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Contested and constructed greenery in the compact city: A case study of Helsinki City Plan 2016

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Abstract

Green areas and their multiple values are widely recognized, but they are simultaneously contested by an accelerating urbanization process. The current emphasis on compact city policies leads to redefining and reshaping the urban greenery. Examples of these new priorities are objectives accentuating a coherent city instead of a coherent green structure, the quality of green areas rather than their quantity, development instead of preservation, and urban character versus nature-based values. This paper addresses the detected paradigm shift in green planning, focusing on the Helsinki City Plan approved in 2016. The research data consists of master planning documents and an analysis of the evolution of green zones in Helsinki, Finland. The paper contributes to the discussion on the opposition and interdependence of green and urban structures in the compact city discourse.

Green structure / compact city discourse / Helsinki City Plan / paradigm shift

Introduction

The interdependence of green and urban structures constitutes a cornerstone of a healthy and liveable city. Nevertheless, the coexistence of these two mutually dependent elements is far from conciliatory; it is full of tension and friction. Planning history manifests a continuing debate on the proper level of density and ideal distribution of green spaces. While the garden city ideal promotes decentralization, greenery, and low density, the compact city concept advocates urban qualities, high density, and diversity.[1] Within these contradicting ideals, the role of the green structure changes and adapts to prevailing socioeconomic and political regimes and design priorities.[2] This affects the quantity and quality of green spaces and their visual composition and spatial configuration in relation to the built environment. The garden city highlights a low-density urban structure with a close connection to nature and green spaces.[3] Conversely, the compact city regards urbanity as a remedy for urban sprawl, leaning on the idea that densification is beneficial in several ways. It is presented as a cure-all for a variety of environmental and social ills: climate change, traffic congestion, and pollution, in addition to social segregation.[4] Due to this argumentation, the compact city has gained a dominant voice in urban planning. It is depicted as energy-efficient, resilient, and green—but how is this greenery conceived and constructed in urban planning?

The contemporary discourse on the compact city is framed by sustainability.[5] Sustainable urban development is a well-acknowledged goal, supported by global and national strategies, but the concept itself incorporates contradictory ideals. This paper focuses on the controversial role of the green structure. Even though green spaces and their multiple benefits are widely recognized in terms of their ecological, economic, and social aspects,[6] they are simultaneously contested by compact city policies. Global ecological arguments for densification often conflict with the local recreational and

landscape values of green areas. The global and local views on sustainability seem incompatible and nearly mutually exclusive.

Several scholars have demonstrated the negative effects of densification on green spaces, namely crowding, the lack of recreational facilities, and a lower living quality.[7] Despite a vast body of scientific evidence, there is only limited research on the construction of the green structure in the compact city discourse. This paper arose from the desire to examine how green planning principles have been reshaped to coincide with densification policy by elaborating on the Helsinki City Plan, a statutory master plan approved in 2016. An inspiring parallel has been Ylva Uggla's analysis in which she elucidates the narrative of urban planning as a catalyst for change in Stockholm.[8] As in Stockholm, the master plan of Helsinki is also strongly imbued with densification, encompassing a specific vision of what represents desirable urban nature and what is undesirable and necessitates modification.

Helsinki is rapidly expanding, as are many other metropolitan areas. The new plan prepares for a rise in population to 860,000 inhabitants by 2050.[9] This is a remarkable scenario as the current population of the city is 650,000 inhabitants. The fundamental principle of future land use is the densification of urban structure, as outlined in the Helsinki City Plan. A third of the planned building volume is infill construction, which could lead to building on 1,900 hectares of green areas.[10] The approach differs dramatically from the previous master plan of 2002, which emphasized a coherent green structure and historical landscapes. This paper examines the transforming role of the green structure and compares the conceptualization of urban green in the master plan of 2016 with the previous master planning documents. The aim is to determine how the paradigm shift pertaining to green areas is manifested in compact city policies, and what values and priorities are embedded in negotiations regarding green structure and urban planning.

The storytelling of urban planning is a shaper of the future and a powerful catalyst for change. Planning embodies political choices concerning the stories that are told and those that remain untold.[11] This paper aims to identify the storytelling of the Helsinki City Plan. It focuses on the planning of the green structure, referring to the instruments and measures for safeguarding the multifaceted role of green areas, including their spatial, ecological, cultural, and social dimensions. The empirical basis of the study is a qualitative content analysis, which searches for meanings in the texts and organizes the data in a compact and clear manner. The study applies narrative analysis and looks for the key themes and main points, the repetition of information, distinctions, and contrasts. These analytical tools are used to categorize the empirical material and discover the frame-shaping elements of the green structure in the compact city discourse.[12] The research data consisted of planning documents, planning reports, and discussions related to the master plan, with a focus on the green zones, the so-called 'green fingers'. The green fingers were selected because they constitute the fundamental basis for the green structure and because the development plans of these areas were the most conflicting and debated cases due to future infill construction.

The paper is organized in four sections, including this introduction. In the next section the development of green zones in Helsinki is reviewed. The formation of green fingers provides a background for assessing the current paradigm shift in green planning. The third section presents an analysis of two case studies related to the master plan: the development plans for Central Park and the planned infill construction in the Tuomarinkylä landscape in Helsinki Park. The results of the case studies are then elaborated in the final section. As the paper's main conclusions, four main lines of argument are identified in the planning discourse, constituting the cornerstones of the paradigm shift. The paper reveals the negotiations and confrontations between green and urban structures in the compact city narrative. It thereby contributes to a deeper understanding of the discursive construction of green areas in urban planning.

The evolution of green zones in Helsinki

Helsinki is a green city, where green areas cover approximately 40 per cent of the land area. Nature, especially the sea, is recognized as an attractive factor that has become an established part of the urban brand. Distinct features of the green structure are six radial zones, referred to as 'green fingers', Central Park and Helsinki Park being the most centrally located of them (Fig. 1). In addition to the green fingers, another underlying principle is the green shoreline, which has created a distinguishable seaside identity for Helsinki.[13] The third characteristic of the green structure network is the green zones surrounding suburban areas, which became an established component of the suburban planning ideology between the 1940s and the 1960s. The fourth defining factor is the low-density urban structure and green cityscape, which are specifically evident in garden city areas and forest suburbs.

The green core of Helsinki is the legacy of several urban plans over a long period of time. The planning of the green zones already started in the 1910s and has continued in the city plans throughout the decades.[14] Helsinki's first town planning architect, Bertel Jung, prepared the Central Park plan in 1911. In 1918, he created the Pro Helsingfors plan in cooperation with Eliel Saarinen, which introduced the radial green fingers, green areas on shorelines and green zones between suburbs. The plan corresponded to the international examples of green zones in Chicago, Vienna, and Boston, which were perceived to have a positive effect on health, cityscape, and the urban structure.[15]

The regional expansion of Helsinki and the land incorporation in 1946 set a new perspective on the planning of green areas. The first legally required master plan was completed in 1960 and highlighted the recreational routes in green zones. The following master plan in 1970 launched comprehensive recreation area plans and cultural environment surveys, which voiced concerns about pollution, the fragmentation of recreational areas, and the destruction of cultural environments.

In the following master plans of 1992 and 2002, the dominant characteristics of Helsinki's green structure network became prominent. Green fingers, green areas near shorelines, and cultural landscapes were accentuated as defining characteristics that were to be preserved. The signifi-

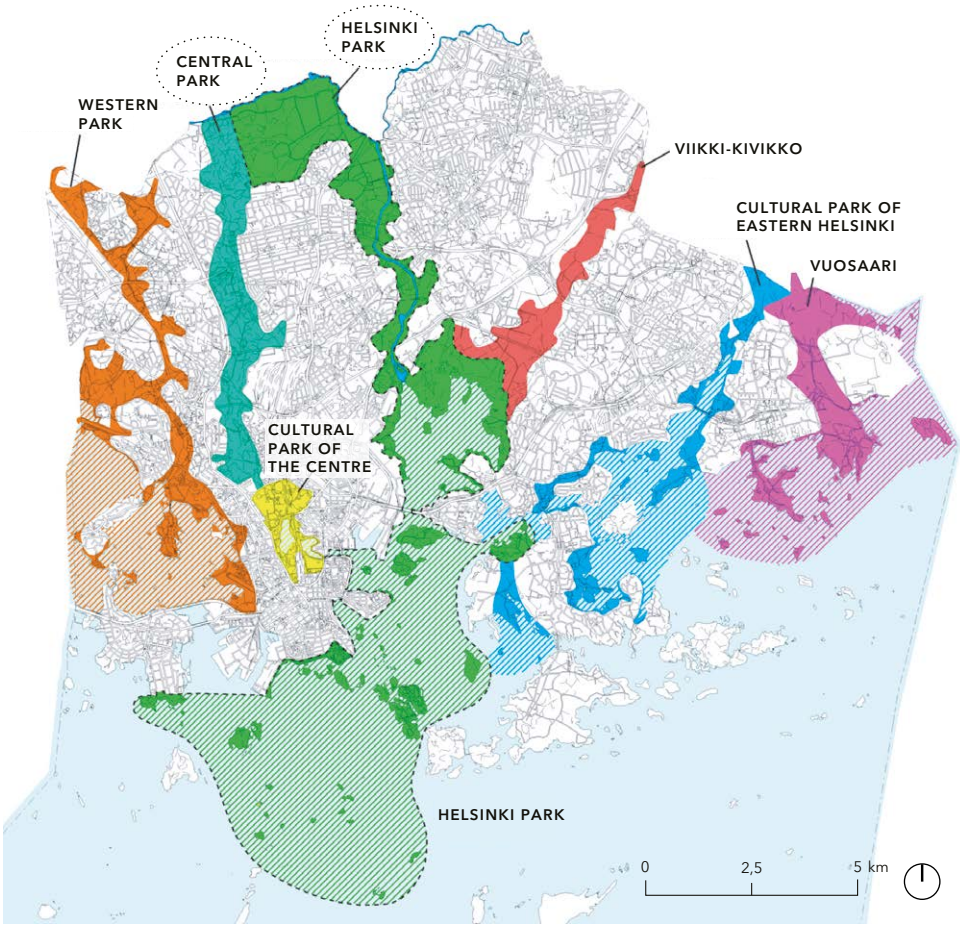


Figure 1 The six radial 'green fingers' of Helsinki's green structure network. Central Park (marked in turquoise) and Helsinki Park (marked in green) compose the core of the network. Source: City of Helsinki

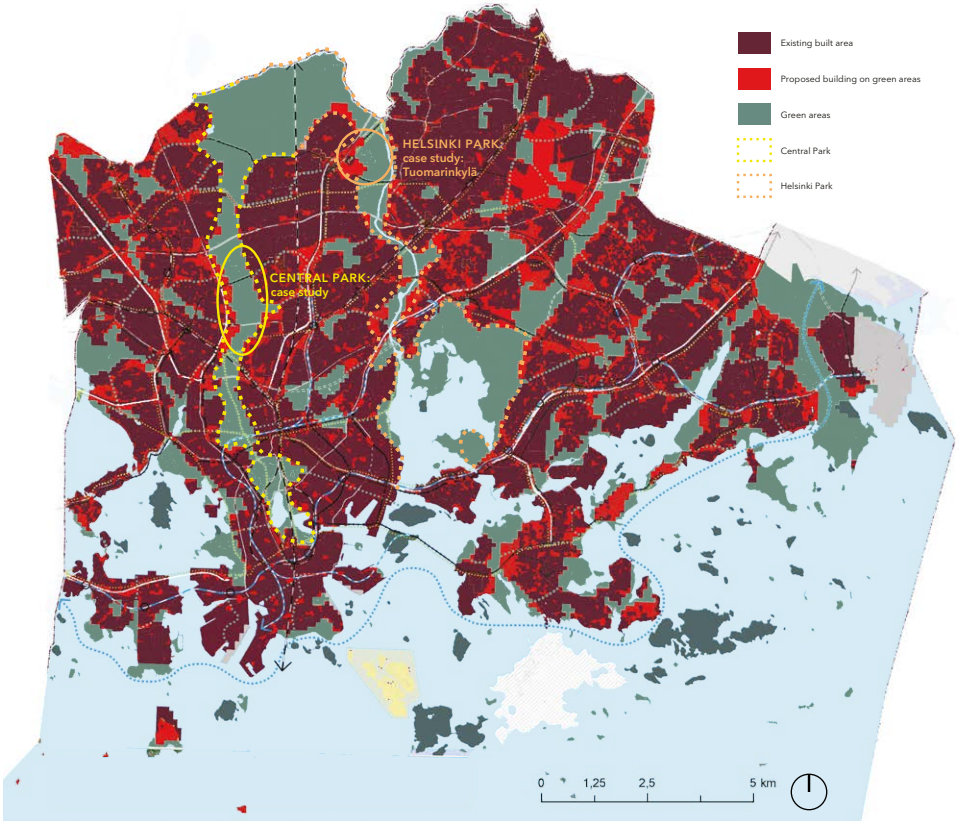


Figure 2 Helsinki City Plan and the infill construction in green areas marked in red. The case study areas of Central Park and Helsinki Park are indicated with circles. Map by Helsinki Nature Conservation Society 2015, sources: SYKE, METLA, MMM, MML, VRK

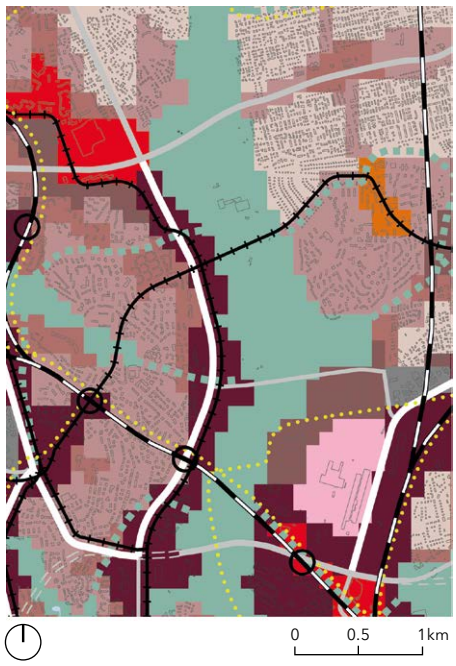
Figure 3 The centre of Central Park and the Hämeenlinnanväylä motorway in 2012

cant entities for cultural history, cityscapes, and landscapes were clearly indicated on the plan, which led to the preservation of several sites in local detailed plans. The interconnectedness of the green areas was highlighted as the cornerstone of the plan.

The Helsinki City Plan of 2016 epitomizes densification as the primary planning strategy (Fig. 2). It is strategic and generic, which defers decision making to the next levels of planning. Regarding the green structure network, the plan differs from the design principles of the previous master plans. This becomes specifically apparent in the green fingers and urban development plans of the two most valuable green zones: Central Park and Helsinki Park. Both cases are closely connected to densification and transport systems planning. In the centre of Central Park, the proposed construction was linked to the transformation of the passing motorway into a boulevard with a dense urban structure. In the northern Helsinki Park, a new residential area was proposed along the future rail connection, on Tuomarinkylä manor landscape.[16] In both areas, densification was considered more important than the preservation of significant recreational and cultural values. Further elaboration of these cases clarifies the argumentation that took place in the planning process and reveals how urban greenery was adjusted to the urban planning agenda.

Contested green zones in Helsinki City Plan

Central Park is a 700-hectare recreational area, extending from the city centre to the agricultural areas in the outskirts (Figs. 3, 4a, b & 5a, b). The park is the most well-known green area of Helsinki and a popular recreational zone that is used annually by up to 2 million people. The park was outlined in the 1911 plan and its status was later acknowledged in the subsequent urban plans. The local master plan of Central Park was completed in 1978 and its boundaries were confirmed in the 2002 master plan. The plan stated that the park was a significant recreational area in which only the necessary construction of infrastructure was allowed. In addition, the status of the park was approved in the regional land use plan in 2006 and numerous local detailed plans and comprehensive political agreement on its integrity has prevailed. The new Helsinki City Plan, however, challenged the integrity of Central Park, as it proposed construction on its edges, along the Hämeenlinnanväylä motorway. The initiative was derived from the dominant goal of the master plan to transform the entrance motorways into urban boulevards by introducing light rail traffic, reducing driving speeds and building urban streets with high-density construction. In the centre of Central Park, the impacts of the proposal would be massive, resulting in construction that would extend up to 300 m into the park (Figs. 6 & 7).



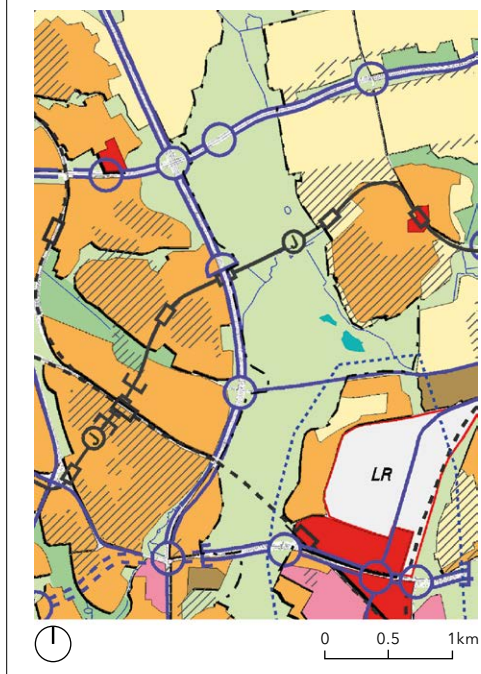


Figure 4a, b Infill development in Central Park. On the left Helsinki City Plan 2016 and on the right the master plan of 2002 by the City of Helsinki

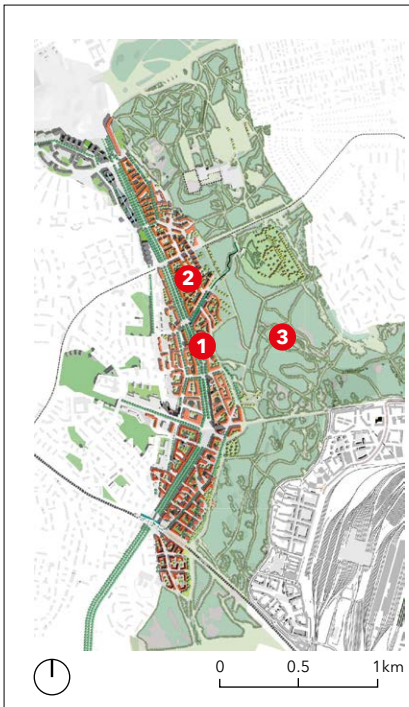


Figure 5a, b Infill development in Central Park. On the left, the new development plan by the City of Helsinki (plan/Tapani Rauramo, illustration/Tuulikki Peltomäki) and on the right an aerial photo of the site in 2016 by the City of Helsinki, City Survey Services.

TUULIKKI PELTOMÄKI

Figure 6 The allotment gardens of Central Park, planned for construction in the Helsinki City Plan

TUULIKKI PELTOMÄKI

Figure 7 The Hämeenlinnanväylä motorway and the centre part of Central Park, planned for construction in the Helsinki City Plan

The case evinces the paradigm shift in green planning. Central Park, the emblem of a coherent green structure, was challenged in the name of a coherent urban structure. This discourse applied the notion of coherence, referring to both metaphorical dimensions and functional and spatial interconnectedness. According to the master plan, the edges of Central Park would be 'revised' by construction and the inner park thus protected from noise.[17] In this discourse, construction was offered as an improvement and as a means to transform an unorganized, natural zone into a built environment that would protect the park and ameliorate its soundscape. The new urban boulevard, replacing the old motorway, was illustrated as green, attractive, and socially lively, substantiating the omnipotent confidence in densification as a countermeasure for all environmental, economic, and social problems.[18]

Helsinki Park extends from islet areas to northern agricultural fields along Vantaa River (Figs. 8, 9 a, b & 10 a, b). It connects to Central Park and together they comprise the green core of Helsinki. As with Central Park, Helsinki Park was safeguarded in the master plan of 2002 and in the regional land use plan of 2006. The northern part of Helsinki Park contains several cultural landscapes, the most intact of them is Tuomarinkylä manor. The 110-hectare manor landscape consists of a functioning manor yard in addition to buildings, a park, and vast farming fields along Vantaa River. The manor, dating back to the late eighteenth century, has been designated a nationally significant cultural environment and several studies have identified it as one of the most significant cultural landscapes in Helsinki. The manor landscape and its buildings and park were protected in the local detailed plan in 2012. The first proposed plan also propounded the protection of the field area, but the proposal was cancelled during political processing. Instead of preservation, the western field was to be evaluated for residential construction, due to its good traffic connections, particularly the future light rail. The proposed urban development was also adopted as the underlying objective for the Helsinki City Plan.[19]

CITY OF HELSINKI, CITY SURVEY SERVICES

Figure 8 Tuomarinkylä manor landscape in Helsinki Park in 2010. The field planned for construction is on the right side.

Like the infill project of Central Park, this case also demonstrates the altered attitudes towards preservation as densification along the track line was prioritized over the protection of a manor landscape. The transition is notable: the 2002 master plan acknowledged the area as a culturally and historically significant landscape, but this status is omitted in the new master plan. The preservation is limited to the manor buildings and the manor park, ignoring the landscape as a whole. Construction on the field was justified based on the young age, and therefore low historical value, of the field. The area in question is a manor's meadow from the eighteenth century that was converted into a field for growing crops as late as the 1930s. However, the evaluation based on the age of the cultivated field is indisputably deficient because it disregards the historical value of the meadow. The scenic significance of the manor landscape and its status as a landmark are largely dependent on the vast, open area that surrounds it, which would be lost through urban development. In addition, the case expresses the stances towards extensive green areas in the compact city, where low density is associated with undeveloped land area, to be 'cured' by construction. The discourse also implies that agricultural fields are not in line with the urban design vocabulary (Figs. 11 & 12).

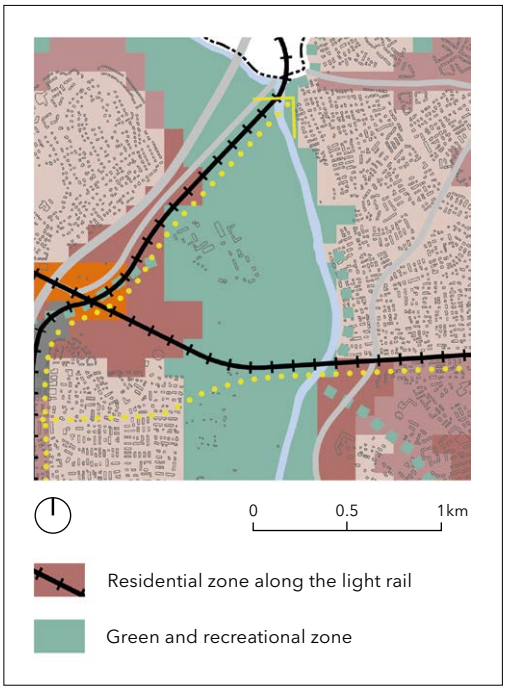
Redefining urban greenery in the compact city

The status of the green structure and its planning principles are undergoing a transition in the compact city. A comparison of the Helsinki City Plan with the earlier green planning strategies identified four fundamental divergences in design principles, which can be interpreted as a paradigm shift. The four main lines of argument address 1) a coherent city instead of a coherent green structure, 2) quality versus quantity, 3) development over preservation, and 4) urbanity in contrast to nature-based qualities. First, instead of the established planning philosophy of the interconnected green structure, the cohesion of the urban structure is highlighted. In this discourse the green is depicted as the antithesis of the urban, and undeveloped green areas are perceived as obstacles for growth rather than integral components of the city. As in Ylva Uggla's critical analysis of Stockholm,[20] barriers and fragmentation are applied as strong metaphors advocating a coherent urban structure. A desirable green structure is conceptually related to urban qualities, providing safe, well-maintained, and highly functional parks. Conversely, low-density green areas are perceived as unorganized, amorphous, and a barrier for urban development. Densification is thereby presented as a remedy allowing the fragmented urban structure to become whole and functional again.[21]

In the second place, instead of emphasizing the quantity of green areas, the focus is on their quality, a strategy applied to justify the reduction in size of the green areas. This argument specifically attaches quality to the built urban parks, which are expected to fulfil the requirements of urban life and increasing consumption. Although quality as such is a legitimate goal, it is not defined in more detail and its relationship with the quantity or scope of the green areas is not examined. The scope of the green areas is inseparably linked with qualitative factors, the diversity of landscapes, and the multiplicity of functions.

A third line of argument addresses preservation as a restriction to growth, which differs notably from the previous master plan's policy of highlighting historical sites in the plan. Cultural and historical areas are appreciated, but at the same time their preservation should not obstruct urban development. Preservation is even interpreted as damaging for urban areas.[22] Protection regulations and boundaries are regarded as too detailed and limiting, which is why they were not included in the master plan. This transfers the consideration of preservation to separate, local detailed plans, where the matter can no longer be comprehensively resolved.

The fourth argument pertains to the conceptual character of urban nature. As stated in the master plan, Helsinki is an urban metropolis, which offers the framework for an active social life.[23] Consumption is considered the key driver for vitality and social activity.[24] The consumption-oriented



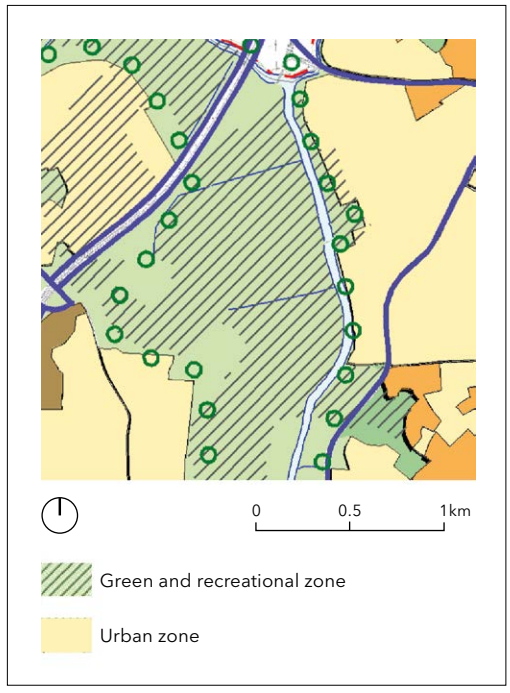
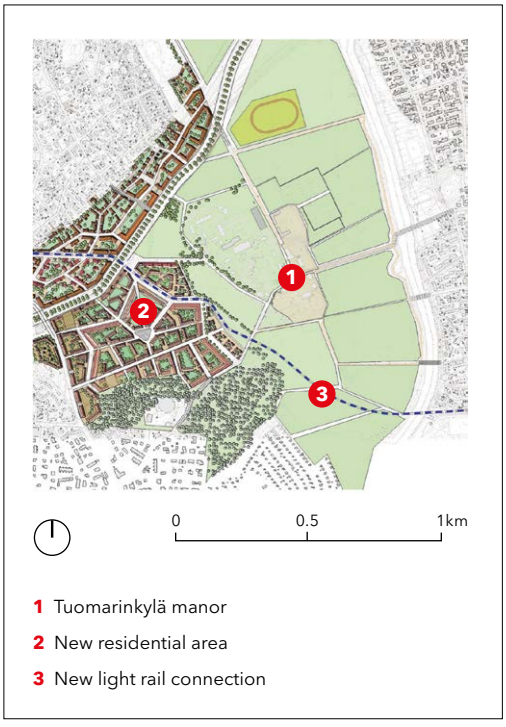


Figure 9a, b Infill development in the Tuomarinkylä manor landscape. On the left Helsinki City Plan 2016 and on the right the master plan of 2002 by the City of Helsinki



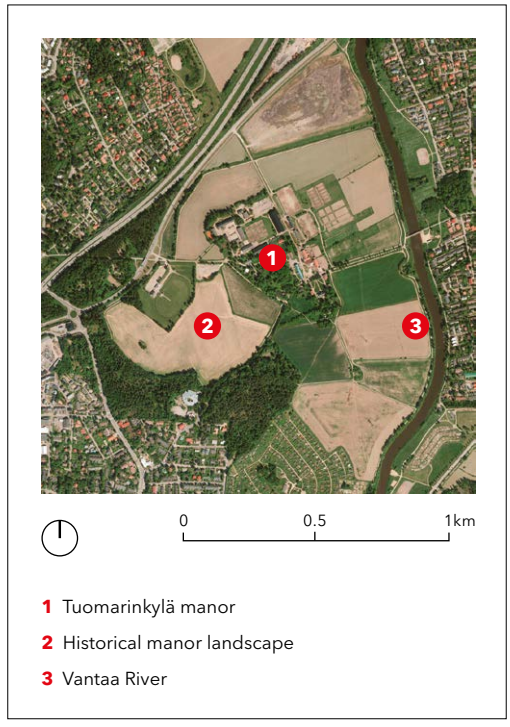


Figure 10a, b Infill development in the Tuomarinkylä manor landscape. On the left the new development plan by the City of Helsinki (plan and illustration, Tapani Rauramo) and on the right an aerial photo of the site in 2011 by the City of Helsinki, City Survey Services

urban space, lively pocket parks, and plazas with lots of people and youthful street cafés are all depicted in the Helsinki City Plan. The discourse applies power-ful metaphors to acceptable green areas whereas undesirable greenery is given unfavourable attributes. The low-density green structure has negative connotations, implying fragmentation and anti-urbanity. Conceptually, nature is presented as the antithesis of the city and excluded from the urban.[25] Vast forest areas and cultural landscape entities are not part of the approved storytelling, although according to surveys conducted among Helsinki city residents, these are their favourite places.[26]

Conclusions

As a conclusion, the construction of urban green areas is deeply connected with the urban planning agenda and its political interests. The analysis of the Helsinki City Plan and its predecessors reveals that the green structure is conceptualized and modified to fit in with the compact city policies and fulfil the priority of densification. Even though sustainability is a shared goal, the role of the green structure is controversial in this discourse. The efforts to densify the urban structure and avert urban sprawl support the preservation of peri-urban landscapes outside the city, but the urban green zones inside the city are simultaneously threatened.

JULIA DONNER

Figure 11 The field of Tuomarinkylä, planned for construction in the Helsinki City Plan

JULIA DONNER

Figure 12 Tuomarinkylä manor landscape in Helsinki Park. The field planned for construction can be seen from the historical road.

The paper demonstrates that this paradigm shift of planning has severe implications for urban green areas. In the politically motivated planning rhetoric the multidimensional nature of the urban green is reduced to qualities that correspond to the hegemonic urban vision. This vision highlights the urbanity and compact, intensively maintained urban parks. Instead, the coherence of the green structure—and especially vast recreational areas, cultural landscapes, and forest suburbs—is endangered, including their cultural, historical, and ecological values. Therefore, further discussion is needed in order to redefine and develop the green structure in the urban densification context, both conceptually and operationally. In addition, further research is required to combine biodiversity and ecological functionality with the increasing pressure for recreational use and the reduction of maintenance resources. Culturally and historically significant green areas necessitate careful assessment in regard to densification in order to safeguard their values. Finally, and most importantly, the notion of the urban green in the compact city discourse needs to be critically examined. Density can be accomplished in multiple ways, inducing versatile architectural solutions. The compact city requires a broader and a more multifaceted strategy towards the green structure and its myriad roles in sustainable and liveable cities.

Postscript: In November 2018, the Supreme Administrative Court rejected both infill development plans because they contradicted the Regional Land Use Plan. In Central Park, the decisive factor was the value of the most centrally located green finger and in Tuomarinkylä, the underlying argument was the cultural and historical significance of the manor landscape.

NOTES

1 See, for example, Ylva Uggla, 'Construction of "Nature" in Urban Planning: A Case Study of Stockholm', *Town Planning Review* 83/1 (2012), 69–85: 71.

2 See, for example, Chi Yung Jim, 'Green-Space Preservation and Allocation for Sustainable Greening of Compact Cities', *Cities* 21 (2004), 311–320: 311.

3 Graham Haughton and Colin Hunter, *Sustainable Cities* (London: Jessica Kingsley Publishers, 1994), 287.

4 Ibid., 83–84; Loretta Lees, 'Visions of "Urban Renaissance": the Urban Task Force report and the Urban White Paper', in: Rob Imrie and Mike Raco (eds.), *Urban Renaissance? New Labour, Community and Urban Policy* (Bristol: Policy Press, 2003), 61–82: 75.

5 See, for example, Yosef Jabareen, 'Sustainable Urban Forms: their Typologies, Models and Concepts', *Journal of Planning Education and Research* 26 (2006), 38–52; Katie Williams, 'Urban Intensification Policies in England: Problems and Contradictions', *Land Use Policy* 16 (1999), 167–178.

6 See, for example, Tüzin Baycan-Levent, Ron Vreeker and Peter Nijkamp, 'A Multi-Criteria Evaluation of Green Spaces in European Cities', *European Urban and Regional Studies* 16/2 (2009), 193–213; Philip James et al., 'Towards an Integrated Understanding of Green Space in the European Built Environment', *Urban Forestry and Urban Greening* 8 (2009), 65–75.

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8 Uggla, 'Construction of "Nature" in Urban Planning', op. cit (note 1).

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10 Helsinki Nature Conservation Society and Uusimaa Regional Chapter of the Finnish Association for Nature Conservation, *Appeal on the Decision of the Helsinki City Plan*, 5 December 2016, 8.

11 Leonie Sandercock, 'Out of the Closet: The Importance of Stories and Storytelling in Planning Practice', *Planning Theory & Practice* 4/1 (2003), 11–28: 26.

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13 Helsinki City Planning Department, *Green and Recreational Areas of Helsinki* (Helsinki: City Planning Department, 2013), 5, 20–21.

14 Ranja Hautamäki, *Urban Manors: Urbanisation, Preservation and Integration of Helsinki's Manors within the Urban Structure* (Espoo: Aalto University, 2016), 175–192.

15 Maunu Häyrynen, 'Green Rings: The Development of Urban Parks in Helsinki', in: Simo Laakkonen et al. (eds.), *Perspectives on the Environmental History of Helsinki* (Helsinki: City of Helsinki, Edita, 2001), 32–51: 43.

16 Helsinki City Planning Department, *Most Central Development Areas in Helsinki* (Helsinki: City Planning Department, 2015), 13–14, 32, 39.

17 City of Helsinki, *Master Plan Report 2016*, op. cit. (note 9), 10.

18 The Administrative Court of Helsinki annulled both the construction plan for Central Park and the plan for the urban boulevard in February 2018. It founded its decision on the regional land use plan which designated Central Park as a recreation area. It also stated that the traffic surveys concerning the urban boulevard were insufficient. The City of Helsinki has suspended the planning of the area for the present. See also the postscript at end of the article.

19 Helsinki City Planning Department, *Most Central Development Areas in Helsinki*, op. cit. (note 16), 32.

20 Uggla, 'Construction of "Nature" in Urban Planning, op. cit. (note 1), 83.

21 Moa Tunström, 'The Vital City: Constructions and Meanings in the Contemporary Swedish Planning Discourse', *Town Planning Review* 78 (2007), 681–698: 696.

22 Erica Avrami, 'Making Historic Preservation Sustainable', *Journal of the American Planning Association* 82/2 (2016), 104–112: 107.

23 City of Helsinki, *Master Plan Report 2016*, op. cit. (note 9), 126.

24 Tunström, 'The Vital City', op. cit. (note 21), 694.

25 Ibid., 696.

26 'Helsinki 2050 survey 2013', www.hri.fi/en/applications/helsinki-2050-karttakyselyn-tulokset/, accessed 10 April 2017.

BIOGRAPHICAL NOTE

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