 1. Furthermore, egalitarian planning can be associated with contexts where actors are motivated to participate in urban development due to a shared vision and commitment to the locality (Hartmann, 2012). It is proposed that the approach could surface especially in economically marginal areas, where local communities[8] and groups might organize for urban development due to the failure of hierarchical or individualist planning approaches to address urban problems, and where the interests of the market actors do not override the community-based urban development schemes (Brindley et al., 1996; Rydin, 2013). Article I identifies that in the urban regeneration literature a corresponding approach has manifested as the community-led strategy, where local communities and groups are viewed as urban development actors, due to their non-profit motivation of improving their own neighborhood.

The challenge of adopting the community-led approach as a policy objective is that active local groups that would have the motivation to participate in urban development might not yet exist in the area. In the United Kingdom, creation of social capital[9] has therefore been adopted as a policy goal for the regeneration of disadvantaged neighborhoods (Kearns, 2003). It is proposed that in low-growth contexts one role of planners could be to build *bridging social capital* between different groups, to create prerequisites for them to take joint action for urban development (Rydin, 2013, pp. 229–231). Compared to traditional participatory urban planning arrangements, such an approach would require more long-term engagement from urban planners and the acknowledgement of the open-endedness of the process (Boelens & Coppens, 2015; Rydin, 2013, pp. 241–243). Wallin (2015, 2019), even though not explicitly discussing low-growth areas, provides an example of such a planning approach with her case study of urban development in

[8] Noteworthy is that the residents of an urban neighborhood cannot be understood as just one community, but as several communities or webs of relationships where people belong to, based on their different roles and identities (Healey, 1997, pp. 123–125; Rydin, 2013, pp. 227–228).

[9] Social capital can be broadly defined as "comprising networks of relationships between actors plus the sets of norms, values and common practices that those actors conform to" (Rydin & Holman, 2004, p. 118). These relationships and norms are then suggested to motivate individuals to join collective urban development (Rydin & Holman, 2004). A distinction between bonding and bridging social capital can be made, the former referring to social bonds within a community or group, and the latter to social bonds between communities or groups (Putnam, 2000).

the Herttoniemi neighborhood in Finland. There, a combination of community development and self-organizing urban development activities succeeded in improving the services and public spaces in the area and enhanced the prerequisites of residents to organize for collective action (Wallin, 2015, 2019). By contrast, a more traditional urban development approach based on a combination of hierarchical urban planning and real-estate development did little to improve the neighborhood due to the failure of urban plans to attract implementation, resulting in a long stagnation of official urban development schemes (Wallin, 2015, 2019).

However, also a critical stance towards the community-led strategy in low-growth contexts can be taken, by viewing it as operating in the context of neoliberalism, where its purpose is to compensate for inadequacies of the market-mechanism (Jessop, 2002). From this perspective, the approach can be associated with austerity policies or doing more with less approaches to urban development, where small-scale, voluntary and citizen-based urban development initiatives are encouraged in areas where there are economic challenges to deploy other planning approaches (Savini, 2016). For instance, in the Netherlands, self-organizing, community-led urban development initiatives have been viewed as a way to revive large-scale urban development projects that were stagnated due to the economic crisis of 2008 (Savini, 2016). In the United Kingdom, the community-led approach has sought to establish a middle ground between state-led and market-led approaches to urban regeneration by highlighting self-help and creativity as a way forward for groups and communities living in disadvantaged urban areas (Kearns, 2003). The approach may fail to acknowledge that not all individuals have the same position and capacities to participate in urban development, resulting in a situation where only social groups having these prerequisites benefit from the approach (Savini, 2016). Further, it may ignore the structural dynamics that produce the uneven spatial distribution of welfare in the first place (Kearns, 2003). When individuals are encouraged to take responsibility for social welfare production, a narrative of the State's limited capacities to handle societal problems may be enforced without critically considering the origins of these limitations (Jessop, 2002).

Summary

The results of Article I are aligned with the theoretical framework of planning approach configurations in Table 5. The contribution of Article I is to further

elaborate the contextual fit of planning approach configurations in low-growth contexts.

Table 5. Planning approach configurations in low-growth contexts.

Planning approach	Strategy: What planning aims to achieve	Structure: Who is involved in decision-making	Contextual fit of the approach in low-growth areas
Hierarchical planning as state-led urban regeneration strategy	To redistribute the benefits of urban growth to low-growth areas or to balance the negative effects of non-growth by rearranging the urban structure	Public authorities and partners that are willing to comply with the public planning objectives	Where planning can direct the benefits of wider urban growth to non-growing areas or control how these areas respond to shrinkage
Individualistic planning as property-led urban regeneration strategy	To stimulate urban development in low-growth areas by preparing development opportunities that are attractive to market actors	Public authorities and market actors	Where planning can attract private developers to low-growth areas
Egalitarian planning	To fulfill local needs and consider urban development from the social justice perspective	Public authorities and local communities, based on their mutual commitment to an urban development issue	Where a local motivation for urban development exists, or where urban planners can support its emergence

In low-growth contexts, the hierarchical planning approach may operate beyond the local level, either by redistributing the benefits of urban growth to low-growth areas or by balancing the negative effects of non-growth by restructuring the building stock. While the local actors may welcome the support due to their own lack of resources, the approach can be criticized because the localities may end up having limited choices to determine their own urban policy objectives and priorities.

The individualistic planning approach in low-growth contexts, in turn, can manifest as a property-led urban regeneration strategy, where public authorities attempt to make urban development opportunities more attractive to market actors. The idea is that investments in the built environment will eventually also bring

wider social and environmental improvements. However, the effectiveness of leveraging private development in low-growth contexts can be questioned because support provided by the public sector might not be enough to make private development profitable. Moreover, market-led urban development can be criticized because it might not always deliver benefits for the residents already living in the area.

In low-growth contexts, the egalitarian planning approach has been considered an alternative to the hierarchical and individualistic approaches. The egalitarian approach aims to support urban development activities that directly bring non-monetary benefits for the locality, instead of using economic growth as an instrument to deliver them. The egalitarian approach views local, community-based organizations and groups as urban development actors, due to their non-profit motivations and interests to improve their own neighborhood. In low-growth contexts where urban development activities do not yet exist, the approach might require that urban planners engage in long-term development activities that seek to identify starting points for urban development together with other interested actors. The approach could be criticized because it might hand the responsibility of urban development to residents and communities who might not always have the prerequisites to organize for collective action.

2.2.2 Planning approaches in low-growth contexts in practice (Summary of Article II)

This section summarizes the results of Article II (Kosunen & Atkova, in press). Article II explored how the City of Turku had approached urban planning in its low-growth neighborhoods. The starting point of the paper was that mainstream urban planning often relies on a combination of hierarchical and individualistic planning approaches to deliver its objectives, making urban planning dependent on economic growth (Rydin, 2013). The aim of Article II was to identify whether the City of Turku had relied on such a growth-dependent planning approach in low-growth contexts, or whether alternative approaches had been deployed. The aim was also to identify the underlying logics of the alternative approaches. As a result, the paper presented a set of three planning approaches that the City of Turku had deployed in Runosmäki, Härkämäki, and Pansio-Perno neighborhoods. Here, I will connect the identified approaches to the theoretical framework of Research Task 1 and discuss their contextual fit (Table 6).

Table 6. Planning approaches in Turku suburbs.

Planning approach	Strategy: What planning aims to achieve	Structure: Who is involved in decision-making	Contextual fit of the approach in low-growth areas
Hierarchical and individualistic approaches in Runosmäki as the growth-dependent approach	To proactively create prerequisites for infill development projects and explore their impact on the urban structure	Public authorities	Where there are expectations for urban growth and strategic importance for the City
Egalitarian approach in Härkämäki as the supportive approach	To support the activities of local actors	Public authorities and local actors	Where a local motivation for urban development exists
Egalitarian approach in Pansio-Perno as the generative approach	To generate new activities	Public authorities and local actors	Where urban development initiatives do not yet exist

The hierarchical approach in Runosmäki as the growth-dependent approach

The planning approach deployed in the Runosmäki case is here associated with the hierarchical and individualistic approaches. The motivation to deploy the approaches originates from the City's forthcoming local master plan, where Runosmäki is identified as a potential area to accommodate future population growth. The City's urban planners had therefore decided to devise a strategic infill development plan for the area. The objective of the plan has been to examine the impacts of the anticipated population growth on the neighborhood's traffic and service networks, green area development, and building heritage, and to establish infill development principles from the perspectives of quality of life, parking, traffic, and economy. The plan also identifies potential locations for infill development in the Runosmäki urban structure. These are largely based on the City's landownership, and the aim of the City to build a new community center for Runosmäki. The new community center would provide an opportunity to concentrate several of the area's public services into one building, resulting in the conversion of many publicly owned sites for new use.

Making an infill development plan was considered meaningful in Runosmäki because of its advantageous location and master plan's growth expectations, and

because the City's landownership and community center project were expected to enable new infill development in the future. The plan served the strategic urban planning objectives of the City, as it was expected to increase the number of inhabitants in the area and lead to more effective use of public transport, services and infrastructure. The development was also considered to benefit the neighborhood because it would improve public services in the area and increase quality of the environment. These arguments could be connected to the hierarchical planning approach, where planners seek to produce improved welfare for citizens based on their expert knowledge and reliance on the unified concept of public interest, in this case defined by the local master plan. The reliance on expert knowledge was reflected by the aim of the urban planners to proactively analyze how the anticipated population growth would affect the area instead of proceeding incrementally, project by project. The selection of the hierarchical approach was also supported by the fact that the City could use its public land ownership and the community center project to influence the implementation of infill development. In other words, there were at least some chances for the City to control the planning situation. Furthermore, the approach could be identified as growth dependent since market-led infill development projects were relied on to fulfill the strategic urban development objectives.

However, deploying the hierarchical approach in Runosmäki was also considered "old fashioned" because it seemed to ignore the uncertainty of future development. It was assessed that such practice would only be meaningful in areas that would attract new inhabitants and therefore infill development projects. The original idea of the City's urban planning department had been to make similar plans for all suburbs in Turku. This idea was later abandoned because the practice was not considered suitable in areas where market demand for infill development was uncertain. In fact, the interviewees were not sure whether the planned development would be realized even in Runosmäki. Some interviewees therefore considered strategic infill planning in Runosmäki an unrealistic approach and stated that plans should only be made once there were actual projects for which to plan. These arguments imply that the limitations of the hierarchical approach in low-growth contexts were identified. From this perspective forming a comprehensive, long-term urban development plan seemed obsolete, because the future was uncertain and could not be controlled by the City.

The egalitarian approach in Härkämäki as the supportive approach

The Härkämäki case is here associated with the egalitarian approach to planning. In the City's forthcoming local master plan, Härkämäki is identified as a completed housing area where there is no need for remarkable urban change (City of Turku, 2018c). This implies that the City does not have the motivation to proactively plan for new urban development there. However, a local actor coalition, comprising the neighborhood association, area maintenance company and housing companies, have together shown interest in developing the neighborhood. Motivated by the need to repair the buildings in the area affordably, the actors have examined possibilities for joint renovations with the help of a consulting firm. This also generated an idea of making an area development strategy, with the aim of improving public spaces and the overall appearance of buildings in the neighborhood. Even though the area has no strategic urban development importance in the City's master plan, urban planning officials have actively shown support for the local actors and encouraged them to carry on with their plans.

Here, I propose that urban development in Härkämäki contains features of the egalitarian planning approach, where local groups and communities are motivated to take urban development action due to their commitment to a joint issue. It could also be viewed to represent the community-led urban regeneration strategy, where voluntary and citizen-based urban development initiatives are encouraged because the economic situation does not allow deploying approaches that rely on market actors to implement the development. Indeed, the interviewees assessed that locally initiated urban development was needed in the Turku suburbs, since most of these areas are unlikely to be in the main scope of market-led urban development. The City representatives considered supporting these initiatives important, to ensure that also areas where market-based urban development does not take place remain as pleasant living environments. However, the interviewees highlighted that the City cannot unilaterally choose to use the Härkämäki approach in another area, as the initiative must come from the local actors. Furthermore, the interviewees noted that in areas where spontaneous urban development activities do not exist, the City should consider other planning approaches. This implies that the City also recognized the limitations of the egalitarian approach to produce well-being for those groups and communities that do not have resources to self-organize urban development.

The egalitarian approach in Pansio-Perno as the generative approach

Like Härkämäki, Pansio-Perno is identified as a completed housing area in the City's forthcoming local master plan. However, the area suffers from social segregation, which has motivated the City to make Pansio-Perno a target area of socially motivated urban regeneration. In addition, Pansio-Perno is an important area for industry and workplaces. Many of the interviewed City representatives mentioned the recent prosperity of the marine industry in the Turku region and were hoping that this could at some point start new urban development in Pansio-Perno. However, the area was considered challenging for residential infill development because of its isolated location in between the industry area and dockyards, relatively far away from the city center. While there are publicly owned sites that the City would be willing to convey for infill development, private developers have shown no interest in them. The safety requirements of the nearby industry further limit possibilities for infill development.

In Pansio-Perno, planning for infill development has not been considered a suitable approach since the area has not attracted any urban development interests. Instead of planning for future urban development, the City has recognized a need to build a positive image for the area. Based on these observations, urban development activities in Pansio-Perno have been originated together with the residents and local organizations. This has been done in regular meetings coordinated by a City worker, whose responsibility is to run the meetings, facilitate discussion, and coordinate the possible implementation of development ideas. Urban development activities include environmental improvements organized in cooperation between the City, residents, and area-based organizations, such as an environmental artwork made for an old lighthouse building, and a new pedestrian path connecting the area to the seashore. The City-owned rental housing company has contributed by working together with the residents to plan transformations of its apartments and outdoor spaces, and by developing new modes of affordable housing.

Here, I propose that Pansio-Perno could be connected to the egalitarian planning approach, due to the aim of generating a locally shared vision that could motivate future urban development. However, unlike in Härkämäki, an active group of local actors that would initiate development did not exist in the area. Instead, the selected planning approach aimed at creating new activities that could it the long run generate something new. However, the City did not solely rely on the local actors to deliver the urban development, but also estimated the area's infill

development potential and benefits that the recent prosperity of the nearby marine industry could bring to the area. It was also considered important to build the area image, and even a zoning plan for a new single-family housing area was made. Hence, it seems that in a low-growth area with no pre-existing development initiatives and unclear future development potential, the City's planning approach was kept somewhat open.

2.2.3 Findings and discussion

In Research Task 1 my aim has been to identify how the three planning approaches manifest in low-growth areas. I conclude by reflecting on the findings of Articles I and II with the contextual fit of the three planning approaches identified in the theoretical framework of Research Task 1. I also reflect on the findings in relation to the Finnish urban planning context.

Reflecting on the hierarchical and individualistic planning approaches

Hierarchical planning approach was identified in the theoretical framework of Research Task 1 as suitable for predictable contexts, where the planning agency can to some extent control the situation. Further, the approach was identified as suitable for contexts with steady economic growth, where the public planning agency can rely on the willingness of other urban development actors to deliver its policies. In contexts demarcated by discontinuous or low growth the applicability of the hierarchical approach is limited, as this often means that the actualization of market-based urban development becomes more uncertain (Brindley et al., 1996; Rydin, 2013). Article I identified that an urban regeneration strategy resembling the hierarchical approach has been deployed in low-growth areas when the planning agency can adjust the position of the area as a part of the wider urban structure, implying the possibility to control the situation.

Noteworthy is that the discussion on state-led urban regeneration strategy in Article I draws from urban development contexts, where central governments have more powers to influence urban development than in Finland. Consequently, in Article I it was noted that a planning approach based on national or regional restructuring is not a promising strategy in Finnish context, where local governments are the main actors responsible for public urban planning and the role of central and regional governments is rather weak. While the Finnish planning system is plan-led and thereby gives public authorities prerequisites to adopt a

proactive role in defining urban development direction (Nadin & Stead, 2008; Valtonen, 2019), in Finland it is the municipalities, not the central state or regions, that have the main powers to regulate urban development (Hirvonen-Kantola & Mäntysalo, 2014). The Finnish land use planning system allows municipalities to define their strategic urban development objectives in local master plans and control the implementation of these objectives with local detailed plans (Hirvonen-Kantola & Mäntysalo, 2014). Land use planning can be accompanied with a municipality's active land policy, comprising public acquisition of land in strategic locations, land preparation, and plot conveyance to developers that comply with the municipality's urban development objectives (Valtonen, 2019). Rydin (2013, pp. 239–241) identifies such combination of strong planning power and public land ownership as a potential tool that could be deployed to appoint urban development to low-growth areas while restricting it elsewhere. In Finland, the challenge of such strategy is that since municipalities are also responsible for their own expenses and income, and must provide certain basic services for municipal citizens, they often have adopted planning approaches that support and stimulate local economic development, but do not control it (Hytönen, 2019; Mäntysalo, 1999).

Consequently, planning approaches based on cooperation of the public and private sectors are increasingly common in Finnish urban planning (Mäntysalo & Saglie, 2010; Valtonen, Falkenbach, & Viitanen, 2017). It has been noted that the Finnish land use planning system was originally intended to plan for urban development that occurs on greenfield sites, where the public sector can acquire undeveloped land affordably, plan the development, and convey the resulting building plots to private developers (Mäntysalo & Mattila, 2016; Valtonen, 2019). Since infill development is becoming an increasingly common form of urban development in Finland, Finnish cities can no longer solely rely on their existing tools to proactively guide urban development. Infill planning must often be done on privately owned land, which implies that cities must embrace project-orientation and partnerships with the private sector (Ministry of the Environment, 2014a; S. Puustinen, 2016). The ongoing reform of the Finnish Land Use and Building Act aims to develop the Finnish land use planning system to better meet these challenges (Ministry of the Environment, 2018).

At the same time, promotion of infill development has become a common strategic goal for Finnish cities to integrate the urban structure, fight urban sprawl and segregation, and use existing public infrastructure more efficiently (Ministry of the Environment, 2014a, pp. 136–137; S. Puustinen, 2016). Due to this strategic goal, Finnish cities have attempted to proactively plan the infill development, for

instance by devising infill development programs alongside their zoning programs for new urban areas. Although infill development is slower and often proceeds in random order that cannot be controlled by the city, infill development programs can help clarifying a city's strategic objectives and assessing whether the emerging infill development projects serve the fulfillment of these objectives (Ministry of the Environment, 2014a, p. 137; Nykänen et al., 2013, pp. 48–51). From the perspective of private developers, strategic infill development plans could make the processes related to singular infill development projects more fluent and predictable (S. Puustinen, 2016, p. 81). The proactive, strategic planning of infill development has also been proposed as a tool for housing area renewal, where it could be integrated with public service development and environmental improvements, and where objectives of urban development could be formulated together with the residents (Nykänen et al., 2013; S. Puustinen, 2016).

Furthermore, infill development projects are often based on the initiative of private developers, and their objectives are commonly negotiated between cities and private developers already before the statutory, participatory planning process starts (Mäntysalo & Saglie, 2010). In Finland, cities have therefore envisioned infill development in strategically important areas together with citizens already before any private project initiatives have emerged. However, the uncertain actualization of the envisioned development has proved to be a challenge: plans have been interpreted as a promise from the city that the area will be developed in the future, while the aim of the city has been merely to explore the implications of the yet uncertain development in a participatory process (Laine, Leino, Santaoja, & Setälä, 2015; Nykänen et al., 2013, pp. 52–54).

Against this context, the hierarchical planning approach deployed in Runosmäki can be seen to demonstrate how Finnish cities may deploy the hierarchical approach also in low-growth areas, with an aim to ensure that prospective, albeit uncertain, private development initiatives serve the wider strategic objectives of the city and contribute to sustainable urban development for the long term. From this perspective, the Runosmäki infill development plan could be interpreted as a strategic document intended to be evaluated by its performance, that is, by its capacity to act as a reference point for future decisions regarding urban development (Faludi, 1989, 2000). At this point, there was no explicit aim from the City's part to attract private development initiatives to the area. Strategic planning in Runosmäki was more about preparing for the future. However, some City representatives held the belief that the community center might increase the attractiveness of Runosmäki as a housing area, thereby possibly increasing the

demand for new housing (see Article III; Kosunen et al., 2020). From this perspective, the planning approach could be viewed as a combination of hierarchical and individualist planning as a form of growth-dependent planning, relying on market-based urban development to fulfill sustainable urban development objectives (Rydin, 2013).

The case study results also demonstrate how the selection of planning approach against the contextual fit is likely to create confusion. The hierarchical approach tends to present future urban development as fixed and predictable, while the actualization of development in low-growth areas is often uncertain. In Runosmäki, the successfulness of strategic infill development planning was also assessed in terms of plan conformance (Faludi, 1989, 2000) by those who criticized its uncertain implementation. In the Finnish context, cities' strategic infill development planning has often confused other involved actors: plans have not been understood as strategic documents providing a reference point for future decision-making, but as project plans aiming at implementation (Laine, Leino, et al., 2015; Nykänen et al., 2013, pp. 52–54). From this perspective, the attempt of the hierarchical approach to comprehensively plan the future development in advance may appear rigid (Davy, 2008). Especially in low-growth contexts, where the actualization of any new market-based urban development is uncertain, hierarchical planning for new infill development might seem unrealistic. As Faludi (1989, 2000) notes, also plans that are to be evaluated by their performance must continue to have relevance when planning situations evolve. Urban planners in Turku therefore had revised their intention to devise strategic infill development plans for all suburbs and acknowledged the need to deploy alternative planning approaches in areas where market-based infill development was not to be expected.

Reflecting on the egalitarian planning approach

The egalitarian approach was in the theoretical framework of Research Task 1 identified as suitable for contexts where commitment to a shared urban development issue motivates local groups and communities to take urban development action. In low-growth contexts, the approach has been proposed as an alternative to individualistic and hierarchical approaches that rely on the assumption of economic growth to drive urban development. While the hierarchical and individualistic approaches typically generate monetary value which is partially re-invested to bring environmental and social benefits for urban areas, the egalitarian approach could bring improvements that have no monetary value but

enhance the everyday life of residents or improve the local environment (Brindley et al., 1996; Rydin, 2013).

The need for alternative ways to approach development and maintenance of the existing built environment has been identified also in Finland. The suburban housing built in years 1960–1980 forms a remarkable part of Finnish national wealth and is now in need of major renovations related to sewage, facades, energy-efficiency, and accessibility (Ministry of the Environment, 2014b). The scope of upcoming repairs has been considered nearly as massive a project as the original construction of the suburbs (Ministry of the Environment, 2014b, p. 16). It has been proposed that the renovations could provide an opportunity to improve the overall quality of life in the suburbs (Dhima, 2014; Nykänen et al., 2013) and be integrated with cities' strategic aims to revitalize existing housing areas (Ministry of the Environment, 2014b). Proactive and coordinated planning of repairs could make renovations more affordable to the residents, who in suburbs often represent low-income groups (Ministry of the Environment, 2014b). Potential is seen especially in joint renovations enabled by the homogenous building stock and collaboration between the housing companies (Ministry of the Environment, 2014b), accompanied with improvements in the public environment and everyday life of residents (Dhima, 2014).

While the resident-owned housing companies could have a key role in the redevelopment of Finnish suburbs, it might be challenging for them to organize for collective action (Dhima, 2014; Ministry of the Environment, 2014b). In the discussions related to the renovation of Finnish suburbs, the need for facilitators that could help in the identification of development objectives, develop new relationships between the local actors, and build the capacity of property owners to strategically plan the renovations, has been identified (Dhima, 2014). Prerequisites for this kind of development activities might already exist in suburbs where there are active local actors, such as neighborhood associations or maintenance companies owned jointly by the housing companies. However, for individual housing companies it might be challenging to initiate strategic collaborative action (Dhima, 2014, p. 27; Ministry of the Environment, 2014b, pp. 17–18). One challenge of adopting the egalitarian planning approach might therefore be that it is only applicable to neighborhoods where prerequisites to initiate urban development already exist.

In low-growth areas where local activities do not yet exist, it is proposed that urban planning could have a role in building new relationships and generating activities that could in the future serve as a basis for urban development action

(Boelens & Coppens, 2015; Rydin, 2013; Schlappa & Neill, 2013). In the discussions related to the renovation and maintenance of Finnish suburbs, it has been proposed that cities could seek to generate co-operation among residents, housing companies, and other local organizations (Dhima, 2014). As such, building renovation and community development are not new policy objectives in Finnish suburbs. The suburbs have been targeted with urban policies nearly as long as they have existed, to solve problems related to social segregation, decreasing value of apartments and an unpleasant physical environment (Karjalainen, 2004). Initially the policies focused on improving social conditions by regenerating the physical environment, but in recent years the focus has shifted towards a more long-term, cross-sectoral approach, where the structural nature of problems in suburbs is acknowledged (Karjalainen, 2004, pp. 5–9). However, there are concerns that urban policies targeted to suburbs still often focus on producing new built environments through infill development, instead of improving the existing built environment (Dhima, 2014, p. 28). Further, in urban planning targeted to suburbs, planning problems may be predefined by the public authorities, whereas the insights arising from within the neighborhood might go unnoticed (Wallin, 2019).

From this perspective, the Pansio-Perno and Härkämäki cases exemplify the role that cities may have in the egalitarian planning approach in the Finnish urban development context. In Härkämäki, the City of Turku had found a role in supporting and encouraging the emerging, local urban development activities. The novelty of the approach adopted in Pansio-Perno, in turn, was to gradually construct urban development objectives with the local actors and explore how they could be furthered. The interviewed city representatives described that in Pansio-Perno it was not yet the time to plan for anything. Rather, the aim of urban development activities was to improve the everyday life of the residents, and perhaps in the long run also the area's image. This corresponds with the notion that when deploying the egalitarian planning approach in low-growth contexts, cities and their urban planners might have to engage with the locality for the long term, with the primary aim of developing relationships among different groups of actors in the area, rather than seeking to achieve pre-defined objectives (Boelens & Coppens, 2015; Rydin, 2013). However, in Pansio-Perno the City also estimated the area's infill development potential and benefits that the recent prosperity of the nearby marine industry could bring to the area, and even made a zoning plan for a new single-family housing area. Hence, it seems that in a low-growth area with no pre-existing development initiatives and unclear future development potential, the City's planning approach was kept somewhat open.

3 Research Task 2: Planning approaches as co-evolutionary

The analysis made for Article II generated an insight that in low-growth contexts where urban development activities might not yet exist, planning approaches might not yet be fully structured. This led to the reconsideration of the insight discussed by Rydin (2013), Boelens and Coppens (2015) and Schlappa and Neill (2013) that in low-growth contexts, one task of urban planning could be to gradually build new relationships between potential urban development actors and generate new activities, while accepting the uncertainty of outcomes. This notion also implied that it might not be possible to capture the nature of urban planning in low-growth contexts with a static typology of planning approaches. In Research Task 2, I have developed these notions further by examining planning approaches in relation to change and uncertainty. This chapter first discusses the limitations of typologies to analyze processes. It then introduces the concept of co-evolutionary planning as a theoretical approach better suited for this purpose and connects it to the idea of planning approaches. Results of Articles III and IV are then presented as further development of the idea.

3.1 Limitations of typologies to analyze processes

Research Task 1 discusses planning approaches through typologies. In planning research, typologies have been considered beneficial in that they provide a framework to map the landscape of ideas that influence the research field (Allmendinger, 2002c, 2002a, pp. 29–30). More particularly, typologies allow classifying theoretical ideas, defining their parameters, and proposing starting points for further theoretical development (Allmendinger, 2002c; Yiftachel, 1989). Typologies are considered particularly helpful in planning research, where multiple theoretical ideas about planning prevail and may create confusion (Allmendinger, 2002c; Brindley et al., 1996; Yiftachel, 1989). The value of typologies could also be understood in terms of Weberian ideal types, meaning extreme, abstract types that do not exist empirically, but serve as extreme stances against which empirical observations can be compared (Donaldson, 1996, p. 123; Swedberg & Agevall, 2016, pp. 156–158; 355–356). Typologies, according to this view, are tools, and not the end point of analysis (Swedberg, 2018). As tools, typologies may provide terminologies, classifications, and heuristics that help to come up with new ideas (Swedberg, 2018).

A potential limitation of deploying ideal types as an analytical framework is that they may be confused with empirical types (Donaldson, 1996, p. 123). Configuration theory has been criticized for its attempts to identify ideal types from real life, resulting in a reduction of richness of empirical observations and a focus on pre-defined patterns (Donaldson, 1996, pp. 112; 127). A further limitation of typologies in configuration theory is that their focus on prescribed, internally harmonious ideal types does not explain how configurations come into being or change, apart from proposing sudden jumps from one type to another (Donaldson, 1996, pp. 113–114; 119–120). Hence, discussing planning approaches as a typology of configurations might not allow developing a more dynamic analysis of change processes related to them. According to do Donaldson (1996), acknowledging that organizations may contain features from many ideal types that are constantly changing would provide a more fruitful starting point.

As a potential resolution, Mintzberg et al. (2009) propose that configurations can be researched from two perspectives. The first perspective is to view configurations as ideal types where an organization has reached a contextual fit for its structure and strategy (Mintzberg et al., 2009, pp. 318–319). Research Task 1, that discussed planning approaches as ideal types, corresponds with this perspective. Another approach to configurations would be to examine the process by which an organization seeks to achieve the contextual fit (Mintzberg et al., 2009, pp. 318–319). From this perspective, configurations as ideal types are a state that is seldom reached. Instead, organizations spend their time pursuing the contextual fit. Even if the ideal configuration would be temporarily reached, the context is constantly changing and might eventually force the organization to continue its search (Mintzberg et al., 2009, pp. 321–322). Therefore, to maintain its operational capability, an organization must both be able to adopt a configuration that is appropriate for the current context and to change it as the context changes (Miller, 1993).

When applied to planning approaches, this dynamic perspective to configurations implies that the aims of planning and the relationships between planning participants could change as a response to contextual changes. Zuidema (2017, 2020) notes that the selection of planning approaches according to the contextual fit is therefore challenged by the unpredictable evolution of the planning situation over time. Viewing planning approaches as typologies and discussing their contextual fit does not yet take into account passing of time, but only explains how planning approaches may address the planning situation at some point in time (Zuidema, 2017, p. 282). It does not yet consider that a planning situation that is

carefully analyzed by the hierarchical approach can evolve so that the knowledge gained through analysis is no longer valid (Christensen, 1985, p. 64). The shared vision of desirable urban development constructed by the egalitarian approach may become outdated if planning participants change or collective action creates new relationships between actors that lead to new aspirations (de Roo, 2012, p. 158). Urban development based on the individualistic approach may come to a halt if the interests of individual actors change due to economic fluctuations. This highlights the need to understand planning approaches as concepts that are not only open to multiple interpretations but are also likely to change once new information and ideas come forward (de Roo et al., 2020a, p. 86; Zuidema, 2017, p. 38, 2020, pp. 79–80). The notion corresponds with Rittel and Webber's (1973) description of planning problems as *wicked problems* whose definition depends on the social context and changes over time. Planning problems that can be solved with one planning approach are tame problems: they can be stopped in time, analyzed, and solved as they are (Hartmann, 2012). Following Rittel and Webber, Bertolini (2010) suggests that the attempts to resolve wicked planning problems should rather be viewed as a gradually unfolding process. He compares this to a design process where the definition of the problem and the solution is kept fluid until plausible combinations have been found (Bertolini, 2010).

3.2 Theoretical framework of Research Task 2: Co-evolutionary planning

In planning theoretical discussions, the need for planning that explicitly acknowledges reality as complex, uncertain and constantly changing, has been identified (Balducci, Boelens, Hillier, Nyseth, & Wilkinson, 2011; Boelens & de Roo, 2016; de Roo, Hillier, & van Wezemael, 2012; de Roo et al., 2020a, 2020b). Many scholars have argued that, by far, time and change have not been given much consideration in planning theory and practice (Balducci et al., 2011; Boelens & de Roo, 2016; de Roo, 2012; de Roo et al., 2020a). One explanation for this is that urban change has been assumed to proceed in a linear and predictable fashion, and hence there has been no need for planning to adapt to change (de Roo, 2012). Alternatively, it is proposed that planning has always dealt with uncertainty related to time, but earlier it has simply been ignored or attempts have been made to reduce it by devising a plan (Balducci et al., 2011). Planning that considers dynamic uncertainty related to time has been conceptualized as *adaptive* (de Roo, 2012; de Roo et al., 2020a, 2020b; Rauws & De Roo, 2016), *co-evolutionary* (Bertolini,

2010; Boelens & de Roo, 2016; Gerrits & Teisman, 2012; Van Assche, Beunen, & Duineveld, 2017), *resilient* (Davoudi, 2012; Majoor, 2015a) or *explorative* (Balducci et al., 2011). These conceptualizations derive from different theoretical backgrounds, including post-structuralism, complexity sciences, and actor-network theory (Boelens & de Roo, 2016). What they have in common is that they view urban development as a non-linear and somewhat unpredictable process, where the future cannot be extrapolated from the past, and where planning has limited capacities to guide urban development (Boelens & de Roo, 2016; de Roo et al., 2020b). Since the future is uncertain, it might be beneficial for planning to adapt to it and leave room for change (de Roo et al., 2020a).

However, it has also been noted that the consideration uncertainty and change in planning cannot be resolved simply by making planning more flexible (Majoor, 2015a; Savini, Majoor, & Salet, 2015). Leaving the options open contradicts the basic idea of planning: since planning seeks to change the initial situation into something better (Campbell, 2012), it always favors some future developments over others and guides urban development in some direction (Savini et al., 2015). Central to this notion is the insight that every attempt to solve a wicked planning problem, no matter how open-endedly or flexibly, has irreversible impacts on reality that challenge the ability to define the problem anew (Bertolini, 2010; Rittel & Webber, 1973, p. 163). Savini et al. (2015) point out that planning therefore cannot be understood as an activity that merely adapts to contextual changes, but always has a proactive facet. Finding balance between guiding urban development and adapting to it has been described as one of the fundamental dilemmas or paradoxes of planning (Ferreira, Ribeiro-Santos, & Breda-Vázquez, 2020; Majoor, 2015a; Savini et al., 2015). While paradoxes or dilemmas can never be completely solved, temporary solutions to them can be found in a planning practice that acknowledges the tension between them (Majoor, 2015a; Mäntysalo, 2000; Savini et al., 2015).

Among conceptualizations that consider the relationship of planning, uncertainty, and change, the concept of co-evolutionary planning explicitly discusses the interplay of proactiveness and adaptiveness. The concept of co-evolution originates from ecology, but is applied also to social sciences, including planning (Boelens & de Roo, 2016). It entails an idea of two or more elements that shape each other over time, each change building on the preceding one (Van Assche et al., 2017). When deployed as a planning strategy, co-evolutionary planning could start by viewing urban development as path dependent and considering how history and context influence possibilities to act (Bertolini, 2007; Van Assche et al., 2017).

It would also acknowledge that actions initiated by planning might rule out some development trajectories while reinforcing others (Gerrits & Teisman, 2012). Furthermore, a co-evolutionary planning strategy would be aware that urban development does not always follow the trajectory that was intended in urban plans, and that adaptation to the unpredictable evolution of the planning situation over time might be needed (Bertolini, 2007; Gerrits & Teisman, 2012). In co-evolutionary planning, adaptation is therefore viewed as a positive feature that acknowledges transformation and change, in contrast to more static or linear planning approaches that do not yet consider these dynamics (Davoudi, 2012). Finally, a co-evolutionary planning strategy would also acknowledge the unintended consequences of proactive planning action itself. Van Assche et al. (2017) suggest that the proactiveness of co-evolutionary planning lies in its ability to create *goal dependencies*: while past and present partly determine the situations that will unfold, planning can affect the future by proposing visions and plans as a point of reference. These may enable collective action towards the agreed urban development goal, or act as a catalyst for opposition and inspire alternative developments (Van Assche et al., 2017). This demonstrates how planning always has an impact on reality, even if the plans themselves are not implemented (Mäntysalo, 2000, pp. 72–73; Van Assche et al., 2017).

3.2.1 Co-evolutionary planning approaches

From the perspective of planning approaches, the idea of co-evolution implies that since planning situations are constantly changing, readiness to deploy more than one planning approach might be beneficial. At the same time, deploying any planning approach influences the planning situation and may change it in predictable and unpredictable ways. To capture this dynamic perspective, a theoretical framework that goes beyond understanding planning approaches as a static typology is needed. Hartmann (2011, p. 42) notes that the concept of polyrational planning deriving from Cultural Theory provides not only a framework to identify planning approaches, but also explains how they may dynamically change over time.

According to Cultural Theory, social reality is constituted by four different worldviews: hierarchism, individualism, egalitarianism, and fatalism (Thompson et al., 1990). Hierarchism, individualism, and egalitarianism correspond with the three planning approaches already discussed in Research Task 1. In addition, planning scholars drawing from Cultural Theory recognize fatalism as the fourth

planning approach (Davy, 2008, 2012; Hartmann, 2011, 2012). The fatalistic worldview assumes a world where external structures limit the actions of individuals, but where it is not possible to influence these structures (Thompson et al., 1990, p. 7). Therefore, there is no reason to plan, but reality must be taken as is (Thompson et al., 1990; Verweij et al., 2006).

Cultural Theory proposes that the four approaches are actually present in all social situations, and each provides a partial explanation for the external reality (Thompson et al., 1990, p. 70). Hence, according to Cultural Theory, there cannot be only one suitable approach to a planning situation, but several approaches: planning situations are polyrational (Davy, 2008). Furthermore, Cultural Theory explains the interplay of approaches in social situations over time. At one moment, one approach may be more suitable than others to address the situation, making it the prevailing approach (Thompson et al., 1990, pp. 70–72). However, as the situation changes, the prevailing approach may become outdated, which makes room for the other approaches to step in (Thompson et al., 1990, pp. 70–72). Noteworthy is that each approach also shapes the external reality in a way that contributes to contextual change (Thompson et al., 1990, pp. 29–33).

Hartmann (2011, pp. 43–45) has illustrated such interplay of planning approaches in his research on land use planning in floodplains. According to Hartmann, the individualistic rationale often views floodplains as potential sites for urban development, and the opportunity to profit from the land results in private developers and municipal planners ignoring the flood risk. At the occurrence of a flood, urban development implemented by the individualists becomes endangered and the approach to floodplains changes: they are now viewed as dangerous areas. Residents and volunteers often take collective action to repair the damages, following the egalitarian rationale. This, in turn, makes room for the hierarchical approach, where policymakers attempt to better control the flood risk in the future. However, as time goes by, the perception of flood risk as an urgent matter fades away and the attitude towards land use in floodplains becomes more passive, following the fatalistic approach. This may again open up space for the individualistic approach to seek profit from floodplains.

Hartmann's (2011) research could be seen as an illustration of the co-evolutionary relationship of planning approaches and the planning situation. It illustrates how planning approaches change along contextual changes, and how the approaches themselves shape the planning situation and therefore contribute to the contextual change. Cultural Theory notes that the challenge of considering the dynamic interplay of planning approaches is that the approaches tend to overpower

each other, which might lead into a situation where only one approach prevails (Thompson et al., 1990). According to Cultural Theory such *monorational* situations are vulnerable to change, compared to situations framed simultaneously through multiple approaches where some approach is always compatible with the changing situation (Davy, 2008; Thompson et al., 1990, pp. 96–97). Cultural Theorists have proposed that in order to solve complex societal problems that change over time, it would be beneficial to construct a *clumsy solution* that considers all four rationales and is therefore compatible with various problem definitions (Verweij et al., 2006). It can be argued that also a co-evolutionary planning strategy would benefit from the clumsy solution concept, where the four approaches are combined so that the solution endures contextual changes (Kosunen & Hirvonen-Kantola, 2020). This would allow for the application of planning approaches that are appropriate for the current situation, while preserving the opportunity to incorporate other approaches, if the situation changes (Hartmann, 2012).

3.2.2 Co-evolutionary planning approaches in low-growth contexts

Based on the theoretical ideas of co-evolutionary planning and clumsy planning solutions, I started to develop an idea that also in low-growth contexts, urban planning might be about finding balance between proactively deploying one planning approach while acknowledging that the approach might become subject to change. Such planning would, on the one hand, proactively seek to change the planning situation into something better, but, on the other hand, accept the need to adapt to the unpredictable evolution of the planning situation that might result from these activities. I believe my idea differs from the existing conceptualizations of co-evolutionary and adaptive planning that often assume an on-going activity during which awareness of future uncertainty is needed. For instance, Majoor (2015a, 2015b) and Gerrits and Teisman (2012) discuss the ideas of resilient and co-evolutionary planning in the context of large-scale urban development projects. There, the duration of the project may necessitate adapting to contextual changes, while acknowledging that planning also shapes the context where it operates. Furthermore, the concept of adaptive planning is often discussed in relation to dynamic planning situations, characterized by unpredictability, innovation and transformation (de Roo et al., 2020b, 2020a). In such contexts, planning may not be about starting or leading processes of change but anticipating, following, and responding to them (de Roo et al., 2020a, 2020b). While these are important

insights that can increase understanding on how planning can deal with urban change, they might not be readily applicable to low-growth contexts, where there might not be any on-going urban development activities in which to adapt.

Here, I propose that co-evolutionary planning can also be viewed as a proactive activity that can initiate urban change while accepting uncertain outcomes. The idea of co-evolution thus provides a starting point for understanding planning in low-growth contexts as an activity whose task is to generate new activities and relationships between actors but the outcome of which cannot be fully known in advance. However, the idea is still rather abstract. Indeed, it has been noted that concepts such as adaptive planning are often *fuzzy*, that is, they are deployed in planning theory and practice by attaching various meanings to them (de Roo & Porter, 2007; de Roo et al., 2020a). The reason for this might be that an understanding of the different types of adaptive planning is still taking shape (Zuidema, 2020, p. 81). De Roo et al. (2020a, pp. 101; 104) further argue that defining adaptive planning too strictly might not even be desirable: as the urban change where planning might need to adapt can be of different types, not one but many forms of adaptive planning will be needed. In Articles III and IV my intention has therefore been to explore in more detail, how co-evolutionary planning as a specific form of adaptive planning could be understood in low-growth contexts.

3.3 Findings of Research Task 2: Co-evolutionary planning in low-growth contexts

In Article III, I further conceptualized co-evolutionary planning in low-growth contexts through organizational ecocycle theory (Hurst, 1995, 2012; Hurst & Zimmerman, 1994). With this conceptualization, my aim has been to understand the nature of urban change that may take place in low-growth contexts and how co-evolutionary planning could address the change. In Article IV co-evolutionary planning was connected to Cultural Theory and the concept of polyrational planning (Davy, 2008; Hartmann, 2012), to understand it from the perspective of planning approaches discussed in Research Task 1.

3.3.1 Exploring co-evolutionary urban planning in low-growth contexts (Summary of Article III)

Planning is often viewed as a process that starts with an analysis of the present situation and, on that basis, proposes measures to arrive at a more desirable

situation (Campbell, 2012; de Roo et al., 2020a, p. 100). Article III built upon a notion that in low-growth contexts, it might be challenging to decide the more desirable situation or the means to arrive to it based on the present, constrained situation. Christensen (1985) has proposed that uncertain planning situations, where knowledge on the goals of planning and the means to achieve them are lacking, could be approached with efforts to reduce objective and intersubjective uncertainties. In such situations, the task of planning could be to obtain information on the available means which could at the same time help the identification of possible goals (Christensen, 1985). Alternatively, the task of planning could be to start a conversation on preferable goals which could help developing the means to achieve them (Christensen, 1985). However, Schlappa (2016) has noted that in urban contexts where growth cannot be relied on as a source of urban development, confusion and paralysis resulting from the lack of alternatives might prevail. Forester (2016) discusses daunting planning contexts, where the perception of limited action scopes may prevent even looking for opportunities. Schlappa (2016) suggests that the cause of such paralysis may be the idea of strategic urban planning as an activity in which goals and the means to achieve them must be defined before taking action.

Schlappa (2016) suggests that such understanding of planning is only suitable for urban change that proceeds in a predictable and linear fashion. This type of change allows the goals and means to achieve them to be selected based on past experience (Holling & Gunderson, 2002, p. 44; Hurst, 1995, p. 115). Growth-based urban development could be thought of as such a process (Schlappa, 2016). Building on the organizational ecocycle[10] concept (Hurst, 1995, 2012; Hurst & Zimmerman, 1994), Schlappa (2016) suggests that two other types of urban change could be identified as well. Urban change can sometimes be unpredictable and emergent, resulting in new innovations and many alternative development paths. Discussion on adaptive planning that highlights the unpredictable nature of urban development (Boelens & de Roo, 2016; de Roo et al., 2020a) could be associated

[10] The organizational ecocycle builds upon the concept of *adaptive cycle*, originally developed in the field of ecology to describe the evolution of complex ecosystems as an infinity-shaped loop (Hurst & Zimmerman, 1994). Essentially, the adaptive cycle concept describes the evolution of complex ecosystems as subsequent phases of exploitation, conservation, release, and reorganization (Holling & Gunderson, 2002, p. 34). Hurst and Zimmermann (1994) developed the concept of organizational ecocycle to apply the adaptive cycle concept to human organizations. The discussion on the adaptive cycle itself has been extended to human systems as well (Gunderson & Holling, 2002; Walker & Salt, 2006). Noteworthy is that the adaptive cycle should be considered a metaphor to understand complex systems, but not as a precise description of their evolution (Holling & Gunderson, 2002).

with this perspective. Furthermore, based on the organizational ecocycle concept, a third type of urban change can be identified, in addition to the linear, predictable change and emergent, unpredictable change. It is a process where the urban context is changing so that the already known strategies to achieve planning goals no longer work. Furthermore, emergent activities based on which new approaches could be selected are lacking. According to Schlappa (2016), this kind of urban change can be associated with constrained urban contexts where, in the absence of growth, it is difficult to decide what action should be undertaken.

The organizational ecocycle theory proposes that in constrained contexts, strategic action cannot aim at achieving a predetermined goal or adapting to and learning from emerging change processes (Hurst, 1995). Instead, the purpose of strategic action may be to generate new action, to create a context for further action and learning (Hurst, 1995, p. 137; Hurst & Zimmerman, 1994, p. 351). In this case, the meaningfulness of action cannot be assessed based on whether a predetermined goal is achieved but based on whether new opportunities for action can be created (Hurst, 1995, p. 112). In Article III, this idea was connected to co-evolutionary planning. To identify the co-evolutionary planning strategy, Article III examined whether urban planning activities in low-growth contexts were motivated by the achievement of a predetermined outcome, or whether planning was motivated by the aim to generate more action. The concept of organizational ecocycle (Hurst, 1995, 2012; Hurst & Zimmerman, 1994) was deployed to conceptualize the idea. The theoretical framework is explained in more detail in Article III.

Article III returned to look at urban development in Runosmäki, Härkämäki, and Pansio-Perno, to explore the co-evolutionary planning approach. The results of Article III are summarized in Table 7. Features of co-evolutionary planning were identified in all three cases. The aim of planning was to take proactive action to change the initial situation into something better, but at the same time the need to keep the outcome open was identified. However, acting without knowing the outcomes with certainty caused challenges in all the cases.

Table 7. Co-evolutionary planning in Turku suburbs.

Case	How planning guided action in an uncertain future	How the uncertainty of outcomes was acknowledged	Challenges of the approach
Runosmäki	By devising a strategic infill development plan that would make room for new activities and guide the area towards reorganization.	Implicitly: The infill development plan was partially viewed as a device to initiate urban change.	The purpose of proactiveness may be misunderstood. Strategic infill development planning was interpreted as a linear plan aiming at implementation.
Härkämäki	By supporting self-organizing urban development activities that explore new scopes for action.	Explicitly: Uncertainty was easier to accept since the City did not have its own strategic urban development objectives for the area and local actors had already organized for collective action.	Resources needed for proactiveness might be limited. Furthermore, cities might not recognize the approach.
Pansio-Perno	By attempting to generate a shared mission that would motivate collective action.	Explicitly: While some development activities were already possible, others would require more time and changes before their realization.	Perceived contextual constraints may prevent seeking out opportunities and result in inaction.

In Runosmäki, the strategic infill development plan was partially viewed as a tool that enabled the City to initiate urban change in the area. With the community center project, the City was able to send a positive signal regarding Runosmäki's urban development. Furthermore, the project would release locations for infill development, and enhance residents' everyday life by providing them with new services. From this perspective, Runosmäki's urban development strategy could be considered open-ended. The motivation to take action was to get things moving, while the uncertainty of the future was implicitly acknowledged. The challenge, however, was that some actors interpreted the infill development plan as a linear plan aiming at a fixed future state. According to this interpretation, the uncertain realization of the plan could be viewed as a failure. Thus, the successfulness of planning was not measured by whether the plan would help initiate a positive change, but whether the plan would be realized in its entirety.

In Härkämäki, self-organizing urban development was described as an activity aimed at finding new solutions for the future development of the neighborhood. City officials supported this activity without defining its objectives or guiding its progress. In this case, too, the aim of urban planning was to change the initial situation into something better, but the outcome was left quite open on the City's part. As was already discussed in Research Task 1, one reason for this might be that the City itself did not have strategic urban development objectives for the area, and self-organizing activities were already taking place. The article identified the lack of resources of local actors to organize for proactive action as a potential challenge for the approach. In addition, it has been pointed out that cities might not recognize the contribution of locally generated urban development activities to urban development (Boelens & Coppens, 2015; Boonstra & Boelens, 2011; Wallin, 2019). In Härkämäki, however, the contribution of self-organized urban development activities was identified and valued. Rather, the experience that self-organizing urban development could not be commanded but had to arise spontaneously was perceived as a challenge, because it limited the City's ability to deploy the approach as a programmatic urban policy.

In Pansio-Perno, the City's initiative to bring together residents and other local actors can be viewed as a proactive attempt to create a shared mission that motivates the search for new urban development opportunities. The interviewees considered such urban planning activities more suitable to low-growth contexts than presenting ready-made planning problems and solutions. Uncertainty related to the neighborhood's future development was explicitly acknowledged: the interviewees noted that it was not yet time to present clear urban planning goals, but to improve everyday life for the residents and communicate to the outside that something positive was occurring in the neighborhood. One interviewee suggested acknowledging the different time spans of urban development: while some development activities were already possible, others would require more time and changes before they could even be considered. At the same time, however, some of the interviewees found it challenging that clear objectives for future development could not be articulated, since there was a sense of urgency to address the social problems in the area. Small-scale urban development activities were viewed as project-like activities and their capacity to affect the long-term development of the area was sometimes doubted. Furthermore, while it was anticipated that the prosperity of the nearby marine industry could bring new investments to the area, the City was not in a position to steer them and had to wait for emerging

opportunities. The need to wait, however, contradicted the sense of urgency related to the urban problems of the area.

Summary

Article III proposes a way to understand urban change that may take place in low-growth contexts. In such contexts, urban change might not be linear and predictable, but not emergent and unpredictable either. Based on the organizational ecocycle theory, low-growth contexts were conceptualized as *constrained contexts*, where known strategies to achieve intended outcomes no longer work, and where emergent activities based on which new strategies could be developed are lacking (Hurst, 1995; Schlappa, 2016). This implies that urban planning might not be able to aim at a predetermined goal or adapt to and learn from emerging change processes. Article III proposed that in such constrained contexts, the purpose of urban planning could be to generate new action, to create a context for further action and learning. The Turku cases were deployed to demonstrate this idea further, by showing how the aim of planning was to take proactive action to change the initial situation into something better, but at the same time the need to accept the uncertainty of outcomes was identified.

3.3.2 Polyrational planning as a co-evolutionary planning strategy in low-growth contexts (Summary of Article IV)

The contribution of Article III was to identify the type of urban change that could be associated with low-growth contexts and propose co-evolutionary planning as a planning strategy to deal with such change. Article IV (Kosunen & Hirvonen-Kantola, 2020) further elaborates the co-evolutionary planning strategy by proposing that it could mean defining planning problems and solutions so that they are compatible with multiple planning approaches. The idea was connected to polyrational planning (Davy, 2008) and the related clumsy solution concept, where the four approaches of Cultural Theory are combined so that the solution endures contextual changes (Hartmann, 2012; Verweij et al., 2006). A clumsy planning solution would allow for the application of planning approaches that are deemed appropriate for the current situation, while preserving the opportunity to incorporate other approaches, if the situation changes (Hartmann, 2012; Verweij et al., 2006). According to Cultural Theory, the challenge of constructing a clumsy solution is that the approaches tend to overpower each other, because viewing the

problem from one rationale's perspective seems irrational to another (Thompson et al., 1990; Verweij et al., 2006). Moreover, Article IV proposed that a specific challenge of constructing clumsy solutions in urban planning might be the limited understanding on the relevance of the fatalist approach. Even though fatalism is acknowledged as a rationality that could help the planning process to accept uncertainty and change (Davy, 2008; Hartmann & Hengstermann, 2014; Thompson & Beck, 2015), it has also been regarded as a counter-intuitive rationale to planning since it does not seek to influence reality (Hartmann, 2011, 2012). Following Cultural Theory (Thompson et al., 1990), Article IV proposed that, from the perspective of co-evolutionary planning, hierarchism, egalitarianism and individualism could be viewed as proactive planning approaches that attempt to change the initial planning situation into something better. Fatalism, in turn, could be viewed as a passive planning rationale that could help acknowledging the inherent uncertainty of planning situations and thereby accepting that the proactive planning action does not always lead to the intended outcomes.

The interplay of the four planning approaches was explored with a longitudinal case of urban development in the Kaukovainio neighborhood in Oulu, Finland. The Kaukovainio case is described in more detail in Article IV, and briefly summarized here. The urban development process in Kaukovainio comprised three phases. The first stage is the Kaukovainio general infill development plan (2010–2013), an overall infill development scheme for the area devised by the City of Oulu and Kaukovainio District Board, a local neighborhood association. The second is the Kaukovainio Center infill development project (2012–2017), where the local shopping center was planned to be replaced with new housing and commercial functions. The third phase is Kaukovainio as a part of a national urban renewal program (2013–2015), where small-scale and socially oriented neighborhood development activities were enacted to complement the infill development activities.

Hierarchism, individualism, and egalitarianism as proactive planning approaches

Cultural Theory views hierarchism, individualism, and egalitarianism as active approaches that aim to change reality (Mamadouh, 1999; Thompson et al., 1990). Article IV suggested that they could therefore be seen as proactive approaches to urban planning that can be deployed to initiate urban change. In Kaukovainio, all three active approaches were integrated into a strategic urban development plan.

Hierarchism was utilized to map the possibilities for infill development and to establish a comprehensive urban development framework for the area. In addition, the City was able to influence the implementation of infill development by its landownership and plot conveyance. Egalitarianism was deployed by involving the residents in the identification of urban development potential. In addition, the egalitarian approach was deployed when residents were invited to discuss the development of public spaces and services in the area, and when activities organized by the residents themselves were viewed as a contribution to Kaukovainio's urban development. The strategic urban development plan also attempted to motivate private infill development projects by making the area's infill development potential visible, which in the article was interpreted as incorporation of the individualistic approach.

However, advancing urban development in Kaukovainio with the three active planning approaches became problematic when urban development no longer progressed as planned. As the strategic urban planning changed to local detailed planning for the Kaukovainio Center project, a combination of hierarchical and individualistic approaches was emphasized over other approaches. The renewal of the old shopping center in the middle of the area was identified as an important urban development project, and private sector property developers and the City started to prepare a local detailed plan for it. However, the project was delayed for several years due to its large size and changes in the general economic situation. While professional urban development actors, such as city representatives and private property developers, accepted the delay as unavoidable, it was especially disappointing for the residents. At the same time, small-scale urban development activities that were meant to improve the everyday life of residents took place in Kaukovainio. In the article, this was interpreted as a shift towards the egalitarian planning approach. However, these activities were viewed as complementary to the shopping center project, and not sufficient alone.

Fatalism as the passive planning approach

According to Cultural Theory, fatalism is a passive approach that posits reality cannot be influenced by intentional action (Mamadouh, 1999; Thompson et al., 1990). Due to its passive nature, fatalism has received sparse attention as a rationale to solve societal problems (Hood, 2002). Article IV suggests that, in combination with the three active approaches, fatalistic approach could be useful for co-evolutionary urban planning that needs to accept future uncertainty. However, the

fatalist approach was hardly visible in Kaukovainio's urban planning. In the initial framing of the planning problem, a fatalist perspective was adopted by some interviewees who considered the infill development plan merely an enabling framework. This view, however, was incompatible with the combination of the three other rationales that stated action must be taken to prevent downward development of the area's population and services. Later, when the Kaukovainio Center project was delayed, some planning participants adopted the fatalist perspective by stating that the City and the local actors had done their best to advance Kaukovainio's urban development by preparing the strategic urban development plan, and the delay just had to be accepted. Yet, for the previous framing of the planning problem, the delay was problematic. The general infill development plan had created enthusiasm regarding Kaukovainio's urban development, especially among residents. Paradoxically, because the Kaukovainio Center project was prioritized to be the first infill development project in Kaukovainio, its slow progress now seemed to halt the development of the whole area, and the egalitarian, small-scale development activities alone were not considered a sufficient way to proceed with urban development. The fatalist approach, which accepts the limited possibilities to influence the course of events, was at this point only partially embraced by participants. The article concluded by proposing that integrating fatalism into urban planning at an early phase could have helped in accepting the uncertainty related to the prospective infill development, and also increased the appreciation of the egalitarian urban development activities, instead of viewing them as complementary to the shopping center project.

3.3.3 Findings and discussion

Research Task 2 builds upon the notion that in low-growth contexts where urban development activities or networks of actors interested in urban development might not yet exist, planning approaches might not yet be fully structured. This notion was developed further by examining urban planning in low-growth contexts as co-evolutionary. Article III outlined low-growth contexts as constrained contexts, where known strategies to achieve intended outcomes no longer work, and where emergent activities based on which new strategies could be developed are lacking (Hurst, 1995; Schlappa, 2016). Article III proposed that in such constrained contexts, one task of urban planning could be to start new activities, to create a context for further action and learning. Article IV deployed the concept of polyrational planning to outline hierarchical, egalitarian, and individualistic

planning approaches as proactive approaches that might be deployed to generate change and new activities. Further, fatalism was introduced as a planning approach that might help accepting that the proactive planning action does not always lead to the intended outcomes.

In Article III, the relationship of the co-evolutionary planning approach and the hierarchical, individualistic, egalitarian, and fatalist planning approaches was not explicitly discussed. Article IV attempted to clarify the relationship by suggesting that co-evolutionary planning could be connected to the planning approaches discussed in Research Task 1 by deploying the concepts of polyrational planning and clumsy solutions, where the planning approaches are combined so that at least one of the approaches continues to have relevance if the planning situation changes. Based on this conceptualization, co-evolutionary planning could be understood as "an approach to planning approaches". As a theoretical concept, it is thus one *logical type*[11] higher than the planning approaches identified in Research Task 1 (Roach & Bednar, 1997).

Following Roach and Bednar (1997, pp. 681–682), configurations can be viewed as theoretical concepts that study human action in relation to its context, taking the reciprocal patterns of relationships as a focal point of analysis. Discussing the different ways to approach configurations, then, would require shifting the focus of attention to one logical type higher in the hierarchy to the metacontextual level, concerned with the underlying purposes of human action (Roach & Bednar, 1997). Reflecting on planning approaches on a metacontextual level thus means reflecting on the purpose of planning. In Research Task 1, planning approaches were looked at from within a perspective where the purpose of urban planning is to envision alternative futures for an urban area and formulate strategies to reach them. Research Task 2 proposes that planning approaches can also be looked at from a perspective where the purpose of planning is to participate in the generation of new urban development activities (Table 8). Therefore, deploying planning approaches as co-evolutionary might require reconsidering the purpose of planning.

[11] Essentially, the framework of logical types proposes a hierarchic, logical order for all constructs (Roach & Bednar, 1997). This allows identifying the logical type of interest and limiting the discussion to that type, which prevents making self-referring statements that would create a logical paradox (Bateson, 1972, pp. 297–308; Roach & Bednar, 1997). When discussing logical types, Roach and Bednar (1997) refer to Bateson's (1972) work which connected a mathematical theory of logical types to cybernetic levels of learning. Mäntysalo (2000) has connected Bateson's levels of learning to planning theory, by conceptualizing them as types learning that may take place within and in between social systems involved in planning.

Table 8. Different metacontextual assumptions on the purpose of urban planning in Research Tasks 1 and 2.

Research Task 1	Research Task 2
The purpose of urban planning is to envision alternative futures for an urban area and formulate strategies to reach them	The purpose of urban planning is to generate new activities and relationships between actors, to initiate further action and learning

Table 9 summarizes insights from Articles III and IV to discuss how hierarchical, individualistic, egalitarian, and fatalist planning approaches may be interpreted as co-evolutionary.

Table 9. Planning approaches as co-evolutionary.

Planning approach	How the planning approach seeks to proactively change low-growth contexts	How the planning approach considers uncertainty in low-growth contexts
Hierarchical-individualistic planning as co-evolutionary	By initiating urban change with instruments available for the city While the individualistic approach was not considered readily applicable to low-growth contexts, the hierarchical approach was deployed to create prerequisites for market-based infill development projects	Hierarchical planning does not explicitly consider change as unpredictable and presents urban development as linear. However, the uncertain implementation of plans was implicitly acknowledged in the case studies
Egalitarian planning as co-evolutionary	By establishing a shared vision that can motivate collective action and generate new relationships among urban development actors By supporting local urban development activities that already take place	The explicit attempt of the egalitarian approach may be to generate new activities Adopting the approach might be challenging, as the impact of activities cannot be known with certainty and the outcomes of planning must be presented as open-ended
Fatalist planning as co-evolutionary	Fatalism does not posit that it is possible to guide urban development with urban planning	Fatalism as a passive planning approach could be deployed to acknowledge that the proactive planning approaches do not always lead to the intended outcomes. However, the fatalist planning approach might be challenging to adopt since it is a counter-intuitive rationale to planning.

When viewed as co-evolutionary, the hierarchical planning approach can seek to initiate urban change through the instruments available to the city. In Runosmäki and Kaukovainio, the cities of Turku and Oulu deployed their land ownership to identify infill development potential, because on city-owned sites they were able to influence the implementation of infill development through plot conveyance. Moreover, the hierarchical and individualistic planning approaches were viewed as interrelated. In Oulu, the strategic infill development plan portrayed Kaukovainio as a developing neighborhood, with an attempt to attract infill development projects to the area. In Turku, it was assessed that improving public services could increase the attractiveness of Runosmäki as a housing area and thus improve the prospects for infill development.

The interviewed city representatives, however, acknowledged that the strategic infill development plans would not necessarily be implemented as such, or at least that their implementation could take a long time. In Runosmäki, one task of the plan was to enable infill development projects, while the uncertainty of their actualization was acknowledged. In Kaukovainio the general infill development plan was characterized as an enabling framework, whose task was to create the preconditions for future urban development that was considered uncertain. These findings provide a more nuanced perspective to the discussion, which proposes that the traditional planning approaches, such as the hierarchical planning discussed here, always assume that planning will lead to the intended change (de Roo et al., 2020a, 2020b). If the generation of new activities was accepted as a purpose of planning, the hierarchical approach could be appreciated for its capability to initiate urban change. However, applying the hierarchical planning approach as co-evolutionary is likely to be challenging because the approach does not explicitly consider the unpredictability of urban change, but presents urban development as a linear process with a predefined outcome. The Runosmäki infill development plan was partially interpreted as striving for implementation, and the approach was considered ill-suited for a context where plan implementation was uncertain. In Kaukovainio, infill development was presented as an instrument to prevent the declining of services and population. Therefore, while the uncertain actualization of infill development was acknowledged, its non-implementation was simultaneously presented as a threat. This implies different understandings of the purpose of hierarchical planning on a metacontextual level, which might create confusion in a planning process and lead to the interpretation of planning activities as a failure.

The co-evolutionary egalitarian planning approach may seek to initiate urban change by creating a shared vision that motivates collective urban development action. This was the case in Pansio-Perno and in the general planning phase of Kaukovainio's infill development, where the aim of the cities was to bring together local actors to envision future urban development. In addition, the egalitarian approach can be deployed to support local urban development activities that already take place. Examples of this were seen in Härkämäki and Kaukovainio, where the activities organized by the residents and other local actors were identified as a contribution to urban development. In Pansio-Perno, urban change brought about by the egalitarian approach was explicitly acknowledged as unpredictable: the aim was to create something new that might also contribute positively to the future development of the neighborhood. However, viewing change as open-ended was also considered challenging. This was especially the case in Pansio-Perno, where the area's current problems created a sense of urgency for the City to take action. In Härkämäki, the open outcome of urban development activities might have been easier to accept because the City itself did not have strategic urban development goals or other aims related to the area, and the urban development was based on ongoing activities organized by the residents themselves.

Finally, Article IV introduced fatalism as the passive planning approach that might help acknowledging that the proactive planning approaches do not always lead to the intended outcomes. When planning is viewed as an activity whose purpose is to envision alternative futures and formulate strategies to reach them, it might be challenging to adopt the fatalist approach because fatalism does not support the idea that the world can be intentionally changed. However, when planning is viewed as an activity that aims at creating new activities, fatalism might help acknowledging that while the proactive planning approaches do not necessarily lead to the intended outcomes, they at least succeed in generating some new urban development activity that can provide starting points for further activity. However, the case study findings indicate that it might be more attractive to deploy proactive planning approaches, since polyrational planning would require consideration of a fatalistic approach just when it seems least appropriate for the situation. In Kaukovainio, incorporating fatalism into the definition of the planning problem was difficult at the early phases of the planning process, where hierarchical, egalitarian, and individualistic approaches were deployed to propose how the planning situation could be changed into something better. The passivity of fatalism might best suit situations where the uncertain realization of the planned urban development is encountered. In these situations, however, instead of passiveness

resulting in inaction, a redefinition of the planning problem through the three active approaches might be needed.

The findings of Research Task 2 correspond with notions that as long as uncertainty and change are not acknowledged as a starting point of planning, it is likely that divergent planning outcomes will be viewed as failures and disappointments (de Roo et al., 2020a, p. 89). Noteworthy is, however, that changing the metacontextual assumptions about the purpose of planning is likely to be challenging. The challenge could be looked at from the perspective of structure and agency: while individual actors might be able to reflect on the structures from within those they operate, changing them is likely to take time (Allmendinger, 2001, p. 204). Savini (2019) has discussed a similar issue from the perspective of institutional planning theory. He notes that the purpose of planning resides on the level of constitutional norms of planning, which might be challenging to change on the level of planning practice. Further, when looking at the issue from the perspective of learning, Mäntysalo (2000) notes that reflecting on the purposes of planning would require the ability to consciously transcend the existing worldviews of planning participants, which can be considered a challenging type of learning.

4 Conclusions

In this thesis, I have explored how urban planning can be approached in the context of low growth. The case study research strategy, theoretical and methodological choices, as well as the empirical findings from the cases, have guided the examination of the issue through two theoretical frameworks: planning approaches as ideal types, and planning approaches as co-evolutionary. The findings have been presented as two Research Tasks.

In Research Task 1 I understood planning approaches as static ideal types by viewing them as configurations. I identified three planning approaches and their application to low-growth contexts from the research literature. Furthermore, in both Research Tasks, I explored planning approaches in the planning practices of two Finnish cities. In the cases, I identified approaches that can be connected to the egalitarian, hierarchical, and individualistic planning approaches.

The egalitarian planning approach, which is based on local urban development initiatives, has been considered a promising approach in low-growth contexts. This is because in this approach, urban development is not based on producing economic profit, but may bring direct qualitative improvements to the neighborhood, related to maintenance and renovation of the built environment or improvement of everyday life functions (Brindley et al., 1996; Rydin, 2013; Schlappa & Neill, 2013). At the same time, the approach is still taking shape, since mainstream urban planning has been based on producing new built environment with market-led urban development (Boelens & Coppens, 2015; Rydin, 2013). There are also concerns that cities might not recognize or attempt to control local urban development initiatives, not appreciating their self-organizing logic (Boelens & Coppens, 2015; Boonstra & Boelens, 2011; Wallin, 2019). This research demonstrates how the city representatives in Turku both recognized the egalitarian approach and appreciated local urban development initiatives in their own terms. At the same time, however, it was pointed out that it might be challenging to deploy the approach as programmatic urban policy, as self-organizing action cannot be commanded. The findings of this thesis confirm the view presented in the extant research literature, according to which the egalitarian planning approach often surfaces in low-growth contexts that are not targeted by market-led urban development interests (Brindley et al., 1996; Rydin, 2013). At the same time, however, the constraints of the egalitarian approach indicate the need to consider other planning approaches in low-growth contexts as well.

The Runosmäki and Kaukovainio cases demonstrate the deployment of hierarchical and individualistic planning approaches in Finnish urban development contexts characterized by low growth. In the literature, the hierarchical approach has been associated with growth contexts, as it is based on the idea that cities can use urban planning to guide and regulate the activities of other urban development actors (Brindley et al., 1996; Rydin, 2013). In the absence of market-based urban development interests, there is nothing to regulate, which is why it might be challenging for the hierarchical planning approach to accomplish its objectives in low-growth contexts (Brindley et al., 1996; Rydin, 2013). However, the results of this research show that the application of the hierarchical approach is not necessarily based on the intention to regulate urban development activities right now. Rather, the aim might be to proactively ensure that prospective, albeit uncertain, urban development serves a city's strategic urban development objectives, as in Runosmäki, and that actors who are not involved in the preparation of market-based infill development projects have the opportunity to participate in the long-term planning of the neighborhood, as in Kaukovainio. In other words, the market context may not be a priority for cities when selecting the planning approach, but the choice may be more influenced by the desire to work on the long-term development of the existing built environment. This reflects the notion made by Zuidema (2017, 2020) that the selection of a planning approach is also influenced by societal values and might even go against the contextual fit. However, the case study results also demonstrate how the selection of a planning approach against the (market) contextual fit is likely to create confusion. The hierarchical approach tends to present future urban development as fixed and predictable, while the actualization of development in low-growth areas is often uncertain. There is therefore a risk that the benefits of hierarchical planning, such as arranging public participation opportunities and adopting a long-term perspective, go unnoticed in low-growth areas if the approach is criticized for its unrealistic future expectations.

In Research Task 2 I proposed that urban planning in low-growth contexts can also be approached as co-evolutionary. This idea was tentatively formulated based on the notion that in the context of low growth, urban planning can play a role in creating new networks between actors, which may also gradually give rise to new urban development activities (Boelens & Coppens, 2015; Rydin, 2013; Schlappa, 2016). In this case, planning can be seen as an activity that seeks to influence its context, but where the outcome of these activities is not known in advance. Article III further conceptualized this as a co-evolutionary planning strategy and tested the explanatory power of the concept in the Turku cases. The findings indicate that in

the context of low growth, planning activities might at least partially be undertaken for the sake of generating new activities, not to achieve a pre-defined outcome.

The co-evolutionary planning approach, however, was not adopted by all urban development actors in the cases. The success of planning was assessed based on the actualization of plans, rather than the ability to generate new urban development activities. The challenge of co-evolutionary planning in low-growth contexts may be that even if some actors might view planning as an activity that aims at generating new activity, others might consider that the purpose of planning is to envision future urban development and means to reach it. In Runosmäki, for example, hierarchical urban planning was interpreted as an attempt to guide and control the implementation of urban development. In Kaukovainio, the delay of urban development led to disappointment, although some of the deployed planning approaches continued to have relevance in the changed situation. As a potential resolution, Article IV furthered the theoretical idea that hierarchism, individualism, and egalitarianism could be viewed as proactive planning approaches, that could be deployed in co-evolutionary planning to generate change. Further, fatalism was introduced as a planning approach that might help accepting that the proactive planning action does not always lead to the intended outcomes. Article IV proposed that adopting a polyrational planning approach accompanied with fatalism could have helped accepting the uncertainty related to the actualization of plans, motivate consideration of alternative development paths, and increase appreciation of urban development activities that took place, even when they did not fully match the original plan.

4.1 Reflections on the trustworthiness of the research

This research has adopted a critical realist perspective, according to which some factors influencing the emergence of planning approaches can be viewed to exist in objective reality, while some of the factors are socially constructed (Allmendinger, 2001; Zuidema, 2017). While traditional concepts of validity and reliability are applicable to research that assumes the existence of one objective reality, research that considers multiple social realities is often assessed by the criteria of credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985).

A case study research effort aiming at analytic generalization assumes that there is at least some kind of objective reality to which the results of the study can be generalized (Laine, Bamberg, et al., 2015; Yin, 2014, p. 17). In this case, it is important to evaluate the theoretical constructs used in the study: that the concepts

related to them have been defined and assumptions about the interrelationships of the factors involved have been explained (Sayer, 1992, p. 235; Yin, 2014, pp. 46–47). In Research Task 1, I have sought to define planning approaches as theoretical constructs. This provides the reader with an opportunity to assess which elements of objective and intersubjective reality have in this research been assumed to influence the formation of planning approaches. However, since I have built my theoretical understanding on planning approaches gradually during the research process (Walton, 1992), the definition of planning approaches as theoretical constructs is not as precise in the articles as it is in this compilation part of the thesis. Furthermore, while the planning approach configurations in Research Task 1 can be considered as theoretical constructs, the notion of co-evolutionary planning in Research Task 2 is more akin to a theoretical concept. According to Gioia et al. (2012), concepts can be viewed as precursors of constructs, more involved with generation of new theoretical ideas than detailed elaboration of variables that affect the research phenomena. This proposes a need for further research that would define a co-evolutionary planning approach for low-growth contexts in more detail.

Furthermore, this research has assumed that while planning approaches partially originate from the experience derived from object-oriented reality, they are also socially produced. From this perspective, it is meaningful to assess the credibility of the research, that is, that the findings represent social realities that have produced the research results (Lincoln & Guba, 1985, p. 295). I have sought to increase the credibility of the research through source triangulation, as well as by discussing preliminary findings with those involved in the study (Lincoln & Guba, 1985, p. 296). However, the credibility of the research could have been improved especially by researcher triangulation in the interpretation of the material, as well as by further reflection on the results with research participants (Lincoln & Guba, 1985, p. 296).

The acknowledgement of multiple social realities also proposes that instead of generalizability, it is more meaningful to talk about transferability of concepts (Lincoln & Guba, 1985). In transferability, it is not enough to know the source context; one must also know the context in which the concept is thought to be transferred. In this case, it is the researcher's responsibility to provide the reader with sufficient information about the context in which the concept was developed, so that the reader can better assess whether it is transferable to a new context (Lincoln & Guba, 1985, pp. 297–298). In this study, I have sought to provide the reader an opportunity to assess the transferability of results by describing cases in their local context on a neighborhood level, and as part of the wider Finnish urban

planning context. However, the multiple case study research strategy and the attempt to make analytical generalizations from the cases have focused my attention on certain features of the cases and limited the depth of the analysis. For example, local planning cultures have not been examined, even though they can be viewed to influence the formation of planning approaches (Mäntysalo, 2000). However, it could also be argued that the number of contextual factors influencing planning approaches is wide (Sager, 2001b), and it would have been challenging to consider all of them in one study.

Finally, a traditional measure of reliability in research assuming one objective reality is that the research could be replicated, and the same results obtained. Lincoln and Guba (1985, pp. 298–299) argue that when studying multiple realities that are constantly changing, it is more meaningful to assess the dependability of the research, that is, that the research process is logical, traceable, and clearly documented. During this study, the progress of the research process was reflected on by taking notes, discussing the research process with thesis supervisors, and regularly updating the research plan. I have sought to provide the reader an opportunity to assess the dependability of my research by describing the research process in Section 1.3.

4.2 Theoretical implications

The findings of Research Task 1 contribute to the theoretical discussion on planning approaches by identifying and discussing how they manifest in planning practice in low-growth contexts, as also discussed by Brindley et al. (1996) and Rydin (2013). The results contribute to the critical realist perspective to planning approaches (Zuidema, 2017, 2020), too, by confirming that while urban planning approaches in low-growth contexts may be influenced by the scope of planning goals, relationships between actors, and uncertainty of the planning situation, they are also influenced by societal values, such as the aim to secure public participation and meaningful long-term urban development. This notion proposes the need for a nuanced discussion on the suitability of planning approaches to low-growth contexts. While mainstream urban planning has been noted as growth-dependent and alternatives to it have been called for (Ferreira & von Schönfeld, 2020; Janssen-Jansen, 2013; Rydin, 2013), the next step could be to start discussion on the potential combinations of planning approaches in low-growth contexts and what can be achieved with them.

The findings of Research Task 2 contribute to theoretical discussion on co-evolutionary and adaptive forms of urban planning (de Roo et al., 2020a, 2020b). The theoretical contribution of Article III is to extend the discussion on co-evolutionary urban planning to low-growth contexts. In extant research co-evolutionary planning is often discussed in relation to large-scale urban development projects, where the long time span of the projects has brough forward the need to adapt to contextual changes (Bertolini, 2010; Gerrits & Teisman, 2012; Majoor, 2015a). Furthermore, adaptive forms of planning are often discussed in relation to dynamic planning situations, characterized by unpredictability, innovation, and transformation (de Roo et al., 2020b, 2020a). In such contexts, planning may not be about starting or leading processes of change but anticipating, following, and responding to them (de Roo et al., 2020b, 2020a). Article III proposes that co-evolutionary planning merits further exploration also in contexts where urban planning contributes to the generation of new activities. This highlights the need to consider the proactive facets of co-evolutionary urban planning as features that can influence the planning situation, while acknowledging that they may not always lead to the intended outcomes. This contributes to the discussion on the different types of adaptive or co-evolutionary planning that might be needed to address different kinds of urban change (de Roo et al., 2020a).

The theoretical contribution of Article IV is to connect the concepts of polyrational planning and co-evolutionary planning and identify the relevance of fatalism for polyrational planning. Even though the relevance of fatalism for planning that acknowledges uncertainty has been identified in the extant planning theoretical discussion (Davy, 2008; Hartmann & Hengstermann, 2014; Thompson & Beck, 2015), it has also been considered an alien approach to planning because it does not proactively seek to change reality but only adapts to it (Hartmann, 2011, p. 114, 2012). What is new in this study is the focus on fatalism and the demonstration of its meaning for planning through a concrete case study. This research proposes that without the fatalist acknowledgement of the inherent uncertainty of reality, deploying polyrational planning in practice might lead to disappointments. This is because hierarchism, individualism, and egalitarianism as proactive planning approaches all strive to change the planning situation, but do not acknowledge that the change might not actualize, and an alternative combination of the approaches might need to be introduced. As has been proposed by Cultural Theorists (Thompson et al., 1990), fatalism might help accepting that the proactive action does not always lead to the intended outcomes, and thus encourage consideration of alternative approaches.

4.3 Practical implications

The practical contribution of this research is to describe urban planning in the context of low growth, which can help actors involved in urban planning to identify planning approaches outside the framework of growth-dependent planning. Research Task 1, which presents planning approaches as ideal types, can help planning actors reflect on planning practices and their suitability to different growth contexts. However, the conceptualization of planning approaches should not be understood as a catalogue from which a planning approach could be chosen according to the situation. As Zuidema (2017) points out, the choice of a planning approach is not necessarily influenced by the characteristics of the context, but is a socially mediated choice. In addition, researchers who have associated urban planning with learning have pointed out that sometimes an established approach may even prevent the identification and adoption of new, alternative approaches. For instance, the social learning perspective to planning notes that planning actors might resist changing their existing beliefs and respond unpredictably to information that is new to them (Holden, 2008; von Schönfeld, Tan, Wiekens, & Janssen-Jansen, 2019). Furthermore, it has been proposed that the established planning approaches may sometimes be maintained by the local *pathological* planning cultures, where planning approaches are not only deployed even though they no longer work, but where the involved actors also pretend that they do not notice the dysfunctionality of the approach (Mäntysalo, 2000; Mäntysalo & Nyman, 2001).

The co-evolutionary planning approach presented in Research Task 2 may provoke a discussion about whether the generation of new activities can be regarded as one purpose of planning in low-growth contexts. Furthermore, the concept of polyrational planning described in Research Task 2 can help planning practitioners reflect on whether a combination of multiple planning approaches could be deployed to acknowledge the uncertainty related to low-growth contexts. For instance, in this research I have suggested that it could help accepting the uncertainty related to the actualization of plans, motivate consideration of alternative development paths, and increase appreciation of urban development activities that take place, even if they do not fully match the original plan.

However, it should also be noted that leaving the planning objectives open or defining the planning situation anew may not always be desirable, and therefore I do not wish to suggest that with the adoption of a fatalist planning approach or co-evolutionary planning strategy in general, any urban development outcome should

be accepted. Since planning has significant impacts on society, it has been considered important that it is able to produce reliable and just outcomes (Bertolini, 2010; Majoor, 2015a). Furthermore, when applying concepts like adaptiveness or co-evolution to social systems, human abilities such as learning and foresight can intentionally guide change (Davoudi, 2012; Westley, Carpenter, Brock, Holling, & Gunderson, 2002). This implies that such concepts in the social context are not value-free but always affected by human intention, in contrast to natural systems where adaptation and co-evolution can be understood in more analytical terms (Davoudi & Porter, 2012). Thus, while viewing planning as co-evolutionary can help acknowledge dynamism and change as the inherent elements of reality where planning operates, the direction of evolutionary paths should be critically assessed (Davoudi & Porter, 2012).

4.4 Recommendations for future research

This research was motivated by the notions that mainstream urban planning is best suited to growth contexts, and a growth-dependent planning approach might therefore be applied as a one-size-fits-all solution also in contexts where growth does not occur. Although this research found that urban planning in low-growth contexts does not always follow the growth-dependent approach and can even be considered co-evolutionary, it did not explicitly look at the process of how planning approaches in low-growth contexts were developed. The topic could be studied with the help of a research tradition that associates planning with learning (Friedmann, 1987; Holden, 2008; Mäntysalo, 2000). For instance, associating planning with social or cybernetic learning could help exploring how multiple ways to frame the planning situation may challenge the adoption of new perspectives, and how the conflicting perspectives could be transcended (Mäntysalo, 2000; von Schönfeld, Tan, Wiekens, & Janssen-Jansen, 2019; von Schönfeld, Tan, Wiekens, Salet, & Janssen-Jansen, 2019).

Another avenue for future research concerns the theme of *legitimacy*[12], in relation to combining different planning approaches in co-evolutionary planning in

[12] Legitimacy of urban planning refers to the need of the government to justify its position to make decisions on behalf of the society (Mäntysalo & Saglie, 2010). Following Scharpf (1999), two ways to legitimize public urban planning are often discussed: input- and output-oriented legitimization (Mäntysalo & Saglie, 2010; Mäntysalo, Saglie, & Cars, 2011; Valtonen, 2019). In input-oriented legitimization planning decisions are justified because they directly reflect the will of the people, whereas in output-oriented legitimization public planning decisions are justified because their outcomes effectively promote the public interest (Mäntysalo & Saglie, 2010; Scharpf, 1999). The challenge is that

the face of uncertainty. While this research has proposed polyrational planning as a way to deal with the uncertainty of planning situations in low-growth contexts, a more detailed discussion on how to address different types of uncertainties would be needed. Forester (1993) discusses uncertainties related to planning as technical uncertainty that can be reduced by gaining more information about the planning situation, and as normative ambiguity related to meaning-constituting claims that can be dealt with by deliberation and discussion. More recently, a third form of uncertainty, namely ontic uncertainty (Zandvoort et al., 2018) or dynamic uncertainty related to time (Zuidema, 2020) has been discussed. This third form of uncertainty cannot be reduced, as it is related to the unpredictability of the future. It also implies that neither technical uncertainty nor normative ambiguity can be permanently resolved (Zandvoort et al., 2018; Zuidema, 2020).

One challenge of addressing the different types of uncertainties in planning is their intertwined nature. Forester (1993, pp. 90–92) discusses this in relation to technical uncertainty and normative ambiguity: factual claims about the planning situation are always bound to meaning-constituting claims that are deployed to legitimize planning. Cultural Theory acknowledges this issue by proposing that all social situations are polyrational: social action cannot be claimed to be rational or irrational per se, but each approach would judge the rationality of action based on its underlying assumptions about the way the world works (Thompson et al., 1990). This has implications on the legitimacy claims that the different planning approaches would make in a planning process. The individualist approach would legitimize actions based on the capacity to effectively achieve desired outcomes, whereas the egalitarian approach would make the legitimacy claim based on the opportunity of everyone to participate in decision-making (Thompson et al., 1990, pp. 97–98). Hierarchical approach would consider both justifications important, whereas the fatalist approach would not attempt to justify planning decisions at all (Thompson et al., 1990, pp. 97–98). In Scharpf's (1999) terminology, this would imply different emphasis on the output- and input-oriented legitimacy of planning.

The idea of polyrational planning would thus assume high flexibility of the institutionally grounded norms and expectations of just planning conduct on which the legitimacy of public planning authority lies. At best, treating planning situations

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the different legitimacy claims may create conflicting expectations that are difficult to reconcile. In urban planning, the emphasis on output-oriented legitimization may lead to closed negotiations between actors that possess the resources to solve the planning problem, which is at odds with the input-oriented legitimization that highlights everyone's right to participate in the planning process (Mäntysalo & Saglie, 2010).

as polyrational might help acknowledging the existence of diverse legitimacy claims (Davy, 2008). However, this is likely to be challenging because of the tendency of planning approaches to overpower each other and shift according to contextual changes, which might imply the need to make corresponding shifts in the rationales of legitimizing planning. Moreover, fatalist planning might be hard to justify since planning is often expected to produce decisions despite the paralyzing conditions of uncertainty. While a more comprehensive discussion on the theme of legitimacy falls outside the scope of this thesis, it would be an important area for future research, to further develop the theoretical idea of polyrational planning and enhance its applicability to practice.

Finally, this research has concluded that in the context of low growth, the purpose of planning might not necessarily be to achieve a predetermined outcome, but to generate something new. This implies the need to evaluate planning not only on the basis of implementation, but also on the basis of how well planning is able to create new situations and respond to them. A general premise for evaluating planning is to define the criteria by which success can be distinguished from failure (Alexander & Faludi, 1989; Faludi, 2000). Already Alexander and Faludi (1989) suggested that planning evaluation could take better account of the intersubjective nature of reality by measuring success from within the social frameworks in which the plan was originally devised. Uncertainty related to time, in turn, could be taken into account by an assessment in which the measure of the success of plans would not be their realization but their ability to serve decision-making in the future (Alexander & Faludi, 1989; Faludi, 2000). Based on these notions, Terryn, Boelens and Pisman (2016) have suggested that, like the planning approach, the planning evaluation approach could be chosen according to the context. An evaluation that measures the achievement of predetermined objectives would be suitable for simple planning situations. For complex situations where planning objectives and actors may change, co-evolutionary evaluation could be applied. There, the evaluation criteria would be the ability of the planning process to adopt new objectives, or to achieve collaboration between actors. At the same time, evaluation itself would not be seen as a process separate from planning, but as an activity intertwined with it, fostering learning during the planning process. The findings of this research indicate that urban planning in low-growth contexts could benefit from co-evolutionary evaluation approaches. The challenge for co-evolutionary planning and evaluation, however, is that planning is also expected to contribute to the achievement of societally important goals (Bertolini, 2010; Terryn et al., 2016). Further research is therefore needed on criteria that enable evaluating co-

evolutionary planning from its own starting points, while ensuring that the co-evolutionary planning leads to societally desirable outcomes.

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Appendices

Appendix 1: Semi-structured, thematic interviews

Interviews in Turku

Organization	Date and time	Cases discussed
City of Turku, Department of urban planning	November 17, 2016, 1 hr 15 min	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
TVT Asunnot (Real estate company owned by the City of Turku)	November 17, 2016, 1 hr 30 min	Pansio-Perno, suburbs in general
City of Turku, Department of urban planning	November 18, 2016, 1 hr 20 min	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban development	November 18, 2016, 2 hr	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban development	November 18, 2016, 2 hr	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban planning	January 30, 2017, 1 hr 15 min	Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban planning	February 1, 2017, 1 hr	Runosmäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban development	February 1, 2017, 1 hr	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of real estate	February 1, 2017, 1 hr	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban development	March 7, 2017, 1 hr 10 min	Runosmäki, Härkämäki, Pansio-Perno, suburbs in general
Härkämäkiseura (Härkämäki neighborhood association)	March 8, 2017, 1 hr	Härkämäki, suburbs in general
Vahanen Turku (Consultant for joint renovations in Härkämäki)	March 8, 2017, 50 min	Härkämäki
Härkämäen Huolto (Härkämäki area maintenance company)	March 9, 2017, 35 min	Härkämäki
City of Turku, Department of urban planning	June 20, 2017, 30 min	Runosmäki, Pansio-Perno, suburbs in general
City of Turku, Department of urban planning	June 20, 2017, 30 min	Runosmäki, suburbs in general

Interviews in Oulu

Organization	Date and time	Cases discussed
City of Oulu, Urban and Environmental Services (3 persons)	January 14, 2014	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	February 21, 2014	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	February 24, 2014	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	February 26, 2014	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	March 17, 2014	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services, Educational and Cultural services, Kaukovainio District Board (a workshop of 5 persons)	January 5, 2015, 40 min	Kaukovainio
City of Oulu, Urban and Environmental Services	December 5, 2016, 2 hr 10 min	Kaukovainio
City of Oulu, Educational and Cultural Services	December 15, 2016, 1 hr	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	December 15, 2016, 1 hr	Kaukovainio, suburbs in general
Kaukovainio District Board	January 9, 2017, 1 hr 10 min	Kaukovainio
City of Oulu, Urban and Environmental Services	January 12, 2017, 1 hr 30 min	Kaukovainio, suburbs in general
City of Oulu, Urban and Environmental Services	January 12, 2017, 1 hr	Kaukovainio, suburbs in general
Kaukovainio District Board	January 20, 2017, 1 hr	Kaukovainio
Oulun Sivakka (Real estate company owned by the City of Oulu)	February 7, 2017, 1 hr 10 min	Kaukovainio, suburbs in general
City of Oulu, Educational and Cultural Services	February 9, 2017, 1 hr	Kaukovainio
Construction company, developer in Kaukovainio Center project	March 3, 2017, 1 hr 10 min	Kaukovainio, suburbs in general

Appendix 2: Interview themes

Background information

- What are your duties at work?
- What is your organization's role in urban regeneration and infill development in the suburbs?

Urban regeneration and infill development in the suburbs

- How does the City of Turku/Oulu approach urban regeneration and infill development in the suburbs?
- How are the areas for urban regeneration and infill development selected?
- Are there any special challenges regarding urban regeneration and infill development in low-growth areas? How are these challenges answered?
- Could you describe examples of urban regeneration and infill development in the Turku/Oulu suburbs?

Cooperation in urban regeneration and infill development

- What kind of cooperation is needed among city officials in urban regeneration and infill development in the suburbs?
- What kind of cooperation is needed between the City and private developers/non-governmental organizations/residents in urban regeneration and infill development in the suburbs?
- Could you describe examples of such cooperation? Are there any special challenges for cooperation in low-growth areas?

Appendix 3: Documentary sources

Main documentary sources in Turku

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Original publications are not included in the electronic version of the dissertation.

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