Abstract:
Historic urban green spaces are an essential part of our urban landscape and heritage. In changing urban culture green spaces and parks have culturally represented historical continuity. Historic parks contain in distilled forms many of the essential features of cities and constitute identity.

Heritage and conservation have traditionally been understood as preserving. We need new methods in order to understand changing cultural processes and heritage. This paper argues that the Pressure-State-Response (PSR) model originally developed by Canadian statistician Anthony Friend in the 1970's and further developed for environmental management by OECD (1998) and Hukkinen (2007, 2008) could be adapted in landscape architecture and historic urban park discourse.

The paper focuses to six park conservation projects in Helsinki, Finland, which occurred during the years 1985-2000. The main research materials are policy protocols, statements, plan reports and half structured interviews with main actors in the planning processes. The main question is what kind of cultural indicators of park heritage could be defined in terms of PSR–model in these park conservation and heritage discourses.

Keywords: Historic urban green spaces, park policy, heritage, PSR-model, discourse analysis.
also sustainable parks in it in (Cranz and Boland, 2004). Historic parks and urban green came into architectural and urban research discourse rather late in Finland, in the beginning of the 1990’s by art historian Maunu Häyrynen’s dissertation From Scenic Parks to Reform Parks, Public Parks and the park Policy of Helsinki from the 1880’s to the 1930’s (1994). Häyrynen used Cranz’s typology and analyzed the park discourse in the years when the city of Helsinki grew as a capital. He came into the conclusion that the beginning of the 1900’s was a shift from scenic pleasure grounds to reform parks also in Finnish park policy.

The issue of public parks and park policy is still current in Finland. 70% of Finland’s biggest cities have a green strategy; all of them have been enacted after 1999. Influences from Northern Europe has long been adapted to Finnish park policies: Nordic “Green finger plans” as well as ideas of green structure in urban planning from Germany were popular in Finland as well in the other Nordic countries after the second world war. (Nilsson, 2006:106-109). There was also an ambitious planning and building policy aimed at increasing the volume of planned green space in the City of Helsinki from the beginning of twentieth century until the 1960s. However by the 1960s the expert lead policy consensus was starting to break down (Lento, 2006: 205-206). There have been several public initiatives and newspaper debates about parks and green spaces after the Second World War (Niemi 2006), but very few direct actions such as in Stockholm, Sweden in the 1990s described by Nilsson, (2006:109).

A public urban park is meant for many activities, but in most cases it is used for recreation. It can also be used for several other purposes such as bypassing, working and almost all activities in human life. Landscape architect Jan Gehl (1971/2006) has studied and documented life in parks and other public spaces in his classic book “Life between buildings”. However, public parks mean more than use. They are public space and the politics of space. Urban culture is constantly changing and park use changes with it. This leads us to the question, what do we really need parks for and what should be demanded from urban open space in the 21st century? Catherine Ward Thompson brought up this question in her article in 2002. According to her, public open space, and for urban parks particular are the places where democracy is worked out, literally, on the ground, and therefore, the way such spaces are designed, managed demonstrates the realities of political rhetoric (Ward Thompson, 2002: 60).

Public parks, park use and conservation are a complex equation. Heritage and conservation have traditionally been understood as preserving. We are clearly approaching a cultural stage where the pressures for conservation and other demands in our cultural processes have to co-operate (Kolen 2006), if we want to preserve historic urban green spaces in changing city structures. Ward Thompson (2002:60, 70) has suggested a “salad bowl” strategy where different park use cultures can find individual expression. This ‘salad bowl’ approach means a change in the use of historic parks as public space as well as more discursive approach in historic urban green heritage and conservation.

In order to understand contemporary park heritage discourse we have to understand the general urban development. In the mid -1980s the population of Helsinki, which had been static or in decline for 15 years, began to grow again. The rate of population growth peaked in 1995, when Helsinki gained
9000 new residents (Niemi 2006:220). The 1990s was also a period when urban cultural change influenced park planning in Helsinki. In the mid 1980s, Helsinki witnessed a wider urban cultural change. Together with new sites and forms of consumption and leisure, new cultural institutions and new local media (Cantell 1999, Eskola and Ruoppila 1999, Mäenpää 1993, cit. Lehtovuori, 2010), the re-appropriation of the city’s central public urban spaces was an important arena and facilitator of the change (Lehtovuori, 2010: 3-4). This development had an effect to historic urban parks as public space as well. More festivals and happenings were arranged. The amount of park use protocols witnesses this development. The City of Helsinki Real Estate Department managed and admitted permissions for park use in public parks until 2003. The amount of permissions extended remarkably during the years 1985-1990 (The archives of the City of Helsinki Real Estate Department, 1985-2003).

Other cultural and economical processes were going on at the same time. The economic depression at the beginning of the 1990’s decreased the number of new building projects in the Public Works Department, Green Space Division of Helsinki and the city started to direct its diminishing resources more to the upkeep of its property and interested in doing up its historic parks.

Between the years 1990-2000 there were six renovation projects in major historic urban parks in central Helsinki. In order to understand and plan the upkeep of historic urban green heritage the City of Helsinki contracted out a study of these projects. A research of these projects and planning processes was made in 2001 (Schalin, Mona; Susi-Wolff, Kati. Selvitys kantakaupungin vanhojen puistojen kunnostussuunnitelmien tavoitteista ja suunnittelukäytännöistä). The client was the City Planning Office in Helsinki.
The aim of the study was to examine and analyze the conservation praxis: the aims, planning principles and the result as well as the role of city planning policy and how the needs of contemporary use were taken into account in conservation.

The working method was case studies with interviews. The value of case studies lies in their potential to retain holistic and meaningful characteristics of real life situations (Yin, 1994:3). We used an adapted case study method also described by Francis (1999) in his case study project of landscape architect Laurie Olin and Hanna/Olin, Landscape Architects Ltd’s Bryant Park restoration project in New York City in 1986-1991. The Six park conservation processes were described but analyses did not go very deep.

### Figure 2. A timeline for six park conservation projects in Helsinki during the 1990s

Planning processes are often complex and it is difficult to describe and understand who is doing what, with whom and why. Could a classic descriptive case study be carried further with suitable tools for analyzing the process and discourse?

**PSR-method as a discourse analysis tool**

Pressure-State-Response (PSR) and Driving Forces, Pressures, State-environment, Impact, Response (DPSIR) models were developed by Canadian statistician Anthony Friend in the 1970’s. The PSR - concept has been adopted by the OECD’s state of the environment (SOE) group, where it has been used as a reporting tool for environmental management (OECD 2003). In Finland it has been further developed for environmental management and built heritage studies by Professor of environmental policy Janne Hukkinen (2003, 2007, and 2008). An even more applied model a
DPSIR framework has been in active use in environmental development projects worldwide (Norad, 2009).

The strength of the PSR is its acknowledgement of the causal relationship between the state of the environment and human activity (Hukkinen 2003: 200).

Indicators make sense to human beings, as they enable communication of causally rooted intent to action. The model, featuring pressure, state and response (PSR) provides a way to articulate a scenario with indicators. The idea simply is that 1) there exists pressure (P), which is likely to induce 2) a change in the state (S) of affairs, which in turn calls for 3) an intentional response (R) from human beings (Hukkinen 2007:29). The PSR model contains a set of indicators that assess the extent of anthropogenic pressure (P) on the environment, the state (S) of the system of human–environmental interaction resulting from such pressure, and the societal response (R) to ease the pressure (OECD 1993). As such, the PSR is a laudable effort to help decision makers to better understand the causes and effects of environmental stresses and the effectiveness of human efforts to respond to them (Hukkinen 2003:201).

PSR-method is used for understanding complex processes such as environmental change. Hukkinen made an attempt to adapt it to built heritage conversation, but could it be suitable tool for historic urban green as well?

During the 1980s and 1990s economic, social and environmental factors worked as driving forces for park conservation. More extensive park use, commercial mass concerts and other extensive public events caused littering and deteriorating of the parks. Weakening condition of the trees and darkness in the night gave their signal that parks were unpleasant, even dangerous. Consumers and stakeholders reacted with several public initiatives: something had to be done. Public sector responded by renovation.

and conservation plans which together with public discussion created discourse also about the value of the parks. Figure 5 shows the general outlines of this development.

![Diagram](image)

**Figure 4.** The DPSIR framework in conservation of public urban parks in Helsinki in the 1990s.

The tested DPSIR framework makes possible to contextualize complex process in historic urban green heritage discourse. It was possible to draw a path from the whys and wherefores of economic, social and environmental driving forces causing pressures to parks and into everyday bad shape of the parks causing risk impacts of dirty, unpleasant parks. This lead to public reactions, initiatives and response with planning policies and conservation plans as well as public discourse of the meaning and value of the parks.

**Discussion and conclusion**

Urban cultural change together with economic factors and the fact that also parks are aging caused during the 1980s and 1990s a need to renovate, conserve and reconstruct historic urban green in Helsinki. Urban parks had to meet the needs of contemporary life and changing city culture.

In order to understand the processes, a PSR and adapted DPSIR methods were tested. They are useful tools to make complex and sometimes blurry processes more understandable.

The most challenging task is to find the right indicators and build a logical causal chain. The PSR indicator framework can be improved at each stage of the causal chain of pressure, state and response. However, the risk of using only PSR is, that the complex process with many stakeholders may become oversimplified and some partners fallout from the description. PSR combined with other case study methods such as traditional discourse analysis or the process biography method could help to analyze case study evidence and bring better understanding to historic urban parks as a part of our changing city culture. In this case study DPSRI clarified terms, grounds
and consequences as well as cultural indicators of park heritage discourses. Pressure-State-Response (PSR) and Driving forces – Pressure – State – Impact - Response - DPSIR model can bring added value to landscape architecture and historic urban park discourse studies.

References
The Archives of the City of Helsinki Real Estate Department, years 1985-2003.