

Approaching sustainable green and blue solutions in order to compensate grey streams of traffic

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This paper is aiming to explicate how the planning course named “Possible Cities” is trying to have an impact in the discussions around Helsinki City Master Plan. The course is a studio on Master’s level in the department of architecture, at Aalto ARTS. The outlined learning outcomes in the studio “Possible Cities” are relatively extensive, and after successfully finishing the course the students should be able to recognize different elements of the community structure like the landscape, land use, production and service and the networks connecting these. They are also expected to know how to apply in the planning central data describing communities and describe the factors changing the community structure, different scale levels, and the urban region as a dynamic system. The should be capable to draw up a draft for a partial disposition or master plan or strategic master plan draft in teamwork together with other student from different fields. During the course they should act productively in the group in different roles because that is seen crucial in the professional life of planners.

The New Helsinki City master plan process has been going on from 2012. In the Vision 2050 Helsinki is a part of the region and belongs to the network of European big cities. The growth of knowledge intensive industries and the resulting economic modalities shape the trend of strategic planning. Helsinki will be a network city with good rail traffic and an expanding main centre where some high ways will be developed into boulevards for new housing, and this is called Urban Boulevardization.

Helsinki is preparing the land use in the new master plan for a significant population growth (250 000 inhabitants) and in 2050 an estimate predicts 860,000 inhabitants and 560,000 jobs in the city. The master plan is presenting a more urban, denser structure for the city and the densification is seen in the plan proposal to support the development of an ecologically efficient urban structure. The key factor in the

densification is to change existing motorway-like traffic routes into urban city boulevards and then plan new mixed neighbourhoods around them. In Helsinki plans the green areas have during the last hundred years been forming an interconnected network and transverse green corridors link the main green areas, the 'green fingers'.

Autumn 2015 the studio "Possible Cities" has been focusing to find more sustainable solutions for densification in Helsinki City (Master) Plan. The studio was addressed the using of ecosystem services approach for better urban planning. "In recent decades, the relationship between urban form and sustainability has become a planning issue. It is assumed that the city of Helsinki City Planning Department wants to study planning alternatives. The alternative that is studied in the studio is the possibility of getting rid of the end of Turunväylä from Huopalahdentie until the Kehä I. The highway will be replaced by a blue/green structure (or a relevant other alternative) taking the concept of ecosystems services as a basic tool in the development proposal." (Syllabus of the studio)

When searching references dealing similar changes in city structures, we find interesting case studies and articles of them from all over the world. One of the most exciting was the study on Cheonggyecheon stream restoration in Seoul, the capital of South Korea, because it has such a long history being first a natural river, then a sewer and in the end covered with concrete and a built high way above it. Now since 2005 after a very quick renovation project the 10 kilometres long stream has been a public space and park in the centre of Seoul.

This paper is aiming to find out how the example seen in totally different circumstances is influencing the case study about the removal of a high way (Turunväylä) in Helsinki. The research has three different sections which will be investigated:

- 1) Helsinki City Master plan which is still in the decision making process. Now in October 2015 after the City Planning Committee has approved the proposal, statements concerning the proposal are requested and the proposal will be published for the submission of opinions. The case of Turunväylä removal is studied in the Master Plan proposal; the material includes maps and reports. The decision making process

is assumed to go on until the end of the year 2016 when the City Board and the City Council are accepting the proposal after the possible revisions.

2) The second section to be investigated consists of the proposals found in the students' final assignments in the studio "Possible Cities" in December 2015.

3) The Cheonggyecheon stream restoration process in Seoul was the subject of the study field trip in the beginning of October 2015, and the place and space and also the process was studied carefully in the field. Cheonggyecheon Museum offers a very extensive exhibition and a guiding system, which were a useful addition to the published journal articles which were read already before the trip. The Cheonggyecheon stream is seen here as a reference case because it is already implemented and put in the practice – contrary on the two other sections which can be seen only in planning documents.

All three sections are compared thinking the sustainability and using criteria from the concept of Ecosystem Services (ES), which recently has been brought to the attention of urban and regional planning and policy making. The ecosystem services approach is aiming to draw attention to the benefits that ecosystems provide to humans. Ecosystem Services are reshaping thinking around sustainability and can be considered as one of the main approaches to managing biodiversity, human settlements, urban and regional planning and climate change today. The ecosystem services can be categorized such as providing natural resources for basic survival, a contribution to good physical environment - for example through the access to green spaces-, as well as social, cultural and educational benefits for people, and wellbeing and inspiration from interaction with nature. Many of the ecosystem services and the value of the use are depending of the experiences of the people - and these are difficult to identify in the planning phase – only estimating is possible, as well as the scrutiny and reading the documents, both text and maps.

The expected results of the research in this paper are of course not comprehensive in all possible ways. Anyway it shall be interesting to be able point out new interpretations of sustainable planning for Urban Boulevards in Helsinki City Master Plan, as the City of Helsinki is still assumed to be open for new solutions according the densification. It is of course also profitable to find out the possible traces

Cheonggyecheon Stream has left in students' works, because that project is already fulfilled and the consequences could be seen and studied, and in the discussions the argumentation should always be based also on evidences, not only ideas, plans and assessments.